Remedial Investigation / Alternatives Analysis Report

1827 Fillmore Avenue Site
Buffalo, New York

Revised January 2019 B0421-017-001

Prepared For:

1827 Fillmore LLC



Prepared By:

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

In Association With:

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REMEDIAL INVESTIGATION/ ALTERNATIVES ANALYSIS REPORT

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BCP SITE NUMBER: C915279
BUFFALO, NEW YORK

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RI/AA REPORT

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Certification

I, Thomas H. Forbes, certify that I am currently a NYS registered professional engineer as defined in 6NYCRR Part 375 and this Remedial Investigation/Alternatives Analysis (RI/AA) Report was prepared in general accordance with applicable statutes and regulations and in general conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10); and activities were performed in general accordance with the DER-approved work plan and any DER-approved modifications.

_____
Date SEAL:

1.0 INTRODUCTION

This Remedial Investigation/Alternatives Analysis (RI/AA) Report has been prepared on behalf of 1827 Fillmore LLC for the 1827 Fillmore Avenue Site located in the City of Buffalo, Erie County, New York (Site, see Figures 1 and 2).

1827 Fillmore LLC has elected to pursue cleanup and redevelopment of the Site under the New York State Brownfield Cleanup Program (BCP). A Brownfield Cleanup Agreement (BCA) with the New York State Department of Environmental Conservation (NYSDEC) was executed on November 8, 2017 (BCP Site No. C915279). Benchmark Environmental Engineering & Science, PLLC, in association with TurnKey Environmental Restoration, LLC (Benchmark-TurnKey), performed RI and supplemental RI activities at the Site from November 2017 through July 2018 in accordance with the following documents:

- Remedial Investigation Work Plan dated November 17, 2017 was approved on November 16, 2017, by the NYSDEC with concurrence from the New York State Department of Health (NYSDOH);
- Supplemental RI Work Plan, dated February 13, 2018, related to delineation of impacted areas identified during the RI, was approved by NYSDEC in letter dated February 14, 2018.
- Emerging Contaminants Groundwater Sampling Work Plan dated April 13, 2018 was approved by NYSDEC on April 23, 2018.
- Supplemental RI Work Plan, dated June 18, 2018, related to installation of bedrock monitoring wells, was approved by NYSDEC on June 18, 2018.

1.1 Purpose and Scope

This RI/AA Report has been prepared on behalf of 1827 Fillmore LLC to describe and present the findings of the 2017 and 2018 RI activities and evaluate remedial alternatives for the Site. This report contains the following sections:

- Section 1.0 presents a description of the Site and a summary of the Site's environmental history.
- Section 2.0 describes the Site's natural physical characteristics and remaining infrastructure.
- Section 3.0 presents a discussion of the RI sampling and methodology.

- Section 4.0 presents the RI findings.
- Section 5.0 describes potential chemical constituent migration pathways.
- Section 6.0 provides a qualitative human health exposure assessment, and fish and wildlife resources impact assessment.
- Section 7.0 develops remedial action objectives; evaluates the future use of the Site; provides an estimate of contaminant volume; develops and screens remedial alternatives; and presents the preferred remedial alternative for the Site.
- Section 8.0 includes the RI/AAR summary and conclusions.
- Section 9.0 lists the cited references.

1.2 Background

1.2.1 Property and Site Description

The BCP property, located at 1827 Fillmore Avenue (Tax ID No. 90.13-1-11), is situated in a residential, commercial and industrial zoned area of the City of Buffalo, Erie County, New York and consists of one parcel measuring 17.15 acres. The Site is currently vacant land with green areas, asphalt paved areas and former roadways. Six seven-story brick building historically used residentially as part of the Kensington Heights Towers Apartments were demolished in approximately 2012 (five buildings) and 2018 (one building).

Prior to development of the Kensington Heights Towers in 1958, the Site was used as a stone quarry from at least 1917 through at least 1927. Sometime between the 1940s and 1950s, the stone quarry was backfilled with unknown fill materials. The Site has been vacant since the 1980s.

1.2.2 Previous Investigations

The following assessments and investigations have occurred at the Site:

1.2.2.1 Phase I Environmental Site Assessment – March 2008

"Phase I Environmental Assessment, Kensington Heights, 1827 Fillmore, Buffalo, NY," performed by Fifty-Six Services, Inc. for EI Team, dated March 2008. Fifty-Six Services identified the Site as being vacant at the time of the assessment with various

vandalized containers containing oils along with vandalized transformers with oil staining on basement concrete floors. Fifty-Six Services reportedly observed evidence (fill caps, vent pipes) of two underground storage tanks (USTs) at the time of their site reconnaissance; however, the report does not include tank-related information such as the size, contents or locations of the tanks.

Fifty-Six Services identified regulatory listings for the Site including one leaking underground storage tank (LUST) for the Site with a status of "closed," a Resource Conservation and Recovery Act Large Quantity Generator (RCRA-LQG), a New York State Manifest and a registered aboveground storage tank (AST) facility. No additional information is provided.

Per Fifty-Six Services, "the Site has been left with extensive asbestos contamination (pipe insulation, etc.) and vandalism of electrical equipment in the basement has caused suspect polychlorinated biphenyl (PCB) contamination. The Site has also been used to dump trees and debris." Asbestos and lead surveys were reportedly completed by Fifty-Six Services in March 2008.

Fifty-Six Services concluded that the assessment revealed "extensive evidence of suspect potential environmental risks, and/or recognized environmental conditions (RECs) indicating the presence of hazardous conditions associated with the subject site."

1.2.2.2 Miscellaneous Documents Provided to Benchmark-TurnKey – 2008-2010

A 2008 Civil Site Utility Plan (see Appendix G), included in a Site Demo Plan, shows many utilities on-Site identified as "to be removed." Based on this information, TurnKey suspects that buried utilities such as electric, telephone, natural gas, water and sanitary/storm sewer lines were removed as part of previous demolition activities.

In June 2009, Cambria Construction began asbestos abatement and demolition of the existing six abandoned building on-Site. During that time, the upper approximate 3 to 4 inches of surface soil/fill had been bulldozed to the center of the Site to be used for re-grading after demolition work. Note that the mound was not required to be addressed under the Environmental Protection Agency (EPA) Compliance Order discussed below, nor was it acknowledged in the BMHA Work Plan also discussed below.

In January 2010, the NYSDEC and New York State Department of Labor (NYSDOL) performed a Site inspection and ceased all abatement and demolition work on-

Site due to multiple violations. It had been found that workers were instructed to illegally dump asbestos containing materials (ACMs) within former elevator shafts within the buildings. In addition, ACMs were not properly wetted (standard practice for ACM removal activities) prior to being placed into closed dumpsters.

HLM Holdings hired Stohl Environmental, LLC (Stohl Environmental) to perform a Post-Remediation Hazardous Materials Inspection as of January 29, 2010.

1.2.2.3 Post Remediation Hazardous Materials Inspection – January 2010

A January 29, 2010 Post Remediation Hazardous Materials Inspection performed by Stohl Environmental, LLC identified the presence of multiple suspect asbestos containing building materials. Stohl Environmental noted that suspect remaining PCB residue in each building's basement transformer room, as mentioned in Fifty-Six Service's March 2008 Phase I Environmental Assessment, had not been cleaned or tested. Stohl Environmental recommended that additional asbestos and PCB inspection and sample analysis should be performed.

On March 2, 2010, notes from EI Team's Weekly Meeting minutes state that Fifty-Six Services reported that PCB testing in the boiler room came back negative; no additional information relative to the PCB testing was provided. However, in a Pre-Demolition Asbestos Assessment Report prepared by Fifty-Six Services on March 9, 2010, did not include the PCB results.

1.2.2.4 Additional Miscellaneous Documents Provided to Benchmark-TurnKey - 2010-2012

In July 2010 Cambria Construction resigned from the project. In spring of 2011, BMHA hired Apollo Contracting to finish the project. In June and July of 2011, Fifty-Six Services completed reports for each of the six buildings; however, the reports only addressed ACMs.

On September 6, 2011, the BMHA received compliance order CAA-02-2011-1021 from the USEPA for violations of Section 112 of the CAA and the National Emission Standard for Asbestos, 40 C.F.R. Part 61, Subpart M for improper asbestos abatement and building demolition.

A September 12, 2011 Visual Survey and Bulk Sampling of Suspect Materials/Debris Report, prepared by Stohl Environmental, identified the presence of scattered asbestos debris on-Site through a visual assessment and laboratory analysis of 11 samples. The most prevalent type of asbestos debris identified by Stohl Environmental was transite cement board.

Stohl Environmental prepared a Visual Survey of Surficial Asbestos Materials/Debris Report, dated October 10, 2011, for the Kensington Heights Complex. The assessment was completed to visually locate surfical asbestos debris located on-Site, including areas around all buildings. The visual inspection revealed the presence of scattered asbestos debris (i.e., transite cement board, window caulk, thermal system insulation, floor tile and mastic) on ground surfaces throughout the Site. Stohl Environmental recommended additional inspection of staged on-Site backfill.

Apollo Contracting resigned from the project in December 2011 and BMHA hired Aria Contracting to complete the abatement work in accordance with the approved Work Plan. Aria Contracting completed asbestos abatement by removing 63,000 square feet of asbestos containing material from each of the buildings. Five of the six buildings had been demolished and soil surrounding each demolished building in a 25 foot perimeter was removed to a depth of 2 inches.

BMHA prepared an Asbestos Abatement Work Plan for Compliance with EPA Order CAA-02-2011-1021, approved by the New York State Department of Labor (NYSDOL) February 16, 2012.

1.2.2.5 Previous Brownfield Cleanup Program Application – May 2013

On May 31, 2013, Kensington Heights Revitalization Corporation applied the entire parcel addressed at 1827 Fillmore Avenue to the New York State Brownfield Cleanup Program; however, the application was denied on August 14, 2013 based on the pending EPA Consent Order related violations of the CAA.

1.2.2.6 Subsurface Soil Investigation – August 2013

MS Analytical (MSA) completed a subsurface soil investigation at the Site in August 2013 with completion of 50 soil borings (SB-1 through SB-50) across the Site and 18 soil/fill samples selected for laboratory analysis from depths ranging between 4 and 20 feet below

ground surface (fbgs). The work was documented in a Draft Phase II Environmental Site Assessment report prepared by MSA dated March 25, 2013. MSA was limited in their soil boring placement to specific portions of the Site due to areas of asbestos concern at the time of the investigation.

Subsurface conditions were described by MSA as fill material consisting of clay, sand and gravel with sporadic occurrences of ash. Groundwater was encountered at certain borings including SB-15, SB-27, SB-37, SB-43 and SB-44 at depths ranging between 14 and 18 fbgs.

The highest photoionization detector (PID) reading identified during the work was 37.6 parts per million (ppm) at SB-43 (6-8' interval) completed on the west-central portion of the Site.

Analytical laboratory results have established that on-Site soil/fill materials are impacted with PAHs and metals exceeding Part 375 Unrestricted SCOs, Residential SCOs, Restricted Residential SCOs, Commercial SCOs and/or ISCOs (USCOs, RSCOs, RRSCOs, CSCOs and ISCOs, respectively).

It should be noted that MSA's report included a review of previous studies associated with the adjacent Dr. Lydia T. Wright School of Excellence Campus East School #89. The reports, which are provided in Appendix G, included a 2001 Phase II Environmental Site Assessment a 2002 Soil Management Plan, both prepared by Panamerican Environmental, Inc. (PEI) and URS Corporation (URS). According to MSA, the adjacent property was used as a stone quarry of which the Site was a part. Fill consisting of ash, sand, gravel, clay, silt and miscellaneous building debris was encountered during the investigation. Elevated concentrations of PAHs and metals were identified in soil/fill samples selected for laboratory analysis from the adjacent property. MSA noted that it does not appear that the studies involved soil/fill sampling at the subject BCP site.

MSA concluded that the Site appears to meet BCP criteria and the report should be provided to the NYSDEC as part of the BCP application.

1.2.2.7 EPA Compliance Summary Report for Asbestos Abatement – October 2014

Surface soil from additional contaminated areas determined by Stohl Environmental has been abated to a depth of 2 inches. According to the EPA Compliance Summary Report completed by Stohl Environmental, on October 31, 2014 all work was done in accordance

with the approved EPA Work Plan and the NYSDOL confirmed that all friable asbestos has been removed. It is unclear whether further testing was completed proximate to the existing building and soil mound on the central portion of the Site. The work included:

a. During asbestos abatement activities from 2009 to 2010 a portion of the Site's upper 3 to 4 inches of topsoil had been bulldozed to the center of the Site to be used for re-grading after demolition work. The mound was not required to be addressed under the EPA Compliance Order, nor was it acknowledged in the BMHA Work Plan. There are no records indicating that the mound of topsoil has been tested or addressed.
b. Soil surrounding each of the five demolished buildings in a 25 foot radius was removed to a depth of 2 inches.

Stohl Environmental concluded that "all items included in the EPA Compliance Order CAA-02-2011-1021 have been addressed" and they also indicated that "the New York State DOL confirmed, by visual inspection, that all friable asbestos has been removed."

1.2.2.8 Previous Brownfield Cleanup Program Application – May 2015

As indicated above, the Site has previously been subject to cleanup activities under the USEPA Consent Order CAA-02-2011-1021. However, all asbestos abatement work was completed under Consent Order with EPA on October 31, 2014.

The Site was entered in to the BCP in May 2015 and the BCA was executed in July 2015 (Site #C915279); however, the BCA was terminated by the NYSDEC on January 24, 2017 due to failure to submit a Remedial Investigation Work Plan within 30 days of the effective date of the BCA.

1.2.2.9 Brownfield Cleanup Program Application – July 2017

Benchmark-TurnKey submitted a BCP Application to the NYSDEC for the Site in July 2017 on behalf of 1827 Fillmore LLC. A letter from the NYSDEC dated August 18, 2017 indicated that the BCP Application was determined to be complete. As previously indicated, a BCA was executed on November 8, 2017.

1.2.2.10 Phase I Environmental Site Assessment – July 2017

Benchmark completed a Phase I Environmental Site Assessment for the Site in July 2017. The Site was identified as vacant land with one building shell at the time of Benchmark's assessment.

Benchmark identified the following potential environmental concerns at the time of the site reconnaissance:

- The Site includes a vacant building shell with an inactive boiler and an empty approximate 10,000-gallon AST presumed by Benchmark to have historically contained fuel oil. [It should be noted that as-built site drawings dated 1955, reviewed by Benchmark as part of the Phase I, suggest that the five former apartment buildings had similar fuel oil fired heating systems.]
- An additional AST, an approximate 275-gallon tank, was observed on the exterior portion of the Site southwest of the existing building. Benchmark suspects that the tank historically contained gasoline or diesel fuel.
- An inactive incinerator with ash waste was noted within the building near the inactive boiler.
- A large soil/fill mound covered with dense vegetation was noted southwest of the existing building on the central portion of the Site. Benchmark understands that the mound consists of soil/fill from the upper approximate 3 to 4 inches of surface material that had previously been bulldozed to the center of the Site to be used for regrading after historic demolition work.
- In addition, a small additional apparent soil/fill mound covered with vegetation was noted east of the existing building.
- Benchmark is aware of the history of the Site in that fill materials from unknown origins were historically brought to the Site to bring former quarry areas (virtually the entire Site) to grade.
- Evidence of previous soil borings was noted on exterior portions of the Site; Benchmark is aware of a previous Phase II Environmental Investigation completed by others.
- Dumped materials including apparent landscaping wastes with mulch, soil and wood were noted on the southern portion of the Site and demolition debris with brick, concrete and asphalt were noted east of the existing building. Additional scattered debris (e.g., plastic, wood, general trash, etc.) were noted across the Site.

The following RECs were identified for the Site by Benchmark:

- Known impacted fill materials brought to the Site from unknown origins to bring former quarry areas to grade are considered RECs as previous sampling data indicates the presence of elevated PAHs and metals across the Site.
- There is the potential for additional environmental impacts on-Site, including asbestos, especially within the two soil/fill mounds given the past history of the Site.
- The AST observed during TurnKey's site visit and the USTs identified in the 2008 Phase I completed by Fifty-Six Services are considered RECs due to the potential for impacts.
- The inactive incinerator within the existing building is considered a REC due to the potential for impacted ash materials within the unit.

Benchmark concluded that further work appears warranted and environmental conditions will be further characterized through completion of the RI.

2.0 SITE PHYSICAL CHARACTERISTICS

The physical characteristics of the Site observed during the RI are described in the following sections.

2.1 Site Topography and Drainage

Based on a topographic map (see Figure 1), the Site slopes from a high point along the east side of the property (east of the existing structure) to a low point near the west side of the Site (Fillmore Avenue). The difference in elevation is 13 feet with a range between 677 and 664 feet above mean sea level. Currently, approximately 70 percent of the Site is vegetated, and 30 percent of the Site is covered by impervious structures including one abandoned building, asphalt parking areas and roadways.

Precipitation (i.e., rain or melting snow) moves to the storm drains via overland flow. Surface water infiltration and shallow groundwater flow are likely impacted by various cycles of development and filling, as well as utility lines and foundations.

2.2 Site Geology and Hydrogeology

Based on observations during the RI, the typical subsurface profile on the Site consists of:

- Fill with sand, gravel, cinders, ash and/or other non-native materials, which are ubiquitous across the Site in overburden soils and range in thickness from grade to bedrock encountered at varying depths across the Site. A layer of weathered concrete was noted in former building locations at depths ranging between 1 and 3.5 fbgs.
- Bedrock was encountered at 16 RI investigation locations at varying depths across the Site with ranges between 3 and 24 fbgs.
- The two soil mounds consist mainly of topsoil with reworked sandy clay and minimal fill.

The water table in the central and eastern portions of the Site was observed during drilling between 14 and 18 fbgs, typically within an ash fill layer. No evidence of overburden groundwater was encountered on the western portion of the Site at MW-1, MW-2 and MW-3. As requested by the NYSDEC, due to the lack of overburden groundwater, bedrock wells

were installed at MW-1, MW-2 and MW-3 for groundwater sampling purposes (see Figure 3A). MW-4 was dry at the time of development and sampling and MW-4 remained dry when checked during supplemental RI activities thus MW-4 could not be sampled.

Figure 4 depicts the overburden groundwater isopotential map for the RI; groundwater at the Site generally flows in a westerly direction. Table 3 summarizes the groundwater elevation data.

3.0 INVESTIGATION APPROACH

The purpose of the RI field activities was to define the nature and extent of contamination on the BCP Site, and to collect data of sufficient quantity and quality to perform the remedial alternatives evaluation. The RI was completed across the BCP Site to supplement previous environmental data and to delineate or identify areas requiring remediation. On-site field activities included soil boring advancement; test pit excavations (across the Site and within two soil/fill mounds); surface soil/fill sampling; overburden and bedrock monitoring well installation; and groundwater quality sample collection. Field activities also included visual inspections of miscellaneous debris/dumped materials on-Site as well as an incinerator and decommissioned AST within the basement of the existing building.

Field team personnel collected environmental samples in accordance with the rationale and protocols described in the Field Sampling Plan (FSP) presented in the Quality Assurance Project Plan (QAPP). USEPA and NYSDEC-approved sample collection and handling techniques were used.

Representative samples were placed in pre-cleaned laboratory provided sample bottles, cooled to 4ºC in the field, and transported under chain-of-custody command to Test America Laboratory (TestAmerica), located in Amherst, New York, a NYSDOH Environmental Laboratory Accreditation Program (ELAP)-certified analytical laboratory. Samples for chemical analysis were analyzed in accordance with USEPA SW-846 methodology with equivalent Category B (Level IV) deliverables to allow for independent third-party data usability assessment. Note that four samples, P-1 through P-4, were analyzed for asbestos by EMSL as TestAmerica does not complete this analysis.

The RI sampling activities and analyses described below are summarized on Table 1. Figures 3A and 3B shows the RI and historic (Phase II) sample locations. Appendix A contains photographs of field activities.

3.1 Soil/Fill Investigation

As further detailed below, field activities included soil boring advancement; test pit excavations; and surface and subsurface soil/fill sampling. Appendix B includes field borehole logs. Note that test pits were completed across the Site and within two on-Site soil/fill mounds consisting of a large soil/fill mound, estimated at approximately 10,000

cubic yards (CY) on the central portion of the Site, and a small soil/fill mound, estimated at approximately 200 CY, located east of the existing building. Based on information from historic documents and previous studies, Benchmark-TurnKey suspects that the two mounds consist of soil/fill from the Site's upper three to four inches of topsoil that had previously been bulldozed into the large mound on the central portion of the Site and the small mound east of the existing building.

3.1.1 Surface Soil/Fill Investigation

The RI included collection of 15 surface soil/fill samples (SS-1 through SS-15) across the Site in the locations shown on Figure 3A and 3B. A dedicated stainless-steel hand trowel or stainless steel spoon was used to collect a representative aliquot of soil/fill at each grab sample location. If the area was vegetated, the sod/vegetation was removed prior to sample collection. Representative samples were described in the field by qualified Benchmark-TurnKey personnel, scanned for total volatile organic vapors with a calibrated Photovac 2000 PID equipped with a 10.6 eV lamp (or equivalent), and characterized for impacts via visual and/or olfactory observations. Samples were transferred to laboratory supplied, pre-cleaned sample containers for analysis. RI surface soil samples were analyzed for Target Compound List (TCL) semi-volatile organic compounds (SVOCs) and Target Analyte List (TAL) metals (all samples), and polychlorinated biphenyls (PCBs), pesticides, and herbicides (select samples). No surface soil samples were analyzed for TCL volatile organic compounds (VOCs) since PID readings were below 5 ppm.

3.1.2 Subsurface Soil/Fill Investigation

3.1.2.1 Test Pit Excavation (Initial RI Activities)

As shown on Figures 3A and 3B, 34 test pits (TP-1 through TP-30 and P-1 through P-4) were excavated across the Site during initial RI activities. Test pits P-1 through P-4 were completed within the two soil/fill mounds with P-1 through P-3 completed within the large soil/fill mound and P-4 completed within the smaller soil/fill mound.

An excavator with an approximate 15-foot reach was used to complete the test pits. RI test pits TP-1 through TP-30 were excavated to a maximum depth of 15 fbgs and test pits P-1 through P-4 were completed up to 15 feet into the above grade mounded material. A Benchmark-TurnKey field geologist observed the excavations and created a field log

(including photographs) for each test pit location. Real time air and particulate monitoring was conducted while the excavations were open using a PID and a particulate monitor. Excavated soil was placed on plastic sheeting near each test pit location. Soil samples were collected at 2-foot intervals to the bottom of the investigation locations for observation, classification, and field (PID) screening. Select samples were collected for analytical testing based on visual and olfactory observations, PID screening, and engineering judgment. Excavated soil/fill was returned to the investigation location in the general order that it was excavated.

RI subsurface soil/fill samples from TP-1 through TP-30 were analyzed for TCL SVOCs and TAL metals (all samples), and TCL plus CP-51 VOCs, PCBs, pesticides, and herbicides (select samples). Select samples were chosen at random to include 10 VOC tentatively identified compounds (TICs) and 20 SVOC TICs. Certain fill samples (i.e., TP-1, TP-8, TP-9, TP-13, TP-14, TP-26 and TP-27) were chosen by Benchmark-TurnKey for analysis by the laboratory for Toxicity Characteristic Leaching Procedure (TCLP) lead for characterization/delineation purposes. Fill from TP-10 was also analyzed for TCLP chromium.

Based on the history of the Site, RI soil samples from P-1 through P-4 collected from the two on-Site soil/fill mounds were analyzed for asbestos.

3.1.2.2 Additional Test Pit Excavation (Supplemental RI Activities)

Based on the results of the initial RI activities, as requested by the Department, additional test pits were completed for further delineation purposes in specific areas of the Site. As shown on Figures 3A and 3B, a total of 37 supplemental test pits were completed in the areas of RI TP-13, TP-25 and SS-13 as well as historic Phase II SB-21 and SB-41 areas.

The test pits were completed in a similar manner described above with a Benchmark-TurnKey field geologist that observed the excavations and created a field log (including photographs) for each test pit location. Surface and near surface soils were removed beneath the excavator tracks to allow for collection of subsurface fill samples beyond the maximum 15 foot reach of the excavator, where required. Real time air and particulate monitoring was conducted while the excavations were open using a PID and a particulate monitor. Excavated soil was placed on plastic sheeting near each test pit location. Soil samples were collected at 2-foot intervals to the bottom of the investigation locations for observation, classification, and field (PID) screening. Select samples were collected for analytical testing

based on visual and olfactory observations, PID screening, and engineering judgment. Excavated soil/fill was returned to the investigation location in the general order that it was excavated.

Delineation fill samples from the TP-13 and SB-21 areas were analyzed for TCLP lead and samples from the SB-41 area were analyzed for total arsenic. Fill samples from the TP-25 and SS-13 areas were analyzed for PAHs.

3.1.2.3 Soil Boring Advancement

A previous Phase II completed by others involved completion of 50 soil borings on-Site. Eight additional soil borings, MW-1 through MW-8, were completed across the Site during the RI for conversion to permanent monitoring wells where evidence of groundwater was encountered. The test boring (monitoring well) locations were advanced through the overburden soil/fill to bedrock equipment refusal using a rotary drill rig with 4¼ inch inside diameter (I.D.) hollow stem augers (HSAs). Soil/fill samples were obtained by driving a 1$^{3}/_{8}$-inch I.D. by 24-inch long split spoon sampler 24 inches ahead of the lead cutting shoe of the HSA, in general accordance with ASTM D1586. Soil samples were collected at approximate 2-foot intervals to the bottom of the boring for classification and screening with the PID equipment. Select samples were collected for analytical testing based on visual and olfactory observations, field (PID) screening, and engineering judgment. Drilling fluids were not used while advancing the HSA so overburden groundwater could be identified. Spoils generated from the test borings were placed on and covered with plastic sheeting next to each boring/well location.

RI subsurface soil/fill samples from MW-1 through MW-8 were analyzed for TCL SVOCs and dissolved TAL metals (all samples), and TCL plus CP-51 VOCs, PCBs, pesticides, and herbicides (select samples). Select samples were also chosen at random to include 10 VOC TICs and 20 SVOC TICs. Fill samples from MW-2, MW-4 and MW-6 were chosen by Benchmark-TurnKey to be analyzed for TCLP lead by the laboratory.

3.2 Groundwater Investigation

The RI included installation of three bedrock wells (MW-1 through MW-3) on the western portion of the Site where no field evidence of overburden groundwater was observed (as requested by the NYSDEC) and five overburden groundwater monitoring wells (MW-4 though MW-8) on the central and eastern portions of the Site to investigate

groundwater flow and quality. MW-4 was dry at the time of development and sampling and MW-4 remained dry when gauged during supplemental RI activities thus MW-4 could not be sampled.

3.2.1 Monitoring Well Installation and Development

The groundwater monitoring wells were constructed of 2-inch I.D. flush coupled PVC riser and screen. The screened intervals ranged between 7-foot and 10-foot long sections of machine slotted pipe. A sand filter was placed in the boring around the annulus space of the well screen such that the sand extends a minimum of one foot above the top of the screen. A bentonite-chip layer was placed above the sand filter and cement grout was placed above the bentonite-chip layer to ground surface. The newly installed monitoring wells were completed with stick-up casings over the riser, and lockable J-plugs with keyed–alike locks. Table 2 summarizes the monitoring well construction details. Appendix B includes the monitoring well completion logs.

3.2.2 Groundwater Development and Sample Collection

The RI wells were developed to remove the fines from the filter pack and well casing using dedicated disposable polyethylene bailers for surging and a non-dedicated submersible pump for purging in accordance with NYSDEC and Benchmark TurnKey FOPs prior to sampling. Field parameters including pH, oxidation-reduction potential (ORP), dissolved oxygen (DO), temperature, turbidity, and specific conductance were measured periodically (i.e., every well volume or as necessary) during development. Field measurements continued until they became relatively stable. Stability was defined as variation between measurements of approximately 10 percent or less with no overall upward or downward trend in the measurements. In general, 10 well volumes were removed from each well during development activities. However, due to the loss of potable water during bedrock well installation activities at MW-1 through MW-3, which is typical of bedrock drilling, an equivalent volume of water was purged or where such could not be achieved due to the well going dry and with slow recharge, development was considered complete when field parameters stabilized, and groundwater levels reached static conditions after recharging indicating groundwater conditions, as discussed with NYSDEC and further described below:

- MW-1: 150-gallons of potable water lost during drilling activities mostly at top of bedrock at approximately 4.6 fbgs on July 5, 2018. Well screened and sealed in bedrock, including fracture zone at approximately 6.9 fbgs, below intervals where majority of water loss occurred. Well goes dry during development and is slow to recharge. A total of 66-gallons of water purged from well during development activities completed over multiple days between July 5, 2018 and July 12, 2018. Well purged dry multiple times during development activities. After being purged dry, groundwater returns to a static level of approximately 9.5 feet below top of riser (fb TOR).
- MW-2: 600-gallons of potable water lost during drilling in fractured top of bedrock between 14.1 to 15.7 feet on July 2, 2018. Well goes dry during development and is slow to recharge. A total of 114-gallons of water purged from the well during development activities completed between July 2, 2018 and July 10, 2018. After being purged dry, groundwater returns to a static level of approximately 22 fbTOR, which is below where the majority of water loss occurred during drilling and is the approximate depth of where a bedrock fracture was noted.
- MW-3: 400-gallons of potable water lost during drilling activities and over 400-gallons of water was purged during well development activities completed between July 3, 2018 and July 10, 2018. Static groundwater level is approximately 21 fbTOR. The majority of water lost occurred at the top of bedrock at approximately 14 fbgs. MW-3 was screened and sealed within the bedrock unit, including a fracture zone observed at approximately 18 fbgs.

In summary, the majority of water lost during drilling occurred at the top of bedrock at the overburden interface and a weathered bedrock unit (see the field borehole and monitoring well completion logs in Appendix B). The bedrock wells are sealed at the top of rock where the water loss occurred during bedrock drilling activities. Therefore, as the water lost during drilling occurred at the top of rock, such is not present in deeper bedrock zones where the bedrock monitoring well screened units and fracture zones are present. In the case of MW-1 and MW-2, after being purged dry over multiple days during development and sampling activities, groundwater returns to a static depth where bedrock fractures were observed. MW-3 did not go dry during development/sampling activities; therefore, the volume of water purged exceeds the water lost during drilling. For these reasons, potable water lost during drilling activities is not present in the bedrock monitoring wells.

Prior to sample collection, static water levels were measured to interpret groundwater flow direction within the overburden soil/fill. Table 3 summarizes the overburden groundwater elevations.

A minimum of three well volumes were evacuated from each overburden well prior to sample collection on December 7, 2017 and from each bedrock well prior to sample collection on July 10, 2018 and July 12, 2018. Field measurements for pH, ORP, specific conductance, temperature, turbidity, DO, and water level were periodically monitored for stabilization. Visual and olfactory field observations were also recorded. Purging was considered complete when pH, specific conductivity, and temperature stabilized, when static groundwater levels were reached and when turbidity measurements fell below 50 Nephelometric Turbidity Units (NTU) or became stable above 50 NTU. Upon stabilization of field parameters, groundwater samples were collected using dedicated bailers.

All collected groundwater samples were placed in pre-cleaned, pre-preserved laboratory provided sample bottles, cooled to 4°C in the field, and transported under chain-of-custody command to TestAmerica for laboratory analysis. MW-4 had been dry to-date and therefore has not been sampled.

3.2.3 Groundwater Sample Analyses

Groundwater samples collected from monitoring wells MW-1 through MW-3 were analyzed for TCL + CP-51 VOCs (+10 TICs), TCL SVOC (+20 TICs), and TAL metals (dissolved). Groundwater samples from MW-5 through MW-8 were analyzed for TCL + CP-51 VOCs (+10 TICs), TCL SVOC (+20 TICs), TAL metals (dissolved), pesticides, herbicides, and PCBs. All samples were collected and analyzed in accordance with USEPA SW-846 methodology with equivalent NYSDEC Category B deliverables to allow for independent third-party data usability assessment.

3.3 Emerging Contaminants

In accordance with the NYSDEC-approved Work Plan, dated April 13, 2018, monitoring wells MW-7 (down-gradient) and MW-8 (up-gradient) were sampled for 1,4-dioxane and per- and polyfluoroalkyl substances (PFAS) via Method 8270 Selective Ion Monitoring (SIM) mode and Method 537, respectively. All samples were collected and

analyzed in accordance with USEPA SW-846 methodology with equivalent NYSDEC Category B deliverables to allow for independent third-party data usability assessment.

3.4 Visual Inspections

As part of the RI work, visual inspections were completed at the Site to assess miscellaneous debris/dumped materials, an inactive incinerator and a decommissioned AST.

3.5 Field Specific Quality Assurance/Quality Control Sampling

In addition to the soil/fill and groundwater samples described above, field-specific quality assurance/quality control (QA/QC) samples were collected (see Table 1) and analyzed to ensure the reliability of the generated data and to support the required third-party data usability assessment effort. Site-specific QA/QC samples include matrix spikes, matrix spike duplicates, and blind duplicates in accordance with the NYSDEC-approved RI Work Plan. A Category B (Level IV) deliverable package was provided for all samples collected to allow third-party data validation and provide defensible data.

3.6 Site Mapping

A Site map was developed during the RI. Benchmark-TurnKey personnel employed a Trimble GeoXH handheld GPS unit to identify the locations of all soil borings, test pits, sample points, and newly installed monitoring wells relative to State planar grid coordinates. Monitoring well elevations were measured by Benchmark-TurnKey's surveyor. An isopotential map showing the general direction of overburden groundwater flow was prepared based on water level measurements relative to USGS vertical datum (see Figure 4).

4.0 REMEDIAL INVESTIGATION AND SUPPLEMENTAL REMEDIAL INVESTIGATION FINDINGS

The following sections discuss the analytical results of the RI and supplemental RI activities completed for delineation of specific areas of the Site where elevated concentrations of certain contaminants were identified during the initial RI activities and/or the previous Phase II investigation by others. Tables 4 through 10 summarize the analytical results with comparison to cleanup objectives. Appendix C includes the laboratory analytical data packages. Figures 3A and 3B shows the locations of samples collected and includes analytical details such as PAHs and metals exceeding CSCOs, lead exceeding TCLP characteristic hazardous waste threshold and PAHs exceeding 500 ppm.

4.1 Surface Soil/Fill

Table 4 presents a comparison of the 15 surface soil sample results to the Part 375 USCOs and CSCOs. Figures 3A and 3B illustrates the samples that exceed their respective 6NYCRR Part 375 CSCOs.

4.1.1 Field Observations

Surface soils consisted of fill materials. No PID readings above background (0.0 ppm) were identified.

4.1.2 Volatile Organic Compounds

Surface soil/fill was not analyzed for VOCs.

4.1.3 Semi-Volatile Organic Compounds

One or more individual SVOC concentrations exceeded Part 375 CSCOs at 12 of 15 surface soil sample locations. The highest total PAH concentration exceeding 500 milligrams per kilogram (mg/kg) was 818 mg/kg at SS-13 collected in the area of a former building. No other total PAH concentrations exceeded 500 mg/kg. SVOC TICs in the five surface samples that included TIC analysis were either non-detect or at minimal concentrations not exceeding 4 mg/kg.

4.1.4 Inorganic Compounds

No metals were detected at concentrations exceeding CSCOs. Individual concentrations of copper, lead, zinc and/or mercury exceeded their respective Part 375 USCOs at certain sample locations. Remaining metal concentrations were either non-detect or below USCOs.

4.1.5 Pesticides, Herbicides, and Polychlorinated Biphenyls

Herbicides and PCBs were non-detect. No pesticides were detected at concentrations exceeding CSCOs. 4,4'-DDD, 4,4'-DDE, 4,4'-DDT and/or alpha-BHC slightly exceeded their respective USCOs at five locations.

4.1.6 Surface Soil/Fill Summary

As described above, the surface soil/fill is impacted by PAHs with individual PAH concentrations exceeding CSCOs at 12 of 15 surface soil/fill sample locations. The highest total PAH concentration was 818 mg/kg at SS-13 collected in a former building location. Total PAHs exceeding 500 mg/kg were not identified at the other surface soil sample locations. SVOC TICs were either non-detect or at minimal concentrations. No metals or pesticides were identified at concentrations exceeding Part 375 CSCOs. Supplemental RI activities were completed in the SS-13 area, as further described below in Section 4.2.

Herbicides and PCBs were non-detect.

4.2 Subsurface Soil/Fill

Table 8 summarizes the analytical results from the previous 2012 Phase II Investigation completed by others. Table 5 summarizes analytical results for RI test pits TP-1 through TP-30 and Table 6 summarizes RI soil borings MW-1 through MW-8. Table 7 summarizes TCLP lead and TCLP chromium results. Figures 3A and 3B illustrates sample locations, including the samples that exceed their respective CSCOs. A RI test pit summary table is provided as Table 11.

4.2.1 Field Observations

As previously indicated, fill materials were encountered at all RI and 2012 Phase II investigation locations at varying depths between ground surface and 24 fbgs. Fill with ash

was identified at varying depth intervals at the majority of RI locations at borings MW-1 through MW-8 and test pits TP-3 through TP-6, TP-8 through TP-16, TP-18, TP-19, TP-21 through TP-23, TP-26, TP-27, TP-29 and TP-30. Fill with ash was also identified during the 2012 Phase II at borings SB-2, SB-10 through SB-15, SB-18, SB-19, SB-21, SB-22, SB-27-SB-30, SB-37, and SB-41 through SB-47

Elevated PID readings and/or odors were identified at certain subsurface RI sample locations, as further described below:

- TP-8: slight petroleum odor at 6 to 9 fbgs with a PID reading of 2.2 ppm at the same interval.
- TP-9: unknown odors at 10 to 12 fbgs with a PID reading of 276 ppm at the same interval. A PID reading of 18.4 ppm was identified at 0 to 2 fbgs.
- TP-23: slight petroleum-like odor noted at 11 to 15.5 fbgs with PID readings noted as 47.7 ppm at 14.5 fbgs and 10.7 ppm at 12 fbgs.
- MW-8: slight petroleum odor noted at 13.5 to 17 fbgs with a PID reading of 1.3 ppm noted at 14 fbgs.

No olfactory concerns were identified during the 2012 Phase II. The highest PID readings identified during the 2012 Phase II were 37.6 ppm at SB-43, 17.6 ppm at SB-9, 17 ppm at SB-18, and 16.2 ppm at SB-39.

4.2.2 Volatile Organic Compounds

No individual VOCs were detected above Part 375 CSCOs in subsurface soil samples from the RI and 2012 Phase II. Methylene chloride was detected at a concentration slightly above its respective USCO at MW-8. VOC TICs in the 15 subsurface samples were either non-detect or at minimal concentrations less than 3 mg/kg.

4.2.3 Semi-Volatile Organic Compounds

One or more individual PAHs exceeded CSCOs at 12 of the 38 RI sample locations in TP-3, TP-5, TP-7, TP-8, TP-10, TP-17, TP-20, TP-23, TP-25, MW-2, MW-5, MW-6 and 3 of the 21 2012 Phase II sample locations in SB-15, SB-21 and SB-37. The highest total PAH concentration was identified as 935 mg/kg at TP-25 collected during the RI proximate to a former building. No other total PAHs in subsurface fill samples exceeded 500 mg/kg. SVOC TICs were either non-detect or at minimal concentrations.

Due to total PAH concentrations greater than 500 mg/kg at TP-25 (0-2') and SS-13 (0-2"), additional fill samples were collected from areas surrounding TP-25 and SS-13 for PAH analysis. In addition, resamples of fill material from beneath SS-13 (0-2") from 2" to 24" and from beneath TP-25 (0-2') at 2'-4' were collected by TurnKey for laboratory analysis. As shown on Table 5 and Table 6, no total PAH concentrations exceeding 500 mg/kg were identified in the ten additional fill samples collected for delineation purposes by TurnKey.

4.2.4 Inorganic Compounds

Total lead exceeded its respective Part 375 CSCO of 1,000 mg/kg at RI location MW-6 with a concentration of 8,400 mg/kg. Total lead was also identified at concentrations exceeding its respective CSCO during the 2012 Phase II with 1,040 mg/kg at SB-2, 21,800 mg/kg at SB-21, 6,540 mg/kg at SB-21, 1,910 mg/kg at SB-27 and 1,100 mg/kg at SB-43.

Due to the elevated total lead concentrations, RI samples TP-8, TP-9, TP-13 and MW-6 were analyzed for lead by TCLP. In addition, RI fill samples from MW-2, MW-4, TP-1, TP-14, TP-26 and TP-27 were analyzed for TCLP lead due to their elevated total lead concentrations and to provide additional Site characterization of varying soil fill layers. TCLP lead was identified as 12.4 mg/L at TP-13, which exceeds the characteristic hazardous waste threshold of 5 mg/L. TCLP lead concentrations were significantly below the characteristic hazardous waste threshold in the other fill samples, including MW-6. Note that most fill material samples with elevated lead concentrations were noted to include ash.

To further assess the potential for characteristic hazardous levels of lead at RI TP-13 (identified at 12.4 mg/L from 10-15'), additional fill samples were collected and analyzed for TCLP lead from the immediate area of TP-13 and surrounding areas. As summarized on Table 7 and Figures 3A and 3B, the resample of TP-13R at 10-15' and 8-10' did not exhibit lead concentrations exceeding the characteristic hazardous waste threshold; however, the concentration of 12.7 mg/L identified at TP-13R at the 15-17' interval does exceed the characteristic hazardous waste threshold. In addition, the concentration of 8 mg/L identified at TP-13-1 completed north of the initial TP-13 location is considered characteristically hazardous. No exceedances of the characteristic hazardous waste threshold were identified in fill samples collected east, west and south of the RI TP-13.

Due to the elevated total lead concentrations identified at SB-21 (21,800 mg/kg at 12-16' and 6,540 mg/kg at 16-19'), additional fill samples were collected for TCLP lead analysis from the historic SB-21 area and surrounding areas. As summarized on Table 7, non-hazardous TCLP lead concentrations were identified in fill samples collected by TurnKey from the SB-21 resample (SB-21R) as well as fill samples collected to the north, west and south of SB-21 at SB-21-1 and SB-21-2 and SB-21-3. Characteristic hazardous concentrations of lead were identified in two fill samples collected east of SB-21 at SB-21-4 and SB-21-8 and an additional fill sample collected west of RI MW-8 at SB-21-7.

A total chromium concentration of 1,300 mg/kg, which exceeds its respective USCO, was identified during the RI at TP-10 (0-4'). TCLP chromium was non-detect in this fill sample.

Arsenic exceeded its respective CSCO during the RI at TP-10 with a concentration of 17.2 mg/kg, at TP-12 with a concentration of 21 mg/kg and at MW-8 with a concentration of 32.1 mg/kg. Arsenic exceeding its CSCO was also identified during the 2012 Phase II with concentrations of 31.6 mg/kg at SB-19, 23.8 mg/kg at SB-21, 27.4 mg/kg at SB-21, 73 mg/kg at SB-41, 18.7 mg/kg at SB-43, and 23.3 mg/kg at SB-45. The arsenic concentration of 73 mg/kg at SB-41 was the highest concentration identified.

Due to the elevated arsenic concentration of 73 mg/kg at historic boring SB-41 (8'-11') from a previous investigation by others, additional sampling was completed for delineation purposes. No arsenic concentrations exceed USCOs in resampling of SB-41 with fill samples collected from the 6-8', 8-11' and 11-13' intervals. The arsenic concentrations from fill samples from resampling of SB-41 (6-8', 8-11' and 11-13' intervals) and surrounding SB-41 are either at concentrations below USCOs or CSCOs.

Additional metals exceeding CSCOs during the RI included copper and mercury at TP-8 (6-9') and barium at TP-9 (10-12') and MW-8 (14-16'). Barium, cadmium and/or copper exceeded CSCOs during the 2012 Phase II in sample locations SB-19, SB-21, SB-21, SB-27, SB-41, SB-43, and SB-45.

4.2.5 Pesticides, Herbicides and Polychlorinated Biphenyls

Pesticides were reported as non-detect or at trace (estimated) concentrations during the RI. Herbicides and PCBs were reported as non-detect during the RI. Pesticides, herbicides and PCBs were reported as non-detect during the 2012 Phase II.

4.2.6 Subsurface Soil/Fill Summary

As summarized in Section 4.2.1, odors and elevated PID readings were identified during the RI at TP-8, TP-9, TP-23 and MW-8. The highest PID reading of 276 ppm along with unknown odors were identified at TP-9 at 10 to 12 fbgs. The highest PID reading identified during the 2012 Phase II was 37.6 ppm at SB-43. No olfactory concerns were identified during the 2012 Phase II. VOCs were either non-detect or at concentrations significantly below CSCOs in fill samples collected as part of the historic Phase II and RI activities completed at the Site.

The highest total PAH concentration identified from the RI, including supplemental delineation activities, was 935 mg/kg at TP-25 (0-2') collected proximate to a former building and SS-13, collected southeast of TP-25, also in the former building location. Total PAH concentrations in the 2012 Phase II samples and the other RI sample locations were less than 500 mg/kg. NYSDEC's CP-51 Soil Cleanup Policy has provided 500 mg/kg as an alternative soil cleanup objective (i.e., in lieu of individual SCOs) for soils where end use of the Site will be for commercial or industrial purposes where a cover system will be placed (see Figure 5B) and a Site Management Plan will be implemented. Individual PAHs exceed their respective CSCOs in fill samples collected from across the Site; however, the only area with total PAH concentrations exceeding 500 mg/kg is at the TP-25/SS-13 area.

The highest total lead concentrations from the RI and 2012 Phase II were 8,400 mg/kg at MW-6 (8-10') and 21,800 mg/kg at SB-21 (12-16'), respectively. Due to elevated total lead concentrations, certain fill samples from the RI and supplemental RI activities were further analyzed for TCLP lead. TCLP lead exceeding its respective characteristic hazardous waste threshold of 5 mg/L was identified at TP-13 (10-15') and supplemental investigation locations TP-13R (15-17') and TP-13-1 (10-15'). Supplemental fill samples collected in the SB-21 area due to the total lead concentration of 21,800 mg/kg exhibit TCLP lead concentrations above the characteristic hazardous waste threshold at SB-21-4 (12-16'), SB-21-7 (12-16') and SB-21-8 (12-16'). Fill samples from across the Site at MW-2, MW-4, WW-6, TP-1, TP-8 and TP-9 did not exceed the characteristic hazardous waste threshold; therefore, characteristic hazardous lead is limited in extent and is localized in the TP-13 and SB-21 areas.

The highest arsenic concentration identified during the work was 73 mg/kg at historic boring SB-41 (8-11'). However, supplemental arsenic sampling completed in the SB-

41 area, including resampling of SB-41 (8-11') where the concentration of 73 mg/kg was previously identified by others, indicate arsenic concentrations below its respective USCO or CSCO. Additional metals exceeding CSCOs from the RI included copper and mercury at TP-8 (6-9') and barium at TP-9 (10-12') and MW-8 (14-16'). Barium, cadmium and copper exceeded CSCOs during the 2012 Phase II. The concentrations of arsenic, copper, mercury, barium, cadmium and copper are not considered significant and will be addressed by a cover system and Site Management Plan.

No pesticides, herbicides or PCBs exceeded CSCOs.

4.3 Soil/Fill Mounds Investigation

Soil/fill within the two mounds appeared homogenous and generally consisted of topsoil and reworked sandy lean clay with minimal fill. No evidence of building materials or debris was noted within the mound material during the RI. Soil/fill mound test pit field observations are included on Table 11.

Four representative soil/fill samples (P-1 through P-4) collected from the mounds were analyzed for asbestos by the laboratory using an asbestos quantification method with a reporting limit to 0.25% (EPA 600/R-93/116 Method by PLM); asbestos was not detected in any of the samples.

4.4 Groundwater

Table 9 presents a comparison of the detected groundwater concentrations in the three bedrock wells (MW-1 through MW-3) and four overburden groundwater monitoring wells (MW-5 through MW-8) to the Class GA Groundwater Quality Standards/Guidance Values (GWQS/GVs) per NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 1988). Table 10 presents a summary of the Emergent Contaminants groundwater sampling for 1,4-dioxane and PFAs.

4.4.1 Field Observations

No visual or olfactory concerns were identified during groundwater development of bedrock wells MW-1 through MW-3. During overburden well development, a slight nondescript odor was identified at MW-7 and MW-8. During the RI sampling event, a slight

musty odor was identified at MW-6 and MW-7. Appendix D includes the groundwater development and sampling field logs.

4.4.2 Groundwater Flow Direction

As shown on Figure 4, overburden groundwater generally flows in a westerly direction.

4.4.3 Volatile Organic Compounds

Only 4-isopropyltoluene was detected in one well (MW-8) at a concentration (9.3 micrograms per liter (ug/L)) slightly above its GWQS/GV of 5.0 ug/L. All other analytes were reported as non-detect or at concentrations significantly below GWQS/GVs. VOC TICs were non-detect.

4.4.4 Semi-Volatile Organic Compounds

SVOCs were either non-detect or at concentrations below GWQS/GV. SVOC TICs were identified in all groundwater samples at low estimated concentrations.

4.4.5 Inorganic Compounds

Dissolved metals were either non-detect or at concentrations below GWQS/GV except for naturally occurring minerals manganese and sodium that exceed their respective GWQS/GV in bedrock and overburden monitoring wells.

4.4.6 Pesticides, Herbicides and Polychlorinated Biphenyls

Herbicides and PCBs were reported as non-detect. Pesticides were either non-detect or at concentrations below GWQS/GVs in all four groundwater samples.

4.4.7 Emergent Contaminants

As summarized on Table 10, 1,4 – dioxane was non-detect in groundwater samples MW-7 and MW-8. PFAs were detected at low level concentrations, including estimated concentrations, in MW-7 and MW-8. Perfluorobutanoc acid (PFBA) and perfluorohexanesulfonic acid (PFHxS) were identified in the laboratory and equipment blanks.

4.4.8 Groundwater Summary

As described above, one VOC, 4-isopropyltoluene, was detected in one overburden well (MW-8) at a concentration of 9.3 ug/L, which slightly exceeds its GWQS/GV of 5.0 ug/L. SVOCs, pesticides, herbicides and PCBs were either non-detect or at concentrations below GWQS/GV. Dissolved metals were non-detect or below GWQS/GV except for naturally occurring minerals manganese and sodium.

Low level estimated concentrations of PFAs were detected in the overburden groundwater samples collected from groundwater wells MW-7 and MW-8.

The nondescript odors identified during overburden well development and sampling activities do not appear to be associated with groundwater impacts.

Overburden groundwater flows in a westerly direction.

4.5 Visual Inspections

Below is a summary of visual inspections completed at the Site:

- Miscellaneous debris/dumped materials – no visual or olfactory concerns noted. The majority of materials appear to be yard wastes and miscellaneous debris.
- Inactive Incinerator – a minimal amount of ash remains within the inactive incinerator within the basement of the existing building. According to Waste Management, due to the residential history of the Site, analytical testing of the ash is not required for disposal. Therefore, the minimal amount of ash remaining within the incinerator was not sampled for laboratory analysis.
- Decommissioned AST – the decommissioned AST within the basement of the existing building is empty and appears to be atop concrete that is in good condition. Further, the tank appears to consist of steel, also noted by Benchmark-TurnKey to be in good condition (except for a cut in the tank apparently completed as part of decommissioning activities).

4.6 Data Usability Summary

In accordance with the RI/AA Work Plan, the laboratory analytical data from this investigation was assessed and, as required, submitted for independent review. Data Validation Services located in North Creek, New York performed the data usability summary assessment, which involved a review of the summary form information and sample raw data, and a limited review of associated QC raw data. Specifically, the following items were reviewed:

- Laboratory Narrative Discussion
- Custody Documentation
- Holding Times
- Surrogate and Internal Standard Recoveries
- Matrix Spike Recoveries/Duplicate Recoveries
- Field Duplicate Correlation
- Preparation/Calibration Blanks
- Control Spike/Laboratory Control Samples
- Instrumental IDLs
- Calibration/CRI/CRA Standards
- ICP Interference Check Standards
- ICP Serial Dilution Correlations
- Sample Results Verification

The Data Usability Summary Report (DUSR), included as Appendix E, was prepared using guidance from the USEPA Region 2 validation Standard Operating Procedures, USEPA National Functional Guidelines for Data Review, and professional judgment.

The RI sample analyses were primarily conducted in compliance with the required analytical protocols. In general, most sample results are usable either as reported or with minor qualification or edit. Data completeness, representativeness, accuracy, reproducibility, sensitivity, and comparability are acceptable except for certain metals that show poor precision/outlying accuracy for isolated elements, potential matrix effect on accuracy and precision shown by a volatile matrix spike evaluation and many of the semi volatile and pesticide reporting limits being elevated due to dilution during analysis. Analytical results were edited or qualified per the DUSR with changes reflected on the summary tables. The findings of the DUSR do not significantly affect the analytical data for the Site.

4.7 Constituents of Concern (COCs)

Based on the historic use of the Site as well as results of the Phase II investigation and RI activities, the COCs are presented below:

- ***Soil/Fill:*** PAHs and lead.

5.0 FATE AND TRANSPORT OF COCS

The surface and subsurface soil/fill and groundwater analytical results were incorporated with the physical characterization of the Site to evaluate the fate and transport of the COCs in Site media. The mechanisms by which the COCs can migrate to other areas or media are briefly outlined below.

5.1 Fugitive Dust Generation

Chemicals present in soil/fill can be released to ambient air because of fugitive dust generation. Impacted fill material is present on-Site and, as such, fugitive dust generation during intrusive activities related to remediation and redevelopment is considered a relevant potential short-term migration pathway.

Particulate monitoring in accordance with the approved Community Air Monitoring Plan (CAMP) will be completed during intrusive activities and, if required, dust mitigation measures will be employed during future remediation and redevelopment.

5.2 Volatilization

Volatile chemicals present in soil/fill and groundwater may be released to ambient or indoor air through volatilization either from or through the soil/fill underlying building structures. Volatile chemicals typically have a low organic-carbon partition coefficient (K_{oc}), low molecular weight, and a high Henry's Law constant.

In relation to the Site, VOCs were generally non-detect or at concentrations below 6NYCRR Part 375 CSCOs. Groundwater samples generally yielded non-detect or trace levels of VOCs at or near Class GA GWQS/GVs with the exception of 4-isopropyltoluene in one location (MW-8) at a concentration slightly exceeding its respective GWQS. Accordingly, VOCs are not a concern for the Site and therefore volatilization is not considered a pathway of concern.

5.3 Surface Water Runoff and Transport

Under the current use scenario, the potential for soil particle transport with surface water runoff is low as the Site is mostly flat lying with well-drained soil/fill and covered by a building, asphalt roadways/parking areas, and vegetation.

Under the reasonably anticipated future commercial use scenario, the Site will be substantially covered by hardscape (asphalt, buildings, etc.), and a minimum one-foot of vegetated clean soil, mitigating transport of subsurface (i.e., covered) soil/fill via storm water runoff. Although storm water runoff during excavation activities is possible during the future use scenario, erosion controls are typical construction practice and would be implemented as a component of the Site Management Plan required for BCP Sites that do not achieve unrestricted use conditions. Therefore, surface water runoff is not considered a relevant migration pathway.

5.4 Leaching

Leaching refers to chemicals present in soil/fill migrating downward to groundwater because of infiltration of precipitation. Groundwater samples generally yielded non-detect or trace levels of VOCs with exception to 4-isopropyltoluene, which slightly exceeded its respective GWQS/GV at MW-8. SVOCs were generally non-detect or at trace levels in groundwater samples collected from the Site. Dissolved metals detected at concentrations above Class GA GWQS/ GVs were limited to naturally occurring minerals manganese and sodium. In some areas, PAHs, lead and arsenic are present in subsurface soil/fill above the CSCOs. Groundwater samples collected from the Site exhibited low concentrations of PAHs and dissolved lead and non-detect concentrations of arsenic indicating that these compounds likely exist in soil/fill in their insoluble forms and, as such, are relatively immobile.

5.5 Groundwater Transport

Overburden groundwater underlying the Site primarily migrates to the west, as illustrated by Figure 4. The results of the bedrock and overburden groundwater samples collected as part of the RI did not indicate GWQS exceedances for SVOCs, metals, PCBs, pesticides or herbicides. VOCs were either non-detect or at trace concentrations in bedrock groundwater samples. One VOC, 4-isopropyltoluene, was identified in overburden groundwater in one sample, MW-8, at a concentration slightly exceeding its respective GWQS/GV. 4-isopropyltoluene was identified in fill material at trace or non-detect concentrations.

Due to the lack of groundwater contamination at the Site, groundwater transport is not considered a pathway of concern.

5.6 Exposure Pathways

Based on the analysis of chemical fate and transport provided above, the main pathway through which Site COCs could potentially migrate to other areas or media are fugitive dust emissions via physical disturbance of soil particles during remedial measures and redevelopment. However, it is unlikely that on-site or off-site receptors would be exposed to any site-related COCs given: the planned remedial actions followed by backfilling/cover placement with clean approved materials; the planned Site Management Plan (SMP) and Environmental Easement restricting use of groundwater; and, NYSDEC and NYSDOH requirements for dust controls during future excavation at remedial program construction sites.

6.0 QUALITATIVE RISK ASSESSMENT

6.1 Human Health Exposure Assessment

A qualitative exposure assessment consists of characterizing the exposure setting (including the physical environment and potentially exposed human populations), identifying exposure pathways, and evaluating contaminant fate and transport.

An exposure pathway describes the means by which an individual may be exposed to contaminants originating from a site. An exposure pathway has the following five elements:

- Receptor population
- Contaminant source
- Contaminant release and transport mechanism
- Point of exposure
- Route of exposure

An exposure pathway is complete when all five elements of an exposure pathway are documented; a potential exposure pathway exists when any one or more of the five elements comprising an exposure pathway is not documented but could reasonably occur. An exposure pathway may be eliminated from further evaluation when any one of the five elements comprising an exposure pathway does not exist in the present and will not exist in the future.

6.1.1 Receptor Population

The receptor population includes the people who are or may be exposed to contaminants at a point of exposure. The identification of potential human receptors is based on the characteristics of the Site, the surrounding land uses, and the probable future land uses. The Site is presently vacant land with a vacant building and asphalt roadways and parking areas. Under current Site use conditions, receptors at the Site would be limited to trespassers who may traverse the Site (although a fence is located along the entire perimeter of the Site). During remediation activities, construction workers may access the Site to service utilities or similar duties. Off-site receptors associated with surrounding land uses include school children and pedestrians.

The reasonably anticipated future use of the Site is for commercial purposes consistent with surrounding property use and Site zoning. Exposed Site receptors under the future use scenario may be comprised of indoor workers, outdoor workers (e.g., groundskeepers or maintenance staff), and construction workers who may be employed at or perform work on the property. Off-site receptors associated with surrounding land uses include school children and pedestrians. Site visitors/customers may also be considered receptors; however, their exposure would be similar to that of the indoor worker but at a lesser frequency and duration. Therefore, consideration of the indoor worker is conservatively protective of the site visitor.

6.1.2 Contaminant Sources

The source of contamination is defined as either the source of contaminant release to the environment (such as a waste disposal area or point of discharge) or the impacted environmental medium (soil, air, biota, water) at the point of exposure. Section 4.0 discusses the COCs present in unremediated Site media at elevated concentrations. Areas containing SVOCs (specifically PAHs) and lead in soil/fill remain.

6.1.3 Contaminant Release and Transport Mechanisms

Contaminant release and transport mechanisms carry contaminants from the source to points where people may be exposed, and are specific to the type of contaminant and site use. For the non-volatile COCs present in Site soil/fill, contaminant release and transport mechanisms will generally be limited to fugitive dust migration and direct contact during future planned intrusive work/remedial activities since the Site is currently covered by vegetation, asphalt roadways/parking areas, and a building.

6.1.4 Point of Exposure

The point of exposure is a location where actual or potential human contact with a contaminated medium may occur before and/or after remedial activities. For both the current and future use scenarios, groundwater is not considered a relevant mechanism for exposure due to the absence of significant groundwater impacts; availability of a local municipal potable water source; depth to groundwater (greater than 4.5 feet, which is the

standard depth of utilities and foundation footers); and requirement for an Environmental Easement that will restrict the use of Site groundwater.

6.1.5 Route of Exposure

The route of exposure is the manner in which a contaminant actually enters or contacts the body (i.e., ingestion, inhalation, dermal absorption). Based on the types of receptors and points of exposure identified above, potential routes of exposure are listed below:

Current Use Scenario

- Environmental, Construction, and Outdoor Workers and/or Trespassers – skin contact, inhalation, and incidental ingestion

Unremediated Future Use Scenario

- Indoor Occupants – none
- Construction and Outdoor Workers and/or Trespassers – skin contact, inhalation, and incidental ingestion

6.1.6 Exposure Assessment Summary

Based on the above assessment, the potential exposure pathways for the current and future use conditions are listed below.

Current Use Scenario

- Construction Worker/Environmental Personnel and/or Trespasser – direct contact, incidental ingestion, and inhalation of non-volatile COCs present in site-wide soil/fill.

Unremediated Future Use Scenario

- Indoor Worker/Visitor/Vendor – none.
- Construction and Outdoor Worker and/or Trespasser – direct contact, incidental ingestion and inhalation of non-volatile COCs present in site-wide soil/fill.

In most instances, these exposures can be readily mitigated through the use of personal protective equipment (PPE); proper soil/fill management during intrusive activities;

engineering controls including placement of asphalt, building, fencing and/or landscape cover.

6.2 Fish and Wildlife Impact Assessment (FWIA)

The historical use of the Site has eliminated most native species. The Site is mainly populated by low-lying vegetation (grasses, weeds, and shrubs). There are no important plant habitats or endangered species identified for the area encompassing the Site.

The Site is slated for commercial redevelopment, which is consistent with surrounding property. Roadways, buildings, parking facilities, and/or maintained ornamental landscaping will substantially limit availability of suitable cover type for reestablishment of biota. Based on the Fish and Wildlife Resource Impact Analysis Decision Key included as Appendix F (NYSDEC DER-10 Appendix 3C), no fish and wildlife resources impact analysis is warranted.

6.3 Qualitative Off-Site Exposure Assessment

During the RI, soil borings (for installation of monitoring wells) and test pits were advanced on-Site, including areas proximate to Site property boundaries. These sampling locations were used in conjunction with previously collected data to complete this qualitative off-site exposure assessment and evaluate potential remedial measures to address Site contamination.

No sheen, odor, or visual indication of impact were noted in any overburden or bedrock groundwater monitoring wells.

As discussed in Section 5.0, contaminants in on-site soil/fill could potentially migrate off-site as fugitive dust emissions during intrusive activities; however, given the NYSDEC/ NYSDOH requirements for dust controls during intrusive activities at remedial program construction sites, it is unlikely that site-related contaminants would reach off-site receptors at significant exposure point concentrations. Once impacted soil/fill is removed from the Site or mitigated with a clean soil cover, any potential off-site exposure will be eliminated.

As the historic quarry limits encompassed the Site and adjacent properties, it is expected that the constituents present in on-site soil/fill are also present off-site at similar concentrations. However, these reflect widespread fill placement in lieu of an off-site migration issue. Pavement and roadways on the Site preclude off-site exposure from direct

contact with fill materials and pathways associated with wind erosion or incidental ingestion. Fill materials that may be present off-site pose similar exposure risks as those described above for the construction worker/trespasser scenario.

7.0 REMEDIAL ALTERNATIVES EVALUATION

This section provides an analysis of the selected remedial approach by media using the Remedy Selection Evaluation Criteria identified in Section 4.2 of Guidance Document DER-10: Technical Guidance for Site Investigation and Remediation.

7.1 Standards, Criteria, and Guidance

According to DER-10 Section 1.3(b)71, standards, criteria, and guidance (SCGs) refers to: "standards and criteria that are generally applicable, consistently applied, and officially promulgated, that are either directly applicable or not directly applicable but are relevant and appropriate, unless good cause exists why conformity should be dispensed with, and with consideration being given to guidance determined, after the exercise of scientific and engineering judgment, to be applicable. This term incorporates both the CERCLA concept of 'applicable or relevant and appropriate requirements" (ARARs) and the USEPA's 'to be considered' (TBCs) category of non-enforceable criteria or guidance. For purposes of this Guidance, 'soil SCGs' means the soil cleanup objectives and supplemental soil cleanup objectives identified in 6NYCRR 375-6.8 and the Commissioner Policy CP-51 on Soil Cleanup Guidance.

Additional discussions concerning the specific chemical-, action-, and location-specific SCGs that may be applicable, relevant, or appropriate to remedy selection for the Site are presented below. In each case, the identified SCGs are generally limited to regulations or technical guidance in lieu of the environmental laws from which they are authorized, as the laws are typically less prescriptive in nature and inherently considered in the regulatory and guidance evaluations. Table 12 summarizes the SCGs by media that may be applicable or relevant and appropriate to the Site.

7.1.1 Chemical-Specific SCGs

Chemical-specific SCGs are usually health- or risk-based concentrations in environmental media (e.g., air, soil, water), or methodologies that when applied to site-specific conditions, result in the establishment of concentrations of a chemical that may be found in, or discharged to, the ambient environment. The determination of potential chemical-specific SCGs for a site is based on the nature and extent of contamination;

potential migration pathways and release mechanisms for site contaminants; reasonably anticipated future site use; and likelihood that exposure to site contaminants will occur.

Previous sampling events during Phase II and RI activities included the collection and analysis of surface soil/fill, subsurface soil/fill, and groundwater samples.

One of the remedial alternatives to be assessed for the Site is a Track 4 cleanup for soil/fill. This approach requires institutional controls (e.g., groundwater and land use restrictions, Site Management Plan, and Environmental Easement) and engineering controls (e.g., a soil cover system) as components of the final remedy to reduce future potential exposure to impacted soil/fill.

Site-specific action levels (SSALs) were developed for the Site. These SSALs will be applicable to soil/fill that greatly exceed CSCOs, have the potential to impact groundwater, or otherwise represent an unacceptable risk to public health or the environment in the context of reasonably anticipated future use and a Track 4 cleanup and therefore require corrective action. These SSALs were developed based on the treatment and/or removal of source areas, including areas that have a greater potential for contaminant migration, and the feasibility of achieving the SSALs based on the nine factors outlined in 6NYCRR Part 375-1.8(f) and described below in Section 7.4. The SSALs only apply to a Track 4 cleanup with a cover system to be installed over all areas with remaining soil/fill concentrations above CSCOs, an SMP, and Environmental Easement. The following SSALs were developed and used to designate soil/fill areas requiring remediation:

- Total PAHs > 500 mg/kg; this alternative Soil Cleanup Level was employed in lieu of individual commercial SCOs, per NYSDEC Commissioner Policy on Soil Cleanup Guidance (CP-51).
- Total Lead > 3,900 mg/kg.
- TCLP Lead > 5 mg/L.

7.1.2 Location-Specific SCGs

Location-specific SCGs are restrictions placed on the concentration of hazardous substances or the conduct of activities solely because they are in a specific location. Some examples of these unique locations include floodplains, wetlands, historic places, and sensitive ecosystems or habitats. The location of the site is a fundamental determinant of its impact on human health and the environment.

7.1.3 Action-Specific SCGs

Action-specific SCGs are restrictions placed on particular treatment or disposal technologies. Examples of action-specific SCGs are effluent discharge limits and hazardous waste manifest requirements.

7.2 Remedial Action Objectives

The remedial actions for the 1827 Fillmore Avenue Site must satisfy Remedial Action Objectives (RAOs). RAOs are site-specific statements that convey the goals for minimizing substantial risks to public health and the environment. For the 1827 Fillmore Avenue Site, appropriate RAOs have been defined as:

Soil/Fill RAOs

- Remove or treat soil/fill areas of concern (i.e., soil/fill deemed unacceptable to remain on-Site, even under a Track 4 approach) as necessary to protect public health and the environment.
- Prevent ingestion/direct contact with contaminated soil/fill.
- Implement and maintain engineering and institutional controls to assure that the Site is not used in a manner inconsistent with the reasonably anticipated future use scenario.

7.3 General Response Actions

General Response Actions (GRAs) are broad classes of actions that are developed to achieve the RAOs and form the foundation for the identification and screening of remedial technologies and alternatives.

7.3.1 Soil/Fill

The GRAs available to address the RAOs for soil/fill include:

- Institutional controls (e.g., Site Management Plan, Environmental Easement)
- Engineering controls (e.g., cover system)
- Treatment (e.g., in-situ or ex-situ)
- Excavation and off-site disposal

7.4 Evaluation of Alternatives

NYSDEC's Brownfield Cleanup Program calls for remedy evaluation in accordance with DER-10 Technical Guidance for Site Investigation and Remediation. In addition to achieving RAOs, the remedial alternatives are evaluated against the following criteria consistent with 6NYCRR Part 375-1.8(f):

- **Overall Protectiveness of Public Health and the Environment**. This criterion is an evaluation of the remedy's ability to protect public health and the environment, assessing how risks posed through each existing or potential pathway of exposure are eliminated, reduced, or controlled through removal, treatment, engineering controls, or institutional controls.
- **Compliance with Standards, Criteria, and Guidance (SCGs)**. Compliance with SCGs addresses whether a remedy will meet applicable environmental laws, regulations, standards, and guidance.
- **Long-Term Effectiveness and Permanence**. This criterion evaluates the long-term effectiveness of the remedy after implementation. If wastes or treated residuals remain on-site after the selected remedy has been implemented, the following items are evaluated: (i) the magnitude of the remaining risks (i.e., will there be any significant threats, exposure pathways, or risks to the community and environment from the remaining wastes or treated residuals), (ii) the adequacy of the engineering and institutional controls intended to limit the risk, (iii) the reliability of these controls, and (iv) the ability of the remedy to continue to meet RAOs in the future.
- **Reduction of Toxicity, Mobility, or Volume of Contamination through Treatment**. This criterion evaluates the remedy's ability to reduce the toxicity, mobility, and volume of Site contamination. Preference is given to remedies that permanently and significantly reduce the toxicity, mobility, or volume of the contamination at the Site.
- **Short-Term Impacts and Effectiveness**. This criterion is an evaluation of the potential short-term adverse impacts and risks of the remedy upon the community, the workers, and the environment during construction and/or implementation. This includes a discussion of how the identified adverse impacts and health risks to the community or workers at the Site will be controlled, and the effectiveness of the controls. This criterion also includes a discussion of engineering controls that will be used to mitigate short-term impacts (i.e., dust control measures), and an estimate of the length of time needed to achieve the remedial objectives.

- **Implementability**. The implementability criterion evaluates the technical and administrative feasibility of implementing the remedy. Technical feasibility includes the difficulties associated with the construction and the ability to monitor the effectiveness of the remedy. For administrative feasibility, the availability of the necessary personnel and material is evaluated along with potential difficulties in obtaining specific operating approvals, access for construction, etc.
- **Cost-Effectiveness**. Capital, operation, maintenance, and monitoring costs are estimated for each remedial alternative and presented on a present worth basis. A remedy is cost effective if the costs are proportional to the overall effectiveness.
- **Community Acceptance**. This criterion evaluates the public's comments, concerns, and overall perception of the remedy. Therefore, community acceptance will be evaluated based on comments to be received from the public in response to Fact Sheets and other planned Citizen Participation activities, including a public comment period for the AAR.
- **Land Use**. In addition to the above criteria, 6NYCRR Part 375-1 specifies that the criterion of Land Use (i.e., the current, intended, and reasonably anticipated future land uses of the Site and its surroundings) be considered in the selection of the remedy. The reasonably anticipated future use of the Site, as initially submitted to the NYSDEC via the BCP application, is a commercial capacity (i.e., parking lot for 500 vehicles).

7.5 Anticipated Future Land Use Evaluation

In developing and screening remedial alternatives, NYSDEC's Part 375 regulations require that the reasonableness of the anticipated future land be factored into the evaluation of remedial alternatives. The regulations identify 16 criteria that must be considered. These criteria and the resultant outcome for the 1827 Fillmore Avenue Site are presented below:

1. *Current use and historical and/or recent development patterns:* The Site is currently unoccupied and includes vacant land with one building shell. The Site has a residential and commercial past. The Site is located in a highly developed mixed-use area of the City of Buffalo. Per the City of Buffalo Green Code Unified Development Ordinance Zoning Map (October 12, 2016), the anticipated zoning for the Site is classified as Flex Commercial (D-C). Flex Commercial D-C zones are described as located within general commercial and mixed-use areas, which typically benefit from flexible form standards and separate from, but within close proximity to, residential neighborhoods. **Accordingly, commercial development would be consistent with the planned future use of the Site.**

2. *Applicable zoning laws and maps:* Per the City of Buffalo Future Land Use Map, the proposed future use of the Site is employment. **Use in a commercial capacity is therefore consistent with future zoning.**
3. *Brownfield opportunity areas as designated set forth in GML 970-r:* The Brownfield Opportunity Area (BOA) Program provides municipalities and community-based organizations with assistance to complete revitalization plans and implementation strategies for areas or communities affected by the presence of brownfield sites, and site assessments for strategic sites. **The BCP Site is not within a BOA.**
4. *Applicable comprehensive community master plans, local waterfront revitalization plans as provided for in EL article 42, or any other applicable land use plan formally adopted by a municipality:* The Site is located in a NYS-designated environmental zone (or EN-Zone) Type A-B, which is indicative of the economic conditions of the surrounding area. Type A EN-Zones include a poverty rate of at least 20% and unemployment of at 125% of the State average, and Type B EN-Zones include a poverty rate of at least double the Erie County poverty rate. The City of Buffalo adopted a Comprehensive Plan in February 2006 and created a Future Land Use Plan in September 2016. **The proposed commercial redevelopment will be a productive use of currently vacant land.**
5. *Proximity to real property currently used for residential use, and to urban, commercial, industrial, agricultural, and recreational areas:* **The adjacent land is mixed use; therefore, the redevelopment plan is consistent with surrounding property.**
6. *Any written and oral comments submitted by members of the public on the proposed use as part of the activities performed pursuant to the citizen participation plan:* **No comments have been received from the public, either for or against the proposed commercial use of the property.**
7. *Environmental justice concerns, which include the extent to which the proposed use may reasonably be expected to cause or increase a disproportionate burden on the community in which the site is located, including low-income minority communities, or to result in a disproportionate concentration of commercial or industrial uses in what has historically been a mixed use or residential community:* Nearby and adjacent property is actively used in a mixed use residential, commercial and industrial capacity. **Use of the Site in a commercial capacity does not pose environmental justice issues.**
8. *Federal or State land use designations:* The property is currently vacant. **Reuse in a restricted capacity (commercial) is consistent with the future land use designation.**
9. *Population growth patterns and projections:* The City of Buffalo, encompassing 40.38 square miles, has a population of 261,310 (2010 US Census), a decrease of 10.7% from the 2000 US Census (population of 292,648). The Site is located within Census Tract 170, a mixed use area of the City of Buffalo. **Redevelopment of**

the vacant Site for commercial uses would provide positive opportunities for growth.

10. *Accessibility to existing infrastructure:* Access to the Site is from Fillmore Avenue. The Site has access to all major public and private utilities, including potable water, sanitary and storm sewers, electric, and natural gas. **Existing infrastructure supports reuse in commercial capacity.**
11. *Proximity of the site to important cultural resources, including federal or State historic or heritage sites or Native American religious sites*: **No such resources or sites are known to be present on or adjacent to the Site.**
12. *Natural resources, including proximity of the site to important federal, State, or local natural resources, including waterways, wildlife refuges, wetlands, or critical habitats of endangered or threatened species:* There are no State or Federal wetlands located on or near the Site. No regulated wetlands are located within a ½-mile radius of the Site. **According to the NYSDEC's Environmental Resource Mapper, there are no important plant habitats or endangered species on or near the Site.**
13. *Potential vulnerability of groundwater to contamination that might emanate from the site, including proximity to wellhead protection and groundwater recharge areas and other areas identified by the Department and the State's comprehensive groundwater remediation and protection program established set forth in ECL article 15 title 31:* Currently, there are no known deed restrictions on the use of groundwater at or groundwater supply wells on the Site. Municipal potable water service is provided to the Site and surrounding areas by Buffalo/Erie County Water. **Therefore, remediating the Site for use in a commercial capacity will not pose a drinking water threat.**
14. *Proximity to flood plains:* The Site is not located in or near a flood plain. **As such, remediating the Site for use in a commercial capacity does not pose a threat to surface water.**
15. *Geography and geology:* The Site is located within the Lake Erie-Niagara River major drainage basin, which is typified by little topographic relief, except in the immediate vicinity of major drainage ways. In the Erie-Niagara Basin, the major areas of groundwater are within coarser overburden deposits and limestone and shale bedrock. The overburden soils across the Site consist of fill material, and native lean clay or clay/sand soils**. Geography and geology are consistent with a commercial re-use.**
16. *Current institutional controls applicable to the site:* **No institutional controls are currently present that would affect redevelopment options.**

Based on the above analysis, commercial reuse of the Site is consistent with planned development and zoning on-site and within the vicinity of the Site, and does not pose additional environmental or public health risk.

7.6 Volume, Nature, and Extent of Contamination

Estimation of the volume, nature, and extent of media that may require remediation to satisfy the RAOs or that needs to be quantified to facilitate evaluation of remedial alternatives is presented in this section. For the unrestricted use scenario, the cleanup goal would involve achieving USCOs. For the reasonably anticipated future use scenario, the cleanup goal would involve achieving CSCOs and SSALs. The volume and extent of media requiring cleanup under these scenarios is presented in Sections 7.6.1 and 7.6.2. In all instances, these volume estimates (and associated cost estimates presented later in this AAR) are projected based on data collected and observations made during the Phase II and RI activities.

7.6.1 Comparison to Unrestricted SCOs (Track 1 Cleanup)

Exceedances of the USCOs were noted in various soil/fill samples collected across the Site, primarily for PAHs and metals . Due to the ubiquitous nature of the constituents observed in Site soil/fill and the extent to which they exceed the USCOs, the entire 17.15-acre property defines the Track 1 Cleanup area. The depth of fill material varies significantly across the Site with bedrock depths. Since fill material is present throughout overburden areas as deep as 24 fbgs and as shallow as 3 fbgs, a conservative depth of impacted fill material of 20 fbgs has been assumed as fill depths of greater than 15 fbgs were noted at most locations. Thus, the volume of impacted soil/fill requiring remediation under the unrestricted use scenario is approximately 553,375 cubic yards.

7.6.2 Comparison to Commercial SCOs (Track 4 Cleanup)

The soil/fill data indicates certain areas with exceedances of the Part 375 CSCOs for several ubiquitous constituents. Specifically, the TP-13 and SB-21 areas contain elevated concentrations of lead at characteristic hazardous levels, MW-6 area contains elevated concentrations of total lead and the TP-25/SS-13 area contains total PAH concentrations greater than 500 mg/kg.

7.7 Alternatives Evaluation

In addition to the evaluation of alternatives to remediate to the likely end use of the Site, NYSDEC regulation and policy calls for evaluation of less restrictive end-use scenarios,

such as an unrestricted use scenario (considered under 6NYCRR Part 375 to be representative of cleanup to pre-disposal conditions). Per NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, evaluation of a "no action/no further action" alternative is also required to provide a baseline for comparison against other alternatives. The alternatives evaluated below include:

- Alternative 1: No Further Action
- Alternative 2: Unrestricted Use (Track 1) Cleanup
- Alternative 3: Commercial Use (Track 4) Cleanup

7.7.1 Alternative 1 – No Further Action

Under this alternative, the Site would remain in its current state, with no remediation or controls in place.

Overall Protection of Public Health and the Environment – The Site is not protective of human health and the environment, due to the presence of contamination remaining on-site above SCGs; the absence of engineering controls (e.g., cover system); and the absence of institutional controls to prevent more restrictive forms of future site use (e.g., unrestricted, residential, and restricted residential) or the export of Site soils to uncontrolled off-site locations. Accordingly, no further action is not protective of public health and does not satisfy the RAOs.

Compliance with SCGs – Under the current and reasonably anticipated future use scenario (commercial), the contamination detected in on-site soil/fill and groundwater does not comply with applicable SCGs.

Long-Term Effectiveness and Permanence – The no further action alternative involves no remedial activities, equipment, institutional controls, or facilities subject to maintenance, and provides no long-term effectiveness or permanence toward achieving the RAOs.

Reduction of Toxicity, Mobility, or Volume of Contamination through Treatment – The no action alternative does not reduce the toxicity, mobility, or volume of

contamination beyond natural degradation/attenuation and, therefore, this alternative is not protective of public health and does not satisfy any of the RAOs.

Short-Term Impacts and Effectiveness – The contamination on-site does pose short-term risks to on-site workers and the environment. Therefore, implementation of the no further action alternative does not satisfy the RAOs.

Implementability – No technical or administrative implementability issues are associated with the no further action alternative.

Cost-Effectiveness – There would be no capital or long-term operation, maintenance, or monitoring costs associated with the no further action alternative.

Community Acceptance – Community acceptance will be evaluated based on comments received from the public in response to Fact Sheets and other planned citizen participation activities, including a public comment period for the RI/AA Report.

7.7.2 Alternative 2 – Unrestricted Use (Track 1) Cleanup

An unrestricted use alternative would necessitate remediation of all soil/fill where concentrations exceed the USCO per 6NYCRR Part 375. For unrestricted use scenarios, excavation and off-site disposal of impacted soil/fill is generally regarded as the most applicable remedial measure because engineering controls cannot be used to supplement the remedy. As such, the unrestricted use alternative assumes that those areas that exceed USCOs would be excavated and disposed at an off-site commercial solid waste landfill. Therefore, the entire 17.15-acre Site would need to be excavated to approximately 20 fbgs to achieve USCOs. The estimated total volume of impacted soil/fill that would be removed from the Site is approximately 553,375 cubic yards or 830,000 tons. Some of the material would require treatment to render non-hazardous prior to disposal or off-site disposal at a hazardous waste landfill.

Based on removal of all source areas, groundwater remediation and monitoring would not be necessary, as concentrations would be expected to decrease significantly. In addition, a restriction on groundwater use would be included as part of the remedial program per 6NYCRR Part 375. The use of groundwater as a source of potable or process

water, without necessary water quality treatment as determined by the NYSDOH or County DOH is restricted. An environmental easement is not required to achieve this restriction due to a requirement of the Buffalo Water Board Regulations (21 NYCRR § 10085.3) that "every dwelling, house or other building requiring the use of water must be supplied from the water mains of the water board…". As public water suppliers must also meet the requirements of 10 NYCRR Chapter I Subpart 5-2, no additional restrictions on potable use are necessary."

Overall Protection of Public Health and the Environment – Excavation and off-site disposal to USCOs would be protective of public health under any reuse scenario. However, this alternative would permanently use and displace approximately 553,375 cubic yards of valuable landfill airspace, causing ancillary environmental issues due to reduced landfill capacity, and require excavating, transporting, and placing over 553,375 cubic yards of clean soil from an off-site borrow source to backfill the excavation, also contributing to significant detrimental off-site environmental issues. The unrestricted use alternative would achieve the corresponding Part 375 SCOs, which are designed to be protective of public health under any reuse scenario.

Compliance with SCGs – The excavation and off-site disposal would need to be performed in accordance with applicable, relevant, and appropriate SCGs. Soil excavation activities would necessitate preparation of and adherence to a CAMP in accordance with Appendices 1A and 1B of DER-10.

Long-Term Effectiveness and Permanence – The unrestricted use alternative would achieve removal of all residual impacted soil/fill; therefore, no soil/fill exceeding the USCOs would remain on the Site. As such, the unrestricted use alternative would provide long-term effectiveness and permanence.

Reduction of Toxicity, Mobility, or Volume of Contamination through Treatment – Through removal of all impacted soil/fill, this alternative would permanently and significantly reduce the toxicity, mobility, and volume of contamination on the Site. However, since this alternative transfers Site soil/fill from one environment to another, an overall reduction of toxicity and volume would not occur, although mobility of soluble

constituents would be reduced in the commercial landfill with a liner, leachate collection, and a cover system.

Short-Term Impacts and Effectiveness – The principal advantage of a large-scale excavation to achieve USCOs is reliability of effectiveness in the long-term. In the short-term, adverse impacts and risks to the community, workers, and environment during implementation of this alternative are significant. Site workers would be at greater risk of injury due to the depth of the excavation and increased use of heavy equipment. There would be significant increase in exposure of impacted soil/fill to on-site workers and the community under this alternative. Excavation and backfill activities would take years to complete. Commercial construction equipment would be used, a health and safety plan would be followed, and community air monitoring would be completed during excavation activities. However, primary disadvantages include increased truck traffic during excavation and backfill; noise; and air emissions, including fugitive dust and odors. This action would result in potential storm water impacts at the borrow source(s) and on-site; diesel fuel consumption on the order of 377,300 gallons (assuming 80 miles round trip to a local landfill; 8 miles per gallon) to transport the 37,730 truckloads of impacted soil/fill, with several thousands of gallons also consumed by excavation and grading equipment. The USEPA's estimated CO_2 generation rate for diesel engines is approximately 22.2 pounds per gallon of diesel consumed. Accordingly, this alternative would produce over 8.3 million pounds of greenhouse gas. Therefore, this alternative represents a significant adverse effect in the short-term; however, the RAOs would be achieved once the soil/fill is removed from the Site and backfill soils are in place (est. 12-15 months).

Implementability – Excavation of impacted soil/fill to depths of 20 fbgs in fill material poses several technical implementability concerns. Sloughing of excavation walls could occur; shoring/stabilizing excavation sidewalls may be necessary. Groundwater and/or storm water handling, treatment, and/or discharge/disposal would be required. Given the high volume of soil/fill required for removal, a high volume of truck traffic would be needed to transport the impacted soil/fill off-site. Administrative implementability issues may include the need for rezoning of the area to allow for unrestricted uses, which are not consistent with current surrounding land use or the reasonably anticipated future use of the

Site; coordinating and securing disposal contracts with numerous permitted off-site landfills since no single location may be able to accept the volume of soil/fill generated under this alternative; and difficulty locating local borrow sources for such a large volume of backfill.

Cost-Effectiveness **–** The capital cost of implementing the unrestricted use alternative is estimated at $74.1 million. Table 13 provides a detailed breakdown of these costs.

Community Acceptance – Community acceptance will be evaluated based on comments received from the public in response to Fact Sheets and other planned citizen participation activities.

7.7.3 Alternative 3 – Commercial Use (Track 4) Cleanup

Under Alternative 3, the Site would be cleaned up to facilitate reasonably anticipated commercial or industrial use (see Figures 5A and 5B), including:

- In-situ stabilization of characteristic hazardous lead soil/fill in the TP-13 area;
- In-situ stabilization of characteristic hazardous lead soil/fill in SB-21 area. Based on the relatively high total lead concentration observed in SB-21, soil immediately surrounding sample location SB-21 will be stabilized in-situ, then excavated to meet the SSAL of 3,900 mg/kg and disposed off-site at a commercial landfill.
- Excavation of lead-impacted soil/fill within the MW-6 area to meet the SSAL of 3,900 mg/kg followed by off-site disposal at a commercial landfill.
- Excavation of PAH-impacted soil/fill within the TP-25/SS-13 area to the meet the SSAL of 500 mg/kg total PAHs followed by off-site disposal at a commercial sanitary landfill.
- Managing groundwater if encountered during remedial activities.
    - Engineering Controls:
        - Placing a cover system including building foundations, hardscape, or a minimum 12 inches of clean soil or gravel.
    - Institutional Controls:
        - Implementing an SMP including an Environmental Easement, Engineering Control/Institutional Control (EC/IC) Plan, Site Monitoring Plan, Excavation

Work Plan, Operation and Maintenance (O&M) Plan, Site use limitations, and groundwater use restrictions.

Benchmark-TurnKey is planning for in-situ stabilization of characteristically hazardous lead soil/fill in the TP-13 area to remove the hazardous characteristic based on the following:

- There is no soil/fill in the TP-13 area with total lead concentrations above the commercial SCO;
- The characteristically hazardous lead soil/fill is present at depths of ten fbgs or greater; at these depths, the treated soil/fill is not expected to be encountered during future site redevelopment activities, such as building foundation construction and/or utility installation;
- Based on groundwater results, there is no indication that lead is leaching into groundwater;
- Based on the soil treatability testing (which will be provided in the RAWP), the soil that failed TCLP in the TP-13 area was successfully treated/stabilized to non-detect or very low (i.e., less than 0.1 mg/L) concentrations; and,
- In-situ treatment with subsequent off-site disposal presents a significant cost implication (i.e. more than doubles the cost) that is unnecessary t based on the information above.

Regarding the SB-21 area, in-situ stabilization of characteristically hazardous lead soil/fill will be completed in the SB-21 area using the same procedure detailed above for the TP-13 area. Upon confirmed reduction of TCLP concentrations below 5 ug/L in the immediate vicinity of sample SB-21, based on the high lead concentration of 21,800 mg/kg detected in historic Phase II sample SB-21 (12'-16'), the area of sample SB-21 will be excavated to meet the total lead SSAL of 3,900 mg/kg.

Figures 5A and 5B show the Commercial- Track 4 remedy for the Site. The remedial measures will be described in a Remedial Action Work Plan (RAWP) and submitted to NYSDEC for approval.

Overall Protection of Public Health and the Environment – This alternative meets NYSDEC requirements for a Track 4 cleanup under the BCP regulations and is protective of public health and the environment. The RAOs for the Site would be satisfied through the planned remedial activities, including: treatment and/or removal and off-site

disposal of impacted soil/fill; installation of cover systems (soil and impervious) across the Site; and the use of EC/ICs to prevent potential future exposure and limit the future Site use to commercial.

Compliance with SCGs – The planned remedial activities will be performed in accordance with applicable, relevant, and appropriate SCGs including NYSDEC DER-10. The SMP will include an EC/IC Plan that describes the procedures for the implementation and management of all EC/ICs at the Site; a Site Monitoring Plan that describes the measures for evaluating the performance and effectiveness of the remedy to reduce or mitigate contamination at the site, including the soil cover system and all affected site media; an Excavation Work Plan to address any impacted soil/fill encountered during post-development intrusive and/or maintenance activities; an O&M Plan that describes the measures necessary to operate, monitor and maintain the mechanical components of the remedy selected for the Site; and a Site-wide inspection program to assure that the EC/ICs placed on the Site have not been altered and remain effective.

Long-Term Effectiveness and Permanence – Treatment and/or removal of impacted soil/fill as well as construction of a cover system will prevent direct contact with soil/fill exceeding CSCOs and SSALs. An SMP will address any impacted soil/fill encountered during future Site intrusive/ maintenance activities and provides a mechanism to assure that the EC/ICs placed on the Site have not been altered and remain effective. Furthermore, an Environmental Easement for the Site will be filed with Erie County, which will limit future Site use to commercial uses, restrict groundwater use, and reference the Department-approved SMP. As such, this alternative will provide long-term effectiveness and permanence.

Reduction of Toxicity, Mobility, or Volume of Contamination through Treatment – Treatment and/or removal of impacted soil/fill followed by placement of a cover system will permanently and significantly reduce the toxicity, mobility, and volume of the soil/fill that could potentially be contacted or produce localized areas of environmental impact at the Site. Accordingly, this alternative satisfies this criterion.

Short-Term Impacts and Effectiveness **–** During impacted soil/fill treatment and excavation, air monitoring would be performed to assure conformance with community air monitoring action levels. The potential for chemical exposures and physical injuries would be reduced through safe work practices; proper personal protection equipment; environmental monitoring; establishment of work zones and Site control; and appropriate decontamination procedures. Soil/fill remediation would be completed within an approximate 4-month period thereby limiting short-term adverse effects. Remedial activities will be performed in accordance with an approved Remedial Action Work Plan, including health and safety plan (HASP), CAMP, and soil erosion measures. All of the above-mentioned controls will be in place during cover system placement. This alternative achieves the RAOs for the Site.

Implementability **–** No significant technical or administrative implementability issues are associated with this alternative.

Cost **–** The remedial cost for implementation of Alternative 3 is estimated at approximately $3.99 Million. Table 14 provides a breakdown of the remedial costs.

Community Acceptance **–** Community acceptance will be evaluated based on comments received from the public in response to Fact Sheets and other planned citizen participation activities.

7.8 Comparison of Remedial Alternatives

The previous sections describe remedial alternatives for the 1827 Fillmore Avenue Site and evaluate these alternatives against the screening criteria. Table 15 provides a comparison of the alternatives by media to identify remedial measures that will achieve the RAOs for the Site.

7.9 Recommended Remedial Alternative

Based on the alternatives analysis evaluation, *Alternative 3 – Commercial Use (Track 4) Cleanup* is the recommended final remedial approach for the 1827 Fillmore Avenue Site. This alternative is fully protective of public health and the environment; significantly less

disruptive to the community; consistent with current and future land use; and represents a more cost-effective approach than Alternative 2 while fully satisfying the RAOs. The recommended remedial alternative would involve:

- In-situ stabilization of characteristic hazardous lead soil/fill in the TP-13 area;
- In-situ stabilization of characteristic hazardous lead soil/fill in SB-21 area. Based on the relatively high total lead concentration observed in SB-21, soil immediately surrounding sample location SB-21 will be stabilized in-situ, then excavated to meet the SSAL of 3,900 mg/kg and disposed off-site at a commercial landfill.
- Excavation of lead-impacted soil/fill within the MW-6 area to meet the SSAL of 3,900 mg/kg followed by off-site disposal at a commercial landfill.
- Excavation of PAH-impacted soil/fill within the TP-25/SS-13 area to the meet the SSAL of 500 mg/kg total PAHs followed by off-site disposal at a commercial sanitary landfill.
- Managing groundwater if encountered during remedial activities.
    - Engineering Controls:
        - Placing a cover system including building foundations, hardscape, or a minimum 12 inches of clean soil or gravel.
    - Institutional Controls:
        - Implementing an SMP including an Environmental Easement, Engineering Control/Institutional Control (EC/IC) Plan, Site Monitoring Plan, Excavation Work Plan, Operation and Maintenance (O&M) Plan, Site use limitations, and groundwater use restrictions.

This remedy is fully protective of public health and the environment; is advantageous over other remedies when evaluated against the remedy selection criteria; and fully satisfies the RAOs for the Site.

The components and details of the remaining tasks will be more fully described in an RAWP.

8.0 RI/AAR SUMMARY AND CONCLUSIONS

Based on the data and analyses presented in the preceding sections, we offer the following summary and conclusions:

Soil

The 17.15 acre Site is a portion of a greater former quarry that was backfilled with impacted fill materials from unknown sources. While fill materials with elevated PAHs and metals above CSCOs were identified across the Site, the more significant impacted fill is present in four distinct "hot spots," identified as the TP-13 Lead Area, the SB-21 Lead Area, the MW-6 Lead area, and the TP-25/SS-13 PAH area.

Groundwater

No significant overburden or bedrock groundwater impacts were identified.

Selected Remedy

Based on the alternatives analysis evaluation, *Alternative 3 – Commercial Use (Track 4) Cleanup* is the recommended final remedial approach for the Site. Alternative 3 includes, but is not limited to, in-situ stabilization and limited excavation of characteristic hazardous lead, excavation and off-site disposal of PAH-impacted fill and placement of a cover system. This remedy is fully protective of public health and the environment; is advantageous over other remedies when evaluated against the remedy selection criteria; and fully satisfies the RAOs for the Site. The components and details of the remaining tasks will be more fully described in the RAWP.

9.0 REFERENCES

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5. Stohl Environmental, LLC. *Visual Survey and Bulk Sampling of Suspect Materials/Debris, Kensington Heights Complex*. September 2011.

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7. United States Environmental Protection Agency Compliance Order, Index No. CAA-02-2011-1021, September 6, 2011.

8. Buffalo Municipal Housing Authority. *Work Plan for Compliance with EPA Order CAA-02-2011-1021 – Kensington Heights, Buffalo, New York*. February 2012.

9. Stohl Environmental, LLC. *Brownfield Cleanup Program Application, Kensington Heights Apartments, Buffalo, New York*. May 2013.

10. MS Analytical. Subsurface *Soil Investigation, Kensington Heights, 1827 Fillmore Avenue, Buffalo, New York*. August 2013.

11. Stohl Environmental, LLC. EPA Compliance Summary Report for Asbestos Abatement*, Kensington Heights Complex – 1827 N. Fillmore Avenue, Buffalo, New York.* October 2014.

12. Stohl Environmental, LLC. *Brownfield Cleanup Program Application, Kensington Heights Towers, Buffalo, New York*. December 2014.

13. Benchmark-TurnKey. *Phase I Environmental Site Assessment Report, 1827 Fillmore Avenue Site, Buffalo, New York*. June 2017.

14. Benchmark-TurnKey. *Remedial Investigation Work Plan, 1827 Fillmore Avenue Site, Buffalo, New York*. November 2017.

15. Benchmark-TurnKey. *Supplemental RI Work Plan, 1827 Fillmore Avenue Site, Buffalo, New York*. February 13, 2018.

16. Benchmark-TurnKey. *Supplemental RI Work Plan for Bedrock Drilling Activities, 1827 Fillmore Avenue Site, Buffalo, New York*. June 18, 2018.

TABLES

TABLE 1

RI ANALYTICAL TESTING PROGRAM SUMMARY (Soil/Fill)

Remedial Investigation
1827 Fillmore Avenue Site
Buffalo, New York

Sample Identifier	Data Source	Depth to (fbgs)			Depth Sampled (fbgs)	Analysis														Date (Sampled or Advanced)	Comments
		Depth to Refusal (fbgs)	GW (fbgs)	TD		TCL + CP-51 VOCs	TCL SVOCs	SVOCs PAHs only	TAL Metals (Total)	T. Arsenic	TCL PCBs	Pesticides	Herbicides	Asbestos	TCLP VOCs	TCLP Lead	TCLP Chormium	Ignitability	Reactivity	Corrosivity		
Remedial Investigation Subsurface Soil/Fill (Soil Borings)																					
MW-1 (4.0 - 5.4)	Remedial Investigation	5.4	no	5.4	(4.0 - 5.4)		x		x												11/27/2017	
MW-2 (2.0 - 4.0)	Remedial Investigation	14.0	no	14.0	(2.0 - 4.0)		x		x		x	x	x			x					11/21/2017	Re-submitted for TCLP lead during Supplemental RI in Feb 2018
MW-3 (6.0 - 8.0)	Remedial Investigation	15.6	no	15.6	(6.0 - 8.0)	x	x		x			x	x								11/21/2017	
MW-3 (0.5 - 2.0)	Remedial Investigation	15.6	no	15.6	(0.5 - 2.0)	x															11/21/2017	
MW-4 (12.0 - 14.0)	Remedial Investigation	15.6	14.0	15.6	(12.0 - 14.0)		x		x							x					11/22/2017	Re-submitted for TCLP lead during Supplemental RI in Feb 2018
MW-5 (6.0 - 8.0)	Remedial Investigation	15.0	14.0	15.0	(6.0 - 8.0)		x		x		x	x	x								11/20/2017	
MW-6 (8.0 - 10.0)	Remedial Investigation	17.6	14.0	17.6	(8.0 - 10.0)		x		x												11/21/2017	
MW-7 (2.0 - 4.0)	Remedial Investigation	24.3	18.0	24.3	(2.0 - 4.0)		x		x		x	x	x								11/22/2017	
MW-7 (10.0 - 12.0)	Remedial Investigation	24.3	18.0	24.3	(10.0 - 12.0)	x															11/27/2017	
MW-8 (14.0 - 16.0)	Remedial Investigation	20.0	14.0	20.0	(14.0 - 16.0)	x	x		x		x										11/20/2017	
Remedial Investigation Subsurface Soil/Fill (Test Pits)																					
TP-1 (4.0 - 6.0)	Remedial Investigation	9.5	no	9.5	(4.0 - 6.0)		x		x		x	x	x			x					11/28/2017	Re-submitted for TCLP lead during Supplemental RI in Feb 2018
TP-2 (6.0 - 8.0)	Remedial Investigation	9.5	no	9.5	(6.0 - 8.0)		x		x												11/28/2017	
TP-3 (10.0 - 14.5)	Remedial Investigation	14.5	14.0	14.5	(10.0 - 14.5)	x	x		x												11/28/2017	
TP-4 (1.0 - 3.0)	Remedial Investigation	12.0	no	12.0	(1.0 - 3.0)		x		x		x	x	x								11/28/2017	
TP-5 (6.0 - 8.0)	Remedial Investigation	14.5	no	14.5	(6.0 - 8.0)		x		x												11/28/2017	
TP-6 (10.0 - 11.5)	Remedial Investigation	3.0 East Side/11.5 West Side	no	11.5	(10.0 - 11.5)	x	x		x		x	x	x								11/28/2017	MS/MSD (SVOCs & Metals)
TP-7 (8.0 - 10.0)	Remedial Investigation	no	no	15.5	(8.0 - 10.0)		x		x												11/28/2017	
TP- 8 (6.0 - 9.0)	Remedial Investigation	no	no	15.0	(6.0 - 9.0)	x	x		x							x					11/29/2017	MS/MSD (VOCs), VOC & SVOC TICs.
TP-9 (10.0 - 12.0)	Remedial Investigation	no	no	15.0	(10.0 - 12.0)	x	x		x							x					11/29/2017	VOC & SVOC TICs
TP-10 (0.0 - 4.0)	Remedial Investigation	4.0	no	4.0	(0.0 - 4.0)	x	x		x		x	x	x			x	x				11/29/2017	BD# 2 (VOCs), BD# 3 (SVOCs & Metals)
TP-11 (5.0 - 8.0)	Remedial Investigation	no	no	15.0	(5.0 - 8.0)	x	x		x		x	x	x								11/29/2017	
TP-12 (10.0 - 12.0)	Remedial Investigation	no	no	15.0	(10.0 - 12.0)		x		x												11/29/2017	
TP-13 (10-15)	Remedial Investigation	no	no	15.0	(10.0 - 15.0)		x		x							x					12/4/2017	ms/msd (svoc and metals)
TP-14 (10.0 - 15.0)	Remedial Investigation	12.0 west end/ 15.0 east (no)	no	15.0	(10.0 - 15.0)		x		x							x					11/29/2017	Re-submitted for TCLP lead during Supplemental RI in Feb 2018
TP-15 (8.0 - 10.0)	Remedial Investigation	5.0 west end/ 15.0 east (no)	no	15.0	(8.0 - 10.0)		x		x												11/29/2017	
TP-16 (8-10)	Remedial Investigation	no	no	15.5	(8.0 - 10.0)		x		x		x	x	x								12/4/2017	
TP-17 (2.5-4.0)	Remedial Investigation	4.0	no	4.0	(2.5 - 4.0)		x		x												12/4/2017	
TP-18 (5.0 - 9.0)	Remedial Investigation	no	no	15.0	(5.0 - 9.0)		x		x												12/4/2017	BD #4 (SVOCs and metals)
TP-19 (3.0 - 6.0)	Remedial Investigation	no	no	15.0	(3.0 - 6.0)		x		x												12/1/2017	
TP-20 (5.0 -10.0)	Remedial Investigation	no	no	15.0	(5.0 - 10.0)		x		x												12/1/2017	
TP-21 (8.0 - 10.0)	Remedial Investigation	no	no	16.0	(8.0-10.0)		x		x												12/4/2017	
TP-22 (9.0 - 12.0)	Remedial Investigation	no	no	15.0	(9.0 - 12.0)		x		x												12/4/2017	
TP-23 (13.0 - 15.5)	Remedial Investigation	no	no	15.5	(13.0 - 15.5)	x	x		x		x	x	x								12/4/2017	
TP-24 (10.0 - 15.0)	Remedial Investigation	no	no	16.0	(10.0 - 15.0)		x		x		x	x	x								12/4/2017	
TP-24 (10.0 - 12.0)	Remedial Investigation	no	no	16.0	(10.0 - 12.0)	x															12/4/2017	
TP-25 (0.0 - 2.0)	Remedial Investigation	no	no	16.0	(0.0 - 2.0)		x		x		x	x	x								12/1/2017	
TP-26 (12.0 - 15.0)	Remedial Investigation	no	14.0	16.0	(12.0 - 15.0)		x		x							x					12/1/2017	Re-submitted for TCLP lead during Supplemental RI in Feb 2018
TP-27 (7.0 - 9.0)	Remedial Investigation	no	no	15.0	(7.0 - 9.0)	x	x		x							x					12/4/2017	Re-submitted for TCLP lead during Supplemental RI in Feb 2018
TP-28 (2.0 - 4.0)	Remedial Investigation	no	no	15.0	(2.0 - 4.0)	x	x		x												12/1/2017	
TP-29 (5.0 - 8.0)	Remedial Investigation	no	no	15.0	(5.0 - 8.0)		x		x		x	x	x								12/1/2017	
TP-30 (10.0 - 15.0)	Remedial Investigation	no	no	15.0	(10.0 - 15.0)		x		x												12/1/2017	
Remedial Investigation Surface Soil/Fill																					
SS-1	Remedial Investigation	no	no	2-inch	(0 - 2")		x		x												11/28/2017	SVOC TICs
SS-2	Remedial Investigation	no	no	2-inch	(0 - 2")		x		x		x	x	x								11/28/2017	
SS-3	Remedial Investigation	no	no	2-inch	(0 - 2")		x		x												11/28/2017	
SS-4	Remedial Investigation	no	no	2-inch	(0 - 2")		x		x												11/28/2017	
SS-5	Remedial Investigation	no	no	2-inch	(0 - 2")		x		x												11/28/2017	
SS-6	Remedial Investigation	no	no	2-inch	(0 - 2")		x		x												11/28/2017	
SS-7	Remedial Investigation	no	no	2-inch	(0 - 2")		x		x		x	x	x								11/28/2017	ms/msd, SVOC TICs
SS-8	Remedial Investigation	no	no	2-inch	(0 - 2")		x		x		x	x	x								11/28/2017	
SS-9	Remedial Investigation	no	no	2-inch	(0 - 2")		x		x												11/28/2017	
SS-10	Remedial Investigation	no	no	2-inch	(0 - 2")		x		x												11/28/2017	SVOC TICs
SS-11	Remedial Investigation	no	no	2-inch	(0 - 2")		x		x												11/28/2017	
SS-12	Remedial Investigation	no	no	2-inch	(0 - 2")		x		x		x	x	x								11/28/2017	BD#1, SVOC TICs
SS-13	Remedial Investigation	no	no	2-inch	(0 - 2")		x		x		x	x	x								11/28/2017	
SS-14	Remedial Investigation	no	no	2-inch	(0 - 2")		x		x												11/28/2017	
SS-15	Remedial Investigation	no	no	2-inch	(0 - 2")		x		x												11/28/2017	
Remedial Investigation Stockpile Soil/Fill																					
P-1	Remedial Investigation	no	no	14.0	(0.0 - 10.0)									x								
P-2	Remedial Investigation	no	no	12.5	(0.0 - 10.0)									x								
P-3	Remedial Investigation	no	no	15.0	(0.0 10.0)									x								
P-4	Remedial Investigation	no	no	5.0	(0.0 - 5.0)									x								
Supplemental Remedial Investigation soil/fill																					
TP-13R (8.0 - 10.0)	Supplemental RI	no	no	17.0	(8.0 - 10.0)											x					2/20/2018	
TP-13R (10.0 - 15.0)					(10.0 - 15.0)											x					2/20/2018	
TP-13R (15.0 - 17.0)					(15.0 - 17.0)											x					2/20/2018	
TP-13-1 (10.0 - 15.0)	Supplemental RI	no	no	15.0	(10.0 - 15.0)											x					2/20/2018	
TP-13-2 (10.0 - 15.0)	Supplemental RI	no	no	16.0	(10.0 - 15.0)											x					2/20/2018	
TP-13-3 (10.0 - 15.0)	Supplemental RI	no	no	16.0	(10.0 - 15.0)											x					2/20/2018	
TP-13-4 (11.5-15.0)	Supplemental RI	no	no	15.0	(11.5 - 15.0)											x					2/20/2018	
TP-13-5 (10.0 - 15.0)	Supplemental RI	no	no	15.0	(10.0 - 15.0)											x					2/20/2018	
TP-13-6 (10.0 - 15.0)	Supplemental RI	no	no	15.0	(10.0 - 15.0)																2/20/2018	
TP-13-7 (10.0 - 15.0)	Supplemental RI	no	no	15.0	(10.0 - 15.0)																2/20/2018	
TP-13-8 (10.0 - 15.0)	Supplemental RI	no	no	16.0	(10.0 - 15.0)																2/20/2018	
SB-21R (10.0 - 12.0)	Supplemental RI	no	no	18.0	(10.0 - 12.0)											x					2/20/2018	
SB-21R (12.0 - 16.0)					(12.0 - 16.0)											x					2/20/2018	
SB-21R (16.0 - 18.0)					(16.0 - 18.0)											x					2/20/2018	
SB-21-1 (10.0 - 16.0)	Supplemental RI	no	no	16.0	(10.0 - 16.0)											x					2/20/2018	
SB-21-2 (11.0 - 16.0)	Supplemental RI	no	no	16.0	(11.0 - 16.0)											x					2/20/2018	
SB-21-3 (12.0 - 16.0)	Supplemental RI	no	no	16.0	(12.0 - 16.0)											x					2/20/2018	
SB-21-4 (12.0 - 16.0)	Supplemental RI	no	15.5	16.0	(12.0 - 16.0)											x					2/20/2018	
SB-21-5 (11.0 - 16.0)	Supplemental RI	no	no	17.0	(11.0 - 16.0)																	
SB-21-6 (11.0 - 16.0)	Supplemental RI	no	no	16.0	(11.0 - 16.0)																	
SB-21-7 (12.0 - 16.0)	Supplemental RI	no	no	16.0	(12.0 - 16.0)											x					2/21/2018	
SB-21-8 (12.0 - 16.0)	Supplemental RI	no	15.0	16.0	(12.0 - 16.0)											x					2/21/2018	
SB-41R (6.0 - 8.0)	Supplemental RI	no	no	13.0	(6.0 - 8.0)					x											2/21/2018	
SB-41R (8.0 - 11.0)					(8.0 - 11.0)					x											2/21/2018	
SB-41R (11.0 - 13.0)					(11.0 - 13.0)					x											2/21/2018	
SB-41-1 (8.0 - 11.0)	Supplemental RI	no	no	11.0	(8.0 - 11.0)					x											2/21/2018	
SB-41-2 (8.0 - 11.0)	Supplemental RI	no	no	11.0	(8.0 - 11.0)					x											2/21/2018	
SB-41-3 (8.0 - 11.0)	Supplemental RI	no	no	11.0	(8.0 - 11.0)					x											2/21/2018	
SB-41-4 (8.0 - 11.0)	Supplemental RI	no	no	11.0	(8.0 - 11.0)					x											2/21/2018	
SB-41-5 (8.0 - 11.0)	Supplemental RI	no	no	11.0	(8.0 - 11.0)																	
SB-41-6 (8.0 - 11.0)	Supplemental RI	no	no	11.0	(8.0 - 11.0)																	
SB-41-7 (8.0 - 11.0)	Supplemental RI	no	no	11.0	(8.0 - 11.0)																	
SB-41-8 (8.0 - 11.0)	Supplemental RI	no	no	11.0	(8.0 - 11.0)																	
TP-25R (2.0 - 4.0)	Supplemental RI	no	no	4.0	(2.0 - 4.0)			x													2/22/2018	
TP-25-1 (0.0 - 2.0)	Supplemental RI	no	no	4.0	(0.0 - 2.0)			x													2/22/2018	
TP-25-1 (2.0 - 4.0)					(2.0 - 4.0)																2/22/2018	
TP-25-2 (0.0 - 4.0)	Supplemental RI	no	no	7.5	(0.0 - 4.0)			x													2/22/2018	
TP-25-2 (4.0 - 6.0)					(4.0 - 6.0)																2/22/2018	
TP-25-3 (0.0 - 1.5)	Supplemental RI	no	no	4.5	(0.0 - 1.5)			x													2/22/2018	
TP-25-3 (1.5 - 4.5)					(1.5 - 4.5)																2/22/2018	
TP-25-4 (0.0 - 2.0)	Supplemental RI	no	no	15.5	(0.0 - 2.0)			x													2/22/2018	
TP-25-4 (2.0 - 4.0)					(2.0 - 4.0)																2/22/2018	
SS-13R (0.2 - 2.0)	Supplemental RI	no	no	15.5	(0.2 - 2.0)			x													2/22/2018	
SS-13-1 (0.0 - 2.0)	Supplemental RI	no	no	4.0	(0.0 - 2.0)			x													2/22/2018	
SS-13-1 (2.0 - 4.0)					(2.0 - 4.0)																2/22/2018	
SS-13-2 (0.0 - 2.0)	Supplemental RI	no	no	5.0	(0.0 - 2.0)			x													2/22/2018	
SS-13-2 (2.0 - 4.0)					(2.0 - 4.0)																2/22/2018	
SS-13-3 (0.0 - 2.0)	Supplemental RI	no	no	12.0	(0.0 - 2.0)			x													2/22/2018	
SS-13-3 (2.0 - 4.0)					(2.0 - 4.0)																2/22/2018	
SS-13-4 (0.0 - 2.0)	Supplemental RI	no	no	5.0	(0.0 - 2.0)			x													2/22/2018	
SS-13-4 (2.0 - 4.0)					(2.0 - 4.0)																	
Monitoring Well Totals:				*NA*	*NA*	*4*	*8*	*0*	*8*	*0*	*4*	*4*	*4*	*0*	*0*	*2*	*0*	*0*	*0*	*0*		
Test Pit Totals:				*NA*	*NA*	*10*	*30*	*0*	*30*	*0*	*10*	*10*	*10*	*4*	*0*	*8*	*1*	*0*	*0*	*0*		
Surface Soils:				*NA*	*NA*	*0*	*14*	*0*	*14*	*0*	*5*	*5*	*5*	*0*	*0*	*0*	*0*	*0*	*0*	*0*		
Supplemental Remedial Investigation:				*NA*	*NA*	*0*	*0*	*10*	*0*	*7*	*0*	*0*	*0*	*0*	*0*	*17*	*0*	*0*	*0*	*0*		
BCP Site Totals:				*NA*	*NA*	**14**	**62**		**59**		**19**	**19**	**19**	**4**	**0**	**27**	**1**	**0**	**0**	**0**		
BCP Site MS/MSD Coverage:				*NA*	*NA*	**1**	**3**		**3**		**1**	**1**	**1**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**		
BCP Site BD Coverage:				*NA*	*NA*	**1**	**3**		**3**		**1**	**1**	**1**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**		

TABLE 1 Continued

RI ANALYTICAL TESTING PROGRAM SUMMARY (Groundwater)

Remedial Investigation
1827 Fillmore Avenue Site
Buffalo, New York

Sample Identifier	Data Source	Depth to (fbgs)				Depth Sampled/ Screened (fbgs)	Analysis										Sampled (less QA/QC)	Date (Sampled or Advanced)
		OB/BR	Native	GW	TD		TCL + CP-51 method 8260 VOCs	TCL VOCs	TCL SVOCs	TAL Metals (Total)	TAL Metals (Diss.)	TCL PCBs	Pesticides	Herbicides	PFAS A - 537	1,4, - Dioxane		
Monitoring Wells (Round 1)																		
MW-1	Remedial Investigation	BR	no	9.45	11.87	--	x		x		x							7/11/2018
MW-2	Remedial Investigation	BR	no	24.75	29.25	--	x		x		x							7/10/2018
MW-3	Remedial Investigation	BR	no	21.15	27.77	--	x		x		x							7/10/2018
MW-4	Remedial Investigation	no	no	DRY	15.60	(5.6-15.6)												
MW-5	Remedial Investigation	OB	no	17.1	18.30	(5.0-15.0)	x		x		x	x	x	x				12/7/2017
MW-6	Remedial Investigation	OB	no	20.3	18.80	(7.6-17.6)	x		x		x	x	x	x			ms/msd	12/7/2017
MW-7	Remedial Investigation	OB	no	26.8	25.24	(14.3-24.3)	x		x		x	x	x	x	x	x	BD ms/msd	12/7/2017
MW-8	Remedial Investigation	OB	no	18.6	18.30	(10.0-20.0)	x		x		x	x	x	x	x	x	BD	12/7/2017
Blind Dup #1	Remedial Investigation	--	no															
Trip Blank	Remedial Investigation	--	no			na	x											
Equipment Blank	Remedial Investigation	--	no			na									x			
						Groundwater Totals:	*7*	*0*	*7*	*0*	*7*	*4*	*4*	*4*	*2*	*2*	*3*	
						MS/MSD:	*1*	*0*	*1*	*0*	*1*	*1*	*1*	*1*	*1*	*1*	*NA*	
						Blind Duplicates:	*1*	*0*	*1*	*0*	*1*	*1*	*1*	*1*	*1*	*1*	*NA*	
						Equipment Blanks:	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*NA*	
						Trip Blanks:	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*NA*	

TABLE 2

MONITORING WELL CONSTRUCTION DETAILS

1827 FILLMORE AVENUE SITE
BUFFALO, NEW YORK

Well Identification			Well Elevations				Well Diameter (inches)	Well Screen Data					
Well Number	Well Type	Date Completed	TOR Elevation (fmsl)	Ground Elevation (fmsl)	Total Depth (fbTOR)	Bottom of Well Elevation (fmsl)		Length of Well Screen (feet)	Screen Interval (fmsl)			Screen Interval (fbTOR)	
MW-1	BR	07/06/2018	--	--	11.87	--	2	7.5	-- to --			4.37 to 11.87	
MW-2	BR	07/06/2018	--	--	29.95	--	2	10	-- to --			19.95 to 29.95	
MW-3	BR	07/05/2018	--	--	27.77	--	2	8.8	-- to --			18.97 to 27.77	
MW-4	OB	11/23/2017	503.92	501.27	15.60	488.32	2	10	498.32 to 488.32			5.60 to 15.60	
MW-5	OB	11/20/2017	500.88	497.84	18.30	482.58	2	10	492.58 to 482.58			8.30 to 18.30	
MW-6	OB	11/21/2017	501.09	498.41	20.28	480.81	2	10	490.81 to 480.81			10.28 to 20.28	
MW-7	OB	11/27/2017	508.01	505.59	26.83	481.18	2	10	491.18 to 481.18			16.83 to 26.83	
MW-8	OB	11/20/2017	506.62	504.23	22.53	484.09	2	10	494.09 to 484.09			12.53 to 22.53	

Abbreviations:

DTW = depth to water
fbgs = feet below ground surface
fbTOR = feet below top of riser
BR = Bedrock
fmsl = feet above mean sea level
OB = Indicates a well completed in shallow unconsolidated overburden
TOR = top of riser
-- = Not surveyed at this time

TABLE 3

SUMMARY OF GROUNDWATER ELEVATIONS

1827 FILLMORE AVENUE SITE
BUFFALO, NEW YORK

Location	Well type	Date	Grade	TOR Elevation [1] (ft)	DTP (if present) (fbTOR)	DTW (fbTOR)	Product Thickness (feet)	Groundwater Elevation [2] (ft)
MW-1	BR	7/10/2018	--	--	NP	9.45	NP	--
MW-2	BR	7/10/2018	--	--	NP	24.75	NP	--
MW-3	BR	7/11/2018	--	--	NP	21.10	NP	--
MW-4	OB	12/7/2017	501.27	503.92	NP	dry	NP	dry
MW-5	OB	12/7/2017	497.84	500.88	NP	17.11	NP	483.77
MW-6	OB	12/7/2017	498.41	501.09	NP	18.80	NP	482.29
MW-7	OB	12/7/2017	505.59	508.01	NP	25.24	NP	482.77
MW-8	OB	12/7/2017	504.23	506.62	NP	18.61	NP	488.01

Notes:

1. Overburden Wells surveyed on December 13, 2017.
2. All elevations are feet relative to NAVD 88.

TOR = Top of riser
DTP = Depth to product
DTW = Depth to water
fb = feet below
OB = Indicates a well completed in shallow unconsolidated overburden
BR = Bedrock

TABLE 4
SUMMARY OF SURFACE SOIL/FILL ANALYTICAL DATA
(RI AND HISTORIC PHASE II)

1827 FILLMORE SITE
BUFFALO, NEW YORK

Parameter [1]	Unrestricted SCOs[2] (ppm)	Commerical SCOs[2] (ppm)	SS-1	SS-2	SS-3	SS-4	SS-5	SS-6	SS-7	SS-8	SS-9	SS-10	SS-11	SS-12	SS-13	SS-13R (2-24")	SS-13-1 (0-2')	SS-13-2 (0-2')	SS-13-3 (0-2')	SS-13-4 (0-2')	SS-14	SS-15
Semi-Volatile Organic Compounds (SVOCs) - mg/kg [3]																						
2-Methylnaphthalene	--	--	ND	ND	ND	0.67 J	ND	ND	ND	ND	0.85 J	ND	ND	ND	2.6 J	NA	NA	NA	NA	NA	ND	ND
Acenaphthene	20	500	ND	2.2	4.8 J	4.4	ND	1.3 J	1.6 J	0.47 J	8.1	0.8 J	1.7 J	0.22 J	16.0	ND	ND	0.35 J	ND	ND	ND	0.27 J
Acenaphthylene	100	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.65 J	ND	ND	0.15 J	ND	ND	ND	ND
Anthracene	100	500	ND	4.1	11.0	9.4	ND	3.9	3.1 J	1.2 J	22.0	1.9 J	4.5	0.46 J	41.0	ND	ND	1.3	ND	0.58 J	1.5 J	0.55 J
Benzo(a)anthracene	1	5.6	**1.4 J**	**6.0**	**21.0**	**18.0**	**1.2 J**	**8.3**	**6.9**	**3.6**	**37.0**	**4.9**	**11.0**	0.83 J	**66.0**	0.38 J	0.40 J	**2.6**	0.69 J	1	**6.1**	1.0 J
Benzo(a)pyrene	1	1	**1.2 J**	**4.8**	**17.0**	**15.0**	1.0 J	**7.7**	**6.2**	**3.4**	**32.0**	**4.5**	**9.3**	0.69 J	**51.0**	0.27 J	0.32 J	**1.9**	0.48 J	0.74 J	**5.8**	0.84 J
Benzo(b)fluoranthene	1	5.6	**1.8**	**6.1**	**20.0**	**19.0**	**1.4 J**	**10.0**	**8.1**	**4.4**	**39.0**	**5.6**	**12.0**	0.95 J	**63.0**	0.31 J	0.38 J	**2.1**	0.61 J	0.85 J	**8.3**	**1.10 J**
Benzo(g,h,i)perylene	100	500	0.99 J	3.0	10.0	9.0	0.76 J	4.6	3.7 J	2.1 J	17.0	2.8	5.3	0.44 J	30.0	0.39 J	0.31 J	1.3	0.47 J	0.46 J	4.1 J	0.48 J
Benzo(k)fluoranthene	0.8	56	**0.98 J**	**3.6**	**12.0**	**8.6**	0.64 J	**4.0**	**4.4**	**2.5**	**21.0**	**3.6**	**5.5**	0.38 J	**32.0**	0.29 J	0.19 J	**1.1**	0.24 J	0.42 J	**3.5 J**	0.49 J
Biphenyl	--	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.94 J	NA	NA	NA	NA	NA	ND	ND
Bis(2-ethylhexyl) phthalate	--	--	ND	0.7 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	ND	ND
Carbazole	--	--	ND	2.1	5.7 J	4.6	ND	1.7 J	1.5 J	0.76 J	9.1	0.91 J	1.9 J	0.21 J	18.0	NA	NA	NA	NA	NA	1.1 J	0.27 J
Chrysene	1	56	**1.5 J**	**5.8**	**19.0**	**15.0**	**1.1 J**	**7.7**	**6.8**	**4.0**	**32.0**	**5.1**	**9.6**	0.77 J	**54.0**	ND	0.26 J	**2.4**	ND	0.91 J	**6.4**	0.96 J
Dibenzo(a,h)anthracene	0.33	0.56	ND	**0.89 J**	ND	**2.8**	ND	**1.2 J**	**1.1 J**	ND	**5.4**	ND	**1.7 J**	ND	ND	ND	ND	**0.4 J**	ND	ND	ND	ND
Dibenzofuran	--	--	ND	1.3 J	2.4 J	2.2	ND	0.69 J	0.73 J	ND	4.4	0.35 J	0.85 J	ND	10.0	NA	NA	NA	NA	NA	ND	ND
Fluoranthene	100	500	2.9	16.0	49.0	40.0	2.4	20.0	16.0	9.0	84.0	12.0	25.0	1.9	**160 D**	0.56 J	0.80 J	5.6	1.1 J	2.1	15.0	2.4
Fluorene	30	500	ND	2.1	4.6 J	4.3	ND	1.5 J	1.6 J	0.46 J	8.8	0.73 J	1.8 J	0.21 J	20.0	ND	ND	0.5 J	ND	0.25 J	0.57 J	0.26 J
Indeno(1,2,3-cd)pyrene	0.5	5.6	**0.83 J**	**2.8**	**9.5**	**8.5**	**0.67 J**	**4.4**	**3.2 J**	**1.7 J**	**17.0**	**2.6**	**5.1**	0.39 J	**30.0**	0.37 J	0.27 J	**1.1**	ND	0.44 J	**3.5 J**	0.45 J
Naphthalene	12	500	ND	0.53 J	1.8 J	1.5 J	ND	0.4 J	ND	ND	1.7 J	ND	ND	ND	5.4	ND	ND	0.17 J	ND	ND	ND	ND
Phenanthrene	100	500	1.4 J	15.0	41.0	33.0	1.5 J	14.0	12.0	6.2	67.0	7.8	17.0	1.7	**140 D**	0.29 J	0.52 J	5.7	0.89 J	2.4	8.5	2.2
Pyrene	100	500	2.2	12.0	37.0	31.0	1.9	16.0	13.0	7.4	67.0	9.1	19.0	1.5	**110**	ND	0.50 J	5.1	0.58 J	1.4	12.0	1.9
Tentatively Identified Compounds (TICs)	--	--	ND	NA	NA	NA	NA	NA	4.0 J N	ND	NA	3.4 J N	NA	2.1 J N	NA	NA	NA	NA	NA	NA	NA	NA
Total SVOCs			15.2	89.02	265.8	227.0	12.57	107.39	89.93	47.19	473.35	62.69	131.25	10.65	850.59	NA	NA	NA	NA	NA	76.37	13.17
Total PAHs			15.2	85.62	257.7	219.5	12.57	105.0	87.7	46.43	459.0	53.18	128.5	10.44	**818.40**	2.86	3.95	31.77	5.06	11.55	75.27	12.9
Metals - mg/kg																						
Aluminum	--	--	4030	10800	7150	10500	12000	9520	15600	14300	7590	11800	7240	15100	9590	NA	NA	NA	NA	NA	5940	14500
Antimony	--	--	ND	1.5 J	ND	0.74 J	1.4 J	0.56 J	0.76 J	ND	ND	ND	0.77 J	ND	1.4 J	NA	NA	NA	NA	NA	0.56 J	0.61 J
Arsenic	13	16	3.5	8.8	2.8	4.6	5.8	4.9	5.6	4.9	2.6	5.2	3.8	7.6	5.8	NA	NA	NA	NA	NA	5.2	4.9
Barium	350	400	45.4	127	131	194	115	115	166 J	110	98.6	95.5	77.5	92.0	78.4	NA	NA	NA	NA	NA	51.2	86.0
Beryllium	7.2	590	0.32	0.51	0.33	0.49	0.55	0.52	1.1 J-	0.57	0.43	0.55	0.35	0.62	0.53	NA	NA	NA	NA	NA	0.34	0.59
Cadmium	2.5	9.3	0.28	0.60	0.34	0.50	0.37	0.49	0.56	0.58	0.59	1.6	0.44	0.28	0.25	NA	NA	NA	NA	NA	0.45	0.32
Calcium	--	--	118000 B	29300 B	105000 B	50800 B	37400 B	54200 B	51400 J-	7190 B	137000 B	41300 B	69700 B	10000 B	48600 B	NA	NA	NA	NA	NA	21200 B	6050 B
Chromium [4]	30	1500	7.9	26.6	11.5	17.8	20.9	17.3	21.8	25.2	11.2	23.6	12.4	21.1	15.6	NA	NA	NA	NA	NA	12.1	20.1
Cobalt	--	--	2.8	7.2	3.9	6.1	6.4	4.6	6.0	6.5	3.2	8.8	3.3	7.2	4.2	NA	NA	NA	NA	NA	4.2	6.5
Copper	50	270	15.5	**81.2**	13.1	42.0	**80.0**	**124**	49.2	30.7	17.0	35.1	34.6	19.4	45.0	NA	NA	NA	NA	NA	31.4	19.0
Iron	--	--	8280	45200	9460	23200	20300	15800	17400	19800	9320	16000	14900	18200	18100	NA	NA	NA	NA	NA	14700	17700
Lead	63	1000	43.8	**124**	36.6	**109**	**128**	**115**	**188 J**	**67.3**	27.1	**158**	**74.0**	48.0	**91.9**	NA	NA	NA	NA	NA	62.0	38.2
Magnesium	--	--	6410	8570	23800	16500	9450	14700	10600	2870	39300	8950	7800	5250	8000	NA	NA	NA	NA	NA	5030	3560
Manganese	1600	10000	199	700	248	493	380	386	930 J-	371	308	467	646	438	838	NA	NA	NA	NA	NA	367	277
Nickel	30	310	10.8	21.3	10.5	16.9	21.9	18.0	18.2	19.8	8.6	19.9	10.8	20.4	14.2	NA	NA	NA	NA	NA	12.8	20.6
Potassium	--	--	950	2160	1760	2420	2800	2110	3400	2420	1670	2540	1420	2550	1610	NA	NA	NA	NA	NA	1070	1980
Selenium	3.9	1500	ND	0.86 J	ND	0.88 J	0.76 J	ND	0.57 J	0.78 J	ND	ND	ND	0.80 J	0.52 J	NA	NA	NA	NA	NA	0.61 J	ND
Sodium	--	--	168	150 J	222	253	148 J	187	322	90.6 J	278	145 J	220	105 J	299	NA	NA	NA	NA	NA	87.5 J	78.9 J
Vanadium	--	--	12.6	36.4	16.8	21.9	27.2	19.9	28.7	30.4	16.3	27.0	15.4	29.1	21.2	NA	NA	NA	NA	NA	15.6	28.9
Zinc	109	10000	68.4	**269**	**153**	28.5	**433**	**154**	**166 J-**	**127**	105	**179**	**674**	94.9	**125**	NA	NA	NA	NA	NA	**180**	90.5
Mercury	0.18	2.8	0.036	0.12	0.091	0.073	0.10	0.075	0.10	0.10	0.15	**0.24**	0.092	0.098	**0.61**	NA	NA	NA	NA	NA	0.098	0.088
Organochlorine Pesticides - mg/kg [3]																						
4,4'-DDD	0.0033	92	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	NA	ND	**0.012 J**	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	0.0033	62	NA	ND	NA	NA	NA	NA	ND	**0.044**	NA	NA	NA	**0.0053 J**	ND	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	0.0033	47	NA	**0.033 J**	NA	NA	NA	NA	**0.042 J**	**0.047**	NA	NA	NA	**0.012**	**0.043**	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	0.02	3.4	NA	ND	NA	NA	NA	NA	**0.027 J B**	0.0067 J B	NA	NA	NA	ND	0.011 J B	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	0.094	24	NA	ND	NA	NA	NA	NA	ND	0.016 J	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA
delta-BHC	0.04	500	NA	0.012 J B	NA	NA	NA	NA	ND	0.0070 J B	NA	NA	NA	ND	0.014 J B	NA	NA	NA	NA	NA	NA	NA
Endrin	0.014	89	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	NA	ND	0.0095 J	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	--	--	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	NA	ND	0.02 J	NA	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	0.1	9.2	NA	0.015 J	NA	NA	NA	NA	0.037 J	0.011 J	NA	NA	NA	ND	0.054	NA	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	--	--	NA	ND	NA	NA	NA	NA	ND	0.013 J	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	--	--	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	NA	0.012	0.35	NA	NA	NA	NA	NA	NA	NA
Herbicides [1] - mg/kg																						
Total Herbicides			NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA
PCBs [1] - mg/kg																						
Total PCBs			NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA

Notes:

1. Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.
2. Values per NYSDEC Part 375 Soil Cleanup Objectives (SCOs).
3. Sample results were reported by the laboratory in micrograms per kilogram (ug/kg) and converted to milligram per kilogram (mg/kg) for comparison to SCOs.
4. SCOs provided for trivalent chromium

Definitions:

mg/kg = milligrams per kilogram

ND = Parameter not detected above laboratory detection limit

NA = Sample not analyzed for parameter.

"--" = No SCO available, or parameter not tested for.

B = Compound was found in the blank and sample.

J = Estimated value; result is less than the sample quantitation limit but greater than zero

J- = The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.

DL = All compounds were identified in an analysis at the secondary dilution factor.

Delineation sample taken during supplemental RI in February 2018

Exceeds USCO

Exceeds Commercial SCO

TABLE 5
SUMMARY OF SUBSURFACE SOIL/FILL ANALYTICAL DATA
REMEDIAL INVESTIGATION TEST PITS

1827 FILLMORE AVENUE SITE
BUFFALO, NEW YORK

Parameter [1]	Unrestricted SCOs[2] (ppm)	Commerical SCOs[2] (ppm)	TP-1 (4'-6')	TP-2 (6'-8')	TP-3 (10'-14.5')	TP-4 (1'-3')	TP-5 (6'-8')	TP-6 (10'-11.5')	TP-7 (8'-10')	TP-8 (6-9')	TP-9 (10-12')	TP-10 (0'-4')	TP-11 (5'-8')	TP-12 (10'-12')	TP-13 (10'-15')	TP-14 (10'-15')	TP-15 (8'-10')	TP-16 (8'-10')	TP-17 (2.5'-4')	TP-18 (5'-9')	TP-19 (3'-6')	TP-20 (5'-10')	TP-21 (8'-10')	TP-22 (9'-12')	TP-23 (13'-15.5')	TP-24 (10'-12')	TP-24 (10'-15')	TP-25 (0'-2')	TP-25R (2-4')	TP-25-1 (0-2')	TP-25-2 (0-4')	TP-25-3 (0-1.5')	TP-25-4 (0-2')	TP-26 (12'-15')	TP-27 (7'-9')	TP-28 (2'-4')	TP-29 (5'-8')	TP-30 (10'-15')
Volatile Organic Compounds (VOCs) - mg/kg [3]																																							
4-Isopropyltoulene	--	--	NA	NA	ND	NA	NA	ND	NA	ND	0.058	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA
Acetone	0.05	500	NA	NA	0.01 J	NA	NA	ND	NA	0.013 J	0.0078 J	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.025 J	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA
Carbon disulfide	--	--	NA	NA	ND	NA	NA	ND	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	ND	0.0033 J	NA	NA
Dichlorodifluoromethane	--	--	NA	NA	ND	NA	NA	ND	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	ND	0.0006 J	NA	NA
Methylene chloride[4]	0.05	500	NA	NA	ND	NA	NA	ND	NA	ND	0.0034 J	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA
Tentatively Identified Compounds (TICs)	--	--	NA	NA	NA	NA	NA	ND	NA	ND	0.3936 J N	0.013 J N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.65 J N	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total VOCs			NA	NA	0.010	NA	NA	ND	NA	0.013	0.0692	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.025	ND	NA	NA	NA	NA	NA	NA	NA	NA	0.0039	NA	NA
Semi-Volatile Organic Compounds (SVOCs) - mg/kg [3]																																						
2-Methylnaphthalene	--	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	0.15 J	6.0	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND
4-Methylphenol	--	--	ND	ND	ND	ND	ND	ND	ND	0.83 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND
Acenaphthene	20	500	ND	0.038 J	ND	ND	ND	ND	0.54 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.51 J	ND	ND	0.74 J	ND	ND	ND	ND	NA	ND	**29.0**	ND	3.8	7.1	4.9	ND	ND	ND	ND	ND
Acenaphthylene	100	500	ND	ND	ND	ND	ND	ND	ND	0.92 J	ND	0.56 J	ND	ND	ND	ND	ND	ND	0.30 J	ND	ND	ND	ND	ND	ND	NA	ND	0.66 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	100	500	ND	0.071 J	ND	ND	ND	ND	1.4 J	2.1 J	ND	ND	ND	ND	ND	ND	ND	ND	0.88 J	ND	ND	1.5 J	ND	ND	ND	NA	0.051 J	57.0	0.39 J	12	24	15	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	1	5.6	0.47 J	0.23	**1.4 J**	0.13 J	**3.7 J**	ND	**2.5**	**4.2 J**	0.60 J	**2.6 J**	0.49 J	0.53 J	ND	0.29 J	0.16 J	ND	**2.6**	ND	0.038 J	**2.4**	0.029 J	0.33 J	**2.1 J**	NA	0.18 J	**65.0**	1	**19**	**41**	**21**	ND	0.025 J	ND	0.094 J	ND	0.021 J
Benzo(a)pyrene	1	1	ND	0.22	**1.5 J**	0.12 J	**4.4**	ND	**2.3**	**4.2 J**	0.61 J	**2.5 J**	0.56 J	0.51 J	0.45 J F2	0.41 J	0.24 J	0.052 J	**2.1**	ND	0.049 J	**2.2**	0.051 J	0.55 J	**2.2 J**	NA	0.25	**50.0**	0.86 J	**14**	**31**	**14**	ND	0.048 J	0.27 J	0.14 J	ND	0.040 J
Benzo(b)fluoranthene	1	5.6	ND	0.32	**1.8 J**	0.15 J	**6.1**	0.033 J	**3.0**	**6.1 J**	0.73 J	**3.5 J**	0.77 J	0.70 J	0.53 J F2 F1	0.56 J	0.37 J	0.094 J	**2.7**	ND	0.076 J	**2.6**	0.078 J	ND	**3.3 J**	NA	0.43	**60.0**	1	**17**	**35**	**18**	0.43 J	0.078 J	ND	0.25	ND	0.060 J
Benzo(g,h,i)perylene	100	500	ND	0.17 J	1.4 J	0.09 J	3.1 J	ND	1.2 J	2.9 J	0.32 J	1.7 J	0.31 J	0.29 J	0.45 J F2	0.28 J	0.14 J	0.042 J	1.2	ND	0.031 J	1.2 J	0.040 J	ND	1.1 J	NA	0.31	26.0	0.62 J	8.8	20	8.5	0.45 J	0.045 J	ND	0.18	ND	ND
Benzo(k)fluoranthene	0.8	56	ND	0.12 J	**1.1 J**	0.10 J	**2.0 J**	ND	**1.1 J**	**2.4 J**	0.25 J	**1.6 J**	0.36 J	ND	ND	0.19 J	ND	ND	**1.1**	ND	ND	**1.3 J**	0.029 J	ND	ND	NA	0.14 J	**32.0**	0.40 J	**7.2**	**20**	**8**	ND	ND	ND	0.085 J	ND	ND
Biphenyl	--	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	0.79 J	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
Carbazole	--	--	ND	0.043 J	ND	ND	ND	ND	0.65 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.29 J	ND	ND	ND	0.72 J	ND	ND	NA	0.036 J	25.0	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
Chrysene	1	56	ND	0.27	**1.6 J**	0.13 J	**4.2**	ND	**2.3**	**6.2 J**	0.52 J	**2.9 J**	0.47 J	0.47 J	0.40 J F2 F1	0.33 J	ND	0.059 J	**2.6**	ND	0.041 J	**2.3**	0.078 J	ND	**2.7 J**	NA	0.26	**56.0**	**1.1**	**18**	**38**	**20**	ND	ND	ND	0.13 J	ND	ND
Dibenzo(a,h)anthracene	0.33	0.56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	**9.7**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	--	--	ND	ND	ND	ND	ND	ND	0.37 J	0.66 J	ND	ND	ND	ND	ND	ND	ND	ND	0.15 J	ND	ND	0.66 J	ND	ND	ND	NA	0.064 J	26.0	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND
Fluoranthene	100	500	0.81 J	0.59	2.5 J	0.28	7.8	ND	5.9	14 J	1.2	4.9	0.93 J	1.3	0.35 J F2 F1	0.47 J	0.33 J	0.010 J	5.3	0.23 J	0.060 J	6.1	0.092 J	0.70 J	5.5	NA	0.32	**160 D**	2.2	43	94 DL	46	0.71 J	0.026 J	0.54 J	0.15 J	ND	0.028 J
Fluorene	30	500	ND	0.03 J	ND	ND	ND	ND	0.64 J	1.7 J	ND	ND	ND	ND	ND	ND	ND	ND	0.33 J	ND	ND	0.87 J	ND	ND	0.68 J	NA	ND	**34.0**	ND	4.8	8.7	6.3	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.5	5.6	ND	0.15 J	**1.0 J**	0.078 J	**2.9 J**	ND	**1.3 J**	**2.8 J**	0.37 J	**1.8 J**	0.35 J	0.35 J	0.25 J F2	0.33 J	0.20 J	0.037 J	**1.1**	ND	0.040 J	**1.3 J**	0.035 J	ND	**1.1 J**	NA	0.25	**27.0**	**0.58 J**	**8.1**	**19**	**8.5 J**	0.43 J	0.054 J	ND	0.15 J	ND	0.036 J
Naphthalene	12	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.45 J	0.026 J	ND	ND	NA	0.12 J	9.2	0.20 J	1.1 J	2.4	2.1	ND	ND	ND	ND	ND	ND
Phenanthrene	100	500	ND	0.39	1.3 J	0.16 J	4.1	ND	5.0	6.2 J	0.73 J	2.2 J	0.16 J	1.0 J	ND	0.25 J	0.23 J	ND	3.1	ND	0.048 J	6.2	0.10 J	ND	4.2 J	NA	0.34	**190 D**	2.6	42	88 DL	47	ND	ND	ND	0.085 J	0.035 J	ND
Pyrene	100	500	0.66 J	0.48	2.0 J	0.22 J	6.0	ND	4.3	11 J	1.0 J	4.1 J	0.59 J	0.97 J	0.34 J F2 F1	0.40 J	ND	0.089 J	4.8	0.21 J	0.063 J	4.7	0.077 J	0.67 J	5.2	NA	0.32	**130**	2.1	32	66	35	ND	ND	0.47 J	0.14 J	ND	0.026 J
Tentatively Identified Compounds (TICs)			NA	NA	NA	NA	NA	NA	NA	121.3 J N	4.97 J N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	32.9 J N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total SVOCs			*1.94 J*	*3.122 J*	*15.6 J*	*1.46 J*	*44.3 J*	*0.033 J*	*32.5 J*	*66.21 J*	*6.33 J*	*28.36 J*	*4.99 J*	*6.12 J*	*2.77 J*	*3.51 J*	*1.67 J*	*0.383 J*	*29.06 J*	*0.44 J*	*0.446 J*	*35.24 J*	*0.635 J*	*2.25 J*	*28.08 J*	NA	*3.221 J*	*993.35 J*	*0.276 J*	*1.28 J*	*1.404 J*	*0.035 J*	*0.211 J*
Total PAHs			*1.94 J*	*3.079 J*	*13.1 J*	*1.46 J*	*44.3 J*	*0.033 J*	*31.48 J*	*64.72 J*	*6.33 J*	*28.36 J*	*4.99 J*	*6.12 J*	*2.77 J*	*3.51 J*	*1.67 J*	*0.383 J*	*26.17 J*	*0.44 J*	*0.446 J*	*33.86 J*	*0.635 J*	*2.25 J*	*28.08 J*	NA	*2.971 J*	***935.56 J***	*13.05 J*	*230.8*	*494.2*	*254.3 J*	*2.02 J*	*0.276 J*	*1.28 J*	*1.404 J*	*0.035 J*	*0.211 J*
Metals - mg/kg																																						
Aluminum	--	--	12300	7610	12900	5370	8200	3480 J	7720	6760	5820	7590	8190 J	12000	10800 J	7240	4630	8800	17300	4900	7780	6800	4500	10600	7560	NA	11600	7060	NA	NA	NA	NA	NA	7830	6790	11700	4250	6160
Antimony	--	--	ND	ND	0.73 J	0.54 J	0.55 J	0.55 J	ND	0.68 J	ND	3.0 J	ND	1.5 J	2.5 J	1.0 J	ND	0.94 J	5.5 J	5.3 J	0.46 J F1	ND	0.76 J	1.2 J	1.5 J	NA	0.66 J	1.1 J	NA	NA	NA	NA	NA	ND	1.1 J	0.95 J	ND	0.55 J
Arsenic	13	16	5.0	3.1	**13.6**	9.5	10.3	3.0	4.6	**14.8**	8.0	**17.2**	4.7	**21.0**	**15.7**	4.5	5.6	**14.8**	5.5	3.0	3.5	5.5	3.6	7.0	**13.6**	NA	6.5	1.9 J	NA	NA	NA	NA	NA	8.0	4.3	5.1	2.8	12.1
Barium	350	400	94.5	31.2	102	76.2	85.8	17.0	59.6	155	**430**	166	72.3 J	196	286	69.8	54.7	115	321	41.2	70.1 F1	329	27.7	91.3	153	NA	51.5	71.7	NA	NA	NA	NA	NA	64.9	260	67.4	18.2	67.4
Beryllium	7.2	590	0.58	0.37	0.77	0.66	0.47	0.17 J	0.33	0.68	0.43	0.69	0.33	0.73	1.3 J-	0.39	0.22	0.88	1.5	0.24	0.39	0.32	0.24	0.56	2	NA	0.44	0.33	NA	NA	NA	NA	NA	0.77	0.79	0.46	0.17 J	0.59
Cadmium	2.5	9.3	0.4	0.20 J	0.60	0.21 J	0.57	0.050 J	0.33	0.35	0.69	1.4	0.16 J	0.49	0.57	**4.1**	0.089 J	0.17 J	ND	0.20 J	0.11 J	0.52	0.031 J	0.33	0.36	NA	0.051 J	0.33	NA	NA	NA	NA	NA	0.077 J	0.32	ND	0.038 J	0.63
Calcium	--	--	19300	9460 B	22800 B	3120 B	35200 B	2450 J	20300 B	3470 B	16900 B	20000 B	6000 J	3190 B	16500 J	4180 B	5950 B	2860 B	51900 B	61800 J	16900 J	16400 B	2310 B	30400 B	4200 B	NA	14200 B	120000 B	NA	NA	NA	NA	NA	3050 B	10100 B	15500 B	3490 B	2170 B
Chromium	30	1500	15.7	15.8	27.6	10.6	**33.5**	8.1	12.9	14.6	18.7	**1300 J**	11.8	20.1	21.9	16.4	13.3	13.9	25.8	8.2	12.9	10.9	9.4	15.4	15.3	NA	15.7	11.7	NA	NA	NA	NA	NA	15.8	22.9	18.3	5.6	10.8
Cobalt	--	--	5.5	3.5	29.1	6.6	5.9	1.8	3.3	11.8	4.4	11.6	3.5	15.5	12.2	3.9	3.6	8.9	3.3	3.2	2.5	3.4	2.7	6.6	11.3	NA	4.4	2.9	NA	NA	NA	NA	NA	12.8	5.6	4.9	1.6	6.0
Copper	50	270	42.2	8.2	**54.8**	28.9	**68.1**	6.0	19.0	**682**	29.2	**190 J**	29.0 F1	**53.1**	**127 J**	38.3	42.4	37.0	44.9	19.3	16.5 J	20.7	3.2	**62.6**	**52.2**	NA	19.0	14.7	NA	NA	NA	NA	NA	**53.4**	**56.2**	43.8	4.0	37.3
Iron	--	--	14700	8530	28100 B	8030 B	17000 B	7060 F1 B	15500 B	17800	11700	20500 J	14600 F2	26100	23500	24100	22200	7640	79400	7410	11600 J	13300	8580	14200	13100	NA	23000	8710	NA	NA	NA	NA	NA	21500	9030	43700	5850	8410
Lead	63	1000	**153**	12.2	**156**	**91.7**	**335**	16.0	41.2	**442**	**476**	**344**	23.7	**332**	**584 J**	**113**	34.5	33.9	30.8	**120**	19.1	19.7	8.3	**195**	**165**	NA	19.1	49.5	NA	NA	NA	NA	NA	**105**	**210**	26.8	4.7	47.3
Magnesium	--	--	6700	1660	6350	583	6570	1160 F2 F1	3720	521	1830	4310	1770	573	5950 J	1270	1140	431	2480	10400 J	1350	1880	1050	9010	563	NA	1970	31400	NA	NA	NA	NA	NA	518	3870	902	1110	261
Manganese	1600	10000	589	309	**2120 B**	85.5	906	189	541 B	259 B	165 B	286 B	549 B	186 B	278 B	775 B	565 B	83.3 B	**5300 B**	247 B	1150 J	545 B	207 B	241 B	120 B	NA	735 B	276 B	NA	NA	NA	NA	NA	155 B	92.4 B	**1690 B**	85.6 B	71.9 B
Nickel	30	310	13.5	13.2	25.3	17.5	17.5	4.6 J	11.2	22.0	15.3	**189 J**	9.6	29.9	26.4	14.6	8.5	22.2	9.3 J	9.4	6.8	8.4	5.7	17.4	25.7	NA	16.8	8.0	NA	NA	NA	NA	NA	25.4	15.3	22.0	4.6 J	17.1
Potassium	--	--	1640	1350	1900	465	1530	543	1370	1230 B	1480 B	1140 B	1400 J	3020 B	1940 J	1300 B	908 B	896	3380	1370	1210	1070	968	2480	825	NA	1530	1700	NA	NA	NA	NA	NA	949	1110	1350	802	1040
Selenium	3.9	1500	0.89 J	0.53 J	1.8 J	0.67 J	0.71 J	0.50 J	ND	0.74 J	0.48 J	1.30 J	ND	**6.7**	1.9 J	ND	ND	ND	1.1 J	ND	0.72 J	ND	ND	0.48 J	2.6 J	NA	0.68 J	ND	NA	NA	NA	NA	NA	ND	ND	1.2 J	0.67 J	1.0 J
Silver	2	1500	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.56 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND
Sodium	--	--	230 J	169	483	215	147 J	68.4 J	177	299 B	189 B	249 B	113 J B	566 B	4110 J	155 B	92.8 J B	308	914	198	195	139 J	74.4 J	212 J	414	NA	157	280	NA	NA	NA	NA	NA	274	203	170	91.1 J	556
Thallium	--	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND
Vanadium	--	--	25.0	16.4	48	24.6	23.7	9.8	17.6	48.4	18.4	28.1	18.9	62	42.0	15.3	14.7	31.7	46.4	14.4	20.2	16.5	9.9	24.3	25.5	NA	21.3	13.9	NA	NA	NA	NA	NA	26.5	18.9	24.9	9.0	35.6
Zinc	109	10000	**172**	30.3	**238**	85.6	**174**	22.9	68.9	**199**	**278**	**222**	58.6	**312**	**357 J**	**137**	97.1	45.2	38.2	54.9	48.9 F1	**201**	19.9	**201**	**226**	NA	35.8	**133**	NA	NA	NA	NA	NA	**110**	**184**	64.2	15.9	96.5
Mercury	0.18	2.8	**0.19**	0.068	**0.27**	**0.33**	**0.50**	ND	0.05	**3.0**	**0.20**	0.17 J	0.024	**0.32**	0.12	0.11	0.042	0.017 J	0.030	**0.23**	0.018 J	0.072	ND	**0.89**	0.12	NA	0.032	0.11	NA	NA	NA	NA	NA	0.074	**0.24**	0.10	ND	0.048
Organochlorine Pesticides [1] - mg/kg [3]																																						
4,4'-DDD	0.0033	92	ND	NA	NA	ND	NA	ND	NA	NA	NA	ND	ND	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	ND	**0.036 J**	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
4,4'-DDE	0.0033	62	ND	NA	NA	0.00084 J+	NA	ND	NA	NA	NA	ND	ND	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
4,4'-DDT	0.0033	47	**0.014 J**	NA	NA	0.00140 J+	NA	ND	NA	NA	NA	ND	ND	NA	NA	NA	NA	0.00064 J+	NA	NA	NA	NA	NA	NA	**0.00570 J**	NA	0.0012 J *	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
alpha-BHC	0.02	3.4	ND	NA	NA	ND	NA	ND	NA	NA	NA	ND	ND	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
beta-BHC	0.036	3	ND	NA	NA	ND	NA	ND	NA	NA	NA	ND	ND	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
delta-BHC	0.04	500	ND	NA	NA	ND	NA	ND	NA	NA	NA	ND	ND	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
Endosulfan sulfate	2.4	200	ND	NA	NA	ND	NA	ND	NA	NA	NA	ND	0.0019 NJ	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
gamma-BHC (Lindane)	0.1	9.2	0.011 J	NA	NA	ND	NA	0.00063 J+	NA	NA	NA	ND	ND	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
Methoxychlor	--	--	ND	NA	NA	ND	NA	0.00150 J+	NA	NA	NA	ND	ND	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
Herbicides [1] - mg/kg																																						
Total Herbicides			ND	NA	NA	ND	NA	ND	NA	NA	NA	ND	ND	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
PCBs [1] - mg/kg																																						
Total PCBs			ND	NA	NA	ND	NA	ND	NA	NA	NA	ND	ND	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA

Notes:
1. Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.
2. Values per NYSDEC Part 375 Soil Cleanup Objectives (SCOs).
3. Sample results were reported by the laboratory in micograms per kilogram (ug/kg) and converted to milligram per kilogram (mg/kg) for comparison to SCOs.
4. Sample results were diluted due to exceedence in calibration range

Definitions:
mg/kg = milligrams per kilogram.
ND = Parameter not detected above laboratory detection limit.
-- = Sample not analyzed for parameter.
DL = Indicates a dilution
J = Estimated value; result is less than the sample quantitation limit but greater than zero .
J+ = The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.
J- = The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.

Delineation sample taken during supplemental RI in February 2018

Exceeds Unrestricted SCOs

Exceeds Commercial SCOs

TABLE 6
SUMMARY OF SUBSURFACE SOIL/FILL ANALYTICAL DATA
REMEDIAL INVESTIGATION SOIL BORINGS

1827 FILLMORE AVENUE SITE
BUFFALO, NEW YORK

Parameter [1]	Unrestricted SCOs[2] (ppm)	Commerical SCOs[2] (ppm)	MW-1 (4'-5.4')	MW- 2 (2'-4')	MW-3 (0.5'-2')	MW-3 (6'-8')	MW-4 (12'-14')	MW-5 (6'-8')	MW-6 (8'-10')	MW-7 (2'-4')	MW-7 (10'-12')	MW-8 (14'-16')
Volatile Organic Compounds (VOCs) - mg/kg [3]												
4-Isopropyltoluene	--	--	NA	ND	ND	NA	NA	NA	NA	NA	ND	0.40 J+
Cyclohexane	--	--	NA	ND	ND	NA	NA	NA	NA	NA	ND	0.26 J+
Methylene chloride[5]	0.05	500	NA	ND	ND	NA	NA	NA	NA	NA	ND	0.31 J-
Toluene	0.7	500	NA	ND	ND	NA	NA	NA	NA	NA	ND	0.28 J
Tentatively Identified Compounds (TICs)	--	--	NA	ND	NA	NA	NA	NA	NA	NA	ND	37.0 J
Total VOCs			NA	ND	ND	NA	NA	NA	NA	NA	ND	1.25
Semi-Volatile Organic Compounds [1] (SVOCs) - mg/kg [3]												
Acenaphthene	20	500	ND	ND	NA	ND	ND	ND	1.5 J	ND	NA	ND
Acenaphthylene	100	500	ND	ND	NA	ND	ND	ND	2.1 J	ND	NA	ND
Anthracene	100	500	ND	ND	NA	ND	ND	ND	6.6	ND	NA	ND
Benzo(a)anthracene	1	5.6	ND	0.79 J	NA	0.43 J	0.038 J	4.9	15	0.26 J	NA	ND
Benzo(a)pyrene	1	1	ND	1.1 J	NA	0.64 J	0.054 J	8.1	14	0.36 J	NA	ND
Benzo(b)fluoranthene	1	5.6	ND	1.5 J	NA	ND	0.074 J	12	19	0.53 J	NA	ND
Benzo(g,h,i)perylene	100	500	ND	0.68 J	NA	ND	0.037 J	7.4	9.1	0.21 J	NA	ND
Benzo(k)fluoranthene	0.8	56	ND	ND	NA	ND	0.027 J	5.7	10	0.16 J	NA	ND
Carbazole	--	--	ND	ND	NA	ND	ND	ND	1.6 J	ND	NA	ND
Chrysene	1	56	ND	ND	NA	ND	ND	6.9	19	0.28 J	NA	ND
Dibenzo(a,h)anthracene	0.33	0.56	ND	ND	NA	ND	ND	ND	2.8 J	ND	NA	ND
Fluoranthene	100	500	ND	1.2 J	NA	0.43 J	0.052 J	5.8	42	0.40 J	NA	ND
Fluorene	30	500	ND	ND	NA	ND	ND	ND	3.4 J	ND	NA	ND
Indeno(1,2,3-cd)pyrene	0.5	5.6	ND	0.92 J	NA	0.63 J	0.047 J	6.0	8.7	0.27 J	NA	ND
Phenanthrene	100	500	ND	0.60 J	NA	ND	ND	1.4 J	26	ND	NA	ND
Pyrene	100	500	ND	1.0 J	NA	0.46 J	0.046 J	5.3	33	ND	NA	ND
Tentatively Identified Compounds (TICs)	--	--	ND	NA	NA	NA	NA	NA	NA	0.43 J	NA	13.0 J N
Total SVOCs			ND	7.79	NA	2.59	0.38	63.50	214.9	2.47	NA	NA
Total PAHs			ND	7.79	NA	2.59	0.38	63.50	212.2	2.5	NA	ND
Metals - mg/kg												
Aluminum	--	--	8270 J	9430	NA	5420	5940	5170	5570	5240 J	NA	14000
Antimony	--	--	1.2 J	ND	NA	ND	ND	ND	9.2 J	1.3 J	NA	ND
Arsenic	13	16	8.2 B	11.5	NA	7.8	9.4	5.7	8.7	8.6	NA	32.1
Barium	350	400	209	147	NA	48.0	88.8	108	217	110 J	NA	407
Beryllium	7.2	590	0.35	0.061	NA	0.32	0.69	0.30	0.29	1.0	NA	0.69
Cadmium	2.5	9.3	0.60	0.48	NA	0.12 J	0.096 J B	0.34	0.54	0.13 J	NA	3.5
Calcium	--	--	92200 B	57000 B	NA	51200 B	4150 B	2940 B	35600 B	13400 B	NA	41300 B
Chromium[4]	30	1500	27.9 J-	13.7 B	NA	9.8 B	10	87.4 B	20 B	13.2 J	NA	24.8 B
Cobalt	--	--	5.9	5.9	NA	3.8	5.5	4.7	2.6	10.1	NA	7.7
Copper	50	270	36.5	90.9	NA	55.3	32.5	90.2	94.1 B	33.9 J	NA	88.8
Iron	--	--	17700	11800 B	NA	22200 B	15000	44400 B	11100 B	25300	NA	50700 B
Lead	63	1000	148	283	NA	44.5	125	67.8	8400	39.7 J	NA	785
Magnesium	--	--	12000	5080 B	NA	3670 B	844	1310 B	4170 B	3990	NA	3410 B
Manganese	1600	10000	298 J-	276 B	NA	273 B	114 B	392 B	158 B	333 B	NA	2100 B
Nickel	30	310	18.6	15.2	NA	11.3	12.9	52.2	9.1	16.4	NA	17.3
Potassium	--	--	2120 J	1880	NA	1010	789	867	1130	1100 J	NA	2010
Selenium	3.9	1500	ND	ND	NA	ND	1.5 J B	ND	ND	1.300 J B	NA	6.7
Silver	2	1500	ND	ND	NA	ND	ND	0.48 J	0.43 J	ND	NA	2.6
Sodium	--	--	322	474	NA	184	197	110 J	314	131 J B	NA	716
Vanadium	--	--	23.0	24.2	NA	14.3	22.6	12.8	14.5	14.7	NA	31.3
Zinc	109	10000	174 J-	198	NA	189	82.2	101	268	45.0	NA	1190
Mercury	0.18	2.8	0.28	0.11	NA	0.012 J	0.081	0.29	0.11	0.050	NA	0.48
Organochlorine Pesticides [1] - mg/kg [3]												
4,4'-DDT	0.0033	47	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA
alpha-BHC	0.02	3.4	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA
beta-BHC	0.036	3	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA
gamma-BHC (Lindane)	0.1	9.2	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA
Herbicides [1] - mg/kg												
Total Herbicides			NA	ND	NA	ND	NA	ND	NA	ND	NA	NA
PCBs [1] - mg/kg												
Total PCBs			NA	ND	NA	NA	NA	ND	NA	ND	NA	ND

Notes:
1. Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.
2. Values per NYSDEC Part 375 Soil Cleanup Objectives (SCOs).
3. Sample results were reported by the laboratory in micograms per kilogram (ug/kg) and converted to milligram per kilogram (mg/kg) for comparison to SCOs.
4. SCOs provided for trivalent chromium
5. Sample results were diluted due to exceedence in calibration range

Definitions:
mg/kg = milligrams per kilogram.
ND = Parameter not detected above laboratory detection limit.
NA = Sample not analyzed for parameter.
-- = No SCOs Standards.
J = Estimated value; result is less than the sample quantitation limit but greater than zero .

Exceeds USCOs
Exceeds Commercial SCOs

TABLE 7

SUMMARY OF TCLP LEAD AND TCLP CHROMIUM ANALYTICAL RESULTS
REMEDIAL INVESTIGATION

1827 FILLMORE AVENUE SITE
BUFFALO, NEW YORK

PARAMETER	Characteristic Hazardous Waste Threshold[1] (mg/L)	MW-2 (2-4')	MW-4 (12-14')	MW-6 (8-10')	TP-1 (4-6')	TP-8 (6-9')	TP-9 (10-12')	TP-10 (0-4')	TP-13 (10-15')	TP-13R (8-10')	TP-13R (10-15')	TP-13R (15-17')	TP-13-1 (10-15')	TP-13-2 (10-15')	TP-13-3 (10-15')
		11/21/2017	11/22/2017	11/21/2017	11/28/2017	11/29/2017	11/29/2017	11/29/2017	12/4/2017	2/20/2018	2/20/2018	2/20/2018	2/20/2018	2/20/2018	2/20/2018
TCLP Lead - mg/L															
Lead	**5**	0.045	0.29	0.057	0.0059 J	0.62	0.25	--	**12.4**	0.13	2.1	**12.7**	**8**	0.016	0.36
TCLP Chromium - mg/L															
Chromium	**5**	--	--	--	--	--	--	ND	--	--	--	--	--	--	--

PARAMETER	Characteristic Hazardous Waste Threshold[1] (mg/L)	TP-13-4 (11.5-15')	TP-13-5 (10-15')	TP-14 (10-15')	TP-26 (12-15')	TP-27 (7-9')	SB-21R (10-12')	SB-21R (12-16')	SB-21R (16-18')	SB-21-1 (10-16')	SB-21-2 (11-16')	SB-21-3 (12-16')	SB-21-4 (12-16')	SB-21-7 (12-16')	SB-21-8 (12-16')
		2/20/2018	2/20/2018	11/29/2017	12/1/2017	12/4/2017	2/20/2018	2/20/2018	2/20/2018	2/20/2018	2/20/2018	2/20/2018	2/20/2018	2/21/2018	2/21/2018
TCLP Lead - mg/L															
Lead	**5**	0.58	0.43	0.15	0.015 J	0.065	0.73	3.8	1.7	3.5	0.99	2.5	**13.5**	**7.6**	**5.3**
TCLP Chromium - mg/L															
Chromium	**5**	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

1. TCLP/Haz Waste Regulatory Levels per 40 CFR 261, Appendix II, 1993 ed., as amended by 58 FR 46040, August 31, 1993.

-- Parameter not analyzed for.

Delineation sample taken during supplemental RI

Exceeds Haz Waste Threshold

TABLE 8
SUMMARY OF HISTORIC SUBSURFACE SOIL/FILL ANALYTICAL DATA
(2012 PHASE II) and Supplemental RI Delineation Activities for As at SB-41 (February 2018)

1827 FILLMORE AVENUE SITE
BUFFALO, NEW YORK

Parameter [1]	Unrestricted SCOs[2] (ppm)	Commerical SCOs[2] (ppm)	SB-2 (4'-8')	SB-2RE (4'-8')	SB-5 (8'-12')	SB-5RE (8'-12')	SB-9 (4'-7')	SB-9RE (4'-7')	SB-10 (8'-12')	SB-10RE (8'-12')	SB-11 (12-16')	SB-11RE (12-16')	SB-15 (12-16')	SB-15RE (12-16')	SB-18 (4'-8')	SB-18 RE (4'-8')	SB-19 (12'-18')	SB-19RE (12'-18')	SB-21 (12'-16')	SB-21RE (12'-16')	SB-21 (16'-19')	SB-21RE (16'-19')	SB-22 (12'-19')	SB-22RE (12'-19')	SB-27 (8'-12')	SB-27RE (8'-12')	SB-37 (8'-10')
Volatile Organic Compounds (VOCs) - mg/kg [3]																											
1,2,4-Trichlorobenzene	--	--	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	0.003 J	ND	ND	ND	NA	NA	ND
2-Butanone (MEK)	**0.12**	**500**	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	0.07	0.063	ND	ND	NA	NA	ND
4-Isopropyltoulene	--	--	ND	ND	0.0013	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	0.0032	ND	ND	ND	NA	NA	ND
Acetone	**0.05**	**500**	0.013 J	0.045 Q	0.035	0.045	ND	0.049 Q	NA	NA	0.041	0.049 Q	0.02 J	**0.053 Q**	ND	0.045 Q	NA	NA	NA	NA	**0.15**	**0.15 Q**	**0.074**	0.045 Q	NA	NA	0.025 J
Carbon Disulfide	--	--	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	0.01	0.0046	ND	ND	NA	NA	ND
Methylcyclohexane	--	--	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	0.0025	ND	ND	ND	NA	NA	ND
Toluene	**0.7**	**500**	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	ND	ND	ND	ND	NA	NA	ND
Tentatively Identified Compounds (TICs)	--	--	NA	NA	NA	NA	0.5258	NA	NA	NA	NA	NA	NA	NA	0.027 J	NA	NA	NA	NA	NA	0.357 J	NA	NA	NA	NA	NA	NA
Total VOCs			*0.013*	*0.045*	*0.0363*	*0.045*	*ND*	*0.049*	*NA*	*NA*	*0.041*	*0.049*	*0.02*	*0.053*	*ND*	*0.045*	*NA*	*NA*	*NA*	*NA*	*0.5957*	*0.2176*	*0.074*	*0.045*	*NA*	*NA*	*0.025*
Semi-Volatile Organic Compounds (SVOCs) - mg/kg [3]																											
1,1-Biphenyl	--	--	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	2.3 J	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND
3+4-Methylphenols	--	--	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND
Acenaphthene	**20**	**500**	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	8.6	NA	ND	NA	ND	NA	0.24 J	NA	ND	NA	ND	NA	ND	NA	ND
Acenaphthylene	**100**	**500**	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	2.9	NA	ND	NA	ND	NA	ND	NA	2.0 J	NA	ND	NA	ND	NA	4.7
Anthracene	**100**	**500**	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	28 D	NA	ND	NA	ND	NA	0.46 J	NA	11	NA	ND	NA	ND	NA	4.1
Benzo(a)anthracene	**1**	**5.6**	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	**32 D**	NA	ND	NA	ND	NA	0.89	NA	**13**	NA	ND	NA	0.53	NA	**15**
Benzo(a)pyrene	**1**	**1**	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	**25 D**	NA	ND	NA	ND	NA	0.84	NA	**11**	NA	ND	NA	0.72	NA	**18**
Benzo(b)fluoranthene	**1**	**5.6**	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	**32 D**	NA	ND	NA	ND	NA	1	NA	**13**	NA	0.15 J	NA	**1.1**	NA	**22 D**
Benzo(g,h,i)perylene	**100**	**500**	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	12 D	NA	ND	NA	ND	NA	0.46 J	NA	5.5	NA	ND	NA	0.58	NA	12
Benzo(k)fluoranthene	**0.8**	**56**	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	**11 D**	NA	ND	NA	ND	NA	0.36 J	NA	**5.4**	NA	ND	NA	0.28 J	NA	**7.9**
Benzoic acid	--	--	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND
Carbazole	--	--	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	13 D	NA	ND	NA	ND	NA	0.36 J	NA	1.3 J	NA	ND	NA	ND	NA	ND
Chrysene	**1**	**56**	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	**30 D**	NA	ND	NA	ND	NA	1	NA	**12**	NA	ND	NA	0.64	NA	**17**
Dibenzo(a,h)anthracene	**0.33**	**0.56**	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	**1.8 J**	NA	ND	NA	0.19 J	NA	**3.6**
Dibenzofuran	--	--	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	14 D	NA	ND	NA	ND	NA	0.36 J	NA	ND	NA	ND	NA	ND	NA	ND
Dimethylphthalate	--	--	0.23 J	NA	0.29 J	NA	0.53 J	NA	ND	NA	0.38 J	NA	ND	NA	0.37 J	NA	0.49 J	NA	0.49	NA	ND	NA	0.35 J	NA	0.46	NA	ND
Fluoranthene	**100**	**500**	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	21 D	NA	ND	NA	ND	NA	2.4	NA	28 D	NA	0.21 J	NA	0.59	NA	24 D
Fluorene	**30**	**500**	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	0.55	NA	3.6	NA	ND	NA	ND	NA	1.4 J
Indeno(1,2,3-cd)pyrene	**0.5**	**5.6**	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	**11 D**	NA	ND	NA	ND	NA	0.46 J	NA	**5.7**	NA	ND	NA	**0.56**	NA	**12**
Naphthalene	**12**	**500**	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	**25 D**	NA	ND	NA	ND	NA	0.90	NA	ND	NA	ND	NA	ND	NA	ND
Phenanthrene	**100**	**500**	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	100 D	NA	ND	NA	ND	NA	3.2	NA	29 D	NA	0.19 J	NA	ND	NA	11
Pyrene	**100**	**500**	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	59 D	NA	ND	NA	ND	NA	2.0	NA	21 D	NA	0.18 J	NA	ND	NA	24 D
Tentatively Identified Compounds (TICs)	--	--	2.474 J	NA	4.875 J	NA	1.838 J	NA	0.49 J	NA	0.59 J	NA	NA	NA	0.947 J	NA	19.84 J	NA	15.42	NA	31.61 J	NA	1.41 J	NA	1.45 J	NA	58.52 J
Total SVOCs			*0.23*	*NA*	*0.29*	*NA*	*0.53*	*NA*	*ND*	*NA*	*0.38*	*NA*	*424.5*	*NA*	*0.37*	*NA*	*0.49*	*NA*	*15.97*	*NA*	*163.3*	*NA*	*1.08*	*NA*	*5.65*	*NA*	*176.7*
Total PAHs			*ND*	*NA*	*ND*	*NA*	*ND*	*NA*	*ND*	*NA*	*ND*	*NA*	*397.5*	*NA*	*ND*	*NA*	*ND*	*NA*	*14.76*	*NA*	*162.0*	*NA*	*0.73*	*NA*	*5.19*	*NA*	*176.7*
Metals - mg/kg																											
Aluminum	--	--	6300	NA	4290	NA	4550	NA	2730	NA	3370	NA	5640	NA	4890	NA	5650	NA	3700	NA	3920	NA	5180	NA	2420	NA	5290
Antimony	--	--	1.17 J	NA	1.20 J	NA	ND	NA	4.45	NA	ND	NA	2.49 J	NA	1.96 J	NA	0.891 J	NA	174	NA	146	NA	1.61 J	NA	3.71	NA	0.904 J
Arsenic	**13**	**16**	10.2	NA	9.0	NA	4.95	NA	**13.3**	NA	**13.7**	NA	**15.4**	NA	7.35	NA	**31.6**	NA	**23.8**	NA	**27.4**	NA	5.24	NA	11.7	NA	12
Barium	**350**	**400**	84.4	NA	190	NA	36.5	NA	252	NA	62.8	NA	128	NA	97.1	NA	**597**	NA	**461**	NA	**977**	NA	65.9	NA	**675**	NA	71.4
Beryllium	**7.2**	**590**	0.207 J	NA	0.283	NA	0.067 J	NA	0.126 J	NA	0.146 J	NA	0.18 J	NA	ND	NA	ND	NA	0.13 J	NA	ND	NA	ND	NA	ND	NA	0.356
Cadmium	**2.5**	**9.3**	0.432	NA	1.31	NA	0.345	NA	0.948	NA	0.48	NA	0.878	NA	0.849	NA	0.814	NA	**2.72**	NA	**2.55**	NA	0.315	NA	2.04	NA	0.452
Calcium	--	--	5970	NA	87400	NA	18900	NA	20400	NA	10500	NA	5340	NA	14800	NA	11900	NA	20800	NA	56100	NA	26500	NA	9710	NA	54000
Chromium	**30**	**1500**	8.95	NA	10.3	NA	8.68	NA	7.85	NA	7.05	NA	13	NA	25.4	NA	12.8	NA	14.2	NA	29.9	NA	9.53	NA	**46.4**	NA	7.42
Cobalt	--	--	6.54	NA	5.59	NA	8.47	NA	4.91	NA	6.26	NA	7.83	NA	6.21	NA	8.59	NA	4.25	NA	9.98	NA	4.76	NA	5.27	NA	5.41
Copper	**50**	**270**	40.2	NA	46.7	NA	19.0	NA	**120**	NA	**51.5**	NA	42.9	NA	**54**	NA	**110**	NA	**425**	NA	**130**	NA	**89.2**	NA	**407**	NA	39.5
Iron	--	--	21600	NA	9790	NA	26400	NA	24900	NA	37300	NA	44400	NA	61200	NA	20500	NA	27600	NA	74700	NA	28900	NA	56600	NA	8300
Lead	**63**	**1000**	**1040**	NA	**628**	NA	22.7	NA	**263**	NA	59	NA	**236**	NA	**96.1**	NA	**410**	NA	**21800 D**	NA	**6540**	NA	**68.1**	NA	**1910**	NA	**290**
Magnesium	--	--	921	NA	2580	NA	10700	NA	884	NA	1280	NA	954	NA	3580	NA	1080	NA	3880	NA	7890	NA	2200	NA	1240	NA	3610
Manganese	**1600**	**10000**	379	NA	143	NA	416	NA	159	NA	255	NA	190	NA	793	NA	**6770**	NA	280	NA	583	NA	776	NA	452	NA	121
Mercury	**0.18**	**2.8**	**1.54 D**	NA	0.132	NA	0.111	NA	0.15	NA	0.13	NA	0.054	NA	0.022	NA	**0.219**	NA	0.125	NA	**0.598**	NA	0.014	NA	**0.464**	NA	0.091
Nickel	**30**	**310**	13.7	NA	**39.8**	NA	11.2	NA	12.2	NA	11.0	NA	15.2	NA	17.2	NA	28.1	NA	12.4	NA	22.1	NA	14	NA	29.4	NA	12.7
Potassium	--	--	488	NA	576	NA	774	NA	397	NA	526	NA	724	NA	733	NA	834	NA	477	NA	856	NA	624	NA	254	NA	593
Selenium	**3.9**	**1500**	ND	NA	ND	NA	ND	NA	1.78	NA	ND	NA	ND	NA	ND	NA	1.45	NA	2.15	NA	ND	NA	ND	NA	ND	NA	ND
Silver	**2**	**1500**	0.561	NA	0.213 J	NA	0.592	NA	0.715	NA	0.808	NA	**2.45**	NA	1.33	NA	1.51	NA	**3.11**	NA	**2.33**	NA	0.692	NA	1.36	NA	0.214 J
Sodium	--	--	301	NA	83.6 J	NA	ND	NA	4930	NA	13.7 J	NA	ND	NA	42	NA	240	NA	ND	NA	51.5	NA	ND	NA	ND	NA	118
Thallium	--	--	0.562 J	NA	ND	NA	1.39 J	NA	0.804 J	NA	1.52 J	NA	1.81 J	NA	3.28	NA	7.02	NA	0.897 J	NA	4.54	NA	1.24 J	NA	3.3	NA	ND
Vanadium	--	--	18.9	NA	15.4	NA	8.98	NA	14.9	NA	19.8	NA	26	NA	22	NA	28.1	NA	15.5	NA	10.9	NA	11.9	NA	6.92	NA	18.7
Zinc	**109**	**10000**	97.1	NA	**273**	NA	33	NA	**341**	NA	101	NA	**308**	NA	101	NA	**790**	NA	**941**	NA	**1120**	NA	**339**	NA	**712**	NA	**165**
Organochlorine Pesticides [1] - mg/kg [3]																											
Total Pesticides			*ND*	*NA*	*ND*	*NA*	*ND*	*NA*	*NA*	*NA*	*ND*	*NA*	*ND*	*NA*	*ND*	*NA*	*NA*	*NA*	*NA*	*NA*	*ND*	*NA*	*ND*	*NA*	*NA*	*NA*	*ND*
Herbicides [1] - mg/kg																											
Total Herbicides			*ND*	*NA*	*ND*	*NA*	*ND*	*NA*	*NA*	*NA*	*ND*	*NA*	*ND*	*NA*	*ND*	*NA*	*NA*	*NA*	*NA*	*NA*	*ND*	*NA*	*ND*	*NA*	*NA*	*NA*	*ND*
PCBs [1] - mg/kg																											
Total PCBs			*ND*	*NA*	*ND*	*NA*	*ND*	*NA*	*NA*	*NA*	*ND*	*NA*	*ND*	*NA*	*ND*	*NA*	*NA*	*NA*	*NA*	*NA*	*ND*	*ND*	*ND*	*NA*	*NA*	*NA*	*ND*

TurnKey Environmental Restoration, LLC

Benchmark Environmental Engineering & Science, PLLC

TABLE 8
SUMMARY OF HISTORIC SUBSURFACE SOIL/FILL ANALYTICAL DATA
(2012 PHASE II) and Supplemental RI Delineation Activities for As at SB-41 (February 2018)

1827 FILLMORE AVENUE SITE
BUFFALO, NEW YORK

Parameter [1]	Unrestricted SCOs[2] (ppm)	Commerical SCOs[2] (ppm)	SB-37RE (8'-10')	SB-39 (6'-8')	SB-39RE (6'-8')	SB-41 (8'-11')	SB-41RE (8'-11')	SB-41R (6'-8')	SB-41R (8'-11')	SB-41R (11'-13')	SB-41-1 (8'-11')	SB-41-2 (8'-11')	SB-41-3 (8'-11')	SB-41-4 (8'-11')	SB-42 (14'-16')	SB-42RE (14'-16')	SB-43 (6'-8')	SB-43RE (6'-8')	SB-43 (10'-12')	SB-43RE (10'-12')	SB-43 (16'-20')	SB-43RE (16'-20')	SB-45 (10'-12')	SB-45RE (10'-12')	SB-46 (12'-16')	SB-46RE (12'-16')	SB-46RX (12'-16')
Volatile Organic Compounds (VOCs) - mg/kg [3]																											
1,2,4-Trichlorobenzene	--	--	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	NA
2-Butanone (MEK)	0.12	500	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	NA
4-Isopropyltoulene	--	--	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	NA
Acetone	0.05	500	0.044 Q	0.066	0.035 Q	0.03 J	0.074 Q	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.037	0.045 Q	0.075	0.069 Q	0.097	0.056	NA	NA	0.13	0.085 Q	NA
Carbon Disulfide	--	--	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	0.0005 J	ND	NA	NA	0.0019 J	ND	NA
Methylcyclohexane	--	--	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	NA
Toluene	0.7	500	ND	0.0026	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0019	ND	ND	ND	ND	ND	NA	NA	ND	ND	NA
Tentatively Identified Compounds (TICs)	--	--	NA	0.0302	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total VOCs			*0.044*	*0.0988*	*0.035*	*0.03*	*0.074*	NA	NA	NA	NA	NA	NA	NA	NA	*NA*	*0.0389*	*0.045*	*0.075*	*0.069*	*0.0975*	*0.056*	*NA*	*NA*	*0.1319*	*0.085*	*NA*
Semi-Volatile Organic Compounds (SVOCs) - mg/kg [3]																											
1,1-Biphenyl	--	--	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND
3+4-Methylphenols	--	--	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	0.34 J
Acenaphthene	20	500	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND
Acenaphthylene	100	500	NA	ND	NA	0.19 J	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND
Anthracene	100	500	NA	ND	NA	0.38 J	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND
Benzo(a)anthracene	1	5.6	NA	ND	NA	0.88	NA	NA	NA	NA	NA	NA	NA	NA	0.16 J	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	0.32 J
Benzo(a)pyrene	1	1	NA	ND	NA	0.91	NA	NA	NA	NA	NA	NA	NA	NA	0.17 J	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	0.39 J
Benzo(b)fluoranthene	1	5.6	NA	ND	NA	1.1	NA	NA	NA	NA	NA	NA	NA	NA	0.2 J	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	0.53
Benzo(g,h,i)perylene	100	500	NA	ND	NA	0.47	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	0.21 J
Benzo(k)fluoranthene	0.8	56	NA	ND	NA	0.37 J	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	0.22 J
Benzoic acid	--	--	NA	ND	NA	0.71 J	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND
Carbazole	--	--	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND
Chrysene	1	56	NA	ND	NA	0.89	NA	NA	NA	NA	NA	NA	NA	NA	0.17 J	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	0.42 J
Dibenzo(a,h)anthracene	0.33	0.56	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND
Dibenzofuran	--	--	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND
Dimethylphthalate	--	--	NA	0.36	NA	0.36 J	NA	NA	NA	NA	NA	NA	NA	NA	0.31 J	NA	0.36	NA	ND	NA	0.42 J	NA	ND	NA	0.42 JQ	NA	0.58
Fluoranthene	100	500	NA	ND	NA	1.7	NA	NA	NA	NA	NA	NA	NA	NA	0.27 J	NA	ND	NA	ND	NA	ND	NA	ND	NA	0.20 JQ	NA	0.69
Fluorene	30	500	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND
Indeno(1,2,3-cd)pyrene	0.5	5.6	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	0.19 J
Naphthalene	12	500	NA	ND	NA	0.29 J	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND
Phenanthrene	100	500	NA	ND	NA	1.3	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	0.36 J
Pyrene	100	500	NA	ND	NA	1.4	NA	NA	NA	NA	NA	NA	NA	NA	0.22 J	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	0.65
Tentatively Identified Compounds (TICs	--	--	NA	0.70 JA	NA	3.71 JA	NA	NA	NA	NA	NA	NA	NA	NA	1.469 JA	NA	2.656 JA	NA	0.92 J	NA	4.92 JA	NA	0.47 JAB	NA	5.15 J	NA	NA
Total SVOCs			*NA*	*0.36*	*NA*	*10.95*	*NA*	NA	NA	NA	NA	NA	NA	NA	*1.5*	*NA*	*0.36*	*NA*	*ND*	*NA*	*0.42*	*NA*	*ND*	*NA*	*0.62*	*NA*	*4.9*
Total PAHs			*NA*	*ND*	*NA*	*9.88*	*NA*	NA	NA	NA	NA	NA	NA	NA	*1.19*	*NA*	*ND*	*NA*	*ND*	*NA*	*ND*	*NA*	*ND*	*NA*	*0.20*	*NA*	*3.98*
Metals - mg/kg																											
Aluminum	--	--	NA	7000	NA	8490	NA	NA	NA	NA	NA	NA	NA	NA	3910	NA	5650	NA	4210	NA	4020	NA	5350	NA	3460	NA	NA
Antimony	--	--	NA	1.63 J	NA	42	NA	NA	NA	NA	NA	NA	NA	NA	0.712 J	NA	7.64	NA	2.11 J	NA	1.05 J	NA	1.11 J	NA	2.09 J	NA	NA
Arsenic	13	16	NA	5.37	NA	73	NA	3	7.3	9.7	12.5	13.4	13.6	6.4	8.79	NA	6.91	NA	18.7	NA	14.4	NA	23.3	NA	12.2	NA	NA
Barium	350	400	NA	85.9	NA	113	NA	NA	NA	NA	NA	NA	NA	NA	90.2	NA	36.3	NA	973	NA	174	NA	266	NA	113	NA	NA
Beryllium	7.2	590	NA	ND	NA	16	NA	NA	NA	NA	NA	NA	NA	NA	0.338	NA	ND	NA	0.315	NA	0.537	NA	0.422	NA	0.294	NA	NA
Cadmium	2.5	9.3	NA	0.459	NA	17	NA	NA	NA	NA	NA	NA	NA	NA	0.398	NA	1.47	NA	1.14	NA	0.284 J	NA	82.3	NA	0.392	NA	NA
Calcium	--	--	NA	14200	NA	6530	NA	NA	NA	NA	NA	NA	NA	NA	4420	NA	30300	NA	20600	NA	2300	NA	16200	NA	12100	NA	NA
Chromium	30	1500	NA	9.25	NA	41.1	NA	NA	NA	NA	NA	NA	NA	NA	8.63	NA	7.9	NA	6.87	NA	7.06	NA	15.2	NA	8.07	NA	NA
Cobalt	--	--	NA	11.8	NA	24.7	NA	NA	NA	NA	NA	NA	NA	NA	7.89	NA	4.24	NA	6.07	NA	6.4	NA	7.8	NA	6.47	NA	NA
Copper	50	270	NA	59.2	NA	62.3	NA	NA	NA	NA	NA	NA	NA	NA	33.1	NA	34.1	NA	38.4	NA	43.1	NA	139	NA	47.4	NA	NA
Iron	--	--	NA	35700	NA	34600	NA	NA	NA	NA	NA	NA	NA	NA	11200	NA	22400	NA	26200	NA	8690	NA	20700	NA	8440	NA	NA
Lead	63	1000	NA	27.4	NA	527	NA	NA	NA	NA	NA	NA	NA	NA	99.5	NA	63.5	NA	1100	NA	606	NA	481	NA	246	NA	NA
Magnesium	--	--	NA	1150	NA	1360	NA	NA	NA	NA	NA	NA	NA	NA	517	NA	3190	NA	536	NA	317	NA	473	NA	1560	NA	NA
Manganese	1600	10000	NA	1500	NA	498	NA	NA	NA	NA	NA	NA	NA	NA	140	NA	1390	NA	135	NA	80.9	NA	208	NA	142	NA	NA
Mercury	0.18	2.8	NA	0.024	NA	0.145	NA	NA	NA	NA	NA	NA	NA	NA	0.155	NA	0.007 J	NA	0.157	NA	0.04	NA	0.119	NA	0.044	NA	NA
Nickel	30	310	NA	7.79	NA	56.4	NA	NA	NA	NA	NA	NA	NA	NA	13.5	NA	8.75	NA	15.6	NA	12.8	NA	18.1	NA	14.4	NA	NA
Potassium	--	--	NA	830	NA	1430	NA	NA	NA	NA	NA	NA	NA	NA	553	NA	621	NA	446	NA	497	NA	494	NA	359	NA	NA
Selenium	3.9	1500	NA	ND	NA	149	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	1.58	NA	ND	NA	1.42	NA	NA
Silver	2	1500	NA	0.92	NA	6.33	NA	NA	NA	NA	NA	NA	NA	NA	0.294 J	NA	0.659	NA	0.604	NA	0.328 J	NA	0.607	NA	0.312 J	NA	NA
Sodium	--	--	NA	ND	NA	432	NA	NA	NA	NA	NA	NA	NA	NA	90.4	NA	ND	NA	49.7	NA	988	NA	78.2 J	NA	82 J	NA	NA
Thallium	--	--	NA	2.16	NA	158	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	1.46 J	NA	0.693 J	NA	ND	NA	ND	NA	ND	NA	NA
Vanadium	--	--	NA	15.1	NA	47.7	NA	NA	NA	NA	NA	NA	NA	NA	19.9	NA	12.2	NA	22.1	NA	25.8	NA	29.7	NA	20.5	NA	NA
Zinc	109	10000	NA	50.3	NA	121	NA	NA	NA	NA	NA	NA	NA	NA	128	NA	1610	NA	935	NA	109	NA	NA	NA	169	NA	NA
Organochlorine Pesticides [1] - mg/kg [3]																											
Total Pesticides			*NA*	*ND*	*NA*	*ND*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*ND*	*NA*	*ND*	*NA*	*ND*	*NA*	*NA*	*NA*	*ND*	*NA*	*NA*
Herbicides [1] - mg/kg																											
Total Herbicides			*NA*	*ND*	*NA*	*ND*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*ND*	*NA*	*ND*	*NA*	*ND*	*NA*	*NA*	*NA*	*ND*	*NA*	*NA*
PCBs [1] - mg/kg																											
Total PCBs			*NA*	*ND*	*NA*	*ND*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*ND*	*NA*	*ND*	*ND*	*ND*	*NA*	*NA*	*NA*	*ND*	*NA*	*NA*

Notes:
1. Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds wer
2. Values per NYSDEC Part 375 Soil Cleanup Objectives (SCOs).
3. Sample results were reported by the laboratory in micograms per kilogram (ug/kg) and converted to milligram per kilogram (mg/kg) for comparison to SCOs.
4. Sample results were diluted due to exceedence in calibration range.

Definitions:
mg/kg = milligrams per kilogram.
-- = No value for available for parameter.
ND = Parameter not detected above laboratory detection limit.
NA = Sample not analyzed for parameter.
J = Estimated value; result is less than the sample quantitation limit but greater than zero .
Q= LCS control criteria did not meet requirements.
D = Dilution.
A = TIC is suspected aldo-condensation product.
B = Analyte was found in the blank as well as the sample.
Delineation sample taken during supplemental RI activities in February 2018
Exceeds Unrestricted SCOs
Exceeds Commercial SCOs

TABLE 9
SUMMARY OF GROUNDWATER ANALYTICAL DATA

1827 FILLMORE AVENUE SITE
BUFFALO, NEW YORK

Parameter [1]	NYSDEC Class GA GWQS[2]	MW-1	MW-2	MW-3	MW-5	MW-6	MW-7	MW-8
TCL Volatile Organic Compounds (VOCs) - ug/L								
2-Butanone (MEK)	**50**	ND	1.6 J	ND	ND	ND	2.1 J	9.0 J
4-Isopropyltoluene	**5**	ND	ND	ND	ND	ND	1.4	**9.3**
Acetone	**50**	4.1 J	ND *	ND *	ND	4.6	11	28
Chloroform	**7**	0.85 J	ND	0.64 J	ND	ND	ND	ND
Cyclohexane	**--**	ND	0.18 J	0.88 J	ND	ND	ND	ND
Methylcyclohexane	**--**	ND	ND	0.84 J	ND	ND	ND	ND
Total VOCs		4.95	1.78	2.36	ND	4.6	14.5 J	46.3 J
Total TICs		ND	ND	ND	ND	ND	ND	ND
TCL Semi-Volatile Organic Compounds [1] (SVOCs) - ug/L								
4-Methylphenol	**--**	ND	ND	ND	ND	ND	0.89 J	ND
Acenaphthene	**20**	ND	ND	ND	ND	ND	0.59 J	ND
Benzaldehyde	**--**	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	**50**	0.62 J	ND	ND	0.53 J	ND	ND	ND
Fluoranthene	**50**	ND	ND	ND	ND	0.48 J	0.57 J	ND
Fluorene	**50**	ND	ND	ND	ND	ND	0.62 J	ND
Phenanthrene	**50**	ND	ND	ND	ND	0.99 J	2.2 J	ND
Total TICs	**--**	5.5 J	54.7 J JN	118 J JN	207.5 J N	231.3 J N	230.0 J N	63.0 J N
TAL Metals - ug/L (Dissolved)								
Barium	**1000**	22 J	170 J	100 J	130.00 J	340.00 J	240.00 J	170.00 J
Cadmium	**5**	ND	ND	ND	0.50000 J	ND	ND	ND
Calcium	**--**	104000 J B	237000 J B	197000 J B	206000 J	109000 J	212000 J	115000 J
Chromium	**50**	ND	1.1 J	ND	ND	ND	ND	ND
Cobalt	**--**	ND	0.75 J	ND	3.2000 J	ND	2.2000 J	2.2000 J
Copper	**200**	2.8 J	ND	ND	2.0000 J	ND	ND	ND
Iron	**300**	ND	ND	ND	ND	260.00 J	ND	190.00 J
Lead	**25**	ND	ND	ND	6.2000 J	9.9000 J	4.3000 J	3.4000 J
Magnesium	**--**	12300 J	42400 J	36300 J	20900.0 J	12100.0 J	45000.0 J	29300.0 J
Manganese	**300**	18 J	**900 J**	**350 J**	**440.00 J**	**360.00 J**	**380.00 J**	300.00 J
Nickel	**100**	3.5 J	4.7 J	8.7000 J	9.5000 J	ND	6.0000 J	2.7000 J
Potassium	**--**	6100 J	16100 J	11900 J	9000.0 J	7700.0 J	17200.0 J	15900.0 J
Selenium	**10**	9.9 J	ND	ND	ND	ND	ND	ND
Sodium	**20000**	**68400 J**	**187000 J**	**100000 J**	**26400.0 J**	**96600.0 J**	13600.0 J	**31200.0 J**
Zinc	**5000**	15 J B	17 J B	65 J B	180.00 J	26.000 J	19.000 J	8.0000 J
Organochlorine Pesticides [1] ug/L								
4,4'-DDD	**0.3**	--	--	--	0.012 J	ND	ND	ND
4,4'-DDT	**0.2**	--	--	--	ND	ND	0.019 J	ND
delta-BHC	**0.04**	--	--	--	ND	ND	ND	0.013 J
Herbicides [1] ug/L								
Total Herbicides	**NA**	--	--	--	ND	ND	ND	ND
Polychlorinated Biphenyls [1] (PCBs) ug/L								
Total PCBs	**0.09**	--	--	--	ND	ND	ND	ND

Notes:

1. Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.
2. Values per NYSDEC TOGS 1.1.1 Class GA Groundwater Quality Standards (GWQS).

Definitions:

ND = Parameter not detected above laboratory detection limit.
NA = Not Analyzed
"--" = No GWQS available.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.

Exceeds NYSDEC Class GA GWQS

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 10
SUMMARY OF EMERGENT CONTAMINENTS GROUNDWATER SAMPLING RESULTS

1827 FILLMORE AVENUE SITE
BUFFALO, NEW YORK

Parameter	Monitoring Well		
	MW-7	MW-8	Equipment Blank
Semi-Volatile Organic Compounds by Method 8270 SIM (ng/L)			
1,4 - Dioxane	ND	ND	--
Perfluorinated Alkyl Acids by Method 537 (ng/L)			
Perfluorobutanoic acid (PFBA)	2.1 B	11 B	0.67 JB
Perfluroropentanoic acid (PFPeA)	ND	22	ND
Perfluorobutanesulfonic acid (PFBS)	0.87 J	0.36 J	ND
Perflurorohexanoic acid (PFHxA)	ND	16	ND
Perfluroroheptanoic acid (PFHpA)	ND	1.8 J	ND
Perfluorohexanesulfonic acid (PFHxS)	0.29 JB	0.46 JB	0.3 JB
Perfluorooctanoic acid (PFOA)	ND	1.3 J	ND
Perfluorooctanesulfonic acid (PFOS)	ND	2.1	ND

Notes:

1. Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.

Definitions:

SIM = selective ion method
ng/L = nanograms per liter; parts per trillion
J = Estimated value
ND = Indicates parameter was not detected above laboratory reporting limit and is reported herein as not detected (ND).
B = Compound was found in laboratory blank sample.

TABLE 11

TEST PIT SUMMARY

1827 Fillmore Avenue Site
Buffalo, New York

Location	Date	Total Depth (fbgs)	Length (feet)	Width (feet)	Depth to Water (fbgs)	Visual/ Olfactory (depth, fbgs)	Top of Rock (fbgs)	Fill Thickness (fbgs)	Sample Depths (fbgs)	Description (ASTM D2488: Visual-Manual Procedure)	PID Readings (ppm)
TP-1	11/28/2017	9.5	15.0	3.0	none	none	9.5	9.5	(4.0 - 6.0)	(0.0 - 9.5) RE-WORKED SANDY LEAN CLAY w/ GRAVEL & FILL: Dark brown to dark grey, moist, mostly medium plasticity fines, some fine sand, asphalt, concrete, orange brick and metal debris, equipment refusal	0.0
TP-2	11/28/2017	9.5	12.0	3.0	none	none	9.5	9.5	(6.0 - 8.0)	(0.0 - 1.5) FILL: Dark brown, mostly non-plastic fines, some fine sand, little fine gravel, roots and concrete, medium dense, loose when disturbed. (1.5 - 3.0) LIMESTONE BACKFILL: Grey/brown, moist, mostly fine to coarse gravel (limestone), some fine sand, medium dense, loose when disturbed. (3.0 - 9.5) RE-WORKED SANDY LEAN CLAY w/FILL: Dark brown to dark grey, moist, mostly medium plasticity fines, some fine sand, asphalt, concrete, orange brick and metal debris.	0.0
TP-3	11/28/2017	14.5	12.0	6.0	14.0	none	14.5	14.5	(10-14.5)	(0.0 - 9.0) FILL: Dark brown to black (9.0 fbgs), mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, 6.0-inch clay tile pipe (6.0 fbgs), medium dense, loose when disturbed. (9.0 - 10.0) RE-WORKED SANDY LEAN CLAY w/FILL: Dark brown to dark grey, moist, mostly medium plasticity fines, some fine sand (black), brick, concrete and metal debris. (10.0 - 14.5) ASH/FILL: White/grey, moist to wet (14.0 fbgs), ash, wood, glass and ceramic (whole bottles), loose.	0.0
TP-4	11/28/2017	12.0	15.0	6.0	none	none	12.0	12.0	(1.0-3.0)	(0.0 - 0.5) FILL: Brown, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, loose when disturbed. (0.5 - 3.0) ASH/FILL: White/grey, ash, wood, glass and ceramic (whole bottles), loose. (3.0 - 5.0) RE-WORKED SANDY LEAN CLAY: Reddish brown, moist, mostly medium plasticity fines, stiff, medium toughness, medium dry strength, massive. (5.0 - 12.0) LIMESTONE TALUS: Grey, mostly fine to coarse gravel (angular limestone), trace fine sand, trace non-plastic fines, loose.	0.0
TP-5	11/28/2017	14.5	17.0	3.0	none	none	14.5	14.5	(6.0-8.0)	(0.0 - 6.0) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, metal debris, loose when disturbed. (6.0 - 7.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), loose. (7.0 - 12.5) FILL: As (0.0 - 6.0 fbgs) above. (12.5 - 13.5) RE-WORKED SANDY LEAN CLAY w/FILL: Reddish brown, moist, mostly medium plasticity fines, concrete, brick, cinders and ash, stiff, medium toughness, medium dry strength, massive. (13.5 - 14.5) LIMESTONE TALUS: Grey, moist, mostly coarse gravel (angular limestone), trace fine sand, trace non-plastic fines, lime stone is iron stained, loose.	0.0
TP-6	11/28/2017	3.0 east end 11.5 west end	25.0	3.0	none	none	3.0 east end 11.5 west end	11.5	(10.0-11.5)	(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, loose. (0.5 - 3.5) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), loose. (3.5 - 11.5) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together.	0.0
TP-7	11/28/2017	15.5	15.0	3.0	none	none	none	15.5	(8.0-10.0)	(0.0 - 2.0) WEATHERED CONCRETE DEBRIS: Grey/White, mostly weathered concrete, with brick and metal debris. (2.0 - 13.0) NON-NATIVE FINE SAND: Black with Brown patches, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together. (13.0 - 15.5) RE-WORKED SANDY LEAN CLAY w/FILL: Reddish brown, moist, mostly medium plasticity fines, some fine sand (black), brick and concrete, stiff, medium toughness, medium dry strength, massive.	0.0
TP-8	11/29/2017	15.0	17.0	3.0	none	Slight Petroleum odor	none	15.0	(6.0-9.0)	(0.0 - 6.0) RE-WORKED SANDY LEAN CLAY w/FILL: Reddish brown/dark brown, moist, mostly medium plasticity fines, some fine sand (brown and black), concrete, brick, cinders, stiff, medium toughness, backfill for 24-inch clay tile sewer line (abandoned), medium dry strength, massive. (3.0 - 11.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), animal bones, petroleum odor (6.0 to 9.0 fbgs), loose. (11.0 - 15.0) LIMESTONE TALUS: Grey, moist, mostly fine to coarse gravel (angular limestone), trace fine sand, trace non-plastic fines, loose.	2.2 (6.0 - 9.0)
TP-9	11/29/2017	15.0	22.0	3.0	none	sweet odor	none	15.0	(10.0-12.0)	(0.0 - 0.5) FILL: Brown, mostly fine sand, some non-plastic fines, little fine to coarse gravel, mixed with sandy lean clay, concrete, orange brick and ash, loose when disturbed. (0.5 - 15.0) ASH/FILL: White/grey, ash, wood, glass and ceramic (whole bottles), sweet odor (10.0 to 12.0 fbgs), loose.	18.4 (0.0-2.0) 276 (10.0-12.0)
TP-10	11/29/2017	4.0	32.0	3.0	none	none	4.0	4.0	(0.0-4.0)	(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 2.5) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), loose. (2.5 - 4.0) IMPORTED SILTY SAND: Reddish brown, moist, mostly fine sand, some non-plastic fines, medium dense.	0.0
TP-11	11/29/2017	15.0	17.0	3.0	none	none	none	15.0	(5.0-8.0)	(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 8.0.0) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together, 1-inch and 6-inch water line in upper 4.0 fbgs (abandoned). (8.0 - 15.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), loose.	0.0
TP-12	11/29/2017	15.0	20.0	3.0	none	none	none	15.0	(10.0-12.0)	(0.0 - 3.5) WEATHERED CONCRETE DEBRIS: Grey/White, mostly weathered concrete, with brick and metal debris. (3.5 - 6.0) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together. (6.0 - 12.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), loose. (12.0 - 15.0) LIMESTONE TALUS: Grey, moist, mostly fine to coarse gravel (angular limestone), trace fine sand, trace non-plastic fines, limestone is iron stained, loose.	0.0
TP-13	12/4/2017	15.0	18.0	3.5	none	none	none	15.0	(10.0 - 15.0)	(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 9.0) RE-WORKED SANDY LEAN CLAY w/FILL: Reddish brown/dark brown, moist, mostly medium plasticity fines, some fine sand (brown and black), orange brick and ash, stiff, medium toughness, medium dry strength, massive. (9.0 - 15.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), wood debris, loose.	0.0
TP-14	11/29/2017	15.0	20.0	3.0	none	none	12.0 on west side no rock on east side	15.0	(10-15)	(0.0 - 1.0) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (1.0 - 8.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), animal bones, loose. (8.0 - 15.0) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, dark brown melted glass chunks, some of the sand tends to be fused together.	0.0
TP-15	11/29/2017	5.0 east end 15.0 west end	20.0	3.0	none	none	5.0 on west side no rock on east side	15.0	(8.0-10.0)	(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 11.0) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together. (11.0 - 15.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), loose.	0.0
TP-16	12/4/2017	15.5	21.0	3.5	none	none	none	15.5	(8.0 - 10.0)	(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 8.0) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together. (8.0 - 15.5) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), loose.	0.0
TP-17	12/4/2017	4.0	30.0	4.0	none	none	none	4.0	(2.5 - 4.0)	(0.0 - 2.5) WEATHERED CONCRETE DEBRIS: Grey/White, mostly weathered concrete, with brick and metal debris. (2.5 - 4.0) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, encountered equipment refusal on large concrete grade beams or pile caps.	0.0
TP-18	12/4/2017	15.0	22.0	3.0	none	none	none	15.0	(5.0 - 9.0)	(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 9.0) RE-WORKED SANDY LEAN CLAY w/FILL: Reddish brown/dark brown, moist, mostly medium plasticity fines, some fine sand (brown and black), orange brick and ash, stiff, medium toughness, medium dry strength, massive. (9.0 - 13.5) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), wood debris, loose. (13.5 - 15.0) LIMESTONE TALUS: Grey, moist, mostly coarse gravel (angular limestone), trace fine sand, trace non-plastic fines, lime stone is iron stained, loose.	0.0
TP-19	12/1/2017	15.0	16.0	7.0	none	none	none	15.0	(3.0-6.0)	(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 12.0) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together. (12.0 - 15.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), loose.	0.0
TP-20	12/1/2017	15.0	17.0	3.0	none	none	none	15.0	(5.0-10.0)	(0.0 - 1.0) WEATHERED CONCRETE DEBRIS: Grey/White, mostly weathered concrete, with brick and metal debris. (1.0 - 16.0) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together, slag fragments.	0.0
TP-21	12/4/2017	16.0	21.0	3.0	none	none	none	16.0	(8.0 - 10.0)	(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 10.0) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together. (10.0 - 16.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), loose.	0.0
TP-22	12/4/2017	15.0	15.0	3.0	none	none	none	15.0	(9.0 - 12.0)	(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 9.0) RE-WORKED SANDY LEAN CLAY w/Fill: Reddish brown/dark brown, moist, mostly medium plasticity fines, some fine sand (brown and black), orange brick and ash, stiff, medium toughness, medium dry strength, massive. (9.0 - 11.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), wood debris, loose. (11.0 - 13.0) RE-WORKED SANDY LEAN CLAY w/FILL: As (0.5 - 9.0 fbgs) above. (13.0 - 15.5) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), wood debris, loose.	0.0
TP-23	12/4/2017	15.5	17.0	8.0	none	none	none	15.5	(13.0 - 15.5)	(0.0 - 8.0) FILL: Dark brown/black, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick, cinders and ash, medium dense, loose when disturbed, 6-inch clay tile drain line on north wall of test pit (5.0 fbgs). (8.0 - 13.0) RE-WORKED SANDY LEAN CLAY w/ FILL: Reddish Brown, moist, mostly medium plasticity fines, some fine sand (Black), brick, cinders, ash, slight petroleum like odor (11.0 to 13.0 fbgs). (13.0 - 15.5) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), loose, petroleum like odor.	10.7 at 12.0 fbgs 47.7 at 14.5 fbgs
TP-24	12/1/2017	16.0	20.0	3.0	none	none	none	16.0	(10.0-15.0)	(0.0 - 1.0) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (1.0 - 16.0) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together.	1.2 at 6.0 fbgs 1.3 at 12.0 fbgs
TP-25	12/1/2017	16.0	20.0	3.0	none	none	none	16.0	(0.0-2.0)	(0.0 - 2.0) WEATHERED CONCRETE DEBRIS: Grey/White, mostly weathered concrete, with brick and metal debris. (2.0 - 16.0) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together.	0.0

TABLE 11

TEST PIT SUMMARY

1827 Fillmore Avenue Site
Buffalo, New York

Location	Date	Total Depth (fbgs)	Length (feet)	Width (feet)	Depth to Water (fbgs)	Visual/ Olfactory (depth, fbgs)	Top of Rock (fbgs)	Fill Thickness (fbgs)	Sample Depths (fbgs)	Description (ASTM D2488: Visual-Manual Procedure)	PID Readings (ppm)
TP-26	12/1/2017	16.0	20.0	10.0	14.0	none	none	16.0	(12.0-15.0)	(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 12.0) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together, at 6.0 fbgs two 2-inch steel pipes and 4-inch clay tile pipe running north to south. (12.0 - 16.0) ASH/FILL: White/grey, ash, wet (14.0 fbgs) no free water ash is like paste, wood, glass and ceramic (whole bottles), slag, loose.	0.0
TP-27	12/4/2017	15.0	18.0	3.5	none	none	none	15.0	(7.0 - 9.0)	(0.0 - 1.5) FILL: Brown, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (1.5 - 9.0) RE-WORKED SANDY LEAN CLAY w/ FILL: Reddish Brown, moist, mostly medium plasticity fines, some fine sand (black), brick, concrete, cinders, ash, stiff, medium toughness, medium dry strength, massive. (9.0 - 15.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), leather shoes, loose.	0.0
TP-28	12/1/2017	15.0	20.0	3.0	none	none	none	15.0	(2.0 - 4.0)	(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 15.0) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together.	0.0
TP-29	12/1/2017	15.0	22.0	3.0	none	none	none	15.0	(5.0 - 8.0)	(0.0 - 0.5) FILL: Brown, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 5.0) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together. (5.0 - 8.0) NON-NATIVE FINE SAND: As above, grey. (8.0 - 15.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), loose.	0.0
TP-30	12/1/2017	15.0	17.0	3.0	none	none	none	15.0	(10.0 - 15.0)	(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 7.0) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, slag, some of the sand tends to be fused together, electrical conduit (2.0 fbgs) and clay tile piping (5.0 fbgs). (7.0 - 15.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), loose.	0.0

TABLE 11

TEST PIT SUMMARY

1827 Fillmore Avenue Site
Buffalo, New York

Location	Date	Total Depth (fbgs)	Length (feet)	Width (feet)	Depth to Water (fbgs)	Visual/ Olfactory (depth, fbgs)	Top of Rock (fbgs)	Fill Thickness (fbgs)	Sample Depths (fbgs)	Description (ASTM D2488: Visual-Manual Procedure)	PID Readings (ppm)
Pile Sample Location	**Date**	**Total Depth Into Pile**	**Length (feet)**	**Width (feet)**	**Depth to Water**	**Visual/ Olfactory**	**Top of Rock**	**Fill Thickness**	**Pile Sample Interval**	**Description (ASTM D2488: Visual-Manual Procedure)**	**PID Readings (ppm)**
P-1	12/5/2017	14.0	18.0	3.5	NA	none	NA	14.0	(0.0 - 10.0)	(0.0 - 9.0) TOP SOIL: Brown/grey, moist, mostly non-plastic fines, some fine sand, medium dense, loose when disturbed, roots. (9.0 - 14.0) RE-WORKED SANDY LEAN CLAY: Light Brown/reddish brown, moist, mostly medium plasticity fines, some fine sand, trace fine gravel, stiff, medium toughness, medium dry strength.	0.0
P-2	12/5/2017	12.5	17.0	4.0	NA	none	NA	12.5	(0.0-10.0)	(0.0 - 12.5) TOP SOIL: Brown/grey, moist, mostly non-plastic fines, some fine sand, medium dense, loose when disturbed, roots.	0.0
P-3	12/5/2017	15.0	15.0	3.0	NA	none	NA	15.0	(0.0 - 10.0)	(0.0 - 10.0) TOP SOIL: Brown/grey, moist, mostly non-plastic fines, some fine sand, medium dense, loose when disturbed, roots. (10.0 - 15.0) RE-WORKED SANDY LEAN CLAY: Reddish brown, moist, mostly medium plasticity fines, some fine sand, trace fine gravel, stiff, medium toughness, medium dry strength.	0.0
P-4	12/5/2017	5.0	5.0	3.0	NA	none	NA	5.0	(0-5)	(0-5.0) P-4 - TOP SOIL w/GRAVEL & FILL: Brown, moist, mostly non-plastic fines, some fine sand, little fine gravel, with metal debris, medium dense, loose when disturbed.	0.0
Supplemental Test Pit Location	**Date**	**Total Depth (fbgs)**	**Length (feet)**	**Width (feet)**	**Depth to Water**	**Visual/ Olfactory**	**Top of Rock**	**Fill Thickness**	**Pile Sample Interval**	**Description (ASTM D2488: Visual-Manual Procedure)**	**PID Readings (ppm)**
TP-13R	2/20/2018	17.0	17.0	4.0	none	none	NA	17.0	(8-10) (10-15) (15-17)	(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 9.0) RE-WORKED SANDY LEAN CLAY w/FILL: Reddish brown/dark brown, moist, mostly medium plasticity fines, some fine sand (brown and black), orange brick and ash, stiff, medium toughness, medium dry strength, massive. (9.0-17.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), wood debris, loose.	0.0
TP-13-1	2/20/2018	15.0	17.0	4.0	none	none	NA	15.0	(10-15)	(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 8.5) RE-WORKED SANDY LEAN CLAY w/FILL: Reddish brown/dark brown, moist, mostly medium plasticity fines, some fine sand (brown and black), orange brick and ash, stiff, medium toughness, medium dry strength, massive. (8.5-12.5) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), wood debris, loose. (12.5 - 15.0) LIMESTONE TALUS: Dark Grey/black, mostly cobble sized limestone fragments, mixed with black fines and ash.	0.0
TP-13-2	2/20/2018	16.0	17.0	4.0	none	none	NA	16.0	(10-15)	(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 9.0) RE-WORKED SANDY LEAN CLAY w/FILL: Reddish brown/dark brown, moist, mostly medium plasticity fines, some fine sand (brown and black), orange brick and ash, stiff, medium toughness, medium dry strength, massive. (9.0-12.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), wood debris, loose. (12.0 - 15.0) LIMESTONE TALUS: Dark Grey/black, mostly cobble sized limestone fragments, mixed with black fines and ash.	0.0
TP-13-3	2/20/2018	16.0	17.0	4.0	none	none	NA	16.0	(10-15)	(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 10.0) RE-WORKED SANDY LEAN CLAY w/FILL: Reddish brown/dark brown, moist, mostly medium plasticity fines, some fine sand (brown and black), orange brick and ash, stiff, medium toughness, medium dry strength, massive. (10.0-16.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), wood debris, loose.	0.0
TP-13-4	2/20/2018	15.0	17.0	4.0	none	none	NA	15.0	(11.5-15.0)	(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 10.0) RE-WORKED SANDY LEAN CLAY w/FILL: Reddish brown/dark brown, moist, mostly medium plasticity fines, some fine sand (brown and black), orange brick and ash, stiff, medium toughness, medium dry strength, massive. (10.0-16.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), wood debris, loose.	0.0
TP-13-5	2/20/2018	15.0	17.0	4.0	none	none	NA	15.0	(10-15)	(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 10.0) RE-WORKED SANDY LEAN CLAY w/FILL: Reddish brown/dark brown, moist, mostly medium plasticity fines, some fine sand (brown and black), orange brick and ash, stiff, medium toughness, medium dry strength, massive. (10.0-15.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), wood debris, loose.	0.0
TP-13-6	2/20/2018	16.0	17.0	4.0	none	none	NA	15.0	(10-15)	(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 10.0) RE-WORKED SANDY LEAN CLAY w/FILL: Reddish brown/dark brown, moist, mostly medium plasticity fines, some fine sand (brown and black), orange brick and ash, stiff, medium toughness, medium dry strength, massive. (10.0-13.5) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), wood debris, loose. (13.5 - 16.0) LIMESTONE TALUS: Dark Grey/black, mostly cobble sized limestone fragments, mixed with black fines and ash.	0.0
TP-13-7	2/20/2018	15.0	17.0	4.0	none	none	NA	15.0	(10-15)	(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 10.0) RE-WORKED SANDY LEAN CLAY w/FILL: Reddish brown/dark brown, moist, mostly medium plasticity fines, some fine sand (brown and black), orange brick and ash, stiff, medium toughness, medium dry strength, massive. (10.0-14.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), wood debris, loose. (14.0 - 15.0) LIMESTONE TALUS: Dark Grey/black, mostly cobble sized limestone fragments, mixed with black fines and ash.	0.0
TP-13-8	2/20/2018	16.0	17.0	4.0	none	none	NA	16.0	(10-15)	(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 12.5) RE-WORKED SANDY LEAN CLAY w/FILL: Reddish brown/dark brown, moist, mostly medium plasticity fines, some fine sand (brown and black), orange brick and ash, stiff, medium toughness, medium dry strength, massive. (12.5-16.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), wood debris, loose.	0.0
SB-21R	2/20/2018	18.0	17.0	4.0	none	Slight Petroleum	NA	18.0	(10-12) (12-16) (16-18)	(0.0 - 0.3) ASPHALT (0.3 - 1.0) STONE SUB-BASE: Grey, moist, mostly angular fine gravel, trace non-plastic fines, loose. (1.0 - 10.0) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together. (10.0 - 18.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), wood debris, loose, petroleum like odor	13.3 (10 -16)
SB-21-1	2/20/2018	16.0	17.0	4.0	none	Slight Petroleum	NA	16.0	(10-16)	(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 10.0) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together. (10.0 - 16.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), wood debris, loose, petroleum like odor	10.7 (14.0-16.0)
SB-21-2	2/20/2018	16.0	17.0	4.0	none	Slight Petroleum	NA	16.0	(11-16)	(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 11.0) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together. (11.0 - 16.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), wood debris, loose, petroleum like odor	6.8 (14-16.0)
SB-21-3	2/20/2018	16.0	17.0	4.0	none	Slight Petroleum	NA	16.0	(12-16)	(0.0 - 0.3) ASPHALT (0.3 - 1.0) STONE SUB-BASE: Grey, moist, mostly angular fine gravel, trace non-plastic fines, loose. (1.0 - 10.0) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together. (10.0 - 16.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), wood debris, loose, petroleum like odor	34.7 (10-16)
SB-21-4	2/20/2018	16.0	17.0	4.0	15.5	Slight Petroleum	NA	16.0	(12-16)	(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 11.0) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together. (11.0 - 16.0) ASH/FILL: White/grey, moist to wet (14.5 fbgs), ash, wood, glass and ceramic (whole bottles), wood debris, loose, petroleum like odor	33.8 (14.0 - 16.0)
SB-21-5	2/21/2018	17.0	17.0	4.0	none	Slight Petroleum	NA	17.0		(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 11.0) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together. (11.0 - 17.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), wood debris, loose, petroleum like odor	2.5 (14.0-17.0)
SB-21-6	2/21/2018	16.0	17.0	4.0	none	Slight Petroleum	NA	16.0		(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 11.0) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together. (11.0 - 17.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), wood debris, loose, petroleum like odor	0.0
SB-21-7	2/21/2018	16.0	17.0	4.0	none	Slight Petroleum	NA	16.0		(0.0 - 0.3) ASPHALT (0.3 - 1.0) STONE SUB-BASE: Grey, moist, mostly angular fine gravel, trace non-plastic fines, loose. (1.0 - 12.0) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together. (12.0 - 16.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), wood debris, loose, petroleum like odor	6.6 (14.0-16.0)
SB-21-8	2/21/2018	16.0	17.0	4.0	15	Slight Petroleum	NA	16.0		(0.0 - 0.3) ASPHALT (0.3 - 1.0) STONE SUB-BASE: Grey, moist, mostly angular fine gravel, trace non-plastic fines, loose. (1.0 - 10.0) SAND with CLAY and GRAVEL: Brown, moist, mostly fine sand, some medium plasticity fines, few fine gravel (angular and sub-rounded), medium dense. (10.0 - 16.0) ASH/FILL: White/grey, moist to (wet 15.0 fbgs), ash, wood, glass and ceramic (whole bottles), wood debris, loose, petroleum like odor	4.3 (10.0 - 14.0)
SB-41R	2/21/2018	13.0	17.0	4.0	none	none	NA	13.0	(6.0 - 8.0) (8.0-11.0) (11.0-13.0)	(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 9.0) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together. (9.0 - 13.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), wood debris, loose.	0.0

TABLE 11

TEST PIT SUMMARY

1827 Fillmore Avenue Site
Buffalo, New York

Location	Date	Total Depth (fbgs)	Length (feet)	Width (feet)	Depth to Water (fbgs)	Visual/ Olfactory (depth, fbgs)	Top of Rock (fbgs)	Fill Thickness (fbgs)	Sample Depths (fbgs)	Description (ASTM D2488: Visual-Manual Procedure)	PID Readings (ppm)
SB-41-1	2/21/2018	11.0	17.0	4.0	none	none	NA	11.0	(8.0-11.0)	(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 8.0) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together. (8.0 - 11.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), wood debris, loose.	0.0
SB-41-2	2/21/2018	11.0	17.0	4.0	none	none	NA	11.0	(8.0-11.0)	(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 8.0) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together. (8.0 - 11.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), wood debris, loose.	0.0
SB-41-3	2/21/2018	11.0	17.0	4.0	none	none	NA	11.0	(8.0-11.0)	(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 9.5) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together. (9.5 - 11.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), wood debris, loose.	0.0
SB-41-4	2/21/2018	13.0	17.0	4.0	none	none	NA	13.0	(8.0-11.0)	(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 9.0) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together. (9.0 - 11.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), wood debris, loose.	0.0
SB-41-5	2/21/2018	11.0	17.0	4.0	none	Slight Petroleum	NA	11.0	(8.0-11.0)	(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 3.5) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together. (3.5 - 10.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), wood debris, loose. (10.0 - 11.0) SILTY SAND: Dark grey/black, moist, mostly fine sand, some non-plastic fines, wood debris, medium dense, petroleum like odor.	0.2 (10.0-11.0)
SB-41-6	2/21/2018	11.0	17.0	4.0	none	none	NA	11.0	(8.0-11.0)	(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 8.0) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together. (8.0 - 11.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), wood debris, loose.	0.0
SB-41-7	2/21/2018	11.0	17.0	4.0	none	none	NA	11.0	(8.0-11.0)	(0.0 - 5.0) WEATHERED CONCRETE DEBRIS: Grey/White, mostly weathered concrete, with brick and metal debris. (5.0 - 11.0) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together.	0.0
SB-41-8	2/21/2018	11.0	17.0	4.0	none	none	NA	11.0	(8.0-11.0)	(0.0 - 0.5) FILL: Brown, moist, mostly fine sand, some non-plastic fines, little fine to coarse gravel, concrete, orange brick and ash, roots, loose. (0.5 - 10.5) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together. (10.5 - 11.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), wood debris, loose.	0.0
TP-25R	2/22/2018	4.0	9.0	4.0	none	none	NA	4.0	(2.0 - 4.0)	(0.0 - 2.0) WEATHERED CONCRETE DEBRIS: Grey/White, mostly weathered concrete, with brick and metal debris. (2.0 - 4.0) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together.	0.0
TP-25-1	2/22/2018	4.0	9.0	4.0	none	none	NA	4.0	(0.0 - 2.0)	(0.0 - 2.0) WEATHERED CONCRETE DEBRIS: Grey/White, mostly weathered concrete, with brick and metal debris. (2.0 - 4.0) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together.	0.0
TP-25-2	2/22/2018	7.5	9.0	4.0	none	none	NA	7.5	(0.0 - 2.0)	(0.0 - 2.0) WEATHERED CONCRETE DEBRIS: Grey/White, mostly weathered concrete, with brick and metal debris. (2.0 - 7.5) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together.	0.0
TP-25-3	2/22/2018	4.5	9.0	4.0	none	none	NA	4.5	(0.0 - 2.0)	(0.0 - 2.0) WEATHERED CONCRETE DEBRIS: Grey/White, mostly weathered concrete, with brick and metal debris. (2.0 - 4.5) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together.	0.0
TP-25-4	2/22/2018	15.5	9.0	4.0	none	none	NA	15.5	(0.0 - 2.0)	(0.0 - 2.0) WEATHERED CONCRETE DEBRIS: Grey/White, mostly weathered concrete, with brick and metal debris. (2.0 - 15.5) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together.	0.0
SS-13R	2/22/2018	15.5	9.0	4.0	none	none	NA	15.5	(0.2" - 24")	(0.0 - 2.0) WEATHERED CONCRETE DEBRIS with BLACK SAND: Grey/White, mostly weathered concrete, with brick and metal debris. (2.0 - 15.5) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together.	0.0
SS-13-1	2/22/2018	4.0	9.0	4.0	none	none	NA	4.0	(0.0 - 2.0)	(0.0 - 4.0) NON-NATIVE FINE SAND: Black with Brown patches, moist, mostly fine sand, trace non-plastic fines, wood, metal debris, some of the sand tends to be fused together, gas piping in the upper 2.0 feet.	0.0
SS-13-2	2/22/2018	5.0	9.0	4.0	none	none	NA	5.0	(0.0 - 2.0)	(0.0 - 2.0) Fill: Black/dark brown, moist, mostly fine sand, few fine gravel angular, medium dense. (2.0 - 4.0) SAND with CLAY and GRAVEL: Brown, moist, mostly fine sand, some medium plasticity fines, few fine gravel (angular and sub-rounded), medium dense.	0.0
SS-13-3	2/22/2018	12.0	9.0	4.0	none	none	NA	12.0	(0.0 - 2.0)	(0.0 - 2.0) Fill: Dark brown, moist, mostly fine sand, few fine gravel angular, medium dense. (2.0 - 12.0) SAND with CLAY and GRAVEL: Brown, moist, mostly fine sand, some medium plasticity fines, few fine gravel (angular and sub-rounded), ashphalt, medium dense. (12.0) ASH/FILL: White/grey, moist, ash, wood, glass and ceramic (whole bottles), wood debris, loose.	0.0
SS-13-4	2/22/2018	5.0	9.0	4.0	none	none	NA	5.0	(0.0 - 2.0)	(0.0 - 1.0) Fill: Black/dark brown, moist, mostly fine sand, few fine gravel angular, medium dense. (1.0 - 5.0) SAND with CLAY and GRAVEL: Brown, moist, mostly fine sand, some medium plasticity fines, few fine gravel (angular and sub-rounded), medium dense.	0.0

TABLE 12

STANDARDS, CRITERIA, AND GUIDANCE (SCGs)

1827 FILLMORE AVENUE SITE
BUFFALO, NEW YORK

Citation	Title	Regulatory Agency
General		
29CFR 1910.120	Hazardous Waste Operations and Emergency Response	US Dept. of Labor, OSHA
29CFR 1910.1000	OSHA General Industry Air Contaminants Standard	US Dept. of Labor, OSHA
29CFR 1926	Safety and Health Regulations for Construction	US Dept. of Labor, OSHA
Not Applicable	Analytical Services Protocol	NYSDEC
6NYCRR Part 608	Use and Protection of Waters	NYSDEC
6NYCRR Part 621	Uniform Procedures Regulations	NYSDEC
6NYCRR Parts 750-757	State Pollutant Discharge Elimination System	NYSDEC
Not Applicable	New York State Stormwater Management Design Manual	NYSDEC
Section 404	Clean Water Act	USACE
Soil/Fill		
6NYCRR Part 375	Environmental Remediation Programs	NYSDEC
DEC Policy CP-51	Soil Cleanup Guidance	NYSDEC
NYSDEC, June 2014	Technical Guidance for Screening Contaminated Sediments: LEL/SEL	NYSDEC
Groundwater		
6NYCRR Part 700-705	Surface Water and Ground Water Classification Standards	NYSDEC
TOGS 1.1.1	Ambient Water Quality Standards and Guidance Values	NYSDEC
TOGS 2.1.3	Primary and Principal Aquifer	NYSDEC
Air		
DER-10 Appendix 1B	Fugitive Dust Suppression and Particulate Monitoring Program at Inactive Hazardous Waste Sites	NYSDEC
NYSDOH, October 2006	Final - Guidance for Evaluating Soil Vapor Intrusion in the State of NY	NYSDOH
Solid Waste		
6NYCRR 360	Solid Waste Management Facilities	NYSDEC
6NYCRR 364	Waste Transporters	NYSDEC

TABLE 13

COST ESTIMATE FOR UNRESTRICTED USE (TRACK 1) ALTERNATIVE

1827 FILLMORE AVENUE SITE
BUFFALO, NEW YORK

Item	Quantity	Units	Unit Cost	Total Cost	Remarks
Impacted Soil/Fill Removal					
Soil/Fill Excavation and Loading	830,000	TON	$ 6	$ 4,980,000	17.15-acre area; 20 fbgs
Transporation and Disposal at TSDF	830,000	TON	$ 32	$ 26,560,000	1.5 tons per CY
Post-Excavation Confirmatory Sampling	931	EA	$ 375	$ 349,015	
Data Validation	265	EA	$ 105	$ 27,825	
Subtotal:			.	**$ 31,917,000**	
Backfilling/Site Restoration					
Import, Backfill, Place & Compact	830,000	TON	$ 22	$ 18,260,000	
Geotextile	750,000	SF	$ 1.50	$ 1,125,000	
Backfill Characterization Sampling	1,122	Ea	$ 100	$ 112,167	VOCs
Data Validation	1122	EA	$ 25	$ 28,042	
Backfill Characterization Sampling	559	EA	$ 500	$ 279,667	SVOCs, PCBs, Pesticides, Metals
Data Validation	559	EA	$ 80	$ 44,747	
Subtotal:				**$ 19,850,000**	
Groundwater & Odor Management					
Odor Control	1	LS	$ 150,000	$ 150,000	
GW Treatment/O&M	1	LS	$ 256,880	$ 257,000	
Subtotal:				**$ 407,000**	
Subtotal Capital Cost				**$ 52,174,000**	
Contractor Mobilization/Demobilization (5%)				$ 2,608,700	
Health and Safety (2%)				$ 1,043,480	
Engineering/Contingency (35%)				$ 18,260,900	
Total Capital Cost for Unrestricted Use (Track 1) Alternative				**$ 74,088,000**	

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TABLE 14
PRELIMINARY COST ESTIMATE FOR TRACK 4 COMMERCIAL USE

1827 Fillmore Avenue Site

Item	Units	Probable Cost			Remarks
PAH Area					
Waste Characterization	EA	1	$ 1,200	$ 1,200	
Excavate PAH Soils/Transport to LF	Tons	1,700	$ 20	$ 33,235	Remove clean soils, slope stability & safety
Dispose of PAH Soils	Tons	1,700	$ 28	$ 46,920	
Place and Compact On-Site Fill	CY	1,000	$ 8.00	$ 8,000	
Post-Excavation/Analytical Testing	LS	1	$ 11,270	$ 11,270	
Data Validation	LS	1	$ 2,898	$ 2,898	
Total PAHs Costs				**$ 104,000**	
TP-13 Lead Area					
Treatability Testing	EA	1	$ 5,000	$ 5,000	
Excavate Clean Soils Over Contaminated Soils and Replace and Compact	CY	4,041	$ 15	$ 60,611	Remove clean soils, slope stability & safety
Stabilize Soils	CY	2,000	$ 23	$ 46,009	
Stabilizing Agent	Tons	68	$ 1,380	$ 93,857	
Post-Excavation/Analytical Testing	LS	1	$ 7,200	$ 7,200	
Data Validation	LS	1	$ 2,400	$ 2,400	
Groundwater or accumulated precipitation	LS	1	$ 15,000	$ 15,000	Allowance
Total TP-13 Lead Area Costs				**$ 231,000**	
SB-21 Lead Area					
Treatability Testing	EA	1	$ 5,000	$ 5,000	
Shoring along Property Line (East)	Est.	1	$ 80,500	$ 80,500	Allowance
Excavate Clean Soils Over Contaminated Soils and Replace and Compact	CY	8,889	$ 15	$ 133,333	Remove clean soils, slope stability & safety
Stabilize Soils	CY	6,519	$ 23	$ 149,926	
Stabilizing Agent	Tons	208.6	$ 1,380	$ 287,858	
Excavate and Transport Stabilized Soils	Tons	2,216	$ 20	$ 44,326	
Dispose of Stabilized Soils	Tons	2,216	$ 28	$ 61,170	Assume 20% of soils need to be disposed off site
Place and Compact On-Site Fill	CY	1,304	$ 8.00	$ 10,430	
Post-Excavation/Analytical Testing	LS	1	$ 15,410	$ 15,410	
Data Validation	LS	1	$ 2,300	$ 2,300	
Groundwater or accumulated precipitation	LS	1	$ 30,000	$ 30,000	Allowance
Total SB-21 Lead Area Costs				**$ 821,000**	
MW-6 Lead Area					
Excavate Clean Soils Over Contaminated Soils and Replace and Compact	CY	300	$ 15	$ 4,500	Remove clean soils
Excavate and Transport Soils	Tons	500	$ 20	$ 10,000	
Dispose of Soils	Tons	500	$ 28	$ 14,000	
Place and Compact On-Site Fill	CY	294	$ 8.00	$ 2,353	
Post-Excavation/Analytical Testing	LS	1	$ 10,000	$ 10,000	
Data Validation	LS	1	$ 2,400	$ 2,400	
Groundwater or accumulated precipitation	LS	1	$ 15,000	$ 15,000	Allowance
Total MW-6 Lead Area Costs				**$ 59,000**	
Cover System					
Asphalt Parking Lot (4 acres)	Ac	4	$ 217,800	$ 784,080	
Prepare Subgrade (13 acres)	Ac	13	$ 5,000	$ 67,000	
Import, Place, Grade Clean Soil	Ac	13	$ 51,200	$ 686,080	
Analytical Testing of Soil Source(s)	LS	1	$ 26,400	$ 26,400	
Hydroseed	Ac	13	$ 2,200	$ 29,480	
Total Cover System Costs				**$ 1,593,040**	
			Subtotal Cost	**$ 2,808,040**	
Contractor Mobilization/Demobilization (5%)				$ 140,402	
Health and Safety (2%)				$ 56,161	
Engineering, Oversight and Reporting (25%) + Contingency (10%)				$ 982,814	
			Total Estimated Costs	**$ 3,990,000**	

NOTES:
1) Assumed cleanup track is Commercial Track 4 with a soil cover system.
3) A remedy has not been approved by NYSDEC; this assessment assumes only the areas identified require remediation.
4) The final remedy will be established in NYSDEC-issued Decision Document, upon NYSDEC review and approval of the Remedial Investigation/Alternatives Analysis Report and 45-day public comment period.

TABLE 15

COMPARISON OF REMEDIAL ALTERNATIVES

1827 FILLMORE AVENUE SITE
BUFFALO, NEW YORK

Remedial Alternative	NYSDEC DER-10 Evaluation Criteria								
	1. Overall	2. SCGs	3. Eff & Perm	4. Reduction	5. Imp & Eff	6. Implement	7. Cost Eff	8. Community	9. Land Use
Alternative 1 - No Further Action						✓	$0	TBE	
Alternative 2 - Track 1 Cleanup	✓	✓	✓				$74.1 million	TBE	✓
Alternative 3 - Track 4 Cleanup	✓	✓	✓	✓	✓	✓	$3.9 million	TBE	✓

Notes:

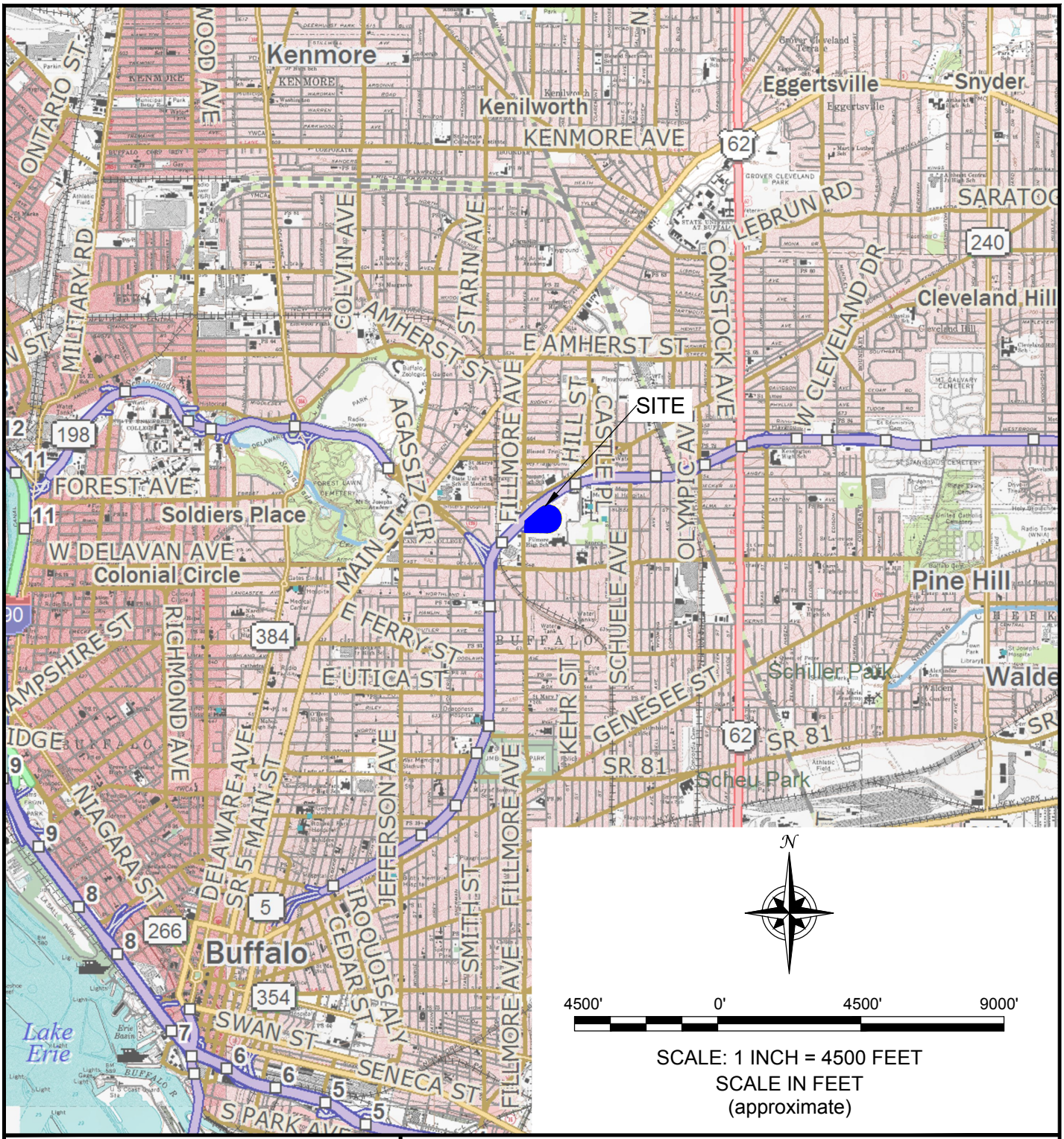
1. Overall Protectiveness of Public Health and the Environment
2. Compliance with Standards, Criteria, and Guidance (SCGs)
3. Long-Term Effectiveness and Permanence
4. Reduction of Toxicity, Mobility, or Volume of Contamination through Treatment
5. Short-Term Impacts and Effectiveness
6. Implementability (Technical and Administrative)
7. Cost Effectiveness
8. Community Acceptance
9. Land Use

✓ = Alternative satisfies criterion
TBE = To be evaluated following public comment period

FIGURES

F:\CAD\Benchmark\Rupp, Baase, Pfalzgraf & Cunningham LLC\1827 Fillmore Avenue\04 - RI-AA (2)\Figure 1; Site Location & Vicinity Map.dwg

FIGURE 1



BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TURNKEY ENVIRONMENTAL RESTORATION, LLC

2558 HAMBURG TURNPIKE, SUITE 300, BUFFALO, NY 14218, (716) 856-0599

PROJECT NO.: 0421-017-001

DATE: DECEMBER 2017

DRAFTED BY: CCB-CMC

SITE LOCATION & VICINITY MAP

REMEDIAL INVESTIGATION / ALTERNATIVE ANALYSIS REPORT

1827 FILLMORE AVENUE SITE
BUFFALO, NEW YORK

PREPARED FOR
1827 FILLMORE LLC

DISCLAIMER: ***PROPERTY OF BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC. & TURNKEY ENVIRONMENTAL RESTORATION, LLC*** *IMPORTANT: THIS DRAWING PRINT IS LOANED FOR MUTUAL ASSISTANCE AND AS SUCH IS SUBJECT TO RECALL AT ANY TIME. INFORMATION CONTAINED HEREON IS NOT TO BE DISCLOSED OR REPRODUCED IN ANY FORM FOR THE BENEFIT OF PARTIES OTHER THAN NECESSARY SUBCONTRACTORS & SUPPLIERS WITHOUT THE WRITTEN CONSENT OF BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC & TURNKEY ENVIRONMENTAL RESTORATION, LLC.*

DATE: DECEMBER 2017
DRAFTED BY: CCB-CMC



SITE PLAN (AERIAL)

REMEDIAL INVESTIGATION / ALTERNATIVE ANALYSIS REPORT

1827 FILLMORE AVENUE SITE
BUFFALO, NEW YORK

PREPARED FOR
1827 FILLMORE LLC

FIGURE 2

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC
TURNKEY ENVIRONMENTAL RESTORATION, LLC
2558 HAMBURG TURNPIKE, SUITE 300, BUFFALO, NY 14218, (716) 856-0599

JOB NO.: 0421-017-001

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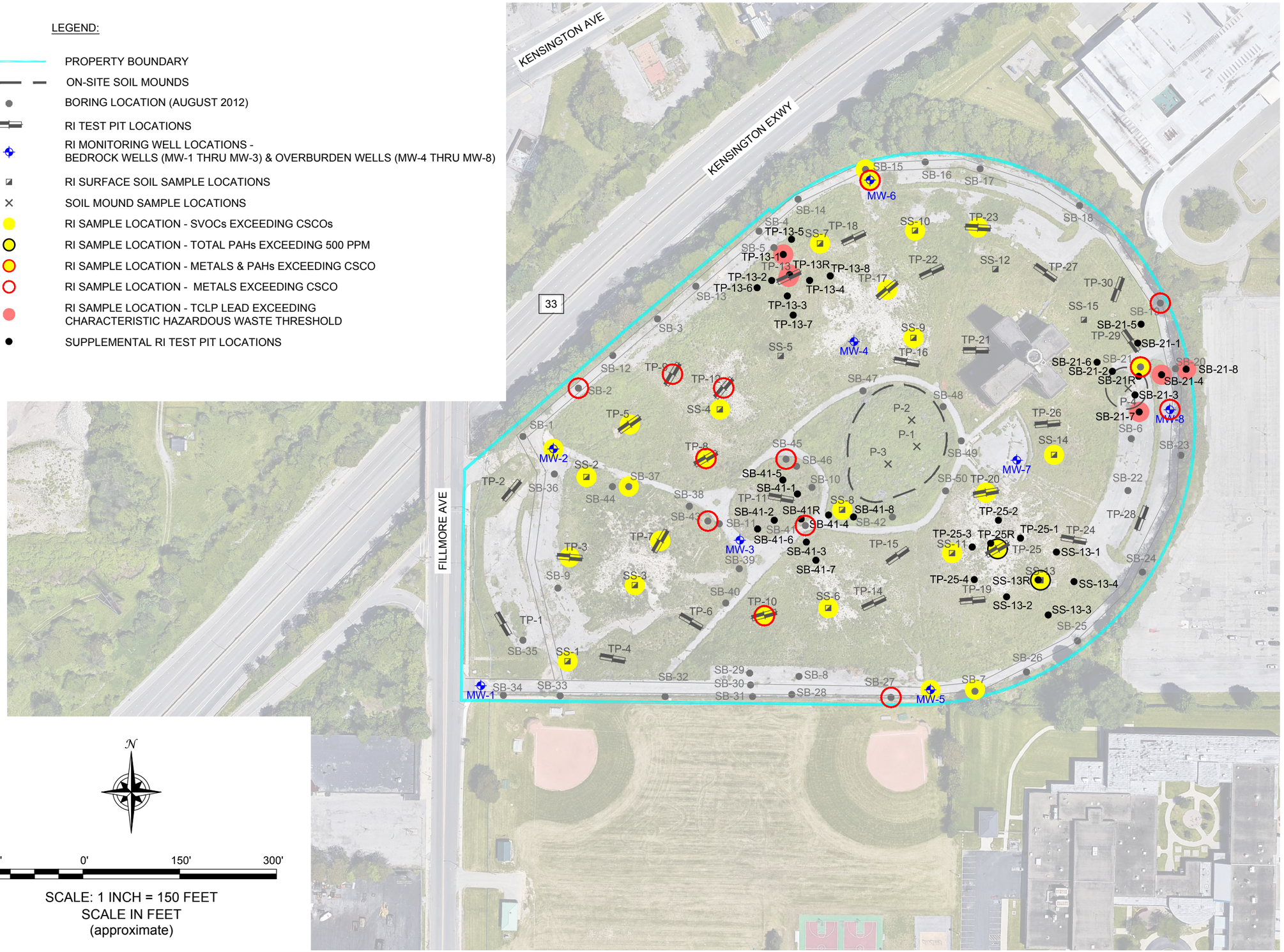
F:\CAD\Benchmark\Rupp, Baase, Pfalzgraf & Cunningham LLC\1827 Fillmore Avenue\04 - RI-AA\Figure 3A Remedial Investigation Locations.dwg

LEGEND:

- PROPERTY BOUNDARY
- ON-SITE SOIL MOUNDS
- SB-3 — BORING LOCATION (AUGUST 2012)
- TP-8 — RI TEST PIT LOCATIONS
- MW-1 — RI MONITORING WELL LOCATIONS - BEDROCK WELLS (MW-1 THRU MW-3) & OVERBURDEN WELLS (MW-4 THRU MW-8)
- SS-6 — RI SURFACE SOIL SAMPLE LOCATIONS
- P-1 — SOIL MOUND SAMPLE LOCATIONS
- RI SAMPLE LOCATION - SVOCs EXCEEDING CSCOs
- RI SAMPLE LOCATION - TOTAL PAHs EXCEEDING 500 PPM
- RI SAMPLE LOCATION - METALS & PAHs EXCEEDING CSCO
- RI SAMPLE LOCATION - METALS EXCEEDING CSCO
- RI SAMPLE LOCATION - TCLP LEAD EXCEEDING CHARACTERISTIC HAZARDOUS WASTE THRESHOLD
- TP-13-1 — SUPPLEMENTAL RI TEST PIT LOCATIONS



N

150' 0' 150' 300'

SCALE: 1 INCH = 150 FEET
SCALE IN FEET
(approximate)

DATE: NOVEMBER 2018
DRAFTED BY: RFL

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC
2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

JOB NO.: 0421-017-001

REMEDIAL INVESTIGATION LOCATIONS

REMEDIAL INVESTIGATION / ALTERNATIVE ANALYSIS REPORT
1827 FILLMORE AVENUE SITE
BUFFALO, NEW YORK
PREPARED FOR
1827 FILLMORE LLC

FIGURE 3A

DISCLAIMER:
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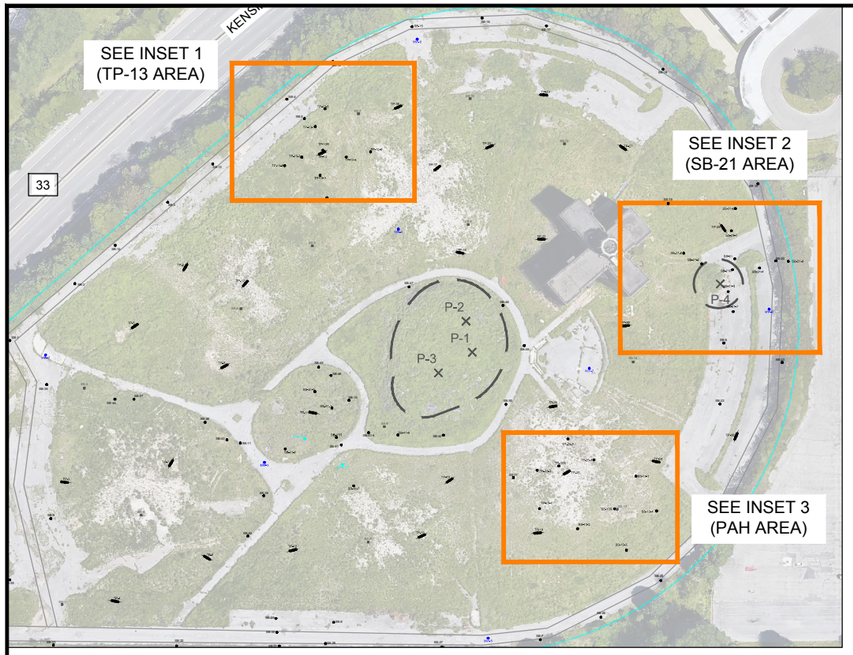
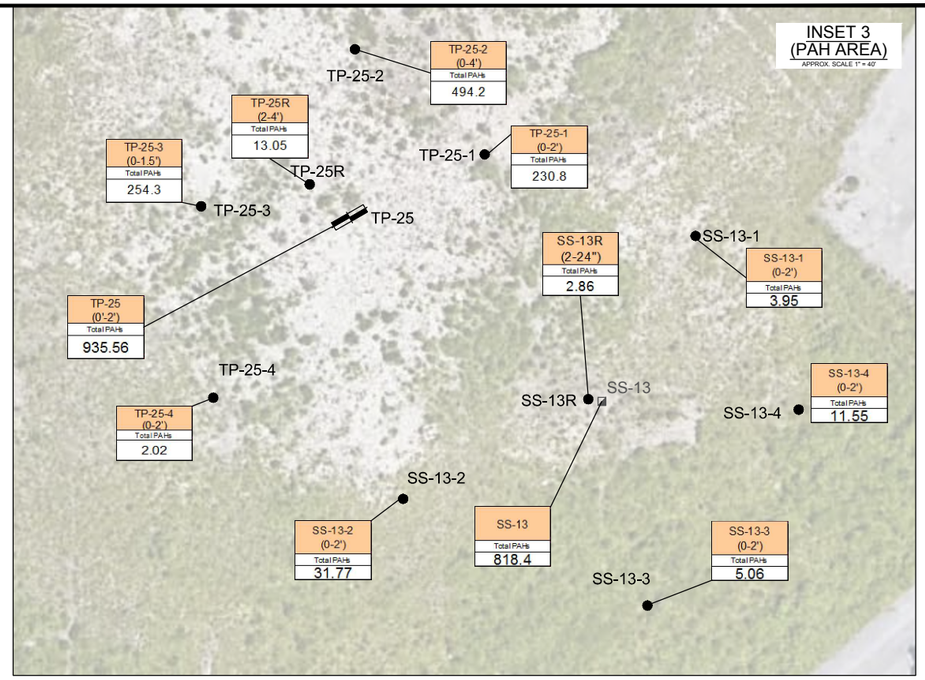
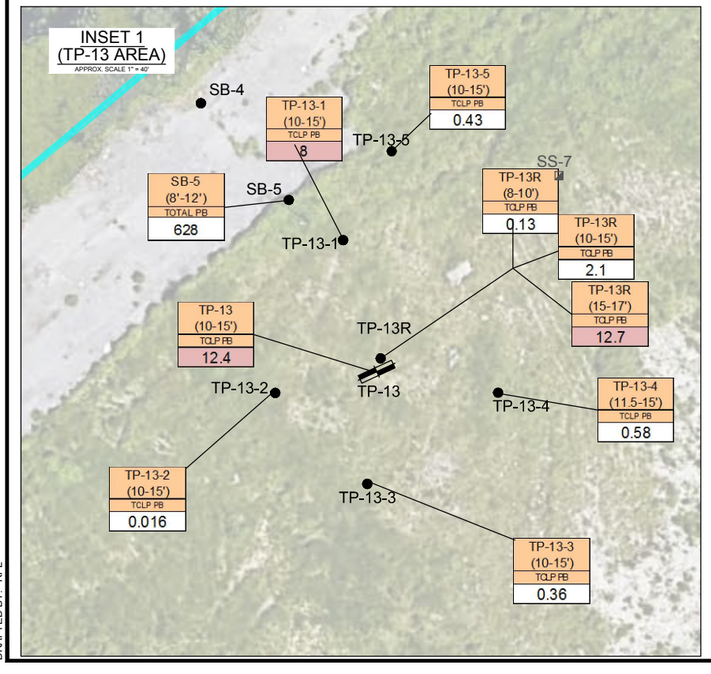
F:\CAD\Benchmark\Rupp, Baase, Pfalzgraf & Cunningham LLC\1827 Fillmore Avenue\04 - RI-AA\Figure 3B- Supplemental RI Locations.dwg, DWG To PDF.pc3



PLAN VIEW OF SITE
APPROX. SCALE 1" = 200'





LEGEND:

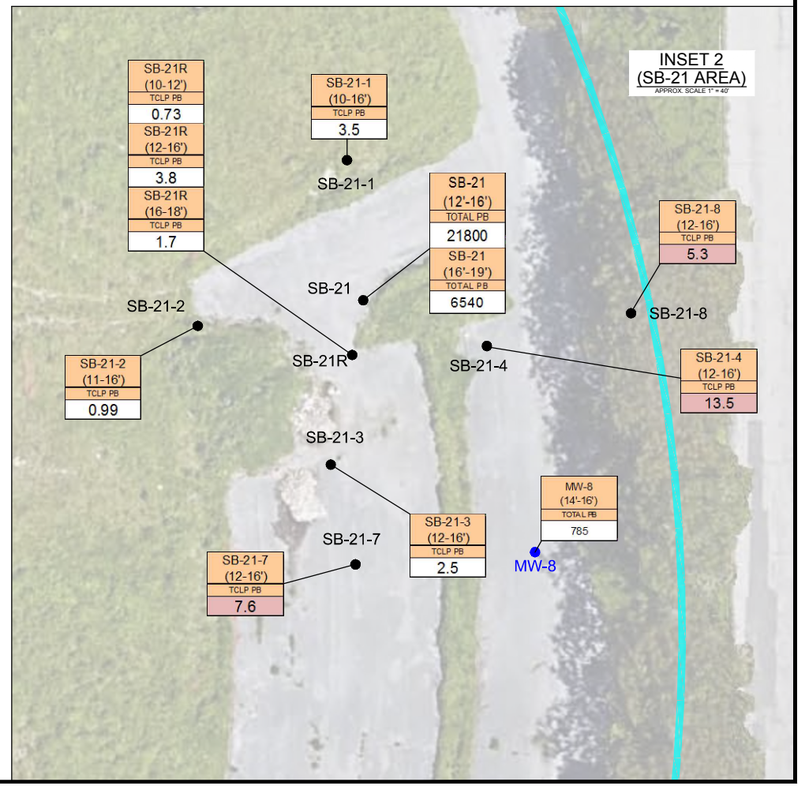
PROPERTY BOUNDARY

TP-13-1 ● SB-21-3 SUPPLEMENTAL RI TEST PIT LOCATIONS

MW-7 ● MONITORING WELL LOCATIONS

TP-8 TEST PIT LOCATIONS

TP-25R (2-4') Total PAHs 13.05 — SAMPLE LOCATION AND DEPTH / PARAMETER / CONCENTRATION (MG/KG)



DATE: NOVEMBER 2018
DRAFTED BY: RFL

SUPPLEMENTAL REMEDIAL INVESTIGATION LOCATIONS (HOT SPOT REMEDIAL AREAS)

REMEDIAL INVESTIGATION / ALTERNATIVE ANALYSIS REPORT

1827 FILLMORE AVENUE SITE

BUFFALO, NEW YORK

PREPARED FOR

1827 FILLMORE LLC

FIGURE 3B

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC
2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

JOB NO.: 0421-017-001

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F:\CAD\Benchmark\Rupp, Baase, Pfalzgraf & Cunningham LLC\1827 Fillmore Avenue\04 - RI-AA\Figure 4; Groundwater Isopotential Map (December 2017).dwg

LEGEND:

- PROPERTY BOUNDARY
- MW-6 482.29 — RI MONITORING WELL W/ (5)
- MW-2 — RI SOIL BORING (3)
- 484 — GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION

Note: Depth to water measurements by Benchmark on December 7, 2017.
Groundwater elevations measured from a 500 feet site datum.

Horizontal Hydraulic Gradient (HHG): MW-6 to MW-7

HHG = ΔH / L
L = 380.4 feet
ΔH = 483.8 - 482.8 = 1.0 feet
HHG = 0.00253 ft/ft

KENSINGTON AVE
KENSINGTON EXWY
FILLMORE AVE
GLENNY DRIVE
33

MW-6 482.29
MW-4 dry
MW-2
MW-3
MW-1
MW-7 482.77
MW-8 488.01
MW-5 483.77

488
487
486
485
484
483

N

150' 0' 150' 300'

SCALE: 1 INCH = 150 FEET
SCALE IN FEET
(approximate)

DATE: JANUARY 2018
DRAFTED BY: CMC

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC
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SUITE 300
BUFFALO, NY 14218
(716) 856-0599

JOB NO.: 0421-017-001

GROUNDWATER ISOPOTENTIAL MAP

REMEDIAL INVESTIGATION / ALTERNATIVE ANALYSIS REPORT
1827 FILLMORE AVENUE SITE
BUFFALO, NEW YORK
PREPARED FOR
1827 FILLMORE LLC

FIGURE 4

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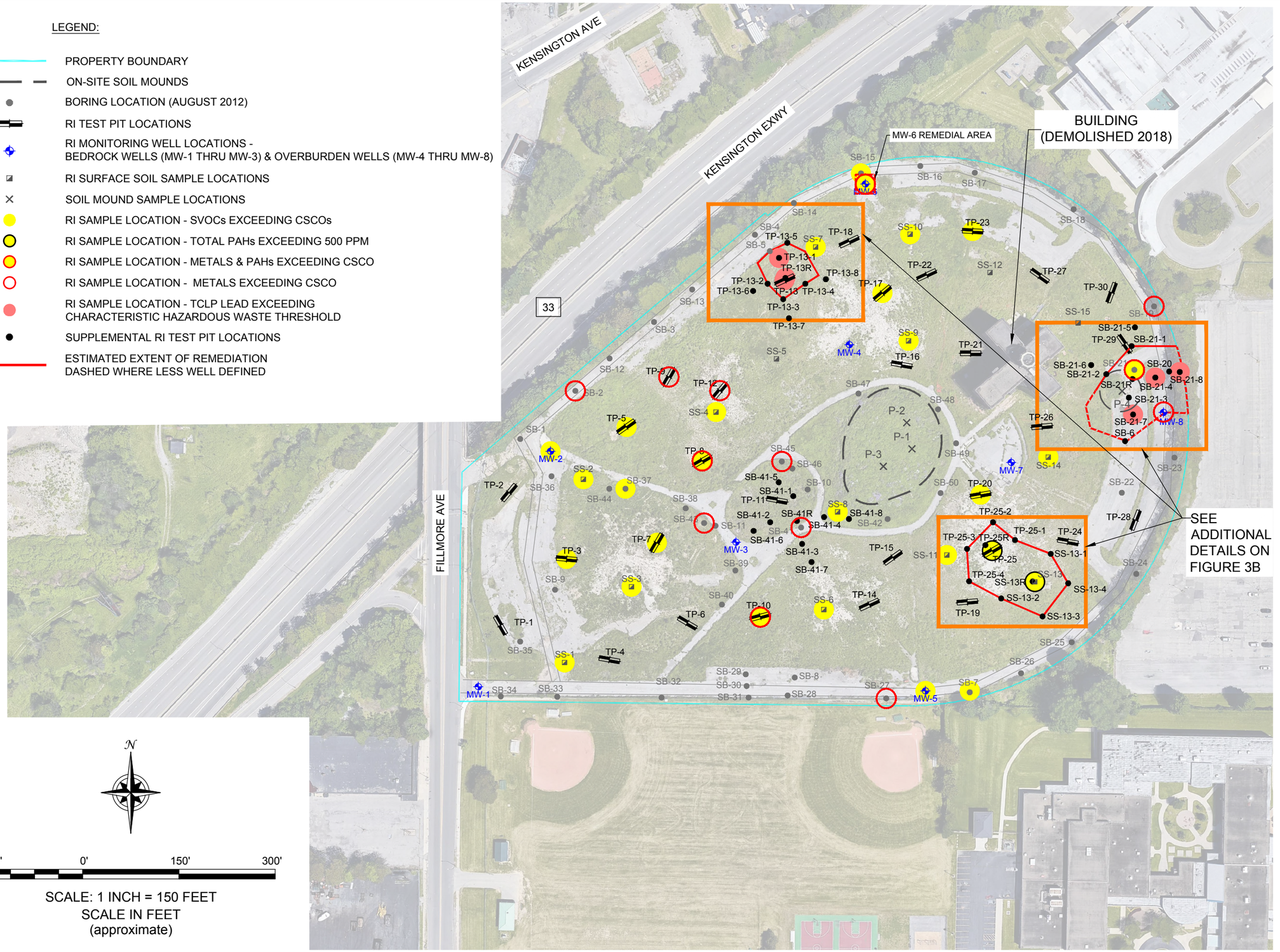
F:\CAD\Benchmark\Rupp, Baase, Pfalzgraf & Cunningham LLC\1827 Fillmore Avenue\04 - RI-AA\Figure 5A- Hot Spot Remedial Areas.dwg, 1/22/2019 1:10:39 PM

LEGEND:

- PROPERTY BOUNDARY
- ON-SITE SOIL MOUNDS
- SB-3 — BORING LOCATION (AUGUST 2012)
- TP-8 — RI TEST PIT LOCATIONS
- MW-2 — RI MONITORING WELL LOCATIONS - BEDROCK WELLS (MW-1 THRU MW-3) & OVERBURDEN WELLS (MW-4 THRU MW-8)
- SS-6 — RI SURFACE SOIL SAMPLE LOCATIONS
- P-1 — SOIL MOUND SAMPLE LOCATIONS
- RI SAMPLE LOCATION - SVOCs EXCEEDING CSCOs
- RI SAMPLE LOCATION - TOTAL PAHs EXCEEDING 500 PPM
- RI SAMPLE LOCATION - METALS & PAHs EXCEEDING CSCO
- RI SAMPLE LOCATION - METALS EXCEEDING CSCO
- RI SAMPLE LOCATION - TCLP LEAD EXCEEDING CHARACTERISTIC HAZARDOUS WASTE THRESHOLD
- TP-13-1 — SUPPLEMENTAL RI TEST PIT LOCATIONS
- ESTIMATED EXTENT OF REMEDIATION DASHED WHERE LESS WELL DEFINED



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150' 0' 150' 300'

SCALE: 1 INCH = 150 FEET
SCALE IN FEET
(approximate)

DATE: NOVEMBER 2018
DRAFTED BY: RFL

HOT SPOT SOIL REMEDIAL AREAS

REMEDIAL INVESTIGATION / ALTERNATIVE ANALYSIS REPORT

1827 FILLMORE AVENUE SITE

BUFFALO, NEW YORK

PREPARED FOR

1827 FILLMORE LLC

FIGURE 5A

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC
2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

JOB NO.: 0421-017-001

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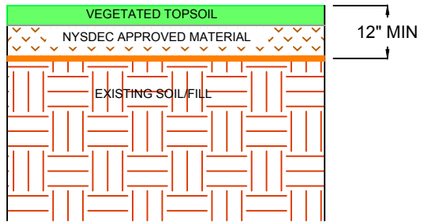
F:\CAD\Benchmark\Rupp, Baase, Pfalzgraf & Cunningham LLC\1827 Fillmore Avenue\04 - RI-AA\Figure 5B; Planned Site Cover System.dwg, 1/22/2019 1:11:45 PM

LEGEND:

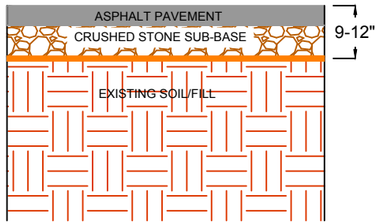
PROPERTY BOUNDARY

ESTIMATED EXTENT OF REMEDIATION
DASHED WHERE LESS WELL DEFINED

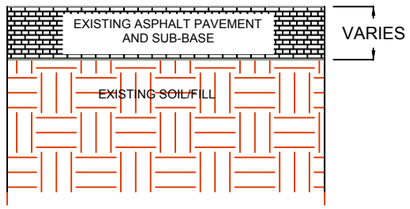
VEGETATED SOIL
COVER SYSTEM DETAIL
NTS

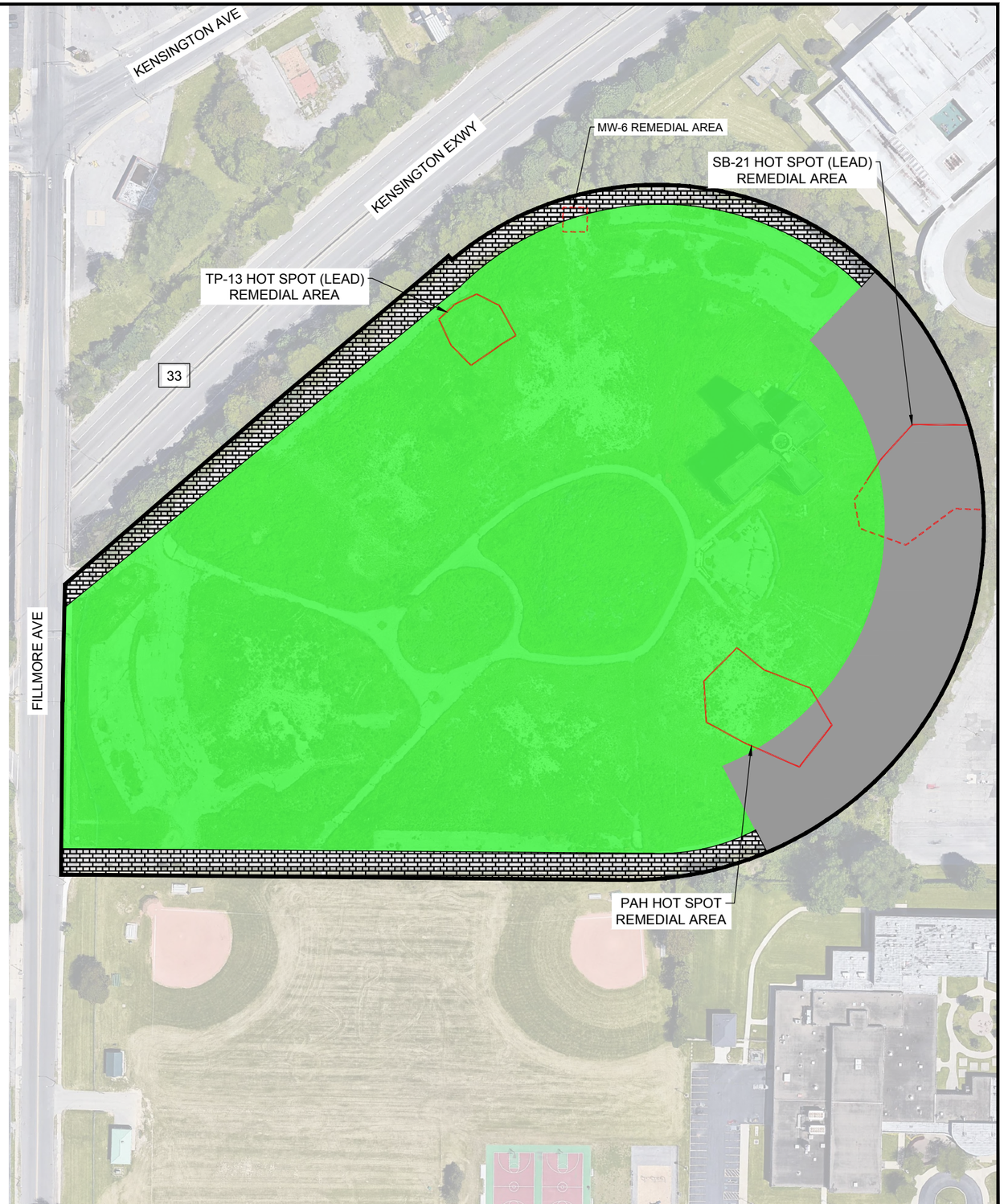


NEW ASPHALT
PAVEMENT
COVER SYSTEM DETAIL
NTS



EXISTING ASPHALT
COVER SYSTEM DETAIL
NTS





N

150' 0' 150' 300'

SCALE: 1 INCH = 150 FEET
SCALE IN FEET
(approximate)

DATE: NOVEMBER 2018
DRAFTED BY: RFL

2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

JOB NO.: 0421-017-001

SITE COVER SYSTEM

REMEDIAL INVESTIGATION / ALTERNATIVE ANALYSIS REPORT

1827 FILLMORE AVENUE SITE

BUFFALO, NEW YORK

PREPARED FOR
1827 FILLMORE LLC

FIGURE 5B

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APPENDIX A

PROJECT PHOTOGRAPHIC LOG

SITE PHOTOGRAPHS

Photo 1:



Photo 2:



Photo 3:



Photo 4:



Photo 1: Remedial Investigation, Advancement of MW-7 (Northeast).

Photo 2: Split spoon sample containing typical non-native sands (MW-7, 10-12 fbgs).

Photo 3: Split spoon sample containing typical ash/fill (MW-7, 18-20 fbgs).

Photo 4: Remedial Investigation, Advancement of TP-4 (east).

SITE PHOTOGRAPHS

Photo 5:



Photo 6:



Photo 7:



Photo 8:



Photo 5: Remedial Investigation, near surface ash/fill layer TP-4 (North).

Photo 6: Remedial Investigation, advancement of TP-7 (East).

Photo 7: Remedial Investigation, advancement of TP-12 (South).

Photo 8: Remedial Investigation, typical limestone talus found at depth in several test pits (TP-12, 12-15fbgs)

SITE PHOTOGRAPHS

Photo 9:



Photo 10:



Photo 11:



Photo 12:



Photo 9: Remedial Investigation, Advancement of TP-25 (South).

Photo 10: Remedial Investigation, Weathered concrete overlying non-native black sand TP-25 (South).

Photo 11: Remedial Investigation, Non-native black sands from TP-26 (North).

Photo 12: Remedial Investigation, TP-26 Ash/fill (East).

SITE PHOTOGRAPHS

Photo 13:



Photo 14:



Photo 15:



Photo 16:



Photo 13: Remedial Investigation, advancement of TP-23 (South).

Photo 14: Remedial Investigation, Re-worked clay mixed with fill materials TP-23 (North).

Photo 15: Remedial Investigation, excavated soils from P-2 (East).

Photo 16: Remedial Investigation, P-2 test pit excavation (West).

SITE PHOTOGRAPHS

Photo 17:



Photo 18:



Photo 19:



Photo 20:



Photo 17: Supplemental Remedial Investigation, Advancement of TP-13-2 (South).

Photo 18: Supplemental Remedial Investigation, Eastern sidewall of TP-13-2 (East).

Photo 19: Supplemental Remedial Investigation, TP-25-2 (South).

Photo 20: Supplemental Remedial Investigation, non-native black sands of SS-13-1 (East).

SITE PHOTOGRAPHS

Photo 21:



Photo 22:



Photo 23:



Photo 24:



Photo 21: Supplemental RI Activities for bedrock well installation, drilling of MW-1 bedrock well.

Photo 22: Supplemental RI Activities for bedrock well installation, MW-2 development activities.

Photo 23: Supplemental RI Activities for bedrock well installation activities, MW-3 drilling activities.

Photo 24: Supplemental RI Activities for bedrock well installation activities, MW-3 groundwater development activities.

APPENDIX B

FIELD BOREHOLE AND MONITORING WELL COMPLETION LOGS

Project No: 0421-017-001-004

Borehole Number: MW-1

Project: 1827 Fillmore Ave, Remedial Investigation

A.K.A.:

Client: Rupp, Baase, Pfalzgraf & Cunningham

Logged By: TAB

Site Location: 1827 Fillmore Ave. Buffalo, NY

Checked By:

Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0599

SUBSURFACE PROFILE			SAMPLE						
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (ft)	Symbol	PID VOCs ppm (0 – 12.5 – 25)	Lab Sample	Well Completion Details or Remarks
0.0	0.0	Ground Surface							
	0.0 -0.2 0.2	***Asphalt*** Asphalt ***Stone sub-base*** Dark grey, moist, mostly fine gravel, few fine sand, trace non-plastic fines, medium dense, loose when disturbed.	S1	28	0.9		0.0		
	-1.5 1.5	***Ash/Fill*** White, moist, ash.							
	-2.0 2.0	No Recovery	S2	8	0.0				
	-4.0 4.0	***Re-worked Clay with Fill.*** Reddish brown, moist, mostly, medium plasticity fines, some fine sand, orange brick, cinders and ash.	S3	100 4	0.6		0.0	Sample location	
5.0		Spoon and Auger refusal at 5.4 fbgs.							
	-5.4 5.4	End of Borehole							

Drilled By: Earth Dimensions, Inc.
Drill Rig Type: Diedrich D50
Drill Method: Continuous split spoon sampling
Comments:
Drill Date(s): 11/27/17

Hole Size: 8 1/2-inch.
Stick-up: NA
Datum: NA

Sheet: 1 of 1

Project No: 0421-017-001-007

Borehole Number: MW-1

Project: 1827 Fillmore Ave, Remedial Investigation

A.K.A.:

Client: Rupp, Baase, Pfalzgraf & Cunningham

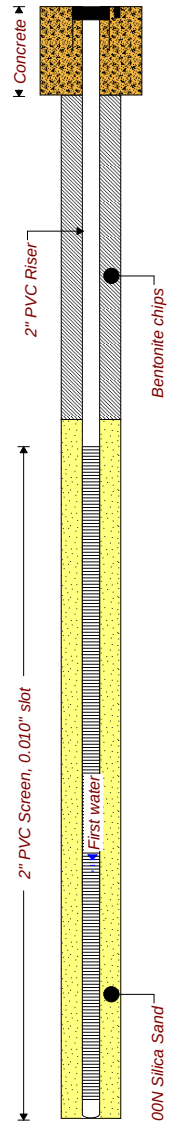
Logged By: TAB

Site Location: 1827 Fillmore Ave. Buffalo, NY

Checked By:

Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0599

SUBSURFACE PROFILE			SAMPLE						
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (ft)	Symbol	PID VOCs ppm 0 12.5 25	Lab Sample	Well Completion Details or Remarks
0.0	0.0	Ground Surface							
	0.0	See borehole log for MW-1.							
	-4.6								
	4.6	***Limestone***							
5.0		Grey to dark grey limestone bedrock, moderately hard to hard, massively bedded, moderately fractured horizontally along bedding planes							
		total water lost approximately 150 gallons.							
		Run #1 (4.6 - 12.4)'							
		Length 7.8 ft.							
		Recovery 7.7ft							
		percent recovered 99%							
		rock-quality designation (RQD) 97%							
10.0									
	-12.4								
	12.4	End of Borehole							



Drilled By: Earth Dimensions, Inc.
Drill Rig Type: Diedrich D50
Drill Method: N/Q-2 size double tubed wireline core barrel.
Comments:
Drill Date(s): 7/6/18

Hole Size: 8 1/2-inch.
Stick-up: NA
Datum: NA

Sheet: 1 of 1

Project No: 0421-017-001-004

Borehole Number: MW-2

Project: 1827 Fillmore Ave, Remedial Investigation

A.K.A.:

Client: Rupp, Baase, Pfalzgraf & Cunningham

Logged By: TAB

Site Location: 1827 Fillmore Ave. Buffalo, NY

Checked By:

Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0599

SUBSURFACE PROFILE			SAMPLE						
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (ft)	Symbol	PID VOCs ppm (0 / 12.5 / 25)	Lab Sample	Well Completion Details or Remarks
0.0	0.0	Ground Surface							
	0.0	***Asphalt*** Asphalt							
	-1.0 1.0	***Stone sub-base*** Dark grey, moist, mostly fine gravel, few fine sand, trace non-plastic fines, medium dense, loose.	S1	6	0.6		0.0		
	-2.0 2.0	***Re-worked Clay with Fill.*** Reddish brown/dark brown, moist, mostly, medium plasticity fines, some fine sand, orange brick, cinders and ash, firm. As above.	S2	7	1.4		0.0	Sample location	
	-4.0 4.0	As above.	S3	5	1.3		0.0		
5.0	-6.0 6.0	As above, stiff.	S4	11	1.2		0.0		
	-7.0 7.0	***Well Graded Fine Sand (Non-native)*** Black moist, mostly fine to medium sand, trace non-plastic fines, trace fine gravel (angular), medium dense, loose when disturbed.							
	-8.0 8.0	As above.	S5	19	0.6		0.0		
10.0	-10.0 10.0	***Re-worked Clay Fill*** As (1.0 to 2.0 fbgs) above.	S6	8	1.4		0.0		
	-12.0 12.0	***Limestone Mining Talus*** Grey, moist, mostly fine grave (lime stone), some coarse sand, loose.	S7	10	0.1		0.0		
	-14.0 14.0	Spoon and Auger refusal at 14.0 fbgs. End of Borehole							
15.0									

Drilled By: Earth Dimensions, Inc.
Drill Rig Type: Diedrich D50
Drill Method: Continuous split spoon sampling
Comments:
Drill Date(s): 11/22/17

Hole Size: 8 1/2-inch.
Stick-up: NA
Datum: NA

Sheet: 1 of 1

Project No: 0421-017-001-007

Borehole Number: MW-2

Project: 1827 Fillmore Ave, Remedial Investigation

A.K.A.:

Client: Rupp, Baase, Pfalzgraf & Cunningham

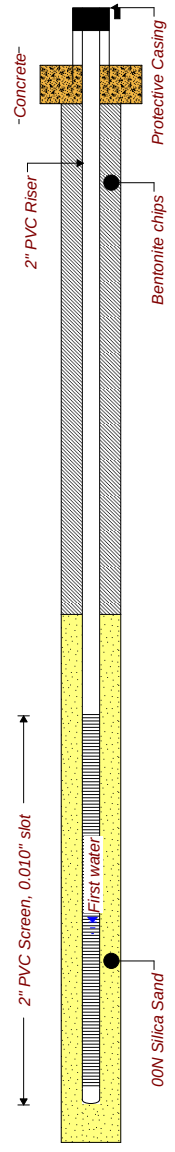
Logged By: TAB

Site Location: 1827 Fillmore Ave. Buffalo, NY

Checked By:

Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0599

SUBSURFACE PROFILE			SAMPLE						
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (ft)	Symbol	PID VOCs ppm 0 12.5 25	Lab Sample	Well Completion Details or Remarks
-1.0	0.0	Ground Surface							
	0.0	See borehole log for MW-2							
4.0									
9.0									
14.0	-14.1								
	14.1	***Limestone*** Grey to dark grey limestone bedrock, moderately hard to hard, massively bedded, moderately fractured horizontally along bedding planes total water lost approximately 650 gallons. Run #1 (14.1 - 22.5)' Length 8.3 ft. Recovery 8.1 ft Percent recovered 98% RQD 90% Run #2 (22.5 - 22.7)' Length 5.3 ft Recovery 4.9 ft Percent Recovered 92% RQD 88%							
19.0									
24.0									
	-27.7								
	27.7	End of Borehole							



Drilled By: Earth Dimensions, Inc.
Drill Rig Type: Diedrich D50
Drill Method: N/Q-2 size double tubed wireline core barrel.
Comments:
Drill Date(s): 7/5/18 and 7/6/18

Hole Size: 8 1/2-inch.
Stick-up: NA
Datum: NA

Sheet: 1 of 1

Project No: 0421-017-001-004

Borehole Number: MW-3

Project: 1827 Fillmore Ave, Remedial Investigation

A.K.A.:

Client: Rupp, Baase, Pfalzgraf & Cunningham

Logged By: TAB

Site Location: 1827 Fillmore Ave. Buffalo, NY

Checked By:

Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0599

SUBSURFACE PROFILE			SAMPLE						
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (ft)	Symbol	PID VOCs ppm (0 – 12.5 – 25)	Lab Sample	Well Completion Details or Remarks
0.0	0.0	Ground Surface							
	0.0	***Asphalt*** Asphalt							
		Stone sub-base Dark grey, moist, mostly fine gravel, few fine sand, trace non-plastic fines, medium dense, loose when disturbed.	S1	18	1.1		1.6	Sample location	
	-2.0 2.0	***Non-native sand Fill*** Black/brown, moist, mostly fine sand, trace non-plastic fines, glass, medium dense, loose when disturbed.	S2	16	1.7		0.0		
	-4.0 4.0	As above, trace slag As above with ash.	S3	17	1.8		0.0		
5.0	-6.0 6.0	As above, no slag,	S4	12	1.6		0.0		
	-8.0 8.0	As above, sand stone fragments, loose.	S5	7	1.4		0.0		
10.0	-10.0 10.0	***Re-worked Clay Fill*** Reddish brown, moist mostly medium plasticity fines, some fine sand, with wood, stiff.	S6	9	1.4		0.0		
	-12.0 12.0	As above.	S7	9	0.8		0.0		
	-14.0 14.0	As above.	S8	50/5	0.6		0.0		
15.0	-15.6 15.6	Spoon and Auger refusal at 15.6 fbgs. End of Borehole							

Drilled By: Earth Dimensions, Inc.
Drill Rig Type: Diedrich D50
Drill Method: Continuous split spoon sampling
Comments:
Drill Date(s): 11/22/17

Hole Size: 8 1/2-inch.
Stick-up: NA
Datum: NA

Sheet: 1 of 1

Project No: 0421-017-001-007

Borehole Number: MW-3

Project: 1827 Fillmore Ave, Remedial Investigation

A.K.A.:

Client: Rupp, Baase, Pfalzgraf & Cunningham

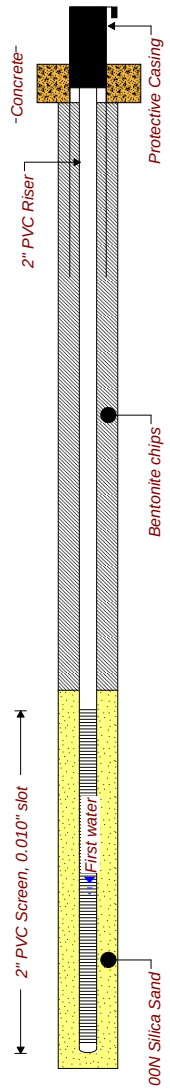
Logged By: TAB

Site Location: 1827 Fillmore Ave. Buffalo, NY

Checked By:

Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0599

SUBSURFACE PROFILE			SAMPLE						
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (ft)	Symbol	PID VOCs ppm (0 – 12.5 – 25)	Lab Sample	Well Completion Details or Remarks
-1.0	0.0 / 0.0	Ground Surface See borehole log for MW-3							
4.0									
9.0									
14.0									
	-16.1 / 16.1	***Limestone*** Grey to dark grey limestone bedrock, moderately hard to hard, massively bedded, moderately fractured horizontally along bedding planes. Total water lost approximately 400 gallons. Run #1 (16.9 - 17.8)' Length 0.9 ft. Recovery 0.9 ft Percent recovered 100% RQD 100% Run #2 (17.8 - 25.8)' Length 8.0 ft Recovery 7.4 ft Percent Recovered 93% RQD 96%							
19.0									
24.0									
	-25.8 / 25.8	End of Borehole							



Drilled By: Earth Dimensions, Inc.
Drill Rig Type: Diedrich D50
Drill Method: N/Q-2 size double tubed wireline core barrel.
Comments:
Drill Date(s): 7/3/18

Hole Size: 8 1/2-inch.
Stick-up: NA
Datum: NA

Sheet: 1 of 1

Project No: 0421-017-001-004

Borehole Number: MW-4

Project: 1827 Fillmore Ave, Remedial Investigation

A.K.A.:

Client: Rupp, Baase, Pfalzgraf & Cunningham

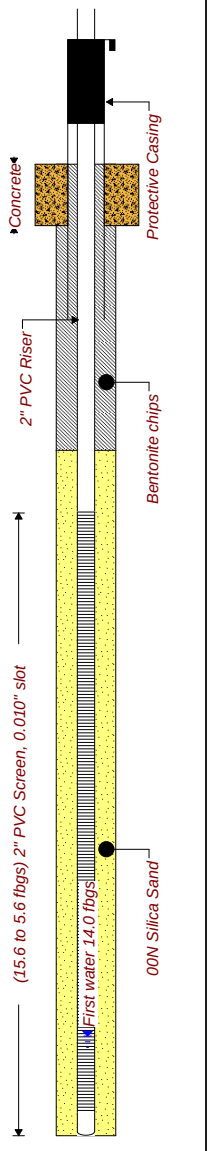
Logged By: TAB

Site Location: 1827 Fillmore Ave. Buffalo, NY

Checked By:

Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0599

SUBSURFACE PROFILE			SAMPLE						
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (ft)	Symbol	PID VOCs ppm (0 / 12.5 / 25)	Lab Sample	Well Completion Details or Remarks
-2.0									
	0.0	Ground Surface							
	0.0 / -0.5 / 0.5	***Sandy Lean Clay with Fill*** Dark brown, moist, mostly low plasticity fines, some fine sand, coal fragments, roots, massive, very stiff.	S1	26	1.6		1.6		
	-2.0 / 2.0	***Ash/fill*** Brown/dark brown, moist, mostly fine sand, little non-plastic fines, little fing gravel (slag), coal fragments, medium dense.	S2	9	1.3		0.0		
3.0	-4.0 / 4.0	***Non-Native Sand and Clay with Fill*** Black, black moist mostly fine to medium sand, trace non-plastic fines, few fine gravels (slag), loose. As above with ash, mixed with re-worked clay, yellow brick.	S3	6	1.2		0.0		
	-6.0 / 6.0	As above, orange brick, no slag.	S4	16	1.1		0.0		
8.0	-8.5 / 8.5	As above with concrete fragments	S5	38	1.6		0.0		
	-10.0 / 10.0	***Ash/Fill*** White, moist, mostly ash with cinders, with brown fine sand.	S6	11	1.3		0.0		
	-12.0 / 12.0	As above, as above no fine sand	S7	11	1.1		0.0	Sample location	
13.0	-14.0 / 14.0	As above.	S8	100 / 5	0.8		0.0		
	-15.6 / 15.6	Spoon and Auger refusal at 15.6 fbgs. End of Borehole							



Drilled By: Earth Dimensions, Inc.
Drill Rig Type: Diedrich D50
Drill Method: Continuous split spoon sampling
Comments:
Drill Date(s): 11/22/17

Hole Size: 8 1/2-inch.
Stick-up: NA
Datum: NA

Sheet: 1 of 1

Project No: 0421-017-001-004

Borehole Number: MW-5

Project: 1827 Fillmore Ave, Remedial Investigation

A.K.A.:

Client: Rupp, Baase, Pfalzgraf & Cunningham

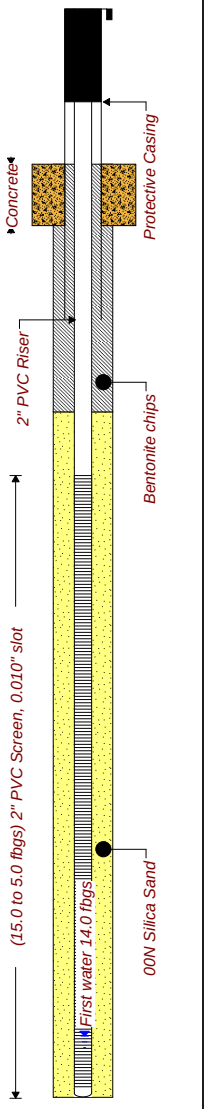
Logged By: TAB

Site Location: 1827 Fillmore Ave. Buffalo, NY

Checked By:

Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0599

SUBSURFACE PROFILE			SAMPLE						
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (ft)	Symbol	PID VOCs (ppm)	Lab Sample	Well Completion Details or Remarks
-2.0							0 – 12.5 – 25		
	497.8	Ground Surface							
	0.0	***Asphalt*** Asphalt							
	496.8 1.0	***Poorly Graded Gravel*** Grey, moist, mostly fine to coarse gravel, trace non-plastic fines, medium dense, loose when disturbed.	S1	11	1.4		0.0		
	495.8 2.0	***Ash/fill*** White/brown, moist, mostlly ash with cinders, loose.							
3.0		As above.	S2	4	1.1		0.0		
	493.8 4.0	As above.	S3	4	0.9		0.0		
	491.8 6.0	As above.							
	490.8 7.0	***Non-native Fine Sand*** Black, mostly fine sand, trace non-plastic fines, loose.	S4	7	1.8		0.0	Sample location	
8.0	8.0	***Ash/fill*** As (6.0 to 7.0 fbgs) above, medium dense.	S5	20	1.6		0.0		
	488.3 9.5	***Non-native Fine Sand*** As (7.0 to 8.0 above), medium dense..							
	487.8 10.0	***Ash/Fill*** As above, loose	S6	11	1.3		0.0		
	485.8 12.0	***Fill*** Black, moist, mostly fine sand, some non-plastic fines, with orange brick and cinders, loose.							
13.0			S7	8	0.8		0.0		
	483.8 14.0	As above	S8	100/5	0.8		0.0		
	482.8 15.0	Spoon and Auger refusal at 15.0 fbgs.							
		End of Borehole							



Drilled By: Earth Dimensions, Inc.
Drill Rig Type: Diedrich D50
Drill Method: Continuous split spoon sampling
Comments:
Drill Date(s): 11/20/17

Hole Size: 8 1/2-inch.
Stick-up: NA
Datum: NA

Sheet: 1 of 1

Project No: 0421-017-001-004

Borehole Number: MW-6

Project: 1827 Fillmore Ave, Remedial Investigation

A.K.A.:

Client: Rupp, Baase, Pfalzgraf & Cunningham

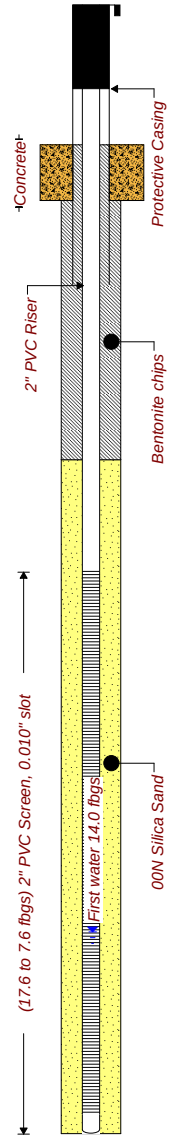
Logged By: TAB

Site Location: 1827 Fillmore Ave. Buffalo, NY

Checked By:

Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0599

SUBSURFACE PROFILE			SAMPLE						
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (ft)	Symbol	PID VOCs (ppm)	Lab Sample	Well Completion Details or Remarks
-2.0							0 12.5 25		
	497.8	Ground Surface							
	0.0	***Asphalt***							
		Asphalt							
	496.8	***Poorly Graded Gravel***	S1	11	0.7		0.0		
	1.0	Grey, moist, mostly fine to coarse gravel, trace non-plastic fines, medium dense, loose when disturbed.							
	495.8								
	2.0	***Re-worked Clay***	S2	11	1.0		0.0		
3.0		Reddish Brown, moist, mostly medium plasticity fines, little fine sand, with concrete and cinders, stiff.							
	493.8								
	4.0	As above, with black fine sand.							
		As above							
	492.8		S3	14	1.8		0.0		
	5.0	***Non-native Fine Sand***							
	491.8	Black/brown, mostly fine sand, trace non-plastic fines, yellow brick, obsidian fragments, medium dense.							
	6.0	As above, loose.	S4	8	1.1		0.0		
8.0	489.8								
	8.0	***Ash/fill***	S5	7	1.2		0.0	Sample location	
		White, moist, mostly ash with coal fragments and cinders, loose.							
	487.8								
	10.0	As above, with wood.	S6	8	0.7		0.0		
	485.8								
	12.0	As above, no wood.	S7	5	1.1		0.0		
13.0									
	483.8								
	14.0	As above.	S8	3	0.7		0.0		
	481.8								
	16.0	As above	S9	6	1.1				
	480.2								
	17.6	Spoon and auger refusal at 17.6 fbgs.							
18.0		End of Borehole							



Drilled By: Earth Dimensions, Inc.
Drill Rig Type: Diedrich D50
Drill Method: Continuous split spoon sampling
Comments:
Drill Date(s): 11/21/17

Hole Size: 8 1/2-inch.
Stick-up: NA
Datum: NA

Sheet: 1 of 1

Project No: 0421-017-001-004

Borehole Number: MW-7

Project: 1827 Fillmore Ave, Remedial Investigation

A.K.A.:

Client: Rupp, Baase, Pfalzgraf & Cunningham

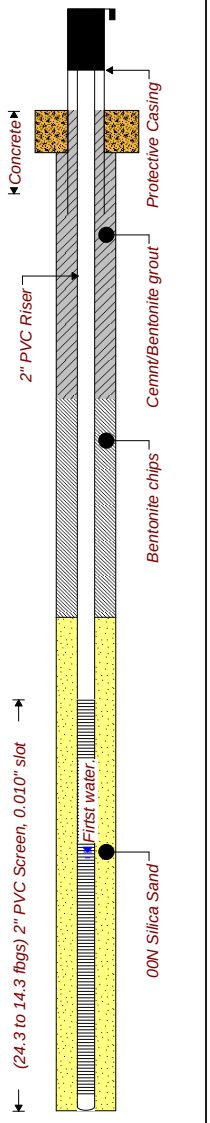
Logged By: TAB

Site Location: 1827 Fillmore Ave. Buffalo, NY

Checked By:

Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0599

SUBSURFACE PROFILE			SAMPLE						
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (ft)	Symbol	PID VOCs ppm (0 / 12.5 / 25)	Lab Sample	Well Completion Details or Remarks
-2.0	505.5 / 0.0	Ground Surface							
	504.5 / 1.0	***Asphalt*** Asphalt	S1	12	1.1		0.1		
	503.5 / 2.0	***Poorly Graded Gravel*** Grey, moist, mostly fine to coarse gravel, trace non-plastic fines, medium dense, loose when disturbed.	S2	27	1.7		0.1		
3.0	501.5 / 4.0	***Fill*** Black/brown, moist, mostly fine sand, little non-plastic fines, orange brick, cinders, ash, medium dense..	S3	10	1.6		0.0		
	499.5 / 6.0	As above. ***Re-worked clay with fill*** Black/brown, mostly medium plasticty fines, some fine sand (black), with cinders and ash.	S4	5	1.9		0.0		
8.0	497.5 / 8.0	As above, loose. As above, stiff.	S5	15	1.8		0.0	Sample location	
	495.5 / 10.0	***Fill*** Dark brown, mostly fine sand, little non-plastic fines, orange brick, ash and cinders, coal fragments, medium dense.	S6	15	1.7		0.0		
	493.5 / 12.0	As above.	S7	17	1.6		0.0		
13.0	491.5 / 14.0	As above. As above.	S8	11	1.6		0.0		
	490.5 / 15.0	***Ash/fill*** White, moist, mostly ash with coal fragments and cinders, loose, medium dense.	S9	6	1.1		0.0		
	489.5 / 16.0	As above, loose.							
18.0	487.5 / 18.0	As above, wet (18.0 fbgs).	S10	7	1.3		0.0		
	485.5 / 20.0	As above.	S11	8	0.7		0.0		
	483.5 / 22.0	***Ash/fill*** Black, wet, mostly cinders with white ash.	S12	9	1.1		0.0		
23.0	481.2 / 24.3	Was at spoon refusal from 23.5 to 24.0 fbgs, Augured to 24.3 fbgs where Auger refusal was encountered.		NA					
		End of Borehole							



Drilled By: Earth Dimensions, Inc.
Drill Rig Type: Diedrich D50
Drill Method: Continuous split spoon sampling
Comments:
Drill Date(s): 11/27/17

Hole Size: 8 1/2-inch.
Stick-up: NA
Datum: NA

Sheet: 1 of 1

Project No: 0421-017-001-004

Borehole Number: MW-8

Project: 1827 Fillmore Ave, Remedial Investigation

A.K.A.:

Client: Rupp, Baase, Pfalzgraf & Cunningham

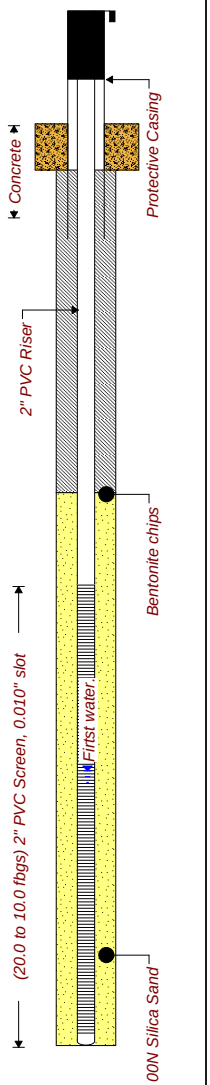
Logged By: TAB

Site Location: 1827 Fillmore Ave. Buffalo, NY

Checked By:

Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0599

SUBSURFACE PROFILE			SAMPLE						
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (ft)	Symbol	PID VOCs ppm	Lab Sample	Well Completion Details or Remarks
-2.0							0 12.5 25		
	504.2	Ground Surface							
	0.0	***Asphalt***							
	503.2	Asphalt	S1	13	1.1		0.0		
	1.0	***Poorly Graded Gravel***							
	502.2	Grey, moist, mostly fine to coarse gravel, trace non-plastic fines, medium dense, loose when disturbed.							
	2.0	***Non-native Fine Sand***	S2	25	1.5		0.0		
3.0		Black/brown, moist, mostly fine sand, trace non-plastic fines, medium dense, loose when disturbed.							
	500.2								
	4.0	As above, brown,	S3	15	0.6		0.0		
		As above, trace slag.							
	498.2								
	6.0	As above.	S4	15	1..3		0.0		
8.0	496.2								
	8.0	As above, leather.	S5	16	1.5		0.1		
	494.2								
	10.0	As above.	S6	21	1.5		0.0		
	492.2								
	12.0	As above.	S7	9	1.3		0.0		
13.0	490.7								
	13.5	***Ash/Fill***							
		White, moist, mostly ash, loose.							
		As above, wet (14.0 fbgs), wood and cinders, slight petroleum odor.	S8	11	1.6		1.3	Sample location	
	488.2								
	16.0	As above.	S9	9	1.6		0.0		
	487.2								
	17.0	***Re-worked Clay***							
18.0		Reddish brown, moist, mostly medium plasticity fines, some fine sand, medium toughness medium dry strength, stiff, massive.	S10	20	0.5		0.0		
		Ash/Fill							
	484.2	As (13.5 to 14.0 fbgs) above.							
	20.0	As above.							
		Spoon and auger refusal at 20.0 fbgs.							
		End of Borehole							



Drilled By: Earth Dimensions, Inc.
Drill Rig Type: Diedrich D50
Drill Method: Continuous split spoon sampling
Comments:
Drill Date(s): 11/20/17

Hole Size: 8 1/2-inch.
Stick-up: NA
Datum: NA

Sheet: 1 of 1

APPENDIX C

LABORATORY ANALYTICAL DATA PACKAGES

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-127874-1
Client Project/Site: 1827 Fillmore Avenue Site

For:
Benchmark Env. Eng. & Science, PLLC
2558 Hamburg Turnpike
Suite 300
Lackawanna, New York 14218

Attn: Mr. Michael Lesakowski

Authorized for release by:
11/30/2017 2:35:36 PM

Brian Fischer, Manager of Project Management
(716)504-9835
brian.fischer@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	RPD of the LCS and LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
X	Surrogate is outside control limits

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD is outside acceptance limits.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-127874-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-127874-1

Comments
No additional comments.

Receipt
The samples were received on 11/21/2017 11:05 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.0º C.

GC/MS VOA
Method(s) 8260C: Surrogate recovery for the LCSD was outside the upper control limit. Due to holding time limitations the sample was not reanalyzed. The following sample was impacted: MW-8 (14-16) (480-127874-2).

Method(s) 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 480-388669 and analytical batch 480-389342 recovered outside control limits for the following several analytes. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. The following sample is impacted: MW-8 (14-16) (480-127874-2)

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-389342 recovered above the upper control limit for several analytes. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: MW-8 (14-16) (480-127874-2).

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-389342 recovered outside acceptance criteria, low biased, for Methylene chloride and 1,1-Dichloroethene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported. The following sample is impacted: MW-8 (14-16) (480-127874-2).

Method(s) 8260C: The following sample was analyzed using medium level soil analysis and diluted due to the nature of the sample matrix: MW-8 (14-16) (480-127874-2). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch preparation batch 480-388669 and analytical batch 480-389342 recovered outside control limits for the following analytes: Chloroethane, Dichlorodifluoromethane and 1,1-Dichloroethene.

Method(s) 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) was outside laboratory/project quality control limits for the following analyte: Methylene Chloride. Reanalysis was not performed due to holding time limitations. The data has been qualified and reported. The following sample is impacted: MW-8 (14-16) (480-127874-2)

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

GC/MS Semi VOA
Method(s) 8270D: The continuing calibration verification (CCV) associated with batch 480-388851 recovered above the upper control limit for bis (2-chloroisopropyl) ether. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: MW-5 (6-8) (480-127874-1) and MW-8 (14-16) (480-127874-2).

Method(s) 8270D: The following samples were diluted due to the nature of the sample matrix: MW-5 (6-8) (480-127874-1) and MW-8 (14-16) (480-127874-2). Elevated reporting limits (RLs) are provided.

Method(s) 8270D: The following samples required a dilution due to the nature of the sample matrix: MW-5 (6-8) (480-127874-1) and MW-8 (14-16) (480-127874-2). 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.

Method(s) 8270D: The continuing calibration verification (CCV) associated with batch 480-388851 recovered outside acceptance criteria, low biased, for 4-Nitrophenol. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated

Job ID: 480-127874-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

samples were non-detect for this analyte, the data have been reported. The following samples are impacted: MW-5 (6-8) (480-127874-1) and MW-8 (14-16) (480-127874-2).

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

GC Semi VOA

Method(s) 8081B: The following sample was diluted due to the nature of the sample matrix: MW-5 (6-8) (480-127874-1). As such, surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method(s) 8081B: All primary data for analytical batch 388786 is reported from the RTX-CLPI column.

Method(s) 8081B: The percent difference in a multi-component continuing calibration verification is assessed on the basis of the total amount, individual peak calculations are only listed for completeness.

Method(s) 8082A: All primary data for analytical batch 388860 is reported from the ZB-5 column.

Method(s) 8082A: The percent difference in a multi-component continuing calibration verification is assessed on the basis of the total amount, individual peak calculations are only listed for completeness.

Method(s) 8151A: The continuing calibration verifications (CCVs) associated with batch 480-389279 recovered above the upper control limit for multiple analytes and surrogate 2,4-Dichlorophenylacetic acid. The sample associated with these CCVs were non-detect for all analyte and the surrogate results are not adversely affected; therefore, the data has been reported. The following sample is impacted: MW-5 (6-8) (480-127874-1).

Method(s) 8151A: The laboratory control sample (LCS)) for preparation batch 480-388640 and analytical batch 480-389279 recovered outside control limits for the analytes 2,4,5-T and Picloram. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. The following sample is impacted: MW-5 (6-8) (480-127874-1).

Method(s) 8151A: All primary data for analytical batch 389279 is reported from the RTX-CLPI column.

Method(s) 8151A: The continuing calibration verifications (CCVs) associated with this job do not contain Dalapon. This compound is included in the initial calibration and the LCS/LCSD associated with sample 480-123036-D-1-A, the recoveries are within limits, and the sample is non-detect for this analyte, therefore the data is reported.

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

Metals

Method(s) 6010C: The method blank for preparation batch 480-388853 and analytical batch 480-389577 contained Total Iron and Manganese above the reporting limit (RL). Associated samples MW-5 (6-8) (480-127874-1) and MW-8 (14-16) (480-127874-2) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

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

Organic Prep

Method(s) 3550C: The following sample required a Florisil clean-up, 3620C, to reduce matrix interferences: MW-5 (6-8) (480-127874-1).

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

Detection Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127874-1

Client Sample ID: MW-5 (6-8)

Lab Sample ID: 480-127874-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	4900		4200	420	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]pyrene	8100		4200	620	ug/Kg	20	☼	8270D	Total/NA
Benzo[b]fluoranthene	12000		4200	670	ug/Kg	20	☼	8270D	Total/NA
Benzo[g,h,i]perylene	7400		4200	440	ug/Kg	20	☼	8270D	Total/NA
Benzo[k]fluoranthene	5700		4200	540	ug/Kg	20	☼	8270D	Total/NA
Chrysene	6900		4200	940	ug/Kg	20	☼	8270D	Total/NA
Fluoranthene	5800		4200	440	ug/Kg	20	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	6000		4200	520	ug/Kg	20	☼	8270D	Total/NA
Phenanthrene	1400	J	4200	620	ug/Kg	20	☼	8270D	Total/NA
Pyrene	5300		4200	490	ug/Kg	20	☼	8270D	Total/NA
Methoxychlor	10	J	42	8.6	ug/Kg	20	☼	8081B	Total/NA
Aluminum	5170		13.6	6.0	mg/Kg	1	☼	6010C	Total/NA
Arsenic	5.7		2.7	0.54	mg/Kg	1	☼	6010C	Total/NA
Barium	108		0.68	0.15	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.30		0.27	0.038	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.34		0.27	0.041	mg/Kg	1	☼	6010C	Total/NA
Calcium	2940	B	68.1	4.5	mg/Kg	1	☼	6010C	Total/NA
Chromium	87.4	B	0.68	0.27	mg/Kg	1	☼	6010C	Total/NA
Cobalt	4.7		0.68	0.068	mg/Kg	1	☼	6010C	Total/NA
Copper	90.2		1.4	0.29	mg/Kg	1	☼	6010C	Total/NA
Iron	44400	B	13.6	4.8	mg/Kg	1	☼	6010C	Total/NA
Lead	67.8		1.4	0.33	mg/Kg	1	☼	6010C	Total/NA
Magnesium	1310	B	27.2	1.3	mg/Kg	1	☼	6010C	Total/NA
Manganese	392	B	0.27	0.044	mg/Kg	1	☼	6010C	Total/NA
Nickel	52.2		6.8	0.31	mg/Kg	1	☼	6010C	Total/NA
Potassium	867		40.9	27.2	mg/Kg	1	☼	6010C	Total/NA
Silver	0.48	J	0.82	0.27	mg/Kg	1	☼	6010C	Total/NA
Sodium	110	J	191	17.7	mg/Kg	1	☼	6010C	Total/NA
Vanadium	12.8		0.68	0.15	mg/Kg	1	☼	6010C	Total/NA
Zinc	101		2.7	0.87	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.29		0.026	0.010	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: MW-8 (14-16)

Lab Sample ID: 480-127874-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4-Isopropyltoluene	400	J *	660	220	ug/Kg	2	☼	8260C	Total/NA
Cyclohexane	260	J *	660	150	ug/Kg	2	☼	8260C	Total/NA
Methylene Chloride	310	J *	660	130	ug/Kg	2	☼	8260C	Total/NA
Toluene	280	J	660	180	ug/Kg	2	☼	8260C	Total/NA
Aluminum	14000		13.7	6.0	mg/Kg	1	☼	6010C	Total/NA
Arsenic	32.1		2.7	0.55	mg/Kg	1	☼	6010C	Total/NA
Barium	407		0.69	0.15	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.69		0.27	0.038	mg/Kg	1	☼	6010C	Total/NA
Cadmium	3.5		0.27	0.041	mg/Kg	1	☼	6010C	Total/NA
Calcium	41300	B	68.6	4.5	mg/Kg	1	☼	6010C	Total/NA
Chromium	24.8	B	0.69	0.27	mg/Kg	1	☼	6010C	Total/NA
Cobalt	7.7		0.69	0.069	mg/Kg	1	☼	6010C	Total/NA
Copper	88.8		1.4	0.29	mg/Kg	1	☼	6010C	Total/NA
Iron	50700	B	13.7	4.8	mg/Kg	1	☼	6010C	Total/NA
Lead	785		1.4	0.33	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-8 (14-16) (Continued)

Lab Sample ID: 480-127874-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	3410	B	27.5	1.3	mg/Kg	1	☼	6010C	Total/NA
Manganese	2100	B	0.27	0.044	mg/Kg	1	☼	6010C	Total/NA
Nickel	17.3		6.9	0.32	mg/Kg	1	☼	6010C	Total/NA
Potassium	2010		41.2	27.5	mg/Kg	1	☼	6010C	Total/NA
Selenium	6.7		5.5	0.55	mg/Kg	1	☼	6010C	Total/NA
Silver	2.6		0.82	0.27	mg/Kg	1	☼	6010C	Total/NA
Sodium	716		192	17.8	mg/Kg	1	☼	6010C	Total/NA
Vanadium	31.3		0.69	0.15	mg/Kg	1	☼	6010C	Total/NA
Zinc	1190		2.7	0.88	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.48		0.027	0.011	mg/Kg	1	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127874-1

Client Sample ID: MW-5 (6-8)
Date Collected: 11/20/17 11:50
Date Received: 11/21/17 11:05

Lab Sample ID: 480-127874-1
Matrix: Solid
Percent Solids: 79.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		4200	620	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
bis (2-chloroisopropyl) ether	ND		4200	840	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
2,4,5-Trichlorophenol	ND		4200	1100	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
2,4,6-Trichlorophenol	ND		4200	840	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
2,4-Dichlorophenol	ND		4200	440	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
2,4-Dimethylphenol	ND		4200	1000	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
2,4-Dinitrophenol	ND		41000	19000	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
2,4-Dinitrotoluene	ND		4200	860	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
2,6-Dinitrotoluene	ND		4200	490	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
2-Chloronaphthalene	ND		4200	690	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
2-Chlorophenol	ND		4200	760	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
2-Methylnaphthalene	ND		4200	840	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
2-Methylphenol	ND		4200	490	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
2-Nitroaniline	ND		8100	620	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
2-Nitrophenol	ND		4200	1200	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
3,3'-Dichlorobenzidine	ND		8100	4900	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
3-Nitroaniline	ND		8100	1200	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
4,6-Dinitro-2-methylphenol	ND		8100	4200	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
4-Bromophenyl phenyl ether	ND		4200	590	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
4-Chloro-3-methylphenol	ND		4200	1000	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
4-Chloroaniline	ND		4200	1000	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
4-Chlorophenyl phenyl ether	ND		4200	520	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
4-Methylphenol	ND		8100	490	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
4-Nitroaniline	ND		8100	2200	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
4-Nitrophenol	ND		8100	2900	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Acenaphthene	ND		4200	620	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Acenaphthylene	ND		4200	540	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Acetophenone	ND		4200	570	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Anthracene	ND		4200	1000	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Atrazine	ND		4200	1500	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Benzaldehyde	ND		4200	3300	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Benzo[a]anthracene	**4900**		4200	420	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Benzo[a]pyrene	**8100**		4200	620	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Benzo[b]fluoranthene	**12000**		4200	670	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Benzo[g,h,i]perylene	**7400**		4200	440	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Benzo[k]fluoranthene	**5700**		4200	540	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Bis(2-chloroethoxy)methane	ND		4200	890	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Bis(2-chloroethyl)ether	ND		4200	540	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Bis(2-ethylhexyl) phthalate	ND		4200	1400	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Butyl benzyl phthalate	ND		4200	690	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Caprolactam	ND		4200	1300	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Carbazole	ND		4200	490	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Chrysene	**6900**		4200	940	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Di-n-butyl phthalate	ND		4200	710	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Di-n-octyl phthalate	ND		4200	490	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Dibenz(a,h)anthracene	ND		4200	740	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Dibenzofuran	ND		4200	490	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Diethyl phthalate	ND		4200	540	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Dimethyl phthalate	ND		4200	490	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20

Client Sample ID: MW-5 (6-8)
Date Collected: 11/20/17 11:50
Date Received: 11/21/17 11:05

Lab Sample ID: 480-127874-1
Matrix: Solid
Percent Solids: 79.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	**5800**		4200	440	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Fluorene	ND		4200	490	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Hexachlorobenzene	ND		4200	570	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Hexachlorobutadiene	ND		4200	620	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Hexachlorocyclopentadiene	ND		4200	570	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Hexachloroethane	ND		4200	540	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Indeno[1,2,3-cd]pyrene	**6000**		4200	520	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Isophorone	ND		4200	890	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
N-Nitrosodi-n-propylamine	ND		4200	710	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
N-Nitrosodiphenylamine	ND		4200	3400	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Naphthalene	ND		4200	540	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Nitrobenzene	ND		4200	470	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Pentachlorophenol	ND		8100	4200	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Phenanthrene	**1400**	**J**	4200	620	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Phenol	ND		4200	640	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20
Pyrene	**5300**		4200	490	ug/Kg	☼	11/21/17 14:07	11/22/17 17:57	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*0*	*X*	*54 - 120*	*11/21/17 14:07*	*11/22/17 17:57*	*20*
2-Fluorobiphenyl	*80*		*60 - 120*	*11/21/17 14:07*	*11/22/17 17:57*	*20*
2-Fluorophenol	*74*		*52 - 120*	*11/21/17 14:07*	*11/22/17 17:57*	*20*
Nitrobenzene-d5	*68*		*53 - 120*	*11/21/17 14:07*	*11/22/17 17:57*	*20*
p-Terphenyl-d14	*89*		*65 - 121*	*11/21/17 14:07*	*11/22/17 17:57*	*20*
Phenol-d5	*70*		*54 - 120*	*11/21/17 14:07*	*11/22/17 17:57*	*20*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		42	8.2	ug/Kg	☼	11/21/17 14:17	11/22/17 14:51	20
4,4'-DDE	ND		42	8.8	ug/Kg	☼	11/21/17 14:17	11/22/17 14:51	20
4,4'-DDT	ND		42	9.8	ug/Kg	☼	11/21/17 14:17	11/22/17 14:51	20
Aldrin	ND		42	10	ug/Kg	☼	11/21/17 14:17	11/22/17 14:51	20
alpha-BHC	ND		42	7.6	ug/Kg	☼	11/21/17 14:17	11/22/17 14:51	20
alpha-Chlordane	ND		42	21	ug/Kg	☼	11/21/17 14:17	11/22/17 14:51	20
beta-BHC	ND		42	7.6	ug/Kg	☼	11/21/17 14:17	11/22/17 14:51	20
delta-BHC	ND		42	7.8	ug/Kg	☼	11/21/17 14:17	11/22/17 14:51	20
Dieldrin	ND		42	10	ug/Kg	☼	11/21/17 14:17	11/22/17 14:51	20
Endosulfan I	ND		42	8.1	ug/Kg	☼	11/21/17 14:17	11/22/17 14:51	20
Endosulfan II	ND		42	7.6	ug/Kg	☼	11/21/17 14:17	11/22/17 14:51	20
Endosulfan sulfate	ND		42	7.8	ug/Kg	☼	11/21/17 14:17	11/22/17 14:51	20
Endrin	ND		42	8.3	ug/Kg	☼	11/21/17 14:17	11/22/17 14:51	20
Endrin aldehyde	ND		42	11	ug/Kg	☼	11/21/17 14:17	11/22/17 14:51	20
Endrin ketone	ND		42	10	ug/Kg	☼	11/21/17 14:17	11/22/17 14:51	20
gamma-BHC (Lindane)	ND		42	7.7	ug/Kg	☼	11/21/17 14:17	11/22/17 14:51	20
gamma-Chlordane	ND		42	13	ug/Kg	☼	11/21/17 14:17	11/22/17 14:51	20
Heptachlor	ND		42	9.1	ug/Kg	☼	11/21/17 14:17	11/22/17 14:51	20
Heptachlor epoxide	ND		42	11	ug/Kg	☼	11/21/17 14:17	11/22/17 14:51	20
Methoxychlor	**10**	**J**	42	8.6	ug/Kg	☼	11/21/17 14:17	11/22/17 14:51	20
Toxaphene	ND		420	240	ug/Kg	☼	11/21/17 14:17	11/22/17 14:51	20

Client Sample ID: MW-5 (6-8)

Date Collected: 11/20/17 11:50
Date Received: 11/21/17 11:05

Lab Sample ID: 480-127874-1

Matrix: Solid
Percent Solids: 79.1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	0	X	45 - 120	11/21/17 14:17	11/22/17 14:51	20
DCB Decachlorobiphenyl	0	X	45 - 120	11/21/17 14:17	11/22/17 14:51	20
Tetrachloro-m-xylene	243	X	30 - 124	11/21/17 14:17	11/22/17 14:51	20
Tetrachloro-m-xylene	156	X	30 - 124	11/21/17 14:17	11/22/17 14:51	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.31	0.060	mg/Kg	☼	11/22/17 07:09	11/22/17 18:03	1
PCB-1221	ND		0.31	0.060	mg/Kg	☼	11/22/17 07:09	11/22/17 18:03	1
PCB-1232	ND		0.31	0.060	mg/Kg	☼	11/22/17 07:09	11/22/17 18:03	1
PCB-1242	ND		0.31	0.060	mg/Kg	☼	11/22/17 07:09	11/22/17 18:03	1
PCB-1248	ND		0.31	0.060	mg/Kg	☼	11/22/17 07:09	11/22/17 18:03	1
PCB-1254	ND		0.31	0.14	mg/Kg	☼	11/22/17 07:09	11/22/17 18:03	1
PCB-1260	ND		0.31	0.14	mg/Kg	☼	11/22/17 07:09	11/22/17 18:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	109		60 - 154	11/22/17 07:09	11/22/17 18:03	1
Tetrachloro-m-xylene	115		60 - 154	11/22/17 07:09	11/22/17 18:03	1
DCB Decachlorobiphenyl	107		65 - 174	11/22/17 07:09	11/22/17 18:03	1
DCB Decachlorobiphenyl	104		65 - 174	11/22/17 07:09	11/22/17 18:03	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND	*	21	6.7	ug/Kg	☼	11/21/17 14:21	11/27/17 19:35	1
Silvex (2,4,5-TP)	ND		21	7.5	ug/Kg	☼	11/21/17 14:21	11/27/17 19:35	1
2,4-D	ND		21	13	ug/Kg	☼	11/21/17 14:21	11/27/17 19:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	124		28 - 129	11/21/17 14:21	11/27/17 19:35	1
2,4-Dichlorophenylacetic acid	126		28 - 129	11/21/17 14:21	11/27/17 19:35	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**5170**		13.6	6.0	mg/Kg	☼	11/22/17 14:04	11/28/17 16:20	1
Antimony	ND		20.4	0.54	mg/Kg	☼	11/22/17 14:04	11/28/17 16:20	1
Arsenic	**5.7**		2.7	0.54	mg/Kg	☼	11/22/17 14:04	11/25/17 04:52	1
Barium	**108**		0.68	0.15	mg/Kg	☼	11/22/17 14:04	11/28/17 16:20	1
Beryllium	**0.30**		0.27	0.038	mg/Kg	☼	11/22/17 14:04	11/28/17 16:20	1
Cadmium	**0.34**		0.27	0.041	mg/Kg	☼	11/22/17 14:04	11/28/17 16:20	1
Calcium	**2940**	**B**	68.1	4.5	mg/Kg	☼	11/22/17 14:04	11/28/17 16:20	1
Chromium	**87.4**	**B**	0.68	0.27	mg/Kg	☼	11/22/17 14:04	11/28/17 16:20	1
Cobalt	**4.7**		0.68	0.068	mg/Kg	☼	11/22/17 14:04	11/28/17 16:20	1
Copper	**90.2**		1.4	0.29	mg/Kg	☼	11/22/17 14:04	11/28/17 16:20	1
Iron	**44400**	**B**	13.6	4.8	mg/Kg	☼	11/22/17 14:04	11/28/17 16:20	1
Lead	**67.8**		1.4	0.33	mg/Kg	☼	11/22/17 14:04	11/28/17 16:20	1
Magnesium	**1310**	**B**	27.2	1.3	mg/Kg	☼	11/22/17 14:04	11/28/17 16:20	1
Manganese	**392**	**B**	0.27	0.044	mg/Kg	☼	11/22/17 14:04	11/28/17 16:20	1
Nickel	**52.2**		6.8	0.31	mg/Kg	☼	11/22/17 14:04	11/28/17 16:20	1
Potassium	**867**		40.9	27.2	mg/Kg	☼	11/22/17 14:04	11/28/17 16:20	1
Selenium	ND		5.4	0.54	mg/Kg	☼	11/22/17 14:04	11/28/17 16:20	1
Silver	**0.48**	**J**	0.82	0.27	mg/Kg	☼	11/22/17 14:04	11/28/17 16:20	1

Client Sample ID: MW-5 (6-8)
Date Collected: 11/20/17 11:50
Date Received: 11/21/17 11:05

Lab Sample ID: 480-127874-1
Matrix: Solid
Percent Solids: 79.1

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	110	J	191	17.7	mg/Kg	☼	11/22/17 14:04	11/28/17 16:20	1
Thallium	ND		8.2	0.41	mg/Kg	☼	11/22/17 14:04	11/28/17 16:20	1
Vanadium	12.8		0.68	0.15	mg/Kg	☼	11/22/17 14:04	11/28/17 16:20	1
Zinc	101		2.7	0.87	mg/Kg	☼	11/22/17 14:04	11/28/17 16:20	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.29		0.026	0.010	mg/Kg	☼	11/27/17 15:00	11/27/17 16:29	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127874-1

Client Sample ID: MW-8 (14-16)
Date Collected: 11/20/17 14:49
Date Received: 11/21/17 11:05

Lab Sample ID: 480-127874-2
Matrix: Solid
Percent Solids: 74.6

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		660	180	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
1,1,2,2-Tetrachloroethane	ND		660	110	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		660	330	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
1,1,2-Trichloroethane	ND		660	140	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
1,1-Dichloroethane	ND	*	660	200	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
1,1-Dichloroethene	ND	*	660	230	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
1,2,4-Trichlorobenzene	ND		660	250	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
1,2,4-Trimethylbenzene	ND		660	180	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
1,2-Dibromo-3-Chloropropane	ND		660	330	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
1,2-Dibromoethane	ND		660	120	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
1,2-Dichlorobenzene	ND		660	170	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
1,2-Dichloroethane	ND	*	660	270	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
1,2-Dichloropropane	ND	*	660	110	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
1,3,5-Trimethylbenzene	ND	*	660	200	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
1,3-Dichlorobenzene	ND	*	660	180	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
1,4-Dichlorobenzene	ND		660	92	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
2-Butanone (MEK)	ND		3300	2000	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
2-Hexanone	ND	*	3300	1400	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
4-Isopropyltoluene	**400**	**J ***	660	220	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
4-Methyl-2-pentanone (MIBK)	ND	*	3300	210	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
Acetone	ND		3300	2700	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
Benzene	ND		660	130	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
Bromodichloromethane	ND		660	130	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
Bromoform	ND		660	330	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
Bromomethane	ND		660	150	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
Carbon disulfide	ND	*	660	300	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
Carbon tetrachloride	ND		660	170	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
Chlorobenzene	ND		660	87	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
Chloroethane	ND	*	660	140	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
Chloroform	ND		660	450	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
Chloromethane	ND	*	660	160	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
cis-1,2-Dichloroethene	ND		660	180	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
cis-1,3-Dichloropropene	ND		660	160	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
Cyclohexane	**260**	**J ***	660	150	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
Dibromochloromethane	ND		660	320	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
Dichlorodifluoromethane	ND	*	660	290	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
Ethylbenzene	ND		660	190	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
Isopropylbenzene	ND	*	660	99	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
m,p-Xylene	ND		1300	370	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
Methyl acetate	ND	*	3300	310	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
Methyl tert-butyl ether	ND		660	250	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
Methylcyclohexane	ND		660	310	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
Methylene Chloride	**310**	**J ***	660	130	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
n-Butylbenzene	ND	*	660	190	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
N-Propylbenzene	ND	*	660	170	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
o-Xylene	ND		660	86	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
sec-Butylbenzene	ND	*	660	240	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
Styrene	ND		660	160	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
tert-Butylbenzene	ND	*	660	180	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2

Client Sample ID: MW-8 (14-16)

Date Collected: 11/20/17 14:49
Date Received: 11/21/17 11:05

Lab Sample ID: 480-127874-2

Matrix: Solid
Percent Solids: 74.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		660	89	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
Toluene	**280**	**J**	660	180	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
trans-1,2-Dichloroethene	ND		660	160	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
trans-1,3-Dichloropropene	ND		660	65	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
Trichloroethene	ND		660	180	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
Trichlorofluoromethane	ND		660	310	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
Vinyl chloride	ND		660	220	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2
Xylenes, Total	ND		1300	370	ug/Kg	☼	11/21/17 16:06	11/28/17 14:05	2

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*3100*	*T J*	*ug/Kg*	☼	*11.31*		*11/21/17 16:06*	*11/28/17 14:05*	*2*
Unknown	*2800*	*T J*	*ug/Kg*	☼	*11.42*		*11/21/17 16:06*	*11/28/17 14:05*	*2*
Unknown	*4200*	*T J*	*ug/Kg*	☼	*11.78*		*11/21/17 16:06*	*11/28/17 14:05*	*2*
Unknown	*4700*	*T J*	*ug/Kg*	☼	*12.24*		*11/21/17 16:06*	*11/28/17 14:05*	*2*
Unknown	*4900*	*T J*	*ug/Kg*	☼	*12.34*		*11/21/17 16:06*	*11/28/17 14:05*	*2*
Unknown	*3000*	*T J*	*ug/Kg*	☼	*12.38*		*11/21/17 16:06*	*11/28/17 14:05*	*2*
Unknown	*4700*	*T J*	*ug/Kg*	☼	*12.69*		*11/21/17 16:06*	*11/28/17 14:05*	*2*
Unknown	*3700*	*T J*	*ug/Kg*	☼	*12.83*		*11/21/17 16:06*	*11/28/17 14:05*	*2*
Unknown	*2600*	*T J*	*ug/Kg*	☼	*14.57*		*11/21/17 16:06*	*11/28/17 14:05*	*2*
Unknown	*3300*	*T J*	*ug/Kg*	☼	*14.73*		*11/21/17 16:06*	*11/28/17 14:05*	*2*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*53 - 146*	*11/21/17 16:06*	*11/28/17 14:05*	*2*
4-Bromofluorobenzene (Surr)	*101*		*49 - 148*	*11/21/17 16:06*	*11/28/17 14:05*	*2*
Dibromofluoromethane (Surr)	*90*		*60 - 140*	*11/21/17 16:06*	*11/28/17 14:05*	*2*
Toluene-d8 (Surr)	*98*		*50 - 149*	*11/21/17 16:06*	*11/28/17 14:05*	*2*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		11000	1700	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
bis (2-chloroisopropyl) ether	ND		11000	2300	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
2,4,5-Trichlorophenol	ND		11000	3100	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
2,4,6-Trichlorophenol	ND		11000	2300	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
2,4-Dichlorophenol	ND		11000	1200	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
2,4-Dimethylphenol	ND		11000	2700	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
2,4-Dinitrophenol	ND		110000	52000	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
2,4-Dinitrotoluene	ND		11000	2300	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
2,6-Dinitrotoluene	ND		11000	1300	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
2-Chloronaphthalene	ND		11000	1900	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
2-Chlorophenol	ND		11000	2100	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
2-Methylnaphthalene	ND		11000	2300	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
2-Methylphenol	ND		11000	1300	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
2-Nitroaniline	ND		22000	1700	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
2-Nitrophenol	ND		11000	3200	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
3,3'-Dichlorobenzidine	ND		22000	13000	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
3-Nitroaniline	ND		22000	3100	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
4,6-Dinitro-2-methylphenol	ND		22000	11000	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
4-Bromophenyl phenyl ether	ND		11000	1600	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
4-Chloro-3-methylphenol	ND		11000	2800	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
4-Chloroaniline	ND		11000	2800	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50

Client Sample ID: MW-8 (14-16)
Date Collected: 11/20/17 14:49
Date Received: 11/21/17 11:05

Lab Sample ID: 480-127874-2
Matrix: Solid
Percent Solids: 74.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND		11000	1400	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
4-Methylphenol	ND		22000	1300	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
4-Nitroaniline	ND		22000	5900	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
4-Nitrophenol	ND		22000	7900	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Acenaphthene	ND		11000	1700	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Acenaphthylene	ND		11000	1500	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Acetophenone	ND		11000	1500	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Anthracene	ND		11000	2800	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Atrazine	ND		11000	3900	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Benzaldehyde	ND		11000	9000	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Benzo[a]anthracene	ND		11000	1100	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Benzo[a]pyrene	ND		11000	1700	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Benzo[b]fluoranthene	ND		11000	1800	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Benzo[g,h,i]perylene	ND		11000	1200	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Benzo[k]fluoranthene	ND		11000	1500	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Bis(2-chloroethoxy)methane	ND		11000	2400	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Bis(2-chloroethyl)ether	ND		11000	1500	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Bis(2-ethylhexyl) phthalate	ND		11000	3900	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Butyl benzyl phthalate	ND		11000	1900	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Caprolactam	ND		11000	3400	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Carbazole	ND		11000	1300	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Chrysene	ND		11000	2500	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Di-n-butyl phthalate	ND		11000	1900	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Di-n-octyl phthalate	ND		11000	1300	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Dibenz(a,h)anthracene	ND		11000	2000	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Dibenzofuran	ND		11000	1300	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Diethyl phthalate	ND		11000	1500	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Dimethyl phthalate	ND		11000	1300	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Fluoranthene	ND		11000	1200	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Fluorene	ND		11000	1300	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Hexachlorobenzene	ND		11000	1500	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Hexachlorobutadiene	ND		11000	1700	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Hexachlorocyclopentadiene	ND		11000	1500	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Hexachloroethane	ND		11000	1500	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Indeno[1,2,3-cd]pyrene	ND		11000	1400	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Isophorone	ND		11000	2400	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
N-Nitrosodi-n-propylamine	ND		11000	1900	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
N-Nitrosodiphenylamine	ND		11000	9200	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Naphthalene	ND		11000	1500	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Nitrobenzene	ND		11000	1300	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Pentachlorophenol	ND		22000	11000	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Phenanthrene	ND		11000	1700	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Phenol	ND		11000	1700	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50
Pyrene	ND		11000	1300	ug/Kg	☼	11/21/17 14:07	11/22/17 18:23	50

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Phenanthrene, 2,4,5,7-tetramethyl-	*13000*	*T J N*	*ug/Kg*	☼	*12.59*	*7396-38-5*	*11/21/17 14:07*	*11/22/17 18:23*	*50*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*0*	*X*	*54 - 120*	*11/21/17 14:07*	*11/22/17 18:23*	*50*

Client Sample ID: MW-8 (14-16)

Date Collected: 11/20/17 14:49
Date Received: 11/21/17 11:05

Lab Sample ID: 480-127874-2

Matrix: Solid
Percent Solids: 74.6

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*77*		*60 - 120*	*11/21/17 14:07*	*11/22/17 18:23*	*50*
2-Fluorophenol	*0*	*X*	*52 - 120*	*11/21/17 14:07*	*11/22/17 18:23*	*50*
Nitrobenzene-d5	*77*		*53 - 120*	*11/21/17 14:07*	*11/22/17 18:23*	*50*
p-Terphenyl-d14	*0*	*X*	*65 - 121*	*11/21/17 14:07*	*11/22/17 18:23*	*50*
Phenol-d5	*0*	*X*	*54 - 120*	*11/21/17 14:07*	*11/22/17 18:23*	*50*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.28	0.055	mg/Kg	☼	11/22/17 07:09	11/22/17 18:19	1
PCB-1221	ND		0.28	0.055	mg/Kg	☼	11/22/17 07:09	11/22/17 18:19	1
PCB-1232	ND		0.28	0.055	mg/Kg	☼	11/22/17 07:09	11/22/17 18:19	1
PCB-1242	ND		0.28	0.055	mg/Kg	☼	11/22/17 07:09	11/22/17 18:19	1
PCB-1248	ND		0.28	0.055	mg/Kg	☼	11/22/17 07:09	11/22/17 18:19	1
PCB-1254	ND		0.28	0.13	mg/Kg	☼	11/22/17 07:09	11/22/17 18:19	1
PCB-1260	ND		0.28	0.13	mg/Kg	☼	11/22/17 07:09	11/22/17 18:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*117*		*60 - 154*	*11/22/17 07:09*	*11/22/17 18:19*	*1*
Tetrachloro-m-xylene	*124*		*60 - 154*	*11/22/17 07:09*	*11/22/17 18:19*	*1*
DCB Decachlorobiphenyl	*105*		*65 - 174*	*11/22/17 07:09*	*11/22/17 18:19*	*1*
DCB Decachlorobiphenyl	*110*		*65 - 174*	*11/22/17 07:09*	*11/22/17 18:19*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**14000**		13.7	6.0	mg/Kg	☼	11/22/17 14:04	11/28/17 16:24	1
Antimony	ND		20.6	0.55	mg/Kg	☼	11/22/17 14:04	11/28/17 16:24	1
Arsenic	**32.1**		2.7	0.55	mg/Kg	☼	11/22/17 14:04	11/25/17 04:56	1
Barium	**407**		0.69	0.15	mg/Kg	☼	11/22/17 14:04	11/28/17 16:24	1
Beryllium	**0.69**		0.27	0.038	mg/Kg	☼	11/22/17 14:04	11/28/17 16:24	1
Cadmium	**3.5**		0.27	0.041	mg/Kg	☼	11/22/17 14:04	11/28/17 16:24	1
Calcium	**41300**	**B**	68.6	4.5	mg/Kg	☼	11/22/17 14:04	11/28/17 16:24	1
Chromium	**24.8**	**B**	0.69	0.27	mg/Kg	☼	11/22/17 14:04	11/28/17 16:24	1
Cobalt	**7.7**		0.69	0.069	mg/Kg	☼	11/22/17 14:04	11/28/17 16:24	1
Copper	**88.8**		1.4	0.29	mg/Kg	☼	11/22/17 14:04	11/28/17 16:24	1
Iron	**50700**	**B**	13.7	4.8	mg/Kg	☼	11/22/17 14:04	11/28/17 16:24	1
Lead	**785**		1.4	0.33	mg/Kg	☼	11/22/17 14:04	11/28/17 16:24	1
Magnesium	**3410**	**B**	27.5	1.3	mg/Kg	☼	11/22/17 14:04	11/28/17 16:24	1
Manganese	**2100**	**B**	0.27	0.044	mg/Kg	☼	11/22/17 14:04	11/28/17 16:24	1
Nickel	**17.3**		6.9	0.32	mg/Kg	☼	11/22/17 14:04	11/28/17 16:24	1
Potassium	**2010**		41.2	27.5	mg/Kg	☼	11/22/17 14:04	11/28/17 16:24	1
Selenium	**6.7**		5.5	0.55	mg/Kg	☼	11/22/17 14:04	11/28/17 16:24	1
Silver	**2.6**		0.82	0.27	mg/Kg	☼	11/22/17 14:04	11/28/17 16:24	1
Sodium	**716**		192	17.8	mg/Kg	☼	11/22/17 14:04	11/28/17 16:24	1
Thallium	ND		8.2	0.41	mg/Kg	☼	11/22/17 14:04	11/28/17 16:24	1
Vanadium	**31.3**		0.69	0.15	mg/Kg	☼	11/22/17 14:04	11/28/17 16:24	1
Zinc	**1190**		2.7	0.88	mg/Kg	☼	11/22/17 14:04	11/28/17 16:24	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.48**		0.027	0.011	mg/Kg	☼	11/27/17 15:00	11/27/17 16:30	1

Surrogate Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127874-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(53-146)	(49-148)	(60-140)	(50-149)
480-127874-2	MW-8 (14-16)	114	101	90	98
LCS 480-388669/1-A	Lab Control Sample	121	109	105	108
LCSD 480-388669/2-A	Lab Control Sample Dup	155 X	131	125	125
MB 480-388669/3-A	Method Blank	110	101	89	100

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	TPH	PHL
Lab Sample ID	Client Sample ID	(54-120)	(60-120)	(52-120)	(53-120)	(65-121)	(54-120)
480-127874-1	MW-5 (6-8)	0 X	80	74	68	89	70
480-127874-2	MW-8 (14-16)	0 X	77	0 X	77	0 X	0 X
LCS 480-388635/2-A	Lab Control Sample	83	93	81	84	103	88
MB 480-388635/1-A	Method Blank	66	89	82	83	108	89

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
TPH = p-Terphenyl-d14
PHL = Phenol-d5

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCB1	DCB2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(45-120)	(45-120)	(30-124)	(30-124)
480-127874-1	MW-5 (6-8)	0 X	0 X	243 X	156 X
LCS 480-388636/2-A	Lab Control Sample	98	95	69	64
MB 480-388636/1-A	Method Blank	93	96	73	62

Surrogate Legend

DCB = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Surrogate Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127874-1

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCB1	DCB2
Lab Sample ID	Client Sample ID	(60-154)	(60-154)	(65-174)	(65-174)
480-127874-1	MW-5 (6-8)	109	115	107	104
480-127874-1 MS	MW-5 (6-8)	143	147	137	137
480-127874-1 MSD	MW-5 (6-8)	128	139	126	134
480-127874-2	MW-8 (14-16)	117	124	105	110
LCS 480-388721/2-A	Lab Control Sample	112	114	107	102
MB 480-388721/1-A	Method Blank	119	130	126	126

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

Method: 8151A - Herbicides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCPA1	DCPA2
Lab Sample ID	Client Sample ID	(28-129)	(28-129)
480-127874-1	MW-5 (6-8)	124	126
LCS 480-388640/2-A	Lab Control Sample	128	140 X
MB 480-388640/1-A	Method Blank	71	121

Surrogate Legend

DCPA = 2,4-Dichlorophenylacetic acid

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-388669/3-A
Matrix: Solid
Analysis Batch: 389342

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 388669

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		100	28	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
1,1,2,2-Tetrachloroethane	ND		100	16	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100	50	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
1,1,2-Trichloroethane	ND		100	21	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
1,1-Dichloroethane	ND		100	31	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
1,1-Dichloroethene	ND		100	35	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
1,2,4-Trichlorobenzene	ND		100	38	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
1,2,4-Trimethylbenzene	ND		100	28	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
1,2-Dibromo-3-Chloropropane	ND		100	50	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
1,2-Dibromoethane	ND		100	18	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
1,2-Dichlorobenzene	ND		100	26	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
1,2-Dichloroethane	ND		100	41	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
1,2-Dichloropropane	ND		100	16	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
1,3,5-Trimethylbenzene	ND		100	30	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
1,3-Dichlorobenzene	ND		100	27	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
1,4-Dichlorobenzene	ND		100	14	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
2-Butanone (MEK)	ND		500	300	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
2-Hexanone	ND		500	210	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
4-Isopropyltoluene	ND		100	34	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
4-Methyl-2-pentanone (MIBK)	ND		500	32	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
Acetone	ND		500	410	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
Benzene	ND		100	19	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
Bromodichloromethane	ND		100	20	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
Bromoform	ND		100	50	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
Bromomethane	ND		100	22	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
Carbon disulfide	ND		100	46	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
Carbon tetrachloride	ND		100	26	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
Chlorobenzene	ND		100	13	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
Chloroethane	ND		100	21	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
Chloroform	ND		100	69	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
Chloromethane	ND		100	24	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
cis-1,2-Dichloroethene	ND		100	28	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
cis-1,3-Dichloropropene	ND		100	24	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
Cyclohexane	ND		100	22	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
Dibromochloromethane	ND		100	48	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
Dichlorodifluoromethane	ND		100	44	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
Ethylbenzene	ND		100	29	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
Isopropylbenzene	ND		100	15	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
m,p-Xylene	ND		200	55	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
Methyl acetate	ND		500	48	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
Methyl tert-butyl ether	ND		100	38	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
Methylcyclohexane	ND		100	47	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
Methylene Chloride	ND		100	20	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
n-Butylbenzene	ND		100	29	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
N-Propylbenzene	ND		100	26	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
o-Xylene	ND		100	13	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
sec-Butylbenzene	ND		100	37	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
Styrene	ND		100	24	ug/Kg		11/21/17 16:06	11/28/17 13:30	1

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

Lab Sample ID: MB 480-388669/3-A
Matrix: Solid
Analysis Batch: 389342

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 388669

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	ND		100	28	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
Tetrachloroethene	ND		100	13	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
Toluene	ND		100	27	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
trans-1,2-Dichloroethene	ND		100	24	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
trans-1,3-Dichloropropene	ND		100	9.8	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
Trichloroethene	ND		100	28	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
Trichlorofluoromethane	ND		100	47	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
Vinyl chloride	ND		100	34	ug/Kg		11/21/17 16:06	11/28/17 13:30	1
Xylenes, Total	ND		200	55	ug/Kg		11/21/17 16:06	11/28/17 13:30	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Chlorodifluoromethane	*213*		*ug/Kg*		*1.38*	*75-45-6*	*11/21/17 16:06*	*11/28/17 13:30*	*1*
Tentatively Identified Compound	*None*		*ug/Kg*				*11/21/17 16:06*	*11/28/17 13:30*	*1*

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*110*		*53 - 146*	*11/21/17 16:06*	*11/28/17 13:30*	*1*
4-Bromofluorobenzene (Surr)	*101*		*49 - 148*	*11/21/17 16:06*	*11/28/17 13:30*	*1*
Dibromofluoromethane (Surr)	*89*		*60 - 140*	*11/21/17 16:06*	*11/28/17 13:30*	*1*
Toluene-d8 (Surr)	*100*		*50 - 149*	*11/21/17 16:06*	*11/28/17 13:30*	*1*

Lab Sample ID: LCS 480-388669/1-A
Matrix: Solid
Analysis Batch: 389342

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388669

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	2500	2780		ug/Kg		111	68 - 130
1,1,2,2-Tetrachloroethane	2500	2510		ug/Kg		100	73 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	2500	2870		ug/Kg		115	10 - 179
1,1,2-Trichloroethane	2500	2680		ug/Kg		107	80 - 120
1,1-Dichloroethane	2500	2900		ug/Kg		116	78 - 121
1,1-Dichloroethene	2500	1330		ug/Kg		53	48 - 133
1,2,4-Trichlorobenzene	2500	2820		ug/Kg		113	70 - 140
1,2,4-Trimethylbenzene	2500	3020		ug/Kg		121	77 - 127
1,2-Dibromo-3-Chloropropane	2500	2300		ug/Kg		92	56 - 122
1,2-Dibromoethane	2500	2760		ug/Kg		110	80 - 120
1,2-Dichlorobenzene	2500	2700		ug/Kg		108	78 - 125
1,2-Dichloroethane	2500	3160		ug/Kg		126	74 - 127
1,2-Dichloropropane	2500	2830		ug/Kg		113	80 - 120
1,3,5-Trimethylbenzene	2500	2940		ug/Kg		117	79 - 120
1,3-Dichlorobenzene	2500	2850		ug/Kg		114	80 - 120
1,4-Dichlorobenzene	2500	2760		ug/Kg		110	80 - 120
2-Butanone (MEK)	12500	16700		ug/Kg		133	54 - 149
2-Hexanone	12500	18600	*	ug/Kg		149	59 - 127
4-Isopropyltoluene	2500	3060	*	ug/Kg		122	80 - 120
4-Methyl-2-pentanone (MIBK)	12500	15600	*	ug/Kg		124	74 - 120
Acetone	12500	14100		ug/Kg		113	47 - 141
Benzene	2500	2560		ug/Kg		102	77 - 125

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

Lab Sample ID: LCS 480-388669/1-A
Matrix: Solid
Analysis Batch: 389342

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388669

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromodichloromethane	2500	2630		ug/Kg		105	71 - 121
Bromoform	2500	2090		ug/Kg		84	48 - 125
Bromomethane	2500	2910		ug/Kg		116	39 - 149
Carbon disulfide	2500	2420		ug/Kg		97	40 - 136
Carbon tetrachloride	2500	2930		ug/Kg		117	54 - 135
Chlorobenzene	2500	2750		ug/Kg		110	76 - 126
Chloroethane	2500	3160		ug/Kg		126	23 - 150
Chloroform	2500	2710		ug/Kg		108	78 - 120
Chloromethane	2500	2810		ug/Kg		113	61 - 124
cis-1,2-Dichloroethene	2500	2530		ug/Kg		101	79 - 124
cis-1,3-Dichloropropene	2500	2650		ug/Kg		106	75 - 121
Cyclohexane	2500	3410	*	ug/Kg		136	49 - 129
Dibromochloromethane	2500	2660		ug/Kg		107	64 - 120
Dichlorodifluoromethane	2500	2530		ug/Kg		101	10 - 150
Ethylbenzene	2500	2890		ug/Kg		116	78 - 124
Isopropylbenzene	2500	2960		ug/Kg		118	76 - 120
m,p-Xylene	2500	2780		ug/Kg		111	77 - 125
Methyl acetate	5000	6150		ug/Kg		123	71 - 123
Methyl tert-butyl ether	2500	2630		ug/Kg		105	67 - 137
Methylcyclohexane	2500	2850		ug/Kg		114	50 - 130
Methylene Chloride	2500	1700	*	ug/Kg		68	75 - 118
Naphthalene	2500	2560	B	ug/Kg		102	65 - 142
n-Butylbenzene	2500	3090	*	ug/Kg		124	80 - 120
N-Propylbenzene	2500	3020	*	ug/Kg		121	76 - 120
o-Xylene	2500	2600		ug/Kg		104	80 - 124
sec-Butylbenzene	2500	2940		ug/Kg		118	79 - 120
Styrene	2500	2750		ug/Kg		110	80 - 120
tert-Butylbenzene	2500	2870		ug/Kg		115	78 - 120
Tetrachloroethene	2500	2920		ug/Kg		117	73 - 133
Toluene	2500	2700		ug/Kg		108	75 - 124
trans-1,2-Dichloroethene	2500	2440		ug/Kg		98	74 - 129
trans-1,3-Dichloropropene	2500	2570		ug/Kg		103	73 - 120
Trichloroethene	2500	2650		ug/Kg		106	75 - 131
Trichlorofluoromethane	2500	3290		ug/Kg		132	29 - 158
Vinyl chloride	2500	2600		ug/Kg		104	59 - 124

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*121*		*53 - 146*
4-Bromofluorobenzene (Surr)	*109*		*49 - 148*
Dibromofluoromethane (Surr)	*105*		*60 - 140*
Toluene-d8 (Surr)	*108*		*50 - 149*

Lab Sample ID: LCSD 480-388669/2-A
Matrix: Solid
Analysis Batch: 389342

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 388669

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	2500	3080		ug/Kg		123	68 - 130	10	20

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

Lab Sample ID: LCSD 480-388669/2-A
Matrix: Solid
Analysis Batch: 389342

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 388669

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,2,2-Tetrachloroethane	2500	2670		ug/Kg		107	73 - 120	6	20
1,1,2-Trichloro-1,2,2-trifluoroethane	2500	3230		ug/Kg		129	10 - 179	12	20
1,1,2-Trichloroethane	2500	2790		ug/Kg		112	80 - 120	4	20
1,1-Dichloroethane	2500	3180	*	ug/Kg		127	78 - 121	9	20
1,1-Dichloroethene	2500	2060	*	ug/Kg		83	48 - 133	43	20
1,2,4-Trichlorobenzene	2500	2870		ug/Kg		115	70 - 140	2	20
1,2,4-Trimethylbenzene	2500	3070		ug/Kg		123	77 - 127	2	20
1,2-Dibromo-3-Chloropropane	2500	2350		ug/Kg		94	56 - 122	2	20
1,2-Dibromoethane	2500	2820		ug/Kg		113	80 - 120	2	20
1,2-Dichlorobenzene	2500	2820		ug/Kg		113	78 - 125	4	20
1,2-Dichloroethane	2500	3340	*	ug/Kg		134	74 - 127	6	20
1,2-Dichloropropane	2500	3140	*	ug/Kg		125	80 - 120	10	20
1,3,5-Trimethylbenzene	2500	3040	*	ug/Kg		122	79 - 120	3	20
1,3-Dichlorobenzene	2500	3030	*	ug/Kg		121	80 - 120	6	20
1,4-Dichlorobenzene	2500	2870		ug/Kg		115	80 - 120	4	20
2-Butanone (MEK)	12500	17000		ug/Kg		136	54 - 149	2	20
2-Hexanone	12500	18800	*	ug/Kg		150	59 - 127	1	20
4-Isopropyltoluene	2500	3130	*	ug/Kg		125	80 - 120	2	20
4-Methyl-2-pentanone (MIBK)	12500	16200	*	ug/Kg		130	74 - 120	4	20
Acetone	12500	16500		ug/Kg		132	47 - 141	16	20
Benzene	2500	2840		ug/Kg		113	77 - 125	10	20
Bromodichloromethane	2500	2840		ug/Kg		114	71 - 121	8	20
Bromoform	2500	2150		ug/Kg		86	48 - 125	3	20
Bromomethane	2500	3380		ug/Kg		135	39 - 149	15	20
Carbon disulfide	2500	2700		ug/Kg		108	40 - 136	11	20
Carbon tetrachloride	2500	3200		ug/Kg		128	54 - 135	9	20
Chlorobenzene	2500	2850		ug/Kg		114	76 - 126	4	20
Chloroethane	2500	3910	*	ug/Kg		157	23 - 150	21	20
Chloroform	2500	3000		ug/Kg		120	78 - 120	10	20
Chloromethane	2500	3240	*	ug/Kg		130	61 - 124	14	20
cis-1,2-Dichloroethene	2500	2760		ug/Kg		110	79 - 124	9	20
cis-1,3-Dichloropropene	2500	2730		ug/Kg		109	75 - 121	3	20
Cyclohexane	2500	3780	*	ug/Kg		151	49 - 129	10	20
Dibromochloromethane	2500	2740		ug/Kg		109	64 - 120	3	20
Dichlorodifluoromethane	2500	3150	*	ug/Kg		126	10 - 150	22	20
Ethylbenzene	2500	2950		ug/Kg		118	78 - 124	2	20
Isopropylbenzene	2500	3030	*	ug/Kg		121	76 - 120	3	20
m,p-Xylene	2500	2900		ug/Kg		116	77 - 125	4	20
Methyl acetate	5000	6970	*	ug/Kg		139	71 - 123	13	20
Methyl tert-butyl ether	2500	2830		ug/Kg		113	67 - 137	7	20
Methylcyclohexane	2500	3130		ug/Kg		125	50 - 130	9	20
Methylene Chloride	2500	1870		ug/Kg		75	75 - 118	10	20
Naphthalene	2500	2650		ug/Kg		106	65 - 142	3	20
n-Butylbenzene	2500	3190	*	ug/Kg		128	80 - 120	3	20
N-Propylbenzene	2500	3120	*	ug/Kg		125	76 - 120	3	20
o-Xylene	2500	2680		ug/Kg		107	80 - 124	3	20
sec-Butylbenzene	2500	3100	*	ug/Kg		124	79 - 120	5	20

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

Lab Sample ID: LCSD 480-388669/2-A
Matrix: Solid
Analysis Batch: 389342

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 388669

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Styrene			2500	2810		ug/Kg		112	80 - 120	2	20
tert-Butylbenzene			2500	3030	*	ug/Kg		121	78 - 120	6	20
Tetrachloroethene			2500	2980		ug/Kg		119	73 - 133	2	20
Toluene			2500	2760		ug/Kg		110	75 - 124	2	20
trans-1,2-Dichloroethene			2500	2650		ug/Kg		106	74 - 129	8	20
trans-1,3-Dichloropropene			2500	2610		ug/Kg		104	73 - 120	1	20
Trichloroethene			2500	2880		ug/Kg		115	75 - 131	8	20
Trichlorofluoromethane			2500	3850		ug/Kg		154	29 - 158	16	20
Vinyl chloride			2500	3070		ug/Kg		123	59 - 124	17	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*155*	*X*	*53 - 146*
4-Bromofluorobenzene (Surr)	*131*		*49 - 148*
Dibromofluoromethane (Surr)	*125*		*60 - 140*
Toluene-d8 (Surr)	*125*		*50 - 149*

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

Lab Sample ID: MB 480-388635/1-A
Matrix: Solid
Analysis Batch: 388851

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 388635

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		170	25	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
bis (2-chloroisopropyl) ether	ND		170	34	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
2,4,5-Trichlorophenol	ND		170	46	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
2,4,6-Trichlorophenol	ND		170	34	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
2,4-Dichlorophenol	ND		170	18	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
2,4-Dimethylphenol	ND		170	41	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
2,4-Dinitrophenol	ND		1700	780	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
2,4-Dinitrotoluene	ND		170	35	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
2,6-Dinitrotoluene	ND		170	20	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
2-Chloronaphthalene	ND		170	28	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
2-Chlorophenol	ND		170	31	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
2-Methylnaphthalene	ND		170	34	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
2-Methylphenol	ND		170	20	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
2-Nitroaniline	ND		330	25	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
2-Nitrophenol	ND		170	48	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
3,3'-Dichlorobenzidine	ND		330	200	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
3-Nitroaniline	ND		330	47	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
4,6-Dinitro-2-methylphenol	ND		330	170	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
4-Bromophenyl phenyl ether	ND		170	24	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
4-Chloro-3-methylphenol	ND		170	42	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
4-Chloroaniline	ND		170	42	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
4-Chlorophenyl phenyl ether	ND		170	21	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
4-Methylphenol	ND		330	20	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
4-Nitroaniline	ND		330	89	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
4-Nitrophenol	ND		330	120	ug/Kg		11/21/17 14:07	11/22/17 14:53	1

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

Lab Sample ID: MB 480-388635/1-A
Matrix: Solid
Analysis Batch: 388851

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 388635

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		170	25	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Acenaphthylene	ND		170	22	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Acetophenone	ND		170	23	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Anthracene	ND		170	42	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Atrazine	ND		170	59	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Benzaldehyde	ND		170	130	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Benzo[a]anthracene	ND		170	17	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Benzo[a]pyrene	ND		170	25	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Benzo[b]fluoranthene	ND		170	27	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Benzo[g,h,i]perylene	ND		170	18	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Benzo[k]fluoranthene	ND		170	22	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Bis(2-chloroethoxy)methane	ND		170	36	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Bis(2-chloroethyl)ether	ND		170	22	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Bis(2-ethylhexyl) phthalate	ND		170	58	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Butyl benzyl phthalate	ND		170	28	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Caprolactam	ND		170	51	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Carbazole	ND		170	20	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Chrysene	ND		170	38	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Di-n-butyl phthalate	ND		170	29	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Di-n-octyl phthalate	ND		170	20	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Dibenz(a,h)anthracene	ND		170	30	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Dibenzofuran	ND		170	20	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Diethyl phthalate	ND		170	22	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Dimethyl phthalate	ND		170	20	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Fluoranthene	ND		170	18	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Fluorene	ND		170	20	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Hexachlorobenzene	ND		170	23	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Hexachlorobutadiene	ND		170	25	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Hexachlorocyclopentadiene	ND		170	23	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Hexachloroethane	ND		170	22	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Indeno[1,2,3-cd]pyrene	ND		170	21	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Isophorone	ND		170	36	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
N-Nitrosodi-n-propylamine	ND		170	29	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
N-Nitrosodiphenylamine	ND		170	140	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Naphthalene	ND		170	22	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Nitrobenzene	ND		170	19	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Pentachlorophenol	ND		330	170	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Phenanthrene	ND		170	25	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Phenol	ND		170	26	ug/Kg		11/21/17 14:07	11/22/17 14:53	1
Pyrene	ND		170	20	ug/Kg		11/21/17 14:07	11/22/17 14:53	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*1830*	*T J*	*ug/Kg*		*2.02*		*11/21/17 14:07*	*11/22/17 14:53*	*1*
Unknown	*385*	*T J*	*ug/Kg*		*3.49*		*11/21/17 14:07*	*11/22/17 14:53*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*66*		*54 - 120*	*11/21/17 14:07*	*11/22/17 14:53*	*1*

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

Lab Sample ID: MB 480-388635/1-A
Matrix: Solid
Analysis Batch: 388851

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 388635

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	89		60 - 120	11/21/17 14:07	11/22/17 14:53	1
2-Fluorophenol	82		52 - 120	11/21/17 14:07	11/22/17 14:53	1
Nitrobenzene-d5	83		53 - 120	11/21/17 14:07	11/22/17 14:53	1
p-Terphenyl-d14	108		65 - 121	11/21/17 14:07	11/22/17 14:53	1
Phenol-d5	89		54 - 120	11/21/17 14:07	11/22/17 14:53	1

Lab Sample ID: LCS 480-388635/2-A
Matrix: Solid
Analysis Batch: 388851

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388635

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biphenyl	1650	1530		ug/Kg		93	59 - 120
bis (2-chloroisopropyl) ether	1650	1740		ug/Kg		106	44 - 120
2,4,5-Trichlorophenol	1650	1410		ug/Kg		86	59 - 126
2,4,6-Trichlorophenol	1650	1400		ug/Kg		85	59 - 123
2,4-Dichlorophenol	1650	1420		ug/Kg		86	61 - 120
2,4-Dimethylphenol	1650	1390		ug/Kg		84	59 - 120
2,4-Dinitrophenol	3300	2030		ug/Kg		62	41 - 146
2,4-Dinitrotoluene	1650	1470		ug/Kg		89	63 - 120
2,6-Dinitrotoluene	1650	1470		ug/Kg		89	66 - 120
2-Chloronaphthalene	1650	1510		ug/Kg		91	57 - 120
2-Chlorophenol	1650	1350		ug/Kg		82	53 - 120
2-Methylnaphthalene	1650	1410		ug/Kg		85	59 - 120
2-Methylphenol	1650	1490		ug/Kg		90	54 - 120
2-Nitroaniline	1650	1520		ug/Kg		92	61 - 120
2-Nitrophenol	1650	1260		ug/Kg		76	56 - 120
3,3'-Dichlorobenzidine	3300	2530		ug/Kg		77	54 - 120
3-Nitroaniline	1650	1320		ug/Kg		80	48 - 120
4,6-Dinitro-2-methylphenol	3300	2760		ug/Kg		84	49 - 122
4-Bromophenyl phenyl ether	1650	1550		ug/Kg		94	58 - 120
4-Chloro-3-methylphenol	1650	1380		ug/Kg		84	61 - 120
4-Chloroaniline	1650	1110		ug/Kg		67	38 - 120
4-Chlorophenyl phenyl ether	1650	1570		ug/Kg		95	63 - 124
4-Methylphenol	1650	1500		ug/Kg		91	55 - 120
4-Nitroaniline	1650	1520		ug/Kg		92	56 - 120
4-Nitrophenol	3300	2520		ug/Kg		76	43 - 147
Acenaphthene	1650	1560		ug/Kg		95	62 - 120
Acenaphthylene	1650	1530		ug/Kg		93	58 - 121
Acetophenone	1650	1400		ug/Kg		85	54 - 120
Anthracene	1650	1630		ug/Kg		99	62 - 120
Atrazine	3300	2970		ug/Kg		90	60 - 127
Benzaldehyde	3300	2020		ug/Kg		61	10 - 150
Benzo[a]anthracene	1650	1600		ug/Kg		97	65 - 120
Benzo[a]pyrene	1650	1660		ug/Kg		100	64 - 120
Benzo[b]fluoranthene	1650	1780		ug/Kg		108	64 - 120
Benzo[g,h,i]perylene	1650	1570		ug/Kg		95	45 - 145
Benzo[k]fluoranthene	1650	1720		ug/Kg		104	65 - 120
Bis(2-chloroethoxy)methane	1650	1470		ug/Kg		89	55 - 120

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

Lab Sample ID: LCS 480-388635/2-A
Matrix: Solid
Analysis Batch: 388851

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388635

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-chloroethyl)ether	1650	1440		ug/Kg		87	45 - 120
Bis(2-ethylhexyl) phthalate	1650	1620		ug/Kg		98	61 - 133
Butyl benzyl phthalate	1650	1570		ug/Kg		95	61 - 129
Caprolactam	3300	2980		ug/Kg		90	47 - 120
Carbazole	1650	1590		ug/Kg		96	65 - 120
Chrysene	1650	1580		ug/Kg		96	64 - 120
Di-n-butyl phthalate	1650	1530		ug/Kg		93	58 - 130
Di-n-octyl phthalate	1650	1500		ug/Kg		91	57 - 133
Dibenz(a,h)anthracene	1650	1620		ug/Kg		98	54 - 132
Dibenzofuran	1650	1550		ug/Kg		94	63 - 120
Diethyl phthalate	1650	1500		ug/Kg		91	66 - 120
Dimethyl phthalate	1650	1520		ug/Kg		92	65 - 124
Fluoranthene	1650	1560		ug/Kg		94	62 - 120
Fluorene	1650	1600		ug/Kg		97	63 - 120
Hexachlorobenzene	1650	1480		ug/Kg		89	60 - 120
Hexachlorobutadiene	1650	1210		ug/Kg		73	45 - 120
Hexachlorocyclopentadiene	1650	1250		ug/Kg		76	47 - 120
Hexachloroethane	1650	1270		ug/Kg		77	41 - 120
Indeno[1,2,3-cd]pyrene	1650	1580		ug/Kg		96	56 - 134
Isophorone	1650	1450		ug/Kg		88	56 - 120
N-Nitrosodi-n-propylamine	1650	1510		ug/Kg		92	52 - 120
Naphthalene	1650	1400		ug/Kg		85	55 - 120
Nitrobenzene	1650	1380		ug/Kg		84	54 - 120
Pentachlorophenol	3300	2220		ug/Kg		67	51 - 120
Phenanthrene	1650	1580		ug/Kg		96	60 - 120
Phenol	1650	1430		ug/Kg		87	53 - 120
Pyrene	1650	1730		ug/Kg		105	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*83*		*54 - 120*
2-Fluorobiphenyl	*93*		*60 - 120*
2-Fluorophenol	*81*		*52 - 120*
Nitrobenzene-d5	*84*		*53 - 120*
p-Terphenyl-d14	*103*		*65 - 121*
Phenol-d5	*88*		*54 - 120*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-388636/1-A
Matrix: Solid
Analysis Batch: 388786

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 388636

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.7	0.32	ug/Kg		11/21/17 14:17	11/22/17 13:13	1
4,4'-DDE	ND		1.7	0.35	ug/Kg		11/21/17 14:17	11/22/17 13:13	1
4,4'-DDT	0.427	J	1.7	0.39	ug/Kg		11/21/17 14:17	11/22/17 13:13	1
Aldrin	ND		1.7	0.41	ug/Kg		11/21/17 14:17	11/22/17 13:13	1
alpha-BHC	ND		1.7	0.30	ug/Kg		11/21/17 14:17	11/22/17 13:13	1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 480-388636/1-A
Matrix: Solid
Analysis Batch: 388786

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 388636

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
alpha-Chlordane	ND		1.7	0.83	ug/Kg		11/21/17 14:17	11/22/17 13:13	1
beta-BHC	ND		1.7	0.30	ug/Kg		11/21/17 14:17	11/22/17 13:13	1
delta-BHC	0.533	J	1.7	0.31	ug/Kg		11/21/17 14:17	11/22/17 13:13	1
Dieldrin	ND		1.7	0.40	ug/Kg		11/21/17 14:17	11/22/17 13:13	1
Endosulfan I	ND		1.7	0.32	ug/Kg		11/21/17 14:17	11/22/17 13:13	1
Endosulfan II	ND		1.7	0.30	ug/Kg		11/21/17 14:17	11/22/17 13:13	1
Endosulfan sulfate	ND		1.7	0.31	ug/Kg		11/21/17 14:17	11/22/17 13:13	1
Endrin	ND		1.7	0.33	ug/Kg		11/21/17 14:17	11/22/17 13:13	1
Endrin aldehyde	ND		1.7	0.43	ug/Kg		11/21/17 14:17	11/22/17 13:13	1
Endrin ketone	ND		1.7	0.41	ug/Kg		11/21/17 14:17	11/22/17 13:13	1
gamma-BHC (Lindane)	0.357	J	1.7	0.31	ug/Kg		11/21/17 14:17	11/22/17 13:13	1
gamma-Chlordane	ND		1.7	0.53	ug/Kg		11/21/17 14:17	11/22/17 13:13	1
Heptachlor	ND		1.7	0.36	ug/Kg		11/21/17 14:17	11/22/17 13:13	1
Heptachlor epoxide	ND		1.7	0.43	ug/Kg		11/21/17 14:17	11/22/17 13:13	1
Methoxychlor	ND		1.7	0.34	ug/Kg		11/21/17 14:17	11/22/17 13:13	1
Toxaphene	ND		17	9.7	ug/Kg		11/21/17 14:17	11/22/17 13:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*93*		*45 - 120*	*11/21/17 14:17*	*11/22/17 13:13*	*1*
DCB Decachlorobiphenyl	*96*		*45 - 120*	*11/21/17 14:17*	*11/22/17 13:13*	*1*
Tetrachloro-m-xylene	*73*		*30 - 124*	*11/21/17 14:17*	*11/22/17 13:13*	*1*
Tetrachloro-m-xylene	*62*		*30 - 124*	*11/21/17 14:17*	*11/22/17 13:13*	*1*

Lab Sample ID: LCS 480-388636/2-A
Matrix: Solid
Analysis Batch: 388786

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388636

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	16.3	13.2		ug/Kg		81	56 - 120
4,4'-DDE	16.3	10.8		ug/Kg		66	44 - 120
4,4'-DDT	16.3	14.2		ug/Kg		87	38 - 120
Aldrin	16.3	10.6		ug/Kg		65	38 - 120
alpha-BHC	16.3	9.30		ug/Kg		57	39 - 120
alpha-Chlordane	16.3	10.9		ug/Kg		67	47 - 120
beta-BHC	16.3	10.4		ug/Kg		64	40 - 120
delta-BHC	16.3	11.8		ug/Kg		72	45 - 120
Dieldrin	16.3	13.0		ug/Kg		80	58 - 120
Endosulfan I	16.3	13.6		ug/Kg		84	49 - 120
Endosulfan II	16.3	13.9		ug/Kg		86	55 - 120
Endosulfan sulfate	16.3	13.2		ug/Kg		81	49 - 124
Endrin	16.3	13.8		ug/Kg		85	58 - 120
Endrin aldehyde	16.3	10.6		ug/Kg		65	37 - 121
Endrin ketone	16.3	13.0		ug/Kg		80	46 - 123
gamma-BHC (Lindane)	16.3	10.3		ug/Kg		63	50 - 120
gamma-Chlordane	16.3	11.3		ug/Kg		70	48 - 120
Heptachlor	16.3	11.6		ug/Kg		72	50 - 120
Heptachlor epoxide	16.3	12.0		ug/Kg		74	50 - 120
Methoxychlor	16.3	15.2		ug/Kg		94	58 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	98		45 - 120
DCB Decachlorobiphenyl	95		45 - 120
Tetrachloro-m-xylene	69		30 - 124
Tetrachloro-m-xylene	64		30 - 124

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

Lab Sample ID: MB 480-388721/1-A
Matrix: Solid
Analysis Batch: 388860

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 388721

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.24	0.046	mg/Kg		11/22/17 07:09	11/22/17 17:02	1
PCB-1221	ND		0.24	0.046	mg/Kg		11/22/17 07:09	11/22/17 17:02	1
PCB-1232	ND		0.24	0.046	mg/Kg		11/22/17 07:09	11/22/17 17:02	1
PCB-1242	ND		0.24	0.046	mg/Kg		11/22/17 07:09	11/22/17 17:02	1
PCB-1248	ND		0.24	0.046	mg/Kg		11/22/17 07:09	11/22/17 17:02	1
PCB-1254	ND		0.24	0.11	mg/Kg		11/22/17 07:09	11/22/17 17:02	1
PCB-1260	ND		0.24	0.11	mg/Kg		11/22/17 07:09	11/22/17 17:02	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	119		60 - 154	11/22/17 07:09	11/22/17 17:02	1
Tetrachloro-m-xylene	130		60 - 154	11/22/17 07:09	11/22/17 17:02	1
DCB Decachlorobiphenyl	126		65 - 174	11/22/17 07:09	11/22/17 17:02	1
DCB Decachlorobiphenyl	126		65 - 174	11/22/17 07:09	11/22/17 17:02	1

Lab Sample ID: LCS 480-388721/2-A
Matrix: Solid
Analysis Batch: 388860

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388721

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	2.14	1.98		mg/Kg		92	51 - 185
PCB-1260	2.14	2.41		mg/Kg		113	61 - 184

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	112		60 - 154
Tetrachloro-m-xylene	114		60 - 154
DCB Decachlorobiphenyl	107		65 - 174
DCB Decachlorobiphenyl	102		65 - 174

Lab Sample ID: 480-127874-1 MS
Matrix: Solid
Analysis Batch: 388860

Client Sample ID: MW-5 (6-8)
Prep Type: Total/NA
Prep Batch: 388721

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	ND		2.42	2.40		mg/Kg	☼	99	50 - 177
PCB-1260	ND		2.42	2.48		mg/Kg	☼	103	33 - 200

Surrogate	MS %Recovery	MS Qualifier	Limits
Tetrachloro-m-xylene	143		60 - 154
Tetrachloro-m-xylene	147		60 - 154
DCB Decachlorobiphenyl	137		65 - 174

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

Lab Sample ID: 480-127874-1 MS
Matrix: Solid
Analysis Batch: 388860

Client Sample ID: MW-5 (6-8)
Prep Type: Total/NA
Prep Batch: 388721

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	137		65 - 174

Lab Sample ID: 480-127874-1 MSD
Matrix: Solid
Analysis Batch: 388860

Client Sample ID: MW-5 (6-8)
Prep Type: Total/NA
Prep Batch: 388721

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	ND		2.95	2.69		mg/Kg	☼	91	50 - 177	11	50
PCB-1260	ND		2.95	3.11		mg/Kg	☼	105	33 - 200	23	50

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Tetrachloro-m-xylene	128		60 - 154
Tetrachloro-m-xylene	139		60 - 154
DCB Decachlorobiphenyl	126		65 - 174
DCB Decachlorobiphenyl	134		65 - 174

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 480-388640/1-A
Matrix: Solid
Analysis Batch: 389279

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 388640

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		17	5.3	ug/Kg		11/21/17 14:21	11/27/17 17:06	1
Silvex (2,4,5-TP)	ND		17	5.9	ug/Kg		11/21/17 14:21	11/27/17 17:06	1
2,4-D	ND		17	10	ug/Kg		11/21/17 14:21	11/27/17 17:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	71		28 - 129	11/21/17 14:21	11/27/17 17:06	1
2,4-Dichlorophenylacetic acid	121		28 - 129	11/21/17 14:21	11/27/17 17:06	1

Lab Sample ID: LCS 480-388640/2-A
Matrix: Solid
Analysis Batch: 389279

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388640

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-T	65.7	84.7	*	ug/Kg		129	41 - 120
Silvex (2,4,5-TP)	65.7	76.0		ug/Kg		116	39 - 125
2,4-D	65.7	74.3		ug/Kg		113	40 - 120
Dalapon	65.7	65.5		ug/Kg		100	25 - 120
Dichlorprop	65.7	70.1		ug/Kg		107	34 - 121
Dinoseb	65.7	17.8		ug/Kg		27	10 - 130
Pentachlorophenol	65.7	28.5		ug/Kg		43	10 - 120
Picloram	65.7	105	*	ug/Kg		160	22 - 149

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4-Dichlorophenylacetic acid	128		28 - 129

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCS 480-388640/2-A
Matrix: Solid
Analysis Batch: 389279

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388640

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*140*	*X*	*28 - 129*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-388853/1-A
Matrix: Solid
Analysis Batch: 389578

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 388853

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.0	0.40	mg/Kg		11/22/17 14:04	11/25/17 03:59	1

Lab Sample ID: MB 480-388853/1-A
Matrix: Solid
Analysis Batch: 389577

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 388853

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		9.9	4.3	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Antimony	ND		14.8	0.40	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Barium	ND		0.49	0.11	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Beryllium	ND		0.20	0.028	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Cadmium	ND		0.20	0.030	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Calcium	11.80	J	49.4	3.3	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Chromium	0.229	J	0.49	0.20	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Cobalt	ND		0.49	0.049	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Copper	ND		0.99	0.21	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Iron	10.56		9.9	3.5	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Lead	ND		0.99	0.24	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Magnesium	0.962	J	19.8	0.92	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Manganese	0.367		0.20	0.032	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Nickel	ND		4.9	0.23	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Potassium	ND		29.7	19.8	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Selenium	ND		4.0	0.40	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Silver	ND		0.59	0.20	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Sodium	ND		138	12.8	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Thallium	ND		5.9	0.30	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Vanadium	ND		0.49	0.11	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Zinc	ND		2.0	0.63	mg/Kg		11/22/17 14:04	11/28/17 15:27	1

Lab Sample ID: LCSSRM 480-388853/2-A
Matrix: Solid
Analysis Batch: 389578

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388853

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	100	82.77		mg/Kg		82.8	69.6 - 131.0

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 480-388853/2-A
Matrix: Solid
Analysis Batch: 389577

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388853

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	8090	9329		mg/Kg		115.3	39.6 - 160.7
Antimony	99.3	60.60		mg/Kg		61.0	21.6 - 256.8
Barium	217	190.2		mg/Kg		87.7	73.7 - 128.1
Beryllium	147	134.0		mg/Kg		91.2	75.5 - 125.9
Cadmium	83.7	71.87		mg/Kg		85.9	73.2 - 131.4
Calcium	6010	5506		mg/Kg		91.6	73.7 - 126.3
Chromium	107	95.46		mg/Kg		89.2	69.4 - 134.6
Cobalt	123	124.3		mg/Kg		101.0	74.3 - 130.1
Copper	166	144.4		mg/Kg		87.0	75.3 - 128.3
Iron	14600	14700		mg/Kg		100.7	36.1 - 163.7
Lead	88.4	87.83		mg/Kg		99.4	69.9 - 130.1
Magnesium	2930	2648		mg/Kg		90.4	65.9 - 134.5
Manganese	311	274.5		mg/Kg		88.3	74.9 - 125.4
Nickel	49.8	50.68		mg/Kg		101.8	69.1 - 135.1
Potassium	2620	2890		mg/Kg		110.3	61.1 - 138.9
Selenium	87.7	75.21		mg/Kg		85.8	64.1 - 135.7
Silver	41.4	33.86		mg/Kg		81.8	65.9 - 133.8
Sodium	252	265.2		mg/Kg		105.3	32.9 - 167.5
Thallium	58.1	57.48		mg/Kg		98.9	63.9 - 136.3
Vanadium	140	133.5		mg/Kg		95.4	69.9 - 129.3
Zinc	145	125.7		mg/Kg		86.7	67.7 - 132.4

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-389260/1-A
Matrix: Solid
Analysis Batch: 389294

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389260

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.0081	mg/Kg		11/27/17 15:00	11/27/17 16:26	1

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: LCSSRM 480-389260/2-A ^10
Matrix: Solid
Analysis Batch: 389294

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389260

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	12.6	11.99		mg/Kg		95.1	44.4 - 128.6

GC/MS VOA

Prep Batch: 388669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127874-2	MW-8 (14-16)	Total/NA	Solid	5035A_H	
MB 480-388669/3-A	Method Blank	Total/NA	Solid	5035A_H	
LCS 480-388669/1-A	Lab Control Sample	Total/NA	Solid	5035A_H	
LCSD 480-388669/2-A	Lab Control Sample Dup	Total/NA	Solid	5035A_H	

Analysis Batch: 389342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127874-2	MW-8 (14-16)	Total/NA	Solid	8260C	388669
MB 480-388669/3-A	Method Blank	Total/NA	Solid	8260C	388669
LCS 480-388669/1-A	Lab Control Sample	Total/NA	Solid	8260C	388669
LCSD 480-388669/2-A	Lab Control Sample Dup	Total/NA	Solid	8260C	388669

GC/MS Semi VOA

Prep Batch: 388635

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127874-1	MW-5 (6-8)	Total/NA	Solid	3550C	
480-127874-2	MW-8 (14-16)	Total/NA	Solid	3550C	
MB 480-388635/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-388635/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Analysis Batch: 388851

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127874-1	MW-5 (6-8)	Total/NA	Solid	8270D	388635
480-127874-2	MW-8 (14-16)	Total/NA	Solid	8270D	388635
MB 480-388635/1-A	Method Blank	Total/NA	Solid	8270D	388635
LCS 480-388635/2-A	Lab Control Sample	Total/NA	Solid	8270D	388635

GC Semi VOA

Prep Batch: 388636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127874-1	MW-5 (6-8)	Total/NA	Solid	3550C	
MB 480-388636/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-388636/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Prep Batch: 388640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127874-1	MW-5 (6-8)	Total/NA	Solid	8151A	
MB 480-388640/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 480-388640/2-A	Lab Control Sample	Total/NA	Solid	8151A	

Prep Batch: 388721

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127874-1	MW-5 (6-8)	Total/NA	Solid	3550C	
480-127874-2	MW-8 (14-16)	Total/NA	Solid	3550C	
MB 480-388721/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-388721/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-127874-1 MS	MW-5 (6-8)	Total/NA	Solid	3550C	
480-127874-1 MSD	MW-5 (6-8)	Total/NA	Solid	3550C	

GC Semi VOA (Continued)

Analysis Batch: 388786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127874-1	MW-5 (6-8)	Total/NA	Solid	8081B	388636
MB 480-388636/1-A	Method Blank	Total/NA	Solid	8081B	388636
LCS 480-388636/2-A	Lab Control Sample	Total/NA	Solid	8081B	388636

Analysis Batch: 388860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127874-1	MW-5 (6-8)	Total/NA	Solid	8082A	388721
480-127874-2	MW-8 (14-16)	Total/NA	Solid	8082A	388721
MB 480-388721/1-A	Method Blank	Total/NA	Solid	8082A	388721
LCS 480-388721/2-A	Lab Control Sample	Total/NA	Solid	8082A	388721
480-127874-1 MS	MW-5 (6-8)	Total/NA	Solid	8082A	388721
480-127874-1 MSD	MW-5 (6-8)	Total/NA	Solid	8082A	388721

Analysis Batch: 389279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127874-1	MW-5 (6-8)	Total/NA	Solid	8151A	388640
MB 480-388640/1-A	Method Blank	Total/NA	Solid	8151A	388640
LCS 480-388640/2-A	Lab Control Sample	Total/NA	Solid	8151A	388640

Metals

Prep Batch: 388853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127874-1	MW-5 (6-8)	Total/NA	Solid	3050B	
480-127874-2	MW-8 (14-16)	Total/NA	Solid	3050B	
MB 480-388853/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 480-388853/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Prep Batch: 389260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127874-1	MW-5 (6-8)	Total/NA	Solid	7471B	
480-127874-2	MW-8 (14-16)	Total/NA	Solid	7471B	
MB 480-389260/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 480-389260/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	

Analysis Batch: 389294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127874-1	MW-5 (6-8)	Total/NA	Solid	7471B	389260
480-127874-2	MW-8 (14-16)	Total/NA	Solid	7471B	389260
MB 480-389260/1-A	Method Blank	Total/NA	Solid	7471B	389260
LCSSRM 480-389260/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	389260

Analysis Batch: 389577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127874-1	MW-5 (6-8)	Total/NA	Solid	6010C	388853
480-127874-2	MW-8 (14-16)	Total/NA	Solid	6010C	388853
MB 480-388853/1-A	Method Blank	Total/NA	Solid	6010C	388853
LCSSRM 480-388853/2-A	Lab Control Sample	Total/NA	Solid	6010C	388853

Metals (Continued)

Analysis Batch: 389578

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127874-1	MW-5 (6-8)	Total/NA	Solid	6010C	388853
480-127874-2	MW-8 (14-16)	Total/NA	Solid	6010C	388853
MB 480-388853/1-A	Method Blank	Total/NA	Solid	6010C	388853
LCSSRM 480-388853/2-A	Lab Control Sample	Total/NA	Solid	6010C	388853

General Chemistry

Analysis Batch: 389120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127874-1	MW-5 (6-8)	Total/NA	Solid	Moisture	
480-127874-2	MW-8 (14-16)	Total/NA	Solid	Moisture	

Client Sample ID: MW-5 (6-8)

Date Collected: 11/20/17 11:50
Date Received: 11/21/17 11:05

Lab Sample ID: 480-127874-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	389120	11/25/17 14:06	MDH	TAL BUF

Client Sample ID: MW-5 (6-8)

Date Collected: 11/20/17 11:50
Date Received: 11/21/17 11:05

Lab Sample ID: 480-127874-1
Matrix: Solid
Percent Solids: 79.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			388635	11/21/17 14:07	BEK	TAL BUF
Total/NA	Analysis	8270D		20	388851	11/22/17 17:57	PJQ	TAL BUF
Total/NA	Prep	3550C			388636	11/21/17 14:17	BEK	TAL BUF
Total/NA	Analysis	8081B		20	388786	11/22/17 14:51	JLS	TAL BUF
Total/NA	Prep	3550C			388721	11/22/17 07:09	SMP	TAL BUF
Total/NA	Analysis	8082A		1	388860	11/22/17 18:03	JMO	TAL BUF
Total/NA	Prep	8151A			388640	11/21/17 14:21	BEK	TAL BUF
Total/NA	Analysis	8151A		1	389279	11/27/17 19:35	JMO	TAL BUF
Total/NA	Prep	3050B			388853	11/22/17 14:04	EMB	TAL BUF
Total/NA	Analysis	6010C		1	389577	11/28/17 16:20	LMH	TAL BUF
Total/NA	Prep	3050B			388853	11/22/17 14:04	EMB	TAL BUF
Total/NA	Analysis	6010C		1	389578	11/25/17 04:52	LMH	TAL BUF
Total/NA	Prep	7471B			389260	11/27/17 15:00	EMB	TAL BUF
Total/NA	Analysis	7471B		1	389294	11/27/17 16:29	BMB	TAL BUF

Client Sample ID: MW-8 (14-16)

Date Collected: 11/20/17 14:49
Date Received: 11/21/17 11:05

Lab Sample ID: 480-127874-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	389120	11/25/17 14:06	MDH	TAL BUF

Client Sample ID: MW-8 (14-16)

Date Collected: 11/20/17 14:49
Date Received: 11/21/17 11:05

Lab Sample ID: 480-127874-2
Matrix: Solid
Percent Solids: 74.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_H			388669	11/21/17 16:06	AMM	TAL BUF
Total/NA	Analysis	8260C		2	389342	11/28/17 14:05	ARS	TAL BUF
Total/NA	Prep	3550C			388635	11/21/17 14:07	BEK	TAL BUF
Total/NA	Analysis	8270D		50	388851	11/22/17 18:23	PJQ	TAL BUF
Total/NA	Prep	3550C			388721	11/22/17 07:09	SMP	TAL BUF
Total/NA	Analysis	8082A		1	388860	11/22/17 18:19	JMO	TAL BUF
Total/NA	Prep	3050B			388853	11/22/17 14:04	EMB	TAL BUF
Total/NA	Analysis	6010C		1	389577	11/28/17 16:24	LMH	TAL BUF
Total/NA	Prep	3050B			388853	11/22/17 14:04	EMB	TAL BUF

Lab Chronicle

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127874-1

Client Sample ID: MW-8 (14-16)

Date Collected: 11/20/17 14:49
Date Received: 11/21/17 11:05

Lab Sample ID: 480-127874-2

Matrix: Solid
Percent Solids: 74.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6010C		1	389578	11/25/17 04:56	LMH	TAL BUF
Total/NA	Prep	7471B			389260	11/27/17 15:00	EMB	TAL BUF
Total/NA	Analysis	7471B		1	389294	11/27/17 16:30	BMB	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Benchmark Env. Eng. & Science, PLLC
TestAmerica Job ID: 480-127874-1
Project/Site: 1827 Fillmore Avenue Site

Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127874-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
8081B	Organochlorine Pesticides (GC)	SW846	TAL BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL BUF
8151A	Herbicides (GC)	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
7471B	Mercury (CVAA)	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127874-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-127874-1	MW-5 (6-8)	Solid	11/20/17 11:50	11/21/17 11:05
480-127874-2	MW-8 (14-16)	Solid	11/20/17 14:49	11/21/17 11:05

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228
Phone: 716.691.2600 Fax: 716.691.7991

Chain of Custody Record 242635

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☒ Other:

Client Contact	Project Manager: Mike Lesikowski	Site Contact: T. Benchmark	Date: 11/20/17	COC No:
Company Name: Tunkey Environmental	Tel/Fax:	Lab Contact: B. Fisher	Carrier:	of COCs
Address: 2558 Hamburg Turnpike	Analysis Turnaround Time			Sampler:
City/State/Zip: Lackawanna NY 14218	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: (716) 828-8358	TAT if different from Below			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: 1827 Fillmore Ave Site	☐ 1 week			
Site: B0421-017-601	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	TCL SVOC+20TICs 8270	TAL METALS	TCL + CP-51 VOC+10TICs	PCBs	Metals / Pest	Sample Specific Notes:
MW-5 (6-8)	11/20/17	1150	G	Soil	2	N	N	X	X		X	X	
MW-8 (14-16)	↓	1449	↓	↓	5	N	N	X	X	X	X		

480-127874 COC

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other 1

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

CAT B

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 4+0 Corr'd: _____ Therm ID No.: #6

	Company	Date/Time		Company	Date/Time
Relinquished by:	Benchmark	11/20/17 1600	Received by:	TAL	11-21-17 0930
Relinquished by:	TAL	11/21/17 1105	Received by:		11/21/17 1105
Relinquished by:			Received in Laboratory by:		

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11/30/2017

Login Sample Receipt Checklist

Client: Benchmark Env. Eng. & Science, PLLC

Job Number: 480-127874-1

Login Number: 127874
List Number: 1
Creator: Janish, Carl M

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	BM
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-127922-1
Client Project/Site: 1827 Fillmore Avenue Site

For:
Benchmark Env. Eng. & Science, PLLC
2558 Hamburg Turnpike
Suite 300
Lackawanna, New York 14218

Attn: Mr. Michael Lesakowski

Authorized for release by:
11/30/2017 5:22:07 PM

Brian Fischer, Manager of Project Management
(716)504-9835
brian.fischer@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits

GC Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
*	LCS or LCSD is outside acceptance limits.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-127922-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-127922-1

Comments
No additional comments.

Receipt
The samples were received on 11/22/2017 9:35 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA
Method(s) 8270D: The following samples required a dilution due to the nature of the sample matrix: MW-6 (8-10) (480-127922-1), MW-2 (2-4) (480-127922-2) and MW-3 (6-8) (480-127922-3). 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.

Method(s) 8270D: The following samples was diluted due to color and, viscosity: MW-6 (8-10) (480-127922-1), MW-2 (2-4) (480-127922-2) and MW-3 (6-8) (480-127922-3). Elevated reporting limits (RL) are provided.

Method(s) 8270D: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 480-389053 and analytical batch 480-389390 was outside control limits. Sample matrix interference and/or required sample dilution are suspected. The data has been qualified and reported.

Method(s) 8270D: The following samples was diluted due to the nature of the sample matrix: MW-3 (6-8) (480-127922-3), (480-127922-A-3-A MS) and (480-127922-A-3-B MSD). Because of this dilution, the surrogate spike and matrix spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

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

GC Semi VOA
Method(s) 8081B: The following samples were diluted due to the nature of the sample matrix: (480-127922-B-3-B MS) and (480-127922-B-3-C MSD). As such, spike and surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method(s) 8081B: The following samples were diluted due to the nature of the sample matrix: MW-2 (2-4) (480-127922-2) and MW-3 (6-8) (480-127922-3). As such, surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method(s) 8081B: All primary data for analytical batch 389334 is reported from the RTX-CLPII column.

Method(s) 8082A: All primary data for analytical batch 389409 is reported from the ZB-5 column.

Method(s) 8082A: The percent difference in a multi-component continuing calibration verification is assessed on the basis of the total amount, individual peak calculations are only listed for completeness.

Method(s) 8151A: The continuing calibration verification (CCV) associated with batch 480-389722 recovered above the upper control limit for multiple analytes and surrogate 2,4-Dichlorophenylacetic acid. The samples associated with these CCVs were non-detect for the affected analytes and the surrogate results are not adversely affected; therefore, the data have been reported. The following samples are impacted: MW-2 (2-4) (480-127922-2) and MW-3 (6-8) (480-127922-3).

Method(s) 8151A: The matrix spike / matrix spike duplicate (MS/MSD) recovery for preparation batch 480-389269 and analytical batch 480-389722 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Job ID: 480-127922-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

Method(s) 8151A: All primary data for analytical batch 389722 is reported from the RTX-CLPI column.

Method(s) 8151A: (480-127922-B-2-D MSD) has recoveries for the surrogate 2,4-Dichlorophenylacetic acid that are above acceptance limits, indicating a high bias. This MSD is associated with a series of samples that have no detections for any active analytes. Therefore, the data has been reported.

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

Metals

Method(s) 6010C: The method blank for preparation batch 480-388853 and analytical batch 480-389577 contained Total Iron and Manganese above the reporting limit (RL). Associated samples MW-6 (8-10) (480-127922-1), MW-2 (2-4) (480-127922-2) and MW-3 (6-8) (480-127922-3) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

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

Organic Prep

Method(s) 3550C: The following samples required a Florisil clean-up, via EPA Method 3620C, to reduce matrix interferences: MW-2 (2-4) (480-127922-2), MW-3 (6-8) (480-127922-3), (480-127922-B-3 MS) and (480-127922-B-3 MSD).

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

Detection Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127922-1

Client Sample ID: MW-6 (8-10) — Lab Sample ID: 480-127922-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	1500	J	3800	560	ug/Kg	20	☼	8270D	Total/NA
Acenaphthylene	2100	J	3800	490	ug/Kg	20	☼	8270D	Total/NA
Anthracene	6600		3800	940	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]anthracene	15000		3800	380	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]pyrene	14000		3800	560	ug/Kg	20	☼	8270D	Total/NA
Benzo[b]fluoranthene	19000		3800	610	ug/Kg	20	☼	8270D	Total/NA
Benzo[g,h,i]perylene	9100		3800	400	ug/Kg	20	☼	8270D	Total/NA
Benzo[k]fluoranthene	10000		3800	490	ug/Kg	20	☼	8270D	Total/NA
Carbazole	1600	J	3800	450	ug/Kg	20	☼	8270D	Total/NA
Chrysene	19000		3800	850	ug/Kg	20	☼	8270D	Total/NA
Dibenz(a,h)anthracene	2800	J	3800	670	ug/Kg	20	☼	8270D	Total/NA
Dibenzofuran	1100	J	3800	450	ug/Kg	20	☼	8270D	Total/NA
Fluoranthene	42000		3800	400	ug/Kg	20	☼	8270D	Total/NA
Fluorene	3400	J	3800	450	ug/Kg	20	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	8700		3800	470	ug/Kg	20	☼	8270D	Total/NA
Phenanthrene	26000		3800	560	ug/Kg	20	☼	8270D	Total/NA
Pyrene	33000		3800	450	ug/Kg	20	☼	8270D	Total/NA
Aluminum	5570		12.1	5.3	mg/Kg	1	☼	6010C	Total/NA
Antimony	9.2	J	18.1	0.48	mg/Kg	1	☼	6010C	Total/NA
Arsenic	8.7		2.4	0.48	mg/Kg	1	☼	6010C	Total/NA
Barium	217		0.60	0.13	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.29		0.24	0.034	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.54		0.24	0.036	mg/Kg	1	☼	6010C	Total/NA
Calcium	35600	B	60.4	4.0	mg/Kg	1	☼	6010C	Total/NA
Chromium	20.0	B	0.60	0.24	mg/Kg	1	☼	6010C	Total/NA
Cobalt	2.6		0.60	0.060	mg/Kg	1	☼	6010C	Total/NA
Copper	94.1		1.2	0.25	mg/Kg	1	☼	6010C	Total/NA
Iron	11100	B	12.1	4.2	mg/Kg	1	☼	6010C	Total/NA
Lead	8400		1.2	0.29	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4170	B	24.1	1.1	mg/Kg	1	☼	6010C	Total/NA
Manganese	158	B	0.24	0.039	mg/Kg	1	☼	6010C	Total/NA
Nickel	9.1		6.0	0.28	mg/Kg	1	☼	6010C	Total/NA
Potassium	1130		36.2	24.1	mg/Kg	1	☼	6010C	Total/NA
Silver	0.43	J	0.72	0.24	mg/Kg	1	☼	6010C	Total/NA
Sodium	314		169	15.7	mg/Kg	1	☼	6010C	Total/NA
Vanadium	14.5		0.60	0.13	mg/Kg	1	☼	6010C	Total/NA
Zinc	268		2.4	0.77	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.11		0.023	0.0095	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: MW-2 (2-4) — Lab Sample ID: 480-127922-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	790	J	4000	400	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]pyrene	1100	J	4000	580	ug/Kg	20	☼	8270D	Total/NA
Benzo[b]fluoranthene	1500	J	4000	630	ug/Kg	20	☼	8270D	Total/NA
Benzo[g,h,i]perylene	680	J	4000	420	ug/Kg	20	☼	8270D	Total/NA
Fluoranthene	1200	J	4000	420	ug/Kg	20	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	920	J	4000	490	ug/Kg	20	☼	8270D	Total/NA
Phenanthrene	600	J	4000	580	ug/Kg	20	☼	8270D	Total/NA
Pyrene	1000	J	4000	470	ug/Kg	20	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127922-1

Client Sample ID: MW-2 (2-4) (Continued)

Lab Sample ID: 480-127922-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDT	68	J	200	46	ug/Kg	100	☼	8081B	Total/NA
gamma-BHC (Lindane)	57	J B	200	36	ug/Kg	100	☼	8081B	Total/NA
Aluminum	9430		11.1	4.9	mg/Kg	1	☼	6010C	Total/NA
Arsenic	11.5		2.2	0.44	mg/Kg	1	☼	6010C	Total/NA
Barium	147		0.56	0.12	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.61		0.22	0.031	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.48		0.22	0.033	mg/Kg	1	☼	6010C	Total/NA
Calcium	57000	B	55.6	3.7	mg/Kg	1	☼	6010C	Total/NA
Chromium	13.7	B	0.56	0.22	mg/Kg	1	☼	6010C	Total/NA
Cobalt	5.9		0.56	0.056	mg/Kg	1	☼	6010C	Total/NA
Copper	90.9		1.1	0.23	mg/Kg	1	☼	6010C	Total/NA
Iron	11800	B	11.1	3.9	mg/Kg	1	☼	6010C	Total/NA
Lead	283		1.1	0.27	mg/Kg	1	☼	6010C	Total/NA
Magnesium	5080	B	22.2	1.0	mg/Kg	1	☼	6010C	Total/NA
Manganese	276	B	0.22	0.036	mg/Kg	1	☼	6010C	Total/NA
Nickel	15.2		5.6	0.26	mg/Kg	1	☼	6010C	Total/NA
Potassium	1880		33.3	22.2	mg/Kg	1	☼	6010C	Total/NA
Sodium	474		156	14.4	mg/Kg	1	☼	6010C	Total/NA
Vanadium	24.2		0.56	0.12	mg/Kg	1	☼	6010C	Total/NA
Zinc	198		2.2	0.71	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.11		0.022	0.0088	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: MW-3 (6-8)

Lab Sample ID: 480-127922-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	430	J F2 F1	3800	380	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]pyrene	640	J F2 F1	3800	550	ug/Kg	20	☼	8270D	Total/NA
Fluoranthene	430	J F2 F1	3800	400	ug/Kg	20	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	630	J F2	3800	470	ug/Kg	20	☼	8270D	Total/NA
Pyrene	460	J F2 F1	3800	440	ug/Kg	20	☼	8270D	Total/NA
alpha-BHC	10	J B	37	6.7	ug/Kg	20	☼	8081B	Total/NA
beta-BHC	7.6	J	37	6.7	ug/Kg	20	☼	8081B	Total/NA
gamma-BHC (Lindane)	12	J B	37	6.8	ug/Kg	20	☼	8081B	Total/NA
Aluminum	5420		12.3	5.4	mg/Kg	1	☼	6010C	Total/NA
Arsenic	7.8		2.5	0.49	mg/Kg	1	☼	6010C	Total/NA
Barium	48.0		0.61	0.14	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.32		0.25	0.034	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.12	J	0.25	0.037	mg/Kg	1	☼	6010C	Total/NA
Calcium	51200	B	61.4	4.1	mg/Kg	1	☼	6010C	Total/NA
Chromium	9.8	B	0.61	0.25	mg/Kg	1	☼	6010C	Total/NA
Cobalt	3.8		0.61	0.061	mg/Kg	1	☼	6010C	Total/NA
Copper	55.3		1.2	0.26	mg/Kg	1	☼	6010C	Total/NA
Iron	22200	B	12.3	4.3	mg/Kg	1	☼	6010C	Total/NA
Lead	44.5		1.2	0.29	mg/Kg	1	☼	6010C	Total/NA
Magnesium	3670	B	24.6	1.1	mg/Kg	1	☼	6010C	Total/NA
Manganese	273	B	0.25	0.039	mg/Kg	1	☼	6010C	Total/NA
Nickel	11.3		6.1	0.28	mg/Kg	1	☼	6010C	Total/NA
Potassium	1010		36.8	24.6	mg/Kg	1	☼	6010C	Total/NA
Sodium	184		172	16.0	mg/Kg	1	☼	6010C	Total/NA
Vanadium	14.3		0.61	0.14	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127922-1

Client Sample ID: MW-3 (6-8) (Continued)

Lab Sample ID: 480-127922-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	189		2.5	0.79	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.012	J	0.022	0.0090	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: MW-3 (0.5-2.0)

Lab Sample ID: 480-127922-4

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127922-1

Client Sample ID: MW-6 (8-10)
Date Collected: 11/21/17 10:19
Date Received: 11/22/17 09:37

Lab Sample ID: 480-127922-1
Matrix: Solid
Percent Solids: 88.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		3800	1000	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
2,4,6-Trichlorophenol	ND		3800	760	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
2,4-Dichlorophenol	ND		3800	400	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
2,4-Dimethylphenol	ND		3800	920	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
2,4-Dinitrophenol	ND		37000	18000	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
2,4-Dinitrotoluene	ND		3800	780	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
2,6-Dinitrotoluene	ND		3800	450	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
2-Chloronaphthalene	ND		3800	630	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
2-Chlorophenol	ND		3800	690	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
2-Methylnaphthalene	ND		3800	760	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
2-Methylphenol	ND		3800	450	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
2-Nitroaniline	ND		7400	560	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
2-Nitrophenol	ND		3800	1100	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
3,3'-Dichlorobenzidine	ND		7400	4500	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
3-Nitroaniline	ND		7400	1100	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
4,6-Dinitro-2-methylphenol	ND		7400	3800	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
4-Bromophenyl phenyl ether	ND		3800	540	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
4-Chloro-3-methylphenol	ND		3800	940	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
4-Chloroaniline	ND		3800	940	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
4-Chlorophenyl phenyl ether	ND		3800	470	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
4-Methylphenol	ND		7400	450	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
4-Nitroaniline	ND		7400	2000	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
4-Nitrophenol	ND		7400	2700	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Acenaphthene	**1500**	**J**	3800	560	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Acenaphthylene	**2100**	**J**	3800	490	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Acetophenone	ND		3800	520	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Anthracene	**6600**		3800	940	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Atrazine	ND		3800	1300	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Benzaldehyde	ND		3800	3000	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Benzo[a]anthracene	**15000**		3800	380	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Benzo[a]pyrene	**14000**		3800	560	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Benzo[b]fluoranthene	**19000**		3800	610	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Benzo[g,h,i]perylene	**9100**		3800	400	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Benzo[k]fluoranthene	**10000**		3800	490	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Biphenyl	ND		3800	560	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
bis (2-chloroisopropyl) ether	ND		3800	760	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Bis(2-chloroethoxy)methane	ND		3800	810	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Bis(2-chloroethyl)ether	ND		3800	490	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Bis(2-ethylhexyl) phthalate	ND		3800	1300	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Butyl benzyl phthalate	ND		3800	630	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Caprolactam	ND		3800	1100	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Carbazole	**1600**	**J**	3800	450	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Chrysene	**19000**		3800	850	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Dibenz(a,h)anthracene	**2800**	**J**	3800	670	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Dibenzofuran	**1100**	**J**	3800	450	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Diethyl phthalate	ND		3800	490	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Dimethyl phthalate	ND		3800	450	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Di-n-butyl phthalate	ND		3800	650	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Di-n-octyl phthalate	ND		3800	450	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127922-1

Client Sample ID: MW-6 (8-10)
Date Collected: 11/21/17 10:19
Date Received: 11/22/17 09:37

Lab Sample ID: 480-127922-1
Matrix: Solid
Percent Solids: 88.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	42000		3800	400	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Fluorene	3400	J	3800	450	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Hexachlorobenzene	ND		3800	520	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Hexachlorobutadiene	ND		3800	560	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Hexachlorocyclopentadiene	ND		3800	520	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Hexachloroethane	ND		3800	490	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Indeno[1,2,3-cd]pyrene	8700		3800	470	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Isophorone	ND		3800	810	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Naphthalene	ND		3800	490	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Nitrobenzene	ND		3800	430	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
N-Nitrosodi-n-propylamine	ND		3800	650	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
N-Nitrosodiphenylamine	ND		3800	3100	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Pentachlorophenol	ND		7400	3800	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Phenanthrene	26000		3800	560	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Phenol	ND		3800	580	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20
Pyrene	33000		3800	450	ug/Kg	☼	11/24/17 14:25	11/28/17 16:13	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*135*	*X*	*54 - 120*	*11/24/17 14:25*	*11/28/17 16:13*	*20*
2-Fluorobiphenyl	*56*	*X*	*60 - 120*	*11/24/17 14:25*	*11/28/17 16:13*	*20*
2-Fluorophenol	*88*		*52 - 120*	*11/24/17 14:25*	*11/28/17 16:13*	*20*
Nitrobenzene-d5	*90*		*53 - 120*	*11/24/17 14:25*	*11/28/17 16:13*	*20*
Phenol-d5	*94*		*54 - 120*	*11/24/17 14:25*	*11/28/17 16:13*	*20*
p-Terphenyl-d14	*92*		*65 - 121*	*11/24/17 14:25*	*11/28/17 16:13*	*20*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	5570		12.1	5.3	mg/Kg	☼	11/22/17 14:04	11/28/17 15:34	1
Antimony	9.2	J	18.1	0.48	mg/Kg	☼	11/22/17 14:04	11/28/17 15:34	1
Arsenic	8.7		2.4	0.48	mg/Kg	☼	11/22/17 14:04	11/25/17 04:06	1
Barium	217		0.60	0.13	mg/Kg	☼	11/22/17 14:04	11/28/17 15:34	1
Beryllium	0.29		0.24	0.034	mg/Kg	☼	11/22/17 14:04	11/28/17 15:34	1
Cadmium	0.54		0.24	0.036	mg/Kg	☼	11/22/17 14:04	11/28/17 15:34	1
Calcium	35600	B	60.4	4.0	mg/Kg	☼	11/22/17 14:04	11/28/17 15:34	1
Chromium	20.0	B	0.60	0.24	mg/Kg	☼	11/22/17 14:04	11/28/17 15:34	1
Cobalt	2.6		0.60	0.060	mg/Kg	☼	11/22/17 14:04	11/28/17 15:34	1
Copper	94.1		1.2	0.25	mg/Kg	☼	11/22/17 14:04	11/28/17 15:34	1
Iron	11100	B	12.1	4.2	mg/Kg	☼	11/22/17 14:04	11/28/17 15:34	1
Lead	8400		1.2	0.29	mg/Kg	☼	11/22/17 14:04	11/28/17 15:34	1
Magnesium	4170	B	24.1	1.1	mg/Kg	☼	11/22/17 14:04	11/28/17 15:34	1
Manganese	158	B	0.24	0.039	mg/Kg	☼	11/22/17 14:04	11/28/17 15:34	1
Nickel	9.1		6.0	0.28	mg/Kg	☼	11/22/17 14:04	11/28/17 15:34	1
Potassium	1130		36.2	24.1	mg/Kg	☼	11/22/17 14:04	11/28/17 15:34	1
Selenium	ND		4.8	0.48	mg/Kg	☼	11/22/17 14:04	11/28/17 15:34	1
Silver	0.43	J	0.72	0.24	mg/Kg	☼	11/22/17 14:04	11/28/17 15:34	1
Sodium	314		169	15.7	mg/Kg	☼	11/22/17 14:04	11/28/17 15:34	1
Thallium	ND		7.2	0.36	mg/Kg	☼	11/22/17 14:04	11/28/17 15:34	1
Vanadium	14.5		0.60	0.13	mg/Kg	☼	11/22/17 14:04	11/28/17 15:34	1
Zinc	268		2.4	0.77	mg/Kg	☼	11/22/17 14:04	11/28/17 15:34	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127922-1

Client Sample ID: MW-6 (8-10)
Date Collected: 11/21/17 10:19
Date Received: 11/22/17 09:37

Lab Sample ID: 480-127922-1
Matrix: Solid
Percent Solids: 88.1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.11		0.023	0.0095	mg/Kg	☼	11/29/17 12:35	11/29/17 16:12	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127922-1

Client Sample ID: MW-2 (2-4)
Date Collected: 11/21/17 13:42
Date Received: 11/22/17 09:37

Lab Sample ID: 480-127922-2
Matrix: Solid
Percent Solids: 84.3

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		9.3	0.68	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
1,1,2,2-Tetrachloroethane	ND		9.3	1.5	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		9.3	2.1	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
1,1,2-Trichloroethane	ND		9.3	1.2	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
1,1-Dichloroethane	ND		9.3	1.1	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
1,1-Dichloroethene	ND		9.3	1.1	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
1,2,4-Trichlorobenzene	ND		9.3	0.57	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
1,2,4-Trimethylbenzene	ND		9.3	1.8	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
1,2-Dibromo-3-Chloropropane	ND		9.3	4.7	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
1,2-Dibromoethane	ND		9.3	1.2	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
1,2-Dichlorobenzene	ND		9.3	0.73	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
1,2-Dichloroethane	ND		9.3	0.47	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
1,2-Dichloropropane	ND		9.3	4.7	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
1,3,5-Trimethylbenzene	ND		9.3	0.60	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
1,3-Dichlorobenzene	ND		9.3	0.48	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
1,4-Dichlorobenzene	ND		9.3	1.3	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
2-Butanone (MEK)	ND		47	3.4	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
2-Hexanone	ND		47	4.7	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
4-Isopropyltoluene	ND		9.3	0.75	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
4-Methyl-2-pentanone (MIBK)	ND		47	3.1	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
Acetone	ND		47	7.9	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
Benzene	ND		9.3	0.46	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
Bromodichloromethane	ND		9.3	1.2	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
Bromoform	ND		9.3	4.7	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
Bromomethane	ND		9.3	0.84	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
Carbon disulfide	ND		9.3	4.7	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
Carbon tetrachloride	ND		9.3	0.90	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
Chlorobenzene	ND		9.3	1.2	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
Chloroethane	ND		9.3	2.1	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
Chloroform	ND		9.3	0.58	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
Chloromethane	ND		9.3	0.56	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
cis-1,2-Dichloroethene	ND		9.3	1.2	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
cis-1,3-Dichloropropene	ND		9.3	1.3	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
Cyclohexane	ND		9.3	1.3	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
Dibromochloromethane	ND		9.3	1.2	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
Dichlorodifluoromethane	ND		9.3	0.77	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
Ethylbenzene	ND		9.3	0.64	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
Isopropylbenzene	ND		9.3	1.4	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
m,p-Xylene	ND		19	1.6	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
Methyl acetate	ND		47	5.6	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
Methyl tert-butyl ether	ND		9.3	0.92	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
Methylcyclohexane	ND		9.3	1.4	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
Methylene Chloride	ND		9.3	4.3	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
n-Butylbenzene	ND		9.3	0.81	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
N-Propylbenzene	ND		9.3	0.75	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
o-Xylene	ND		9.3	1.2	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
sec-Butylbenzene	ND		9.3	0.81	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
Styrene	ND		9.3	0.47	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
tert-Butylbenzene	ND		9.3	0.97	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1

Client Sample ID: MW-2 (2-4)
Date Collected: 11/21/17 13:42
Date Received: 11/22/17 09:37

Lab Sample ID: 480-127922-2
Matrix: Solid
Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		9.3	1.3	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
Toluene	ND		9.3	0.70	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
trans-1,2-Dichloroethene	ND		9.3	0.96	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
trans-1,3-Dichloropropene	ND		9.3	4.1	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
Trichloroethene	ND		9.3	2.1	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
Trichlorofluoromethane	ND		9.3	0.88	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
Vinyl chloride	ND		9.3	1.1	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1
Xylenes, Total	ND		19	1.6	ug/Kg	☼	11/22/17 10:10	11/28/17 16:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*64 - 126*	*11/22/17 10:10*	*11/28/17 16:22*	*1*
4-Bromofluorobenzene (Surr)	*81*		*72 - 126*	*11/22/17 10:10*	*11/28/17 16:22*	*1*
Dibromofluoromethane (Surr)	*99*		*60 - 140*	*11/22/17 10:10*	*11/28/17 16:22*	*1*
Toluene-d8 (Surr)	*98*		*71 - 125*	*11/22/17 10:10*	*11/28/17 16:22*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		4000	1100	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
2,4,6-Trichlorophenol	ND		4000	790	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
2,4-Dichlorophenol	ND		4000	420	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
2,4-Dimethylphenol	ND		4000	950	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
2,4-Dinitrophenol	ND		39000	18000	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
2,4-Dinitrotoluene	ND		4000	810	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
2,6-Dinitrotoluene	ND		4000	470	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
2-Chloronaphthalene	ND		4000	650	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
2-Chlorophenol	ND		4000	720	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
2-Methylnaphthalene	ND		4000	790	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
2-Methylphenol	ND		4000	470	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
2-Nitroaniline	ND		7700	580	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
2-Nitrophenol	ND		4000	1100	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
3,3'-Dichlorobenzidine	ND		7700	4700	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
3-Nitroaniline	ND		7700	1100	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
4,6-Dinitro-2-methylphenol	ND		7700	4000	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
4-Bromophenyl phenyl ether	ND		4000	560	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
4-Chloro-3-methylphenol	ND		4000	980	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
4-Chloroaniline	ND		4000	980	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
4-Chlorophenyl phenyl ether	ND		4000	490	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
4-Methylphenol	ND		7700	470	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
4-Nitroaniline	ND		7700	2100	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
4-Nitrophenol	ND		7700	2800	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Acenaphthene	ND		4000	580	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Acenaphthylene	ND		4000	510	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Acetophenone	ND		4000	540	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Anthracene	ND		4000	980	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Atrazine	ND		4000	1400	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Benzaldehyde	ND		4000	3100	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Benzo[a]anthracene	**790**	**J**	4000	400	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Benzo[a]pyrene	**1100**	**J**	4000	580	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Benzo[b]fluoranthene	**1500**	**J**	4000	630	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Benzo[g,h,i]perylene	**680**	**J**	4000	420	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127922-1

Client Sample ID: MW-2 (2-4)
Date Collected: 11/21/17 13:42
Date Received: 11/22/17 09:37

Lab Sample ID: 480-127922-2
Matrix: Solid
Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	ND		4000	510	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Biphenyl	ND		4000	580	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
bis (2-chloroisopropyl) ether	ND		4000	790	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Bis(2-chloroethoxy)methane	ND		4000	840	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Bis(2-chloroethyl)ether	ND		4000	510	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Bis(2-ethylhexyl) phthalate	ND		4000	1300	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Butyl benzyl phthalate	ND		4000	650	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Caprolactam	ND		4000	1200	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Carbazole	ND		4000	470	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Chrysene	ND		4000	880	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Dibenz(a,h)anthracene	ND		4000	700	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Dibenzofuran	ND		4000	470	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Diethyl phthalate	ND		4000	510	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Dimethyl phthalate	ND		4000	470	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Di-n-butyl phthalate	ND		4000	670	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Di-n-octyl phthalate	ND		4000	470	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Fluoranthene	**1200**	**J**	4000	420	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Fluorene	ND		4000	470	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Hexachlorobenzene	ND		4000	540	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Hexachlorobutadiene	ND		4000	580	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Hexachlorocyclopentadiene	ND		4000	540	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Hexachloroethane	ND		4000	510	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Indeno[1,2,3-cd]pyrene	**920**	**J**	4000	490	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Isophorone	ND		4000	840	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Naphthalene	ND		4000	510	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Nitrobenzene	ND		4000	440	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
N-Nitrosodi-n-propylamine	ND		4000	670	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
N-Nitrosodiphenylamine	ND		4000	3200	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Pentachlorophenol	ND		7700	4000	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Phenanthrene	**600**	**J**	4000	580	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Phenol	ND		4000	600	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20
Pyrene	**1000**	**J**	4000	470	ug/Kg	☼	11/24/17 14:25	11/28/17 16:40	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*163*	*X*	*54 - 120*	*11/24/17 14:25*	*11/28/17 16:40*	*20*
2-Fluorobiphenyl	*65*		*60 - 120*	*11/24/17 14:25*	*11/28/17 16:40*	*20*
2-Fluorophenol	*84*		*52 - 120*	*11/24/17 14:25*	*11/28/17 16:40*	*20*
Nitrobenzene-d5	*89*		*53 - 120*	*11/24/17 14:25*	*11/28/17 16:40*	*20*
Phenol-d5	*85*		*54 - 120*	*11/24/17 14:25*	*11/28/17 16:40*	*20*
p-Terphenyl-d14	*99*		*65 - 121*	*11/24/17 14:25*	*11/28/17 16:40*	*20*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		200	38	ug/Kg	☼	11/27/17 14:11	11/28/17 12:48	100
4,4'-DDE	ND		200	41	ug/Kg	☼	11/27/17 14:11	11/28/17 12:48	100
4,4'-DDT	**68**	**J**	200	46	ug/Kg	☼	11/27/17 14:11	11/28/17 12:48	100
Aldrin	ND		200	48	ug/Kg	☼	11/27/17 14:11	11/28/17 12:48	100
alpha-BHC	ND		200	35	ug/Kg	☼	11/27/17 14:11	11/28/17 12:48	100
alpha-Chlordane	ND		200	98	ug/Kg	☼	11/27/17 14:11	11/28/17 12:48	100
beta-BHC	ND		200	35	ug/Kg	☼	11/27/17 14:11	11/28/17 12:48	100

Client Sample ID: MW-2 (2-4)
Date Collected: 11/21/17 13:42
Date Received: 11/22/17 09:37

Lab Sample ID: 480-127922-2
Matrix: Solid
Percent Solids: 84.3

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
delta-BHC	ND		200	36	ug/Kg	☼	11/27/17 14:11	11/28/17 12:48	100
Dieldrin	ND		200	47	ug/Kg	☼	11/27/17 14:11	11/28/17 12:48	100
Endosulfan I	ND		200	38	ug/Kg	☼	11/27/17 14:11	11/28/17 12:48	100
Endosulfan II	ND		200	35	ug/Kg	☼	11/27/17 14:11	11/28/17 12:48	100
Endosulfan sulfate	ND		200	37	ug/Kg	☼	11/27/17 14:11	11/28/17 12:48	100
Endrin	ND		200	39	ug/Kg	☼	11/27/17 14:11	11/28/17 12:48	100
Endrin aldehyde	ND		200	50	ug/Kg	☼	11/27/17 14:11	11/28/17 12:48	100
Endrin ketone	ND		200	48	ug/Kg	☼	11/27/17 14:11	11/28/17 12:48	100
gamma-BHC (Lindane)	**57**	**J B**	200	36	ug/Kg	☼	11/27/17 14:11	11/28/17 12:48	100
gamma-Chlordane	ND		200	62	ug/Kg	☼	11/27/17 14:11	11/28/17 12:48	100
Heptachlor	ND		200	42	ug/Kg	☼	11/27/17 14:11	11/28/17 12:48	100
Heptachlor epoxide	ND		200	51	ug/Kg	☼	11/27/17 14:11	11/28/17 12:48	100
Methoxychlor	ND		200	40	ug/Kg	☼	11/27/17 14:11	11/28/17 12:48	100
Toxaphene	ND		2000	1100	ug/Kg	☼	11/27/17 14:11	11/28/17 12:48	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*X*	*45 - 120*	*11/27/17 14:11*	*11/28/17 12:48*	*100*
DCB Decachlorobiphenyl	*0*	*X*	*45 - 120*	*11/27/17 14:11*	*11/28/17 12:48*	*100*
Tetrachloro-m-xylene	*0*	*X*	*30 - 124*	*11/27/17 14:11*	*11/28/17 12:48*	*100*
Tetrachloro-m-xylene	*0*	*X*	*30 - 124*	*11/27/17 14:11*	*11/28/17 12:48*	*100*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.29	0.056	mg/Kg	☼	11/24/17 14:32	11/28/17 13:31	1
PCB-1221	ND		0.29	0.056	mg/Kg	☼	11/24/17 14:32	11/28/17 13:31	1
PCB-1232	ND		0.29	0.056	mg/Kg	☼	11/24/17 14:32	11/28/17 13:31	1
PCB-1242	ND		0.29	0.056	mg/Kg	☼	11/24/17 14:32	11/28/17 13:31	1
PCB-1248	ND		0.29	0.056	mg/Kg	☼	11/24/17 14:32	11/28/17 13:31	1
PCB-1254	ND		0.29	0.13	mg/Kg	☼	11/24/17 14:32	11/28/17 13:31	1
PCB-1260	ND		0.29	0.13	mg/Kg	☼	11/24/17 14:32	11/28/17 13:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*145*		*60 - 154*	*11/24/17 14:32*	*11/28/17 13:31*	*1*
Tetrachloro-m-xylene	*156*	*X*	*60 - 154*	*11/24/17 14:32*	*11/28/17 13:31*	*1*
DCB Decachlorobiphenyl	*140*		*65 - 174*	*11/24/17 14:32*	*11/28/17 13:31*	*1*
DCB Decachlorobiphenyl	*142*		*65 - 174*	*11/24/17 14:32*	*11/28/17 13:31*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		20	6.2	ug/Kg	☼	11/27/17 14:14	11/30/17 02:26	1
Silvex (2,4,5-TP)	ND		20	7.0	ug/Kg	☼	11/27/17 14:14	11/30/17 02:26	1
2,4-D	ND	F1	20	12	ug/Kg	☼	11/27/17 14:14	11/30/17 02:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*117*		*28 - 129*	*11/27/17 14:14*	*11/30/17 02:26*	*1*
2,4-Dichlorophenylacetic acid	*124*		*28 - 129*	*11/27/17 14:14*	*11/30/17 02:26*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**9430**		11.1	4.9	mg/Kg	☼	11/22/17 14:04	11/28/17 15:37	1
Antimony	ND		16.7	0.44	mg/Kg	☼	11/22/17 14:04	11/28/17 15:37	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127922-1

Client Sample ID: MW-2 (2-4)
Date Collected: 11/21/17 13:42
Date Received: 11/22/17 09:37

Lab Sample ID: 480-127922-2
Matrix: Solid
Percent Solids: 84.3

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	11.5		2.2	0.44	mg/Kg	☼	11/22/17 14:04	11/25/17 04:09	1
Barium	147		0.56	0.12	mg/Kg	☼	11/22/17 14:04	11/28/17 15:37	1
Beryllium	0.61		0.22	0.031	mg/Kg	☼	11/22/17 14:04	11/28/17 15:37	1
Cadmium	0.48		0.22	0.033	mg/Kg	☼	11/22/17 14:04	11/28/17 15:37	1
Calcium	57000	B	55.6	3.7	mg/Kg	☼	11/22/17 14:04	11/28/17 15:37	1
Chromium	13.7	B	0.56	0.22	mg/Kg	☼	11/22/17 14:04	11/28/17 15:37	1
Cobalt	5.9		0.56	0.056	mg/Kg	☼	11/22/17 14:04	11/28/17 15:37	1
Copper	90.9		1.1	0.23	mg/Kg	☼	11/22/17 14:04	11/28/17 15:37	1
Iron	11800	B	11.1	3.9	mg/Kg	☼	11/22/17 14:04	11/28/17 15:37	1
Lead	283		1.1	0.27	mg/Kg	☼	11/22/17 14:04	11/28/17 15:37	1
Magnesium	5080	B	22.2	1.0	mg/Kg	☼	11/22/17 14:04	11/28/17 15:37	1
Manganese	276	B	0.22	0.036	mg/Kg	☼	11/22/17 14:04	11/28/17 15:37	1
Nickel	15.2		5.6	0.26	mg/Kg	☼	11/22/17 14:04	11/28/17 15:37	1
Potassium	1880		33.3	22.2	mg/Kg	☼	11/22/17 14:04	11/28/17 15:37	1
Selenium	ND		4.4	0.44	mg/Kg	☼	11/22/17 14:04	11/28/17 15:37	1
Silver	ND		0.67	0.22	mg/Kg	☼	11/22/17 14:04	11/28/17 15:37	1
Sodium	474		156	14.4	mg/Kg	☼	11/22/17 14:04	11/28/17 15:37	1
Thallium	ND		6.7	0.33	mg/Kg	☼	11/22/17 14:04	11/28/17 15:37	1
Vanadium	24.2		0.56	0.12	mg/Kg	☼	11/22/17 14:04	11/28/17 15:37	1
Zinc	198		2.2	0.71	mg/Kg	☼	11/22/17 14:04	11/28/17 15:37	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.11		0.022	0.0088	mg/Kg	☼	11/29/17 12:35	11/29/17 16:14	1

Client Sample ID: MW-3 (6-8)
Date Collected: 11/21/17 15:04
Date Received: 11/22/17 09:37

Lab Sample ID: 480-127922-3
Matrix: Solid
Percent Solids: 89.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		3800	1000	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
2,4,6-Trichlorophenol	ND		3800	750	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
2,4-Dichlorophenol	ND		3800	400	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
2,4-Dimethylphenol	ND		3800	910	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
2,4-Dinitrophenol	ND		37000	17000	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
2,4-Dinitrotoluene	ND	F1	3800	780	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
2,6-Dinitrotoluene	ND		3800	440	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
2-Chloronaphthalene	ND		3800	620	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
2-Chlorophenol	ND		3800	690	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
2-Methylnaphthalene	ND		3800	750	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
2-Methylphenol	ND		3800	440	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
2-Nitroaniline	ND	F1	7300	550	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
2-Nitrophenol	ND	F1	3800	1100	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
3,3'-Dichlorobenzidine	ND		7300	4400	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
3-Nitroaniline	ND	F1	7300	1000	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
4,6-Dinitro-2-methylphenol	ND		7300	3800	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
4-Bromophenyl phenyl ether	ND	F2	3800	530	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
4-Chloro-3-methylphenol	ND		3800	930	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
4-Chloroaniline	ND	F1	3800	930	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
4-Chlorophenyl phenyl ether	ND		3800	470	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
4-Methylphenol	ND		7300	440	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
4-Nitroaniline	ND		7300	2000	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
4-Nitrophenol	ND		7300	2600	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Acenaphthene	ND		3800	550	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Acenaphthylene	ND		3800	490	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Acetophenone	ND		3800	510	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Anthracene	ND	F2 F1	3800	930	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Atrazine	ND		3800	1300	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Benzaldehyde	ND	F1	3800	3000	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Benzo[a]anthracene	**430**	**J F2 F1**	3800	380	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Benzo[a]pyrene	**640**	**J F2 F1**	3800	550	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Benzo[b]fluoranthene	ND	F2 F1	3800	600	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Benzo[g,h,i]perylene	ND	F2	3800	400	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Benzo[k]fluoranthene	ND	F2 F1	3800	490	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Biphenyl	ND		3800	550	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
bis (2-chloroisopropyl) ether	ND	F1	3800	750	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Bis(2-chloroethoxy)methane	ND		3800	800	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Bis(2-chloroethyl)ether	ND		3800	490	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Bis(2-ethylhexyl) phthalate	ND	F1	3800	1300	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Butyl benzyl phthalate	ND	F1	3800	620	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Caprolactam	ND		3800	1100	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Carbazole	ND		3800	440	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Chrysene	ND	F2 F1	3800	840	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Dibenz(a,h)anthracene	ND	F2	3800	670	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Dibenzofuran	ND		3800	440	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Diethyl phthalate	ND		3800	490	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Dimethyl phthalate	ND		3800	440	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Di-n-butyl phthalate	ND		3800	640	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Di-n-octyl phthalate	ND	F1	3800	440	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127922-1

Client Sample ID: MW-3 (6-8)
Date Collected: 11/21/17 15:04
Date Received: 11/22/17 09:37

Lab Sample ID: 480-127922-3
Matrix: Solid
Percent Solids: 89.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	430	J F2 F1	3800	400	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Fluorene	ND		3800	440	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Hexachlorobenzene	ND		3800	510	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Hexachlorobutadiene	ND		3800	550	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Hexachlorocyclopentadiene	ND		3800	510	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Hexachloroethane	ND		3800	490	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Indeno[1,2,3-cd]pyrene	630	J F2	3800	470	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Isophorone	ND		3800	800	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Naphthalene	ND		3800	490	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Nitrobenzene	ND		3800	420	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
N-Nitrosodi-n-propylamine	ND		3800	640	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
N-Nitrosodiphenylamine	ND		3800	3100	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Pentachlorophenol	ND		7300	3800	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Phenanthrene	ND	F2 F1	3800	550	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Phenol	ND		3800	580	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20
Pyrene	460	J F2 F1	3800	440	ug/Kg	☼	11/24/17 14:25	11/28/17 15:47	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*121*	*X*	*54 - 120*	*11/24/17 14:25*	*11/28/17 15:47*	*20*
2-Fluorobiphenyl	*61*		*60 - 120*	*11/24/17 14:25*	*11/28/17 15:47*	*20*
2-Fluorophenol	*77*		*52 - 120*	*11/24/17 14:25*	*11/28/17 15:47*	*20*
Nitrobenzene-d5	*80*		*53 - 120*	*11/24/17 14:25*	*11/28/17 15:47*	*20*
Phenol-d5	*89*		*54 - 120*	*11/24/17 14:25*	*11/28/17 15:47*	*20*
p-Terphenyl-d14	*96*		*65 - 121*	*11/24/17 14:25*	*11/28/17 15:47*	*20*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		37	7.3	ug/Kg	☼	11/27/17 14:11	11/28/17 12:29	20
4,4'-DDE	ND		37	7.8	ug/Kg	☼	11/27/17 14:11	11/28/17 12:29	20
4,4'-DDT	ND	F1	37	8.7	ug/Kg	☼	11/27/17 14:11	11/28/17 12:29	20
Aldrin	ND		37	9.2	ug/Kg	☼	11/27/17 14:11	11/28/17 12:29	20
alpha-BHC	10	J B	37	6.7	ug/Kg	☼	11/27/17 14:11	11/28/17 12:29	20
alpha-Chlordane	ND		37	19	ug/Kg	☼	11/27/17 14:11	11/28/17 12:29	20
beta-BHC	7.6	J	37	6.7	ug/Kg	☼	11/27/17 14:11	11/28/17 12:29	20
delta-BHC	ND	F1	37	6.9	ug/Kg	☼	11/27/17 14:11	11/28/17 12:29	20
Dieldrin	ND	F1	37	9.0	ug/Kg	☼	11/27/17 14:11	11/28/17 12:29	20
Endosulfan I	ND		37	7.2	ug/Kg	☼	11/27/17 14:11	11/28/17 12:29	20
Endosulfan II	ND		37	6.7	ug/Kg	☼	11/27/17 14:11	11/28/17 12:29	20
Endosulfan sulfate	ND		37	7.0	ug/Kg	☼	11/27/17 14:11	11/28/17 12:29	20
Endrin	ND		37	7.4	ug/Kg	☼	11/27/17 14:11	11/28/17 12:29	20
Endrin aldehyde	ND		37	9.5	ug/Kg	☼	11/27/17 14:11	11/28/17 12:29	20
Endrin ketone	ND	F1	37	9.2	ug/Kg	☼	11/27/17 14:11	11/28/17 12:29	20
gamma-BHC (Lindane)	12	J B	37	6.8	ug/Kg	☼	11/27/17 14:11	11/28/17 12:29	20
gamma-Chlordane	ND		37	12	ug/Kg	☼	11/27/17 14:11	11/28/17 12:29	20
Heptachlor	ND		37	8.1	ug/Kg	☼	11/27/17 14:11	11/28/17 12:29	20
Heptachlor epoxide	ND		37	9.6	ug/Kg	☼	11/27/17 14:11	11/28/17 12:29	20
Methoxychlor	ND	F1	37	7.6	ug/Kg	☼	11/27/17 14:11	11/28/17 12:29	20
Toxaphene	ND		370	220	ug/Kg	☼	11/27/17 14:11	11/28/17 12:29	20

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127922-1

Client Sample ID: MW-3 (6-8)
Date Collected: 11/21/17 15:04
Date Received: 11/22/17 09:37

Lab Sample ID: 480-127922-3
Matrix: Solid
Percent Solids: 89.3

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	151	X	45 - 120	11/27/17 14:11	11/28/17 12:29	20
DCB Decachlorobiphenyl	186	X	45 - 120	11/27/17 14:11	11/28/17 12:29	20
Tetrachloro-m-xylene	129	X	30 - 124	11/27/17 14:11	11/28/17 12:29	20
Tetrachloro-m-xylene	170	X	30 - 124	11/27/17 14:11	11/28/17 12:29	20

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		19	5.9	ug/Kg	☼	11/27/17 14:14	11/30/17 02:56	1
Silvex (2,4,5-TP)	ND		19	6.7	ug/Kg	☼	11/27/17 14:14	11/30/17 02:56	1
2,4-D	ND		19	12	ug/Kg	☼	11/27/17 14:14	11/30/17 02:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	128		28 - 129	11/27/17 14:14	11/30/17 02:56	1
2,4-Dichlorophenylacetic acid	159	X	28 - 129	11/27/17 14:14	11/30/17 02:56	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	5420		12.3	5.4	mg/Kg	☼	11/22/17 14:04	11/28/17 15:41	1
Antimony	ND		18.4	0.49	mg/Kg	☼	11/22/17 14:04	11/28/17 15:41	1
Arsenic	7.8		2.5	0.49	mg/Kg	☼	11/22/17 14:04	11/25/17 04:13	1
Barium	48.0		0.61	0.14	mg/Kg	☼	11/22/17 14:04	11/28/17 15:41	1
Beryllium	0.32		0.25	0.034	mg/Kg	☼	11/22/17 14:04	11/28/17 15:41	1
Cadmium	0.12	J	0.25	0.037	mg/Kg	☼	11/22/17 14:04	11/28/17 15:41	1
Calcium	51200	B	61.4	4.1	mg/Kg	☼	11/22/17 14:04	11/28/17 15:41	1
Chromium	9.8	B	0.61	0.25	mg/Kg	☼	11/22/17 14:04	11/28/17 15:41	1
Cobalt	3.8		0.61	0.061	mg/Kg	☼	11/22/17 14:04	11/28/17 15:41	1
Copper	55.3		1.2	0.26	mg/Kg	☼	11/22/17 14:04	11/28/17 15:41	1
Iron	22200	B	12.3	4.3	mg/Kg	☼	11/22/17 14:04	11/28/17 15:41	1
Lead	44.5		1.2	0.29	mg/Kg	☼	11/22/17 14:04	11/28/17 15:41	1
Magnesium	3670	B	24.6	1.1	mg/Kg	☼	11/22/17 14:04	11/28/17 15:41	1
Manganese	273	B	0.25	0.039	mg/Kg	☼	11/22/17 14:04	11/28/17 15:41	1
Nickel	11.3		6.1	0.28	mg/Kg	☼	11/22/17 14:04	11/28/17 15:41	1
Potassium	1010		36.8	24.6	mg/Kg	☼	11/22/17 14:04	11/28/17 15:41	1
Selenium	ND		4.9	0.49	mg/Kg	☼	11/22/17 14:04	11/28/17 15:41	1
Silver	ND		0.74	0.25	mg/Kg	☼	11/22/17 14:04	11/28/17 15:41	1
Sodium	184		172	16.0	mg/Kg	☼	11/22/17 14:04	11/28/17 15:41	1
Thallium	ND		7.4	0.37	mg/Kg	☼	11/22/17 14:04	11/28/17 15:41	1
Vanadium	14.3		0.61	0.14	mg/Kg	☼	11/22/17 14:04	11/28/17 15:41	1
Zinc	189		2.5	0.79	mg/Kg	☼	11/22/17 14:04	11/28/17 15:41	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.012	J	0.022	0.0090	mg/Kg	☼	11/29/17 12:35	11/29/17 16:15	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127922-1

Client Sample ID: MW-3 (0.5-2.0)
Date Collected: 11/21/17 15:15
Date Received: 11/22/17 09:37

Lab Sample ID: 480-127922-4
Matrix: Solid
Percent Solids: 93.7

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.7	0.42	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
1,1,2,2-Tetrachloroethane	ND		5.7	0.93	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.7	1.3	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
1,1,2-Trichloroethane	ND		5.7	0.75	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
1,1-Dichloroethane	ND		5.7	0.70	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
1,1-Dichloroethene	ND		5.7	0.70	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
1,2,4-Trichlorobenzene	ND		5.7	0.35	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
1,2,4-Trimethylbenzene	ND		5.7	1.1	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
1,2-Dibromo-3-Chloropropane	ND		5.7	2.9	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
1,2-Dibromoethane	ND		5.7	0.74	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
1,2-Dichlorobenzene	ND		5.7	0.45	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
1,2-Dichloroethane	ND		5.7	0.29	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
1,2-Dichloropropane	ND		5.7	2.9	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
1,3,5-Trimethylbenzene	ND		5.7	0.37	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
1,3-Dichlorobenzene	ND		5.7	0.29	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
1,4-Dichlorobenzene	ND		5.7	0.80	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
2-Butanone (MEK)	ND		29	2.1	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
2-Hexanone	ND		29	2.9	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
4-Isopropyltoluene	ND		5.7	0.46	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
4-Methyl-2-pentanone (MIBK)	ND		29	1.9	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
Acetone	ND		29	4.8	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
Benzene	ND		5.7	0.28	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
Bromodichloromethane	ND		5.7	0.77	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
Bromoform	ND		5.7	2.9	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
Bromomethane	ND		5.7	0.52	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
Carbon disulfide	ND		5.7	2.9	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
Carbon tetrachloride	ND		5.7	0.56	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
Chlorobenzene	ND		5.7	0.76	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
Chloroethane	ND		5.7	1.3	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
Chloroform	ND		5.7	0.35	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
Chloromethane	ND		5.7	0.35	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
cis-1,2-Dichloroethene	ND		5.7	0.73	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
cis-1,3-Dichloropropene	ND		5.7	0.83	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
Cyclohexane	ND		5.7	0.80	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
Dibromochloromethane	ND		5.7	0.73	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
Dichlorodifluoromethane	ND		5.7	0.47	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
Ethylbenzene	ND		5.7	0.40	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
Isopropylbenzene	ND		5.7	0.87	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
m,p-Xylene	ND		11	0.96	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
Methyl acetate	ND		29	3.5	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
Methyl tert-butyl ether	ND		5.7	0.56	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
Methylcyclohexane	ND		5.7	0.87	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
Methylene Chloride	ND		5.7	2.6	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
n-Butylbenzene	ND		5.7	0.50	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
N-Propylbenzene	ND		5.7	0.46	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
o-Xylene	ND		5.7	0.75	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
sec-Butylbenzene	ND		5.7	0.50	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
Styrene	ND		5.7	0.29	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
tert-Butylbenzene	ND		5.7	0.60	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127922-1

Client Sample ID: MW-3 (0.5-2.0)
Date Collected: 11/21/17 15:15
Date Received: 11/22/17 09:37

Lab Sample ID: 480-127922-4
Matrix: Solid
Percent Solids: 93.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		5.7	0.77	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
Toluene	ND		5.7	0.43	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
trans-1,2-Dichloroethene	ND		5.7	0.59	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
trans-1,3-Dichloropropene	ND		5.7	2.5	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
Trichloroethene	ND		5.7	1.3	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
Trichlorofluoromethane	ND		5.7	0.54	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
Vinyl chloride	ND		5.7	0.70	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1
Xylenes, Total	ND		11	0.96	ug/Kg	☼	11/22/17 10:10	11/28/17 16:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*64 - 126*	*11/22/17 10:10*	*11/28/17 16:47*	*1*
4-Bromofluorobenzene (Surr)	*81*		*72 - 126*	*11/22/17 10:10*	*11/28/17 16:47*	*1*
Dibromofluoromethane (Surr)	*102*		*60 - 140*	*11/22/17 10:10*	*11/28/17 16:47*	*1*
Toluene-d8 (Surr)	*102*		*71 - 125*	*11/22/17 10:10*	*11/28/17 16:47*	*1*

Surrogate Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127922-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(64-126)	(72-126)	(60-140)	(71-125)
480-127922-2	MW-2 (2-4)	95	81	99	98
480-127922-4	MW-3 (0.5-2.0)	101	81	102	102
LCS 480-388783/1-A	Lab Control Sample	87	87	90	85
MB 480-388783/3-A	Method Blank	99	95	100	95

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPH
Lab Sample ID	Client Sample ID	(54-120)	(60-120)	(52-120)	(53-120)	(54-120)	(65-121)
480-127922-1	MW-6 (8-10)	135 X	56 X	88	90	94	92
480-127922-2	MW-2 (2-4)	163 X	65	84	89	85	99
480-127922-3	MW-3 (6-8)	121 X	61	77	80	89	96
480-127922-3 MS	MW-3 (6-8)	149 X	51 X	73	92	88	90
480-127922-3 MSD	MW-3 (6-8)	144 X	49 X	83	81	92	97
LCS 480-389053/2-A	Lab Control Sample	98	87	77	84	77	101
MB 480-389053/1-A	Method Blank	76	86	75	83	81	98

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPH = p-Terphenyl-d14

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCB1	DCB2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(45-120)	(45-120)	(30-124)	(30-124)
480-127922-2	MW-2 (2-4)	0 X	0 X	0 X	0 X
480-127922-3	MW-3 (6-8)	151 X	186 X	129 X	170 X
480-127922-3 MS	MW-3 (6-8)	164 X	170 X	131 X	173 X
480-127922-3 MSD	MW-3 (6-8)	157 X	172 X	164 X	173 X
LCS 480-389267/2-A	Lab Control Sample	129 X	114	90	72
MB 480-389267/1-A	Method Blank	119	103	86	67

Surrogate Legend

DCB = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Surrogate Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127922-1

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCB1	DCB2
Lab Sample ID	Client Sample ID	(60-154)	(60-154)	(65-174)	(65-174)
480-127922-2	MW-2 (2-4)	145	156 X	140	142
LCS 480-389055/2-A	Lab Control Sample	151	154	147	146
MB 480-389055/1-A	Method Blank	122	139	126	127

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

Method: 8151A - Herbicides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCPA1	DCPA2
Lab Sample ID	Client Sample ID	(28-129)	(28-129)
480-127922-2	MW-2 (2-4)	117	124
480-127922-2 MS	MW-2 (2-4)	120	109
480-127922-2 MSD	MW-2 (2-4)	158 X	142 X
480-127922-3	MW-3 (6-8)	128	159 X
LCS 480-389269/2-A	Lab Control Sample	114	144 X
MB 480-389269/1-A	Method Blank	126	167 X

Surrogate Legend

DCPA = 2,4-Dichlorophenylacetic acid

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-388783/3-A
Matrix: Solid
Analysis Batch: 389355

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 388783

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
1,2,4-Trimethylbenzene	ND		5.0	0.96	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
1,3,5-Trimethylbenzene	ND		5.0	0.32	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
2-Hexanone	ND		25	2.5	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
4-Isopropyltoluene	ND		5.0	0.40	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
Acetone	ND		25	4.2	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
Benzene	ND		5.0	0.25	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
Bromoform	ND		5.0	2.5	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
Bromomethane	ND		5.0	0.45	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
Carbon disulfide	ND		5.0	2.5	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
Chlorobenzene	ND		5.0	0.66	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
Chloroethane	ND		5.0	1.1	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
Chloroform	ND		5.0	0.31	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
Chloromethane	ND		5.0	0.30	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
Cyclohexane	ND		5.0	0.70	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
Ethylbenzene	ND		5.0	0.35	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
m,p-Xylene	ND		10	0.84	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
Methyl acetate	ND		25	3.0	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
Methylene Chloride	ND		5.0	2.3	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
n-Butylbenzene	ND		5.0	0.44	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
N-Propylbenzene	ND		5.0	0.40	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
o-Xylene	ND		5.0	0.65	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
sec-Butylbenzene	ND		5.0	0.44	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
Styrene	ND		5.0	0.25	ug/Kg		11/22/17 10:10	11/28/17 14:06	1

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

Lab Sample ID: MB 480-388783/3-A
Matrix: Solid
Analysis Batch: 389355

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 388783

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	ND		5.0	0.52	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
Tetrachloroethene	ND		5.0	0.67	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
Toluene	ND		5.0	0.38	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
Trichloroethene	ND		5.0	1.1	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
Vinyl chloride	ND		5.0	0.61	ug/Kg		11/22/17 10:10	11/28/17 14:06	1
Xylenes, Total	ND		10	0.84	ug/Kg		11/22/17 10:10	11/28/17 14:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*64 - 126*	*11/22/17 10:10*	*11/28/17 14:06*	*1*
4-Bromofluorobenzene (Surr)	*95*		*72 - 126*	*11/22/17 10:10*	*11/28/17 14:06*	*1*
Dibromofluoromethane (Surr)	*100*		*60 - 140*	*11/22/17 10:10*	*11/28/17 14:06*	*1*
Toluene-d8 (Surr)	*95*		*71 - 125*	*11/22/17 10:10*	*11/28/17 14:06*	*1*

Lab Sample ID: LCS 480-388783/1-A
Matrix: Solid
Analysis Batch: 389355

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388783

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	50.0	41.3		ug/Kg		83	77 - 121
1,1,2,2-Tetrachloroethane	50.0	46.4		ug/Kg		93	80 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	40.6		ug/Kg		81	60 - 140
1,1,2-Trichloroethane	50.0	44.1		ug/Kg		88	78 - 122
1,1-Dichloroethane	50.0	44.4		ug/Kg		89	73 - 126
1,1-Dichloroethene	50.0	43.4		ug/Kg		87	59 - 125
1,2,4-Trichlorobenzene	50.0	42.5		ug/Kg		85	64 - 120
1,2,4-Trimethylbenzene	50.0	44.7		ug/Kg		89	74 - 120
1,2-Dibromo-3-Chloropropane	50.0	45.2		ug/Kg		90	63 - 124
1,2-Dibromoethane	50.0	44.9		ug/Kg		90	78 - 120
1,2-Dichlorobenzene	50.0	43.7		ug/Kg		87	75 - 120
1,2-Dichloroethane	50.0	45.3		ug/Kg		91	77 - 122
1,2-Dichloropropane	50.0	44.1		ug/Kg		88	75 - 124
1,3,5-Trimethylbenzene	50.0	44.5		ug/Kg		89	74 - 120
1,3-Dichlorobenzene	50.0	43.9		ug/Kg		88	74 - 120
1,4-Dichlorobenzene	50.0	43.4		ug/Kg		87	73 - 120
2-Butanone (MEK)	250	232		ug/Kg		93	70 - 134
2-Hexanone	250	228		ug/Kg		91	59 - 130
4-Isopropyltoluene	50.0	44.3		ug/Kg		89	74 - 120
4-Methyl-2-pentanone (MIBK)	250	229		ug/Kg		92	65 - 133
Acetone	250	214		ug/Kg		86	61 - 137
Benzene	50.0	45.7		ug/Kg		91	79 - 127
Bromodichloromethane	50.0	46.9		ug/Kg		94	80 - 122
Bromoform	50.0	38.3		ug/Kg		77	68 - 126
Bromomethane	50.0	58.3		ug/Kg		117	37 - 149
Carbon disulfide	50.0	46.4		ug/Kg		93	64 - 131

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

Lab Sample ID: LCS 480-388783/1-A
Matrix: Solid
Analysis Batch: 389355

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388783

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbon tetrachloride	50.0	38.4		ug/Kg		77	75 - 135
Chlorobenzene	50.0	43.7		ug/Kg		87	76 - 124
Chloroethane	50.0	52.7		ug/Kg		105	69 - 135
Chloroform	50.0	45.7		ug/Kg		91	80 - 120
Chloromethane	50.0	49.5		ug/Kg		99	63 - 127
cis-1,2-Dichloroethene	50.0	45.3		ug/Kg		91	81 - 120
cis-1,3-Dichloropropene	50.0	45.0		ug/Kg		90	80 - 120
Cyclohexane	50.0	41.0		ug/Kg		82	65 - 120
Dibromochloromethane	50.0	45.9		ug/Kg		92	76 - 125
Dichlorodifluoromethane	50.0	51.6		ug/Kg		103	57 - 142
Ethylbenzene	50.0	43.9		ug/Kg		88	80 - 120
Isopropylbenzene	50.0	43.9		ug/Kg		88	72 - 120
m,p-Xylene	50.0	42.2		ug/Kg		84	70 - 130
Methyl acetate	100	91.6		ug/Kg		92	55 - 136
Methyl tert-butyl ether	50.0	46.3		ug/Kg		93	63 - 125
Methylcyclohexane	50.0	42.0		ug/Kg		84	60 - 140
Methylene Chloride	50.0	46.9		ug/Kg		94	61 - 127
Naphthalene	50.0	44.8		ug/Kg		90	38 - 137
n-Butylbenzene	50.0	44.1		ug/Kg		88	70 - 120
N-Propylbenzene	50.0	44.6		ug/Kg		89	70 - 130
o-Xylene	50.0	43.2		ug/Kg		86	70 - 130
sec-Butylbenzene	50.0	43.7		ug/Kg		87	74 - 120
Styrene	50.0	43.5		ug/Kg		87	80 - 120
tert-Butylbenzene	50.0	41.6		ug/Kg		83	73 - 120
Tetrachloroethene	50.0	41.4		ug/Kg		83	74 - 122
Toluene	50.0	43.0		ug/Kg		86	74 - 128
trans-1,2-Dichloroethene	50.0	45.3		ug/Kg		91	78 - 126
trans-1,3-Dichloropropene	50.0	42.2		ug/Kg		84	73 - 123
Trichloroethene	50.0	44.1		ug/Kg		88	77 - 129
Trichlorofluoromethane	50.0	46.2		ug/Kg		92	65 - 146
Vinyl chloride	50.0	49.3		ug/Kg		99	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*87*		*64 - 126*
4-Bromofluorobenzene (Surr)	*87*		*72 - 126*
Dibromofluoromethane (Surr)	*90*		*60 - 140*
Toluene-d8 (Surr)	*85*		*71 - 125*

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

Lab Sample ID: MB 480-389053/1-A
Matrix: Solid
Analysis Batch: 389390

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389053

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		170	46	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
2,4,6-Trichlorophenol	ND		170	34	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
2,4-Dichlorophenol	ND		170	18	ug/Kg		11/24/17 14:25	11/28/17 14:01	1

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

Lab Sample ID: MB 480-389053/1-A
Matrix: Solid
Analysis Batch: 389390

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389053

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	ND		170	41	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
2,4-Dinitrophenol	ND		1700	780	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
2,4-Dinitrotoluene	ND		170	35	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
2,6-Dinitrotoluene	ND		170	20	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
2-Chloronaphthalene	ND		170	28	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
2-Chlorophenol	ND		170	31	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
2-Methylnaphthalene	ND		170	34	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
2-Methylphenol	ND		170	20	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
2-Nitroaniline	ND		330	25	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
2-Nitrophenol	ND		170	48	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
3,3'-Dichlorobenzidine	ND		330	200	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
3-Nitroaniline	ND		330	47	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
4,6-Dinitro-2-methylphenol	ND		330	170	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
4-Bromophenyl phenyl ether	ND		170	24	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
4-Chloro-3-methylphenol	ND		170	42	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
4-Chloroaniline	ND		170	42	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
4-Chlorophenyl phenyl ether	ND		170	21	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
4-Methylphenol	ND		330	20	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
4-Nitroaniline	ND		330	89	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
4-Nitrophenol	ND		330	120	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Acenaphthene	ND		170	25	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Acenaphthylene	ND		170	22	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Acetophenone	ND		170	23	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Anthracene	ND		170	42	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Atrazine	ND		170	59	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Benzaldehyde	ND		170	130	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Benzo[a]anthracene	ND		170	17	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Benzo[a]pyrene	ND		170	25	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Benzo[b]fluoranthene	ND		170	27	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Benzo[g,h,i]perylene	ND		170	18	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Benzo[k]fluoranthene	ND		170	22	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Biphenyl	ND		170	25	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
bis (2-chloroisopropyl) ether	ND		170	34	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Bis(2-chloroethoxy)methane	ND		170	36	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Bis(2-chloroethyl)ether	ND		170	22	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Bis(2-ethylhexyl) phthalate	ND		170	58	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Butyl benzyl phthalate	ND		170	28	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Caprolactam	ND		170	51	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Carbazole	ND		170	20	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Chrysene	ND		170	38	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Dibenz(a,h)anthracene	ND		170	30	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Dibenzofuran	ND		170	20	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Diethyl phthalate	ND		170	22	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Dimethyl phthalate	ND		170	20	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Di-n-butyl phthalate	ND		170	29	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Di-n-octyl phthalate	ND		170	20	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Fluoranthene	ND		170	18	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Fluorene	ND		170	20	ug/Kg		11/24/17 14:25	11/28/17 14:01	1

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

Lab Sample ID: MB 480-389053/1-A
Matrix: Solid
Analysis Batch: 389390

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389053

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	ND		170	23	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Hexachlorobutadiene	ND		170	25	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Hexachlorocyclopentadiene	ND		170	23	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Hexachloroethane	ND		170	22	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Indeno[1,2,3-cd]pyrene	ND		170	21	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Isophorone	ND		170	36	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Naphthalene	ND		170	22	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Nitrobenzene	ND		170	19	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
N-Nitrosodi-n-propylamine	ND		170	29	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
N-Nitrosodiphenylamine	ND		170	140	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Pentachlorophenol	ND		330	170	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Phenanthrene	ND		170	25	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Phenol	ND		170	26	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Pyrene	ND		170	20	ug/Kg		11/24/17 14:25	11/28/17 14:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*76*		*54 - 120*	*11/24/17 14:25*	*11/28/17 14:01*	*1*
2-Fluorobiphenyl	*86*		*60 - 120*	*11/24/17 14:25*	*11/28/17 14:01*	*1*
2-Fluorophenol	*75*		*52 - 120*	*11/24/17 14:25*	*11/28/17 14:01*	*1*
Nitrobenzene-d5	*83*		*53 - 120*	*11/24/17 14:25*	*11/28/17 14:01*	*1*
Phenol-d5	*81*		*54 - 120*	*11/24/17 14:25*	*11/28/17 14:01*	*1*
p-Terphenyl-d14	*98*		*65 - 121*	*11/24/17 14:25*	*11/28/17 14:01*	*1*

Lab Sample ID: LCS 480-389053/2-A
Matrix: Solid
Analysis Batch: 389390

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389053

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-Trichlorophenol	1640	1440		ug/Kg		87	59 - 126
2,4,6-Trichlorophenol	1640	1450		ug/Kg		88	59 - 123
2,4-Dichlorophenol	1640	1280		ug/Kg		78	61 - 120
2,4-Dimethylphenol	1640	1320		ug/Kg		80	59 - 120
2,4-Dinitrophenol	3280	2250		ug/Kg		68	41 - 146
2,4-Dinitrotoluene	1640	1450		ug/Kg		88	63 - 120
2,6-Dinitrotoluene	1640	1450		ug/Kg		88	66 - 120
2-Chloronaphthalene	1640	1410		ug/Kg		86	57 - 120
2-Chlorophenol	1640	1230		ug/Kg		75	53 - 120
2-Methylnaphthalene	1640	1290		ug/Kg		78	59 - 120
2-Methylphenol	1640	1280		ug/Kg		78	54 - 120
2-Nitroaniline	1640	1430		ug/Kg		87	61 - 120
2-Nitrophenol	1640	1350		ug/Kg		82	56 - 120
3,3'-Dichlorobenzidine	3280	2370		ug/Kg		72	54 - 120
3-Nitroaniline	1640	1210		ug/Kg		74	48 - 120
4,6-Dinitro-2-methylphenol	3280	2910		ug/Kg		89	49 - 122
4-Bromophenyl phenyl ether	1640	1600		ug/Kg		97	58 - 120
4-Chloro-3-methylphenol	1640	1380		ug/Kg		84	61 - 120
4-Chloroaniline	1640	1040		ug/Kg		63	38 - 120
4-Chlorophenyl phenyl ether	1640	1410		ug/Kg		86	63 - 124

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

Lab Sample ID: LCS 480-389053/2-A
Matrix: Solid
Analysis Batch: 389390

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389053

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Methylphenol	1640	1280		ug/Kg		78	55 - 120
4-Nitroaniline	1640	1330		ug/Kg		81	56 - 120
4-Nitrophenol	3280	2790		ug/Kg		85	43 - 147
Acenaphthene	1640	1410		ug/Kg		86	62 - 120
Acenaphthylene	1640	1390		ug/Kg		85	58 - 121
Acetophenone	1640	1270		ug/Kg		77	54 - 120
Anthracene	1640	1510		ug/Kg		92	62 - 120
Atrazine	3280	2980		ug/Kg		91	60 - 127
Benzaldehyde	3280	1600		ug/Kg		49	10 - 150
Benzo[a]anthracene	1640	1500		ug/Kg		92	65 - 120
Benzo[a]pyrene	1640	1530		ug/Kg		93	64 - 120
Benzo[b]fluoranthene	1640	1490		ug/Kg		91	64 - 120
Benzo[g,h,i]perylene	1640	1500		ug/Kg		92	45 - 145
Benzo[k]fluoranthene	1640	1560		ug/Kg		95	65 - 120
Biphenyl	1640	1430		ug/Kg		87	59 - 120
bis (2-chloroisopropyl) ether	1640	1210		ug/Kg		74	44 - 120
Bis(2-chloroethoxy)methane	1640	1310		ug/Kg		80	55 - 120
Bis(2-chloroethyl)ether	1640	1230		ug/Kg		75	45 - 120
Bis(2-ethylhexyl) phthalate	1640	1440		ug/Kg		88	61 - 133
Butyl benzyl phthalate	1640	1540		ug/Kg		94	61 - 129
Caprolactam	3280	2540		ug/Kg		77	47 - 120
Carbazole	1640	1500		ug/Kg		91	65 - 120
Chrysene	1640	1470		ug/Kg		90	64 - 120
Dibenz(a,h)anthracene	1640	1540		ug/Kg		94	54 - 132
Dibenzofuran	1640	1470		ug/Kg		90	63 - 120
Diethyl phthalate	1640	1430		ug/Kg		87	66 - 120
Dimethyl phthalate	1640	1430		ug/Kg		87	65 - 124
Di-n-butyl phthalate	1640	1530		ug/Kg		93	58 - 130
Di-n-octyl phthalate	1640	1410		ug/Kg		86	57 - 133
Fluoranthene	1640	1510		ug/Kg		92	62 - 120
Fluorene	1640	1420		ug/Kg		87	63 - 120
Hexachlorobenzene	1640	1570		ug/Kg		96	60 - 120
Hexachlorobutadiene	1640	1340		ug/Kg		81	45 - 120
Hexachlorocyclopentadiene	1640	1400		ug/Kg		85	47 - 120
Hexachloroethane	1640	1170		ug/Kg		71	41 - 120
Indeno[1,2,3-cd]pyrene	1640	1500		ug/Kg		92	56 - 134
Isophorone	1640	1360		ug/Kg		83	56 - 120
Naphthalene	1640	1270		ug/Kg		77	55 - 120
Nitrobenzene	1640	1250		ug/Kg		76	54 - 120
N-Nitrosodi-n-propylamine	1640	1280		ug/Kg		78	52 - 120
Pentachlorophenol	3280	2820		ug/Kg		86	51 - 120
Phenanthrene	1640	1500		ug/Kg		92	60 - 120
Phenol	1640	1250		ug/Kg		76	53 - 120
Pyrene	1640	1630		ug/Kg		99	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*98*		*54 - 120*
2-Fluorobiphenyl	*87*		*60 - 120*

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

Lab Sample ID: LCS 480-389053/2-A
Matrix: Solid
Analysis Batch: 389390

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389053

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol	77		52 - 120
Nitrobenzene-d5	84		53 - 120
Phenol-d5	77		54 - 120
p-Terphenyl-d14	101		65 - 121

Lab Sample ID: 480-127922-3 MS
Matrix: Solid
Analysis Batch: 389390

Client Sample ID: MW-3 (6-8)
Prep Type: Total/NA
Prep Batch: 389053

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-Trichlorophenol	ND		1860	1770	J	ug/Kg	☼	95	46 - 120
2,4,6-Trichlorophenol	ND		1860	2190	J	ug/Kg	☼	118	41 - 123
2,4-Dichlorophenol	ND		1860	1670	J	ug/Kg	☼	90	45 - 120
2,4-Dimethylphenol	ND		1860	1480	J	ug/Kg	☼	80	52 - 120
2,4-Dinitrophenol	ND		3720	ND		ug/Kg	☼	NC	41 - 146
2,4-Dinitrotoluene	ND	F1	1860	2670	J F1	ug/Kg	☼	143	63 - 125
2,6-Dinitrotoluene	ND		1860	2120	J	ug/Kg	☼	114	66 - 120
2-Chloronaphthalene	ND		1860	1750	J	ug/Kg	☼	94	57 - 120
2-Chlorophenol	ND		1860	2050	J	ug/Kg	☼	110	43 - 120
2-Methylnaphthalene	ND		1860	1680	J	ug/Kg	☼	91	55 - 120
2-Methylphenol	ND		1860	1710	J	ug/Kg	☼	92	48 - 120
2-Nitroaniline	ND	F1	1860	2260	J F1	ug/Kg	☼	122	61 - 120
2-Nitrophenol	ND	F1	1860	2250	J F1	ug/Kg	☼	121	37 - 120
3,3'-Dichlorobenzidine	ND		3720	ND		ug/Kg	☼	NC	37 - 126
3-Nitroaniline	ND	F1	1860	2260	J F1	ug/Kg	☼	122	48 - 120
4,6-Dinitro-2-methylphenol	ND		3720	6330	J	ug/Kg	☼	NC	23 - 149
4-Bromophenyl phenyl ether	ND	F2	1860	1720	J	ug/Kg	☼	93	58 - 120
4-Chloro-3-methylphenol	ND		1860	1500	J	ug/Kg	☼	81	49 - 125
4-Chloroaniline	ND	F1	1860	ND	F1	ug/Kg	☼	0	38 - 120
4-Chlorophenyl phenyl ether	ND		1860	1660	J	ug/Kg	☼	89	63 - 124
4-Methylphenol	ND		1860	1770	J	ug/Kg	☼	95	50 - 120
4-Nitroaniline	ND		1860	2340	J	ug/Kg	☼	NC	47 - 120
4-Nitrophenol	ND		3720	5110	J	ug/Kg	☼	137	31 - 147
Acenaphthene	ND		1860	1850	J	ug/Kg	☼	100	60 - 120
Acenaphthylene	ND		1860	1690	J	ug/Kg	☼	91	58 - 121
Acetophenone	ND		1860	1420	J	ug/Kg	☼	76	47 - 120
Anthracene	ND	F2 F1	1860	1850	J	ug/Kg	☼	99	62 - 120
Atrazine	ND		3720	3610	J	ug/Kg	☼	97	60 - 150
Benzaldehyde	ND	F1	3720	ND	F1	ug/Kg	☼	0	10 - 150
Benzo[a]anthracene	430	J F2 F1	1860	2070	J	ug/Kg	☼	88	65 - 120
Benzo[a]pyrene	640	J F2 F1	1860	2470	J	ug/Kg	☼	98	64 - 120
Benzo[b]fluoranthene	ND	F2 F1	1860	2600	J F1	ug/Kg	☼	140	64 - 120
Benzo[g,h,i]perylene	ND	F2	1860	2050	J	ug/Kg	☼	111	45 - 145
Benzo[k]fluoranthene	ND	F2 F1	1860	1920	J	ug/Kg	☼	103	65 - 120
Biphenyl	ND		1860	1800	J	ug/Kg	☼	97	58 - 120
bis (2-chloroisopropyl) ether	ND	F1	1860	ND	F1	ug/Kg	☼	0	31 - 120
Bis(2-chloroethoxy)methane	ND		1860	1430	J	ug/Kg	☼	77	52 - 120
Bis(2-chloroethyl)ether	ND		1860	1620	J	ug/Kg	☼	87	45 - 120

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

Lab Sample ID: 480-127922-3 MS
Matrix: Solid
Analysis Batch: 389390

Client Sample ID: MW-3 (6-8)
Prep Type: Total/NA
Prep Batch: 389053

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-ethylhexyl) phthalate	ND	F1	1860	2550	J F1	ug/Kg	☼	137	61 - 133
Butyl benzyl phthalate	ND	F1	1860	2900	J F1	ug/Kg	☼	156	61 - 120
Caprolactam	ND		3720	4760		ug/Kg	☼	128	37 - 133
Carbazole	ND		1860	1830	J	ug/Kg	☼	98	59 - 120
Chrysene	ND	F2 F1	1860	2220	J	ug/Kg	☼	119	64 - 120
Dibenz(a,h)anthracene	ND	F2	1860	1850	J	ug/Kg	☼	99	54 - 132
Dibenzofuran	ND		1860	1980	J	ug/Kg	☼	106	62 - 120
Diethyl phthalate	ND		1860	1690	J	ug/Kg	☼	91	66 - 120
Dimethyl phthalate	ND		1860	1740	J	ug/Kg	☼	94	65 - 124
Di-n-butyl phthalate	ND		1860	2160	J	ug/Kg	☼	116	58 - 130
Di-n-octyl phthalate	ND	F1	1860	2990	J F1	ug/Kg	☼	161	57 - 133
Fluoranthene	430	J F2 F1	1860	2310	J	ug/Kg	☼	101	62 - 120
Fluorene	ND		1860	1920	J	ug/Kg	☼	103	63 - 120
Hexachlorobenzene	ND		1860	1750	J	ug/Kg	☼	94	60 - 120
Hexachlorobutadiene	ND		1860	1600	J	ug/Kg	☼	86	45 - 120
Hexachlorocyclopentadiene	ND		1860	1300	J	ug/Kg	☼	70	31 - 120
Hexachloroethane	ND		1860	1540	J	ug/Kg	☼	83	21 - 120
Indeno[1,2,3-cd]pyrene	630	J F2	1860	2180	J	ug/Kg	☼	83	56 - 134
Isophorone	ND		1860	1580	J	ug/Kg	☼	85	56 - 120
Naphthalene	ND		1860	1780	J	ug/Kg	☼	96	46 - 120
Nitrobenzene	ND		1860	1500	J	ug/Kg	☼	81	49 - 120
N-Nitrosodi-n-propylamine	ND		1860	1670	J	ug/Kg	☼	90	46 - 120
Pentachlorophenol	ND		3720	4000	J	ug/Kg	☼	NC	25 - 136
Phenanthrene	ND	F2 F1	1860	2310	J F1	ug/Kg	☼	124	60 - 122
Phenol	ND		1860	1650	J	ug/Kg	☼	89	50 - 120
Pyrene	460	J F2 F1	1860	2200	J	ug/Kg	☼	94	61 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol	*149*	*X*	*54 - 120*
2-Fluorobiphenyl	*51*	*X*	*60 - 120*
2-Fluorophenol	*73*		*52 - 120*
Nitrobenzene-d5	*92*		*53 - 120*
Phenol-d5	*88*		*54 - 120*
p-Terphenyl-d14	*90*		*65 - 121*

Lab Sample ID: 480-127922-3 MSD
Matrix: Solid
Analysis Batch: 389390

Client Sample ID: MW-3 (6-8)
Prep Type: Total/NA
Prep Batch: 389053

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,5-Trichlorophenol	ND		1860	1870	J	ug/Kg	☼	100	46 - 120	5	18
2,4,6-Trichlorophenol	ND		1860	2100	J	ug/Kg	☼	113	41 - 123	4	19
2,4-Dichlorophenol	ND		1860	1500	J	ug/Kg	☼	81	45 - 120	11	19
2,4-Dimethylphenol	ND		1860	1400	J	ug/Kg	☼	76	52 - 120	5	42
2,4-Dinitrophenol	ND		3710	ND		ug/Kg	☼	NC	41 - 146	NC	22
2,4-Dinitrotoluene	ND	F1	1860	2260	J	ug/Kg	☼	122	63 - 125	17	20
2,6-Dinitrotoluene	ND		1860	2230	J	ug/Kg	☼	120	66 - 120	5	15
2-Chloronaphthalene	ND		1860	1780	J	ug/Kg	☼	96	57 - 120	1	21

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

Lab Sample ID: 480-127922-3 MSD
Matrix: Solid
Analysis Batch: 389390

Client Sample ID: MW-3 (6-8)
Prep Type: Total/NA
Prep Batch: 389053

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chlorophenol	ND		1860	1840	J	ug/Kg	☼	99	43 - 120	11	25
2-Methylnaphthalene	ND		1860	1860	J	ug/Kg	☼	100	55 - 120	10	21
2-Methylphenol	ND		1860	1630	J	ug/Kg	☼	88	48 - 120	5	27
2-Nitroaniline	ND	F1	1860	2520	J F1	ug/Kg	☼	136	61 - 120	11	15
2-Nitrophenol	ND	F1	1860	2320	J F1	ug/Kg	☼	125	37 - 120	3	18
3,3'-Dichlorobenzidine	ND		3710	ND		ug/Kg	☼	NC	37 - 126	NC	25
3-Nitroaniline	ND	F1	1860	2050	J	ug/Kg	☼	110	48 - 120	10	19
4,6-Dinitro-2-methylphenol	ND		3710	6360	J	ug/Kg	☼	NC	23 - 149	0	15
4-Bromophenyl phenyl ether	ND	F2	1860	2020	J F2	ug/Kg	☼	109	58 - 120	16	15
4-Chloro-3-methylphenol	ND		1860	1820	J	ug/Kg	☼	98	49 - 125	19	27
4-Chloroaniline	ND	F1	1860	950	J	ug/Kg	☼	51	38 - 120	NC	22
4-Chlorophenyl phenyl ether	ND		1860	1760	J	ug/Kg	☼	95	63 - 124	6	16
4-Methylphenol	ND		1860	1570	J	ug/Kg	☼	85	50 - 120	12	24
4-Nitroaniline	ND		1860	2140	J	ug/Kg	☼	NC	47 - 120	9	24
4-Nitrophenol	ND		3710	4790	J	ug/Kg	☼	129	31 - 147	6	25
Acenaphthene	ND		1860	2060	J	ug/Kg	☼	111	60 - 120	11	35
Acenaphthylene	ND		1860	1760	J	ug/Kg	☼	95	58 - 121	4	18
Acetophenone	ND		1860	1470	J	ug/Kg	☼	79	47 - 120	3	20
Anthracene	ND	F2 F1	1860	2360	J F1 F2	ug/Kg	☼	127	62 - 120	24	15
Atrazine	ND		3710	3900		ug/Kg	☼	105	60 - 150	8	20
Benzaldehyde	ND	F1	3710	ND	F1	ug/Kg	☼	0	10 - 150	NC	20
Benzo[a]anthracene	430	J F2 F1	1860	3640	J F1 F2	ug/Kg	☼	173	65 - 120	55	15
Benzo[a]pyrene	640	J F2 F1	1860	3670	J F1 F2	ug/Kg	☼	163	64 - 120	39	15
Benzo[b]fluoranthene	ND	F2 F1	1860	4020	F1 F2	ug/Kg	☼	217	64 - 120	43	15
Benzo[g,h,i]perylene	ND	F2	1860	2690	J F2	ug/Kg	☼	145	45 - 145	27	15
Benzo[k]fluoranthene	ND	F2 F1	1860	3200	J F1 F2	ug/Kg	☼	172	65 - 120	50	22
Biphenyl	ND		1860	1700	J	ug/Kg	☼	91	58 - 120	6	20
bis (2-chloroisopropyl) ether	ND	F1	1860	ND	F1	ug/Kg	☼	0	31 - 120	NC	24
Bis(2-chloroethoxy)methane	ND		1860	1600	J	ug/Kg	☼	86	52 - 120	11	17
Bis(2-chloroethyl)ether	ND		1860	1470	J	ug/Kg	☼	79	45 - 120	9	21
Bis(2-ethylhexyl) phthalate	ND	F1	1860	2580	J F1	ug/Kg	☼	139	61 - 133	1	15
Butyl benzyl phthalate	ND	F1	1860	3090	J F1	ug/Kg	☼	166	61 - 120	6	16
Caprolactam	ND		3710	4620		ug/Kg	☼	124	37 - 133	3	20
Carbazole	ND		1860	1940	J	ug/Kg	☼	105	59 - 120	6	20
Chrysene	ND	F2 F1	1860	3570	J F1 F2	ug/Kg	☼	192	64 - 120	47	15
Dibenz(a,h)anthracene	ND	F2	1860	2200	J F2	ug/Kg	☼	119	54 - 132	18	15
Dibenzofuran	ND		1860	1930	J	ug/Kg	☼	104	62 - 120	2	15
Diethyl phthalate	ND		1860	1750	J	ug/Kg	☼	94	66 - 120	3	15
Dimethyl phthalate	ND		1860	1680	J	ug/Kg	☼	90	65 - 124	4	15
Di-n-butyl phthalate	ND		1860	2100	J	ug/Kg	☼	113	58 - 130	3	15
Di-n-octyl phthalate	ND	F1	1860	3010	J F1	ug/Kg	☼	162	57 - 133	1	16
Fluoranthene	430	J F2 F1	1860	5360	F1 F2	ug/Kg	☼	265	62 - 120	80	15
Fluorene	ND		1860	1970	J	ug/Kg	☼	106	63 - 120	3	15
Hexachlorobenzene	ND		1860	1720	J	ug/Kg	☼	92	60 - 120	2	15
Hexachlorobutadiene	ND		1860	1590	J	ug/Kg	☼	86	45 - 120	1	44
Hexachlorocyclopentadiene	ND		1860	1300	J	ug/Kg	☼	70	31 - 120	0	49
Hexachloroethane	ND		1860	1380	J	ug/Kg	☼	74	21 - 120	11	46
Indeno[1,2,3-cd]pyrene	630	J F2	1860	3030	J F2	ug/Kg	☼	129	56 - 134	33	15

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

Lab Sample ID: 480-127922-3 MSD
Matrix: Solid
Analysis Batch: 389390

Client Sample ID: MW-3 (6-8)
Prep Type: Total/NA
Prep Batch: 389053

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Isophorone	ND		1860	1540	J	ug/Kg	☼	83	56 - 120	3	17
Naphthalene	ND		1860	1700	J	ug/Kg	☼	92	46 - 120	4	29
Nitrobenzene	ND		1860	1540	J	ug/Kg	☼	83	49 - 120	3	24
N-Nitrosodi-n-propylamine	ND		1860	1480	J	ug/Kg	☼	80	46 - 120	12	31
Pentachlorophenol	ND		3710	ND		ug/Kg	☼	NC	25 - 136	NC	35
Phenanthrene	ND	F2 F1	1860	4800	F1 F2	ug/Kg	☼	258	60 - 122	70	15
Phenol	ND		1860	1540	J	ug/Kg	☼	83	50 - 120	7	35
Pyrene	460	J F2 F1	1860	4750	F1 F2	ug/Kg	☼	231	61 - 133	73	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*144*	*X*	*54 - 120*
2-Fluorobiphenyl	*49*	*X*	*60 - 120*
2-Fluorophenol	*83*		*52 - 120*
Nitrobenzene-d5	*81*		*53 - 120*
Phenol-d5	*92*		*54 - 120*
p-Terphenyl-d14	*97*		*65 - 121*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-389267/1-A
Matrix: Solid
Analysis Batch: 389334

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389267

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.7	0.32	ug/Kg		11/27/17 14:11	11/28/17 11:11	1
4,4'-DDE	ND		1.7	0.35	ug/Kg		11/27/17 14:11	11/28/17 11:11	1
4,4'-DDT	ND		1.7	0.39	ug/Kg		11/27/17 14:11	11/28/17 11:11	1
Aldrin	ND		1.7	0.41	ug/Kg		11/27/17 14:11	11/28/17 11:11	1
alpha-BHC	0.490	J	1.7	0.30	ug/Kg		11/27/17 14:11	11/28/17 11:11	1
alpha-Chlordane	ND		1.7	0.83	ug/Kg		11/27/17 14:11	11/28/17 11:11	1
beta-BHC	ND		1.7	0.30	ug/Kg		11/27/17 14:11	11/28/17 11:11	1
delta-BHC	ND		1.7	0.31	ug/Kg		11/27/17 14:11	11/28/17 11:11	1
Dieldrin	ND		1.7	0.40	ug/Kg		11/27/17 14:11	11/28/17 11:11	1
Endosulfan I	ND		1.7	0.32	ug/Kg		11/27/17 14:11	11/28/17 11:11	1
Endosulfan II	ND		1.7	0.30	ug/Kg		11/27/17 14:11	11/28/17 11:11	1
Endosulfan sulfate	ND		1.7	0.31	ug/Kg		11/27/17 14:11	11/28/17 11:11	1
Endrin	ND		1.7	0.33	ug/Kg		11/27/17 14:11	11/28/17 11:11	1
Endrin aldehyde	ND		1.7	0.42	ug/Kg		11/27/17 14:11	11/28/17 11:11	1
Endrin ketone	ND		1.7	0.41	ug/Kg		11/27/17 14:11	11/28/17 11:11	1
gamma-BHC (Lindane)	0.437	J	1.7	0.30	ug/Kg		11/27/17 14:11	11/28/17 11:11	1
gamma-Chlordane	ND		1.7	0.53	ug/Kg		11/27/17 14:11	11/28/17 11:11	1
Heptachlor	ND		1.7	0.36	ug/Kg		11/27/17 14:11	11/28/17 11:11	1
Heptachlor epoxide	ND		1.7	0.43	ug/Kg		11/27/17 14:11	11/28/17 11:11	1
Methoxychlor	ND		1.7	0.34	ug/Kg		11/27/17 14:11	11/28/17 11:11	1
Toxaphene	ND		17	9.7	ug/Kg		11/27/17 14:11	11/28/17 11:11	1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 480-389267/1-A
Matrix: Solid
Analysis Batch: 389334

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389267

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	119		45 - 120	11/27/17 14:11	11/28/17 11:11	1
DCB Decachlorobiphenyl	103		45 - 120	11/27/17 14:11	11/28/17 11:11	1
Tetrachloro-m-xylene	86		30 - 124	11/27/17 14:11	11/28/17 11:11	1
Tetrachloro-m-xylene	67		30 - 124	11/27/17 14:11	11/28/17 11:11	1

Lab Sample ID: LCS 480-389267/2-A
Matrix: Solid
Analysis Batch: 389334

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389267

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	16.6	15.3		ug/Kg		92	56 - 120
4,4'-DDE	16.6	14.5		ug/Kg		87	44 - 120
4,4'-DDT	16.6	14.9		ug/Kg		90	38 - 120
Aldrin	16.6	12.8		ug/Kg		77	38 - 120
alpha-BHC	16.6	12.0		ug/Kg		72	39 - 120
alpha-Chlordane	16.6	14.2		ug/Kg		86	47 - 120
beta-BHC	16.6	12.3		ug/Kg		74	40 - 120
delta-BHC	16.6	13.2		ug/Kg		79	45 - 120
Dieldrin	16.6	15.5		ug/Kg		93	58 - 120
Endosulfan I	16.6	15.4		ug/Kg		92	49 - 120
Endosulfan II	16.6	15.2		ug/Kg		91	55 - 120
Endosulfan sulfate	16.6	13.7		ug/Kg		82	49 - 124
Endrin	16.6	15.5		ug/Kg		93	58 - 120
Endrin aldehyde	16.6	13.2		ug/Kg		79	37 - 121
Endrin ketone	16.6	14.7		ug/Kg		88	46 - 123
gamma-BHC (Lindane)	16.6	12.7		ug/Kg		76	50 - 120
gamma-Chlordane	16.6	13.9		ug/Kg		84	48 - 120
Heptachlor	16.6	14.0		ug/Kg		84	50 - 120
Heptachlor epoxide	16.6	14.5		ug/Kg		87	50 - 120
Methoxychlor	16.6	15.8		ug/Kg		95	58 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	129	X	45 - 120
DCB Decachlorobiphenyl	114		45 - 120
Tetrachloro-m-xylene	90		30 - 124
Tetrachloro-m-xylene	72		30 - 124

Lab Sample ID: 480-127922-3 MS
Matrix: Solid
Analysis Batch: 389334

Client Sample ID: MW-3 (6-8)
Prep Type: Total/NA
Prep Batch: 389267

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	ND		18.7	22.9	J	ug/Kg	☼	123	37 - 126
4,4'-DDE	ND		18.7	19.0	J	ug/Kg	☼	102	34 - 120
4,4'-DDT	ND	F1	18.7	25.4	J F1	ug/Kg	☼	136	43 - 123
Aldrin	ND		18.7	20.0	J	ug/Kg	☼	107	37 - 125
alpha-BHC	10	J B	18.7	21.8	J	ug/Kg	☼	62	39 - 120
alpha-Chlordane	ND		18.7	19.6	J	ug/Kg	☼	NC	35 - 120

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 480-127922-3 MS
Matrix: Solid
Analysis Batch: 389334

Client Sample ID: MW-3 (6-8)
Prep Type: Total/NA
Prep Batch: 389267

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
beta-BHC	7.6	J	18.7	19.4	J	ug/Kg	☼	63	36 - 120
delta-BHC	ND	F1	18.7	23.2	J F1	ug/Kg	☼	125	34 - 120
Dieldrin	ND	F1	18.7	22.0	J	ug/Kg	☼	118	45 - 120
Endosulfan I	ND		18.7	19.6	J	ug/Kg	☼	105	39 - 120
Endosulfan II	ND		18.7	22.5	J	ug/Kg	☼	120	34 - 126
Endosulfan sulfate	ND		18.7	21.7	J	ug/Kg	☼	116	27 - 130
Endrin	ND		18.7	20.2	J	ug/Kg	☼	108	47 - 121
Endrin aldehyde	ND		18.7	20.4	J	ug/Kg	☼	109	33 - 123
Endrin ketone	ND	F1	18.7	23.4	J	ug/Kg	☼	125	43 - 126
gamma-BHC (Lindane)	12	J B	18.7	23.9	J	ug/Kg	☼	62	50 - 120
gamma-Chlordane	ND		18.7	20.2	J	ug/Kg	☼	108	31 - 120
Heptachlor	ND		18.7	18.3	J	ug/Kg	☼	98	42 - 120
Heptachlor epoxide	ND		18.7	18.2	J	ug/Kg	☼	98	40 - 120
Methoxychlor	ND	F1	18.7	30.6	J F1	ug/Kg	☼	164	44 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*164*	*X*	*45 - 120*
DCB Decachlorobiphenyl	*170*	*X*	*45 - 120*
Tetrachloro-m-xylene	*131*	*X*	*30 - 124*
Tetrachloro-m-xylene	*173*	*X*	*30 - 124*

Lab Sample ID: 480-127922-3 MSD
Matrix: Solid
Analysis Batch: 389334

Client Sample ID: MW-3 (6-8)
Prep Type: Total/NA
Prep Batch: 389267

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	ND		18.6	23.2	J	ug/Kg	☼	125	37 - 126	2	21
4,4'-DDE	ND		18.6	19.6	J	ug/Kg	☼	105	34 - 120	3	18
4,4'-DDT	ND	F1	18.6	26.2	J F1	ug/Kg	☼	141	43 - 123	3	25
Aldrin	ND		18.6	20.6	J	ug/Kg	☼	111	37 - 125	3	12
alpha-BHC	10	J B	18.6	22.1	J	ug/Kg	☼	64	39 - 120	2	15
alpha-Chlordane	ND		18.6	20.3	J	ug/Kg	☼	NC	35 - 120	3	23
beta-BHC	7.6	J	18.6	19.9	J	ug/Kg	☼	66	36 - 120	3	19
delta-BHC	ND	F1	18.6	24.2	J F1	ug/Kg	☼	130	34 - 120	4	14
Dieldrin	ND	F1	18.6	22.7	J F1	ug/Kg	☼	122	45 - 120	3	12
Endosulfan I	ND		18.6	20.6	J	ug/Kg	☼	110	39 - 120	5	18
Endosulfan II	ND		18.6	22.8	J	ug/Kg	☼	122	34 - 126	1	26
Endosulfan sulfate	ND		18.6	22.4	J	ug/Kg	☼	120	27 - 130	3	35
Endrin	ND		18.6	20.9	J	ug/Kg	☼	112	47 - 121	3	20
Endrin aldehyde	ND		18.6	21.9	J	ug/Kg	☼	118	33 - 123	7	47
Endrin ketone	ND	F1	18.6	24.8	J F1	ug/Kg	☼	133	43 - 126	6	37
gamma-BHC (Lindane)	12	J B	18.6	25.1	J	ug/Kg	☼	68	50 - 120	5	12
gamma-Chlordane	ND		18.6	20.6	J	ug/Kg	☼	111	31 - 120	2	15
Heptachlor	ND		18.6	19.0	J	ug/Kg	☼	102	42 - 120	4	22
Heptachlor epoxide	ND		18.6	18.9	J	ug/Kg	☼	102	40 - 120	4	15
Methoxychlor	ND	F1	18.6	33.3	J F1	ug/Kg	☼	179	44 - 150	8	24

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 480-127922-3 MSD
Matrix: Solid
Analysis Batch: 389334

Client Sample ID: MW-3 (6-8)
Prep Type: Total/NA
Prep Batch: 389267

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	157	X	45 - 120
DCB Decachlorobiphenyl	172	X	45 - 120
Tetrachloro-m-xylene	164	X	30 - 124
Tetrachloro-m-xylene	173	X	30 - 124

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

Lab Sample ID: MB 480-389055/1-A
Matrix: Solid
Analysis Batch: 389409

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389055

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.23	0.044	mg/Kg		11/24/17 14:32	11/28/17 13:01	1
PCB-1221	ND		0.23	0.044	mg/Kg		11/24/17 14:32	11/28/17 13:01	1
PCB-1232	ND		0.23	0.044	mg/Kg		11/24/17 14:32	11/28/17 13:01	1
PCB-1242	ND		0.23	0.044	mg/Kg		11/24/17 14:32	11/28/17 13:01	1
PCB-1248	ND		0.23	0.044	mg/Kg		11/24/17 14:32	11/28/17 13:01	1
PCB-1254	ND		0.23	0.11	mg/Kg		11/24/17 14:32	11/28/17 13:01	1
PCB-1260	ND		0.23	0.11	mg/Kg		11/24/17 14:32	11/28/17 13:01	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	122		60 - 154	11/24/17 14:32	11/28/17 13:01	1
Tetrachloro-m-xylene	139		60 - 154	11/24/17 14:32	11/28/17 13:01	1
DCB Decachlorobiphenyl	126		65 - 174	11/24/17 14:32	11/28/17 13:01	1
DCB Decachlorobiphenyl	127		65 - 174	11/24/17 14:32	11/28/17 13:01	1

Lab Sample ID: LCS 480-389055/2-A
Matrix: Solid
Analysis Batch: 389409

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389055

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	1.83	2.22		mg/Kg		121	51 - 185
PCB-1260	1.83	2.49		mg/Kg		136	61 - 184

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	151		60 - 154
Tetrachloro-m-xylene	154		60 - 154
DCB Decachlorobiphenyl	147		65 - 174
DCB Decachlorobiphenyl	146		65 - 174

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 480-389269/1-A
Matrix: Solid
Analysis Batch: 389722

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389269

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		17	5.3	ug/Kg		11/27/17 14:14	11/30/17 00:27	1
Silvex (2,4,5-TP)	ND		17	6.0	ug/Kg		11/27/17 14:14	11/30/17 00:27	1
2,4-D	ND		17	10	ug/Kg		11/27/17 14:14	11/30/17 00:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*126*		*28 - 129*	*11/27/17 14:14*	*11/30/17 00:27*	*1*
2,4-Dichlorophenylacetic acid	*167*	*X*	*28 - 129*	*11/27/17 14:14*	*11/30/17 00:27*	*1*

Lab Sample ID: LCS 480-389269/2-A
Matrix: Solid
Analysis Batch: 389722

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389269

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-T	66.4	79.5		ug/Kg		120	41 - 120
Silvex (2,4,5-TP)	66.4	70.9		ug/Kg		107	39 - 125
2,4-D	66.4	66.7		ug/Kg		100	40 - 120
Dalapon	66.4	ND	*	ug/Kg		0	25 - 120
Dichlorprop	66.4	61.7		ug/Kg		93	34 - 121
Dinoseb	66.4	14.6	J	ug/Kg		22	10 - 130
Pentachlorophenol	66.4	20.7		ug/Kg		31	10 - 120
Picloram	66.4	79.3		ug/Kg		119	22 - 149

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*114*		*28 - 129*
2,4-Dichlorophenylacetic acid	*144*	*X*	*28 - 129*

Lab Sample ID: 480-127922-2 MS
Matrix: Solid
Analysis Batch: 389722

Client Sample ID: MW-2 (2-4)
Prep Type: Total/NA
Prep Batch: 389269

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-T	ND		78.7	73.3		ug/Kg	☼	93	29 - 123
Silvex (2,4,5-TP)	ND		78.7	60.5		ug/Kg	☼	77	22 - 140
2,4-D	ND	F1	78.7	73.7		ug/Kg	☼	94	32 - 115
Dalapon	ND	* F1	78.7	ND	F1	ug/Kg	☼	0	16 - 120
Dichlorprop	ND	F1 F2	78.7	61.1		ug/Kg	☼	78	28 - 125
Dinoseb	ND		78.7	32.1		ug/Kg	☼	41	10 - 130
Pentachlorophenol	ND		78.7	47.5		ug/Kg	☼	60	10 - 130
Picloram	ND		78.7	61.0		ug/Kg	☼	78	10 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*120*		*28 - 129*
2,4-Dichlorophenylacetic acid	*109*		*28 - 129*

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: 480-127922-2 MSD
Matrix: Solid
Analysis Batch: 389722

Client Sample ID: MW-2 (2-4)
Prep Type: Total/NA
Prep Batch: 389269

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,5-T	ND		78.7	89.1		ug/Kg	☼	113	29 - 123	19	50
Silvex (2,4,5-TP)	ND		78.7	77.9		ug/Kg	☼	99	22 - 140	25	50
2,4-D	ND	F1	78.7	114	F1	ug/Kg	☼	145	32 - 115	43	50
Dalapon	ND	* F1	78.7	ND	F1	ug/Kg	☼	0	16 - 120	NC	50
Dichlorprop	ND	F1 F2	78.7	116	F1 F2	ug/Kg	☼	147	28 - 125	62	50
Dinoseb	ND		78.7	23.7		ug/Kg	☼	30	10 - 130	30	50
Pentachlorophenol	ND		78.7	57.8		ug/Kg	☼	74	10 - 130	20	50
Picloram	ND		78.7	73.3		ug/Kg	☼	93	10 - 150	18	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*158*	*X*	*28 - 129*
2,4-Dichlorophenylacetic acid	*142*	*X*	*28 - 129*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-388853/1-A
Matrix: Solid
Analysis Batch: 389578

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 388853

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.0	0.40	mg/Kg		11/22/17 14:04	11/25/17 03:59	1

Lab Sample ID: MB 480-388853/1-A
Matrix: Solid
Analysis Batch: 389577

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 388853

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		9.9	4.3	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Antimony	ND		14.8	0.40	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Barium	ND		0.49	0.11	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Beryllium	ND		0.20	0.028	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Cadmium	ND		0.20	0.030	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Calcium	11.80	J	49.4	3.3	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Chromium	0.229	J	0.49	0.20	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Cobalt	ND		0.49	0.049	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Copper	ND		0.99	0.21	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Iron	10.56		9.9	3.5	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Lead	ND		0.99	0.24	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Magnesium	0.962	J	19.8	0.92	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Manganese	0.367		0.20	0.032	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Nickel	ND		4.9	0.23	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Potassium	ND		29.7	19.8	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Selenium	ND		4.0	0.40	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Silver	ND		0.59	0.20	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Sodium	ND		138	12.8	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Thallium	ND		5.9	0.30	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Vanadium	ND		0.49	0.11	mg/Kg		11/22/17 14:04	11/28/17 15:27	1
Zinc	ND		2.0	0.63	mg/Kg		11/22/17 14:04	11/28/17 15:27	1

Lab Sample ID: LCSSRM 480-388853/2-A
Matrix: Solid
Analysis Batch: 389578

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388853

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	100	82.77		mg/Kg		82.8	69.6 - 131.0

Lab Sample ID: LCSSRM 480-388853/2-A
Matrix: Solid
Analysis Batch: 389577

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388853

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	8090	9329		mg/Kg		115.3	39.6 - 160.7
Antimony	99.3	60.60		mg/Kg		61.0	21.6 - 256.8
Barium	217	190.2		mg/Kg		87.7	73.7 - 128.1
Beryllium	147	134.0		mg/Kg		91.2	75.5 - 125.9
Cadmium	83.7	71.87		mg/Kg		85.9	73.2 - 131.4
Calcium	6010	5506		mg/Kg		91.6	73.7 - 126.3
Chromium	107	95.46		mg/Kg		89.2	69.4 - 134.6
Cobalt	123	124.3		mg/Kg		101.0	74.3 - 130.1
Copper	166	144.4		mg/Kg		87.0	75.3 - 128.3
Iron	14600	14700		mg/Kg		100.7	36.1 - 163.7
Lead	88.4	87.83		mg/Kg		99.4	69.9 - 130.1
Magnesium	2930	2648		mg/Kg		90.4	65.9 - 134.5
Manganese	311	274.5		mg/Kg		88.3	74.9 - 125.4
Nickel	49.8	50.68		mg/Kg		101.8	69.1 - 135.1
Potassium	2620	2890		mg/Kg		110.3	61.1 - 138.9
Selenium	87.7	75.21		mg/Kg		85.8	64.1 - 135.7
Silver	41.4	33.86		mg/Kg		81.8	65.9 - 133.8
Sodium	252	265.2		mg/Kg		105.3	32.9 - 167.5
Thallium	58.1	57.48		mg/Kg		98.9	63.9 - 136.3
Vanadium	140	133.5		mg/Kg		95.4	69.9 - 129.3
Zinc	145	125.7		mg/Kg		86.7	67.7 - 132.4

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-389441/1-A
Matrix: Solid
Analysis Batch: 389733

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389441

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.021	0.0083	mg/Kg		11/29/17 12:35	11/29/17 15:49	1

Lab Sample ID: LCSSRM 480-389441/2-A ^10
Matrix: Solid
Analysis Batch: 389733

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389441

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	12.6	13.25		mg/Kg		105.1	44.4 - 128.6

GC/MS VOA

Prep Batch: 388783

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127922-2	MW-2 (2-4)	Total/NA	Solid	5035A_L	
480-127922-4	MW-3 (0.5-2.0)	Total/NA	Solid	5035A_L	
MB 480-388783/3-A	Method Blank	Total/NA	Solid	5035A_L	
LCS 480-388783/1-A	Lab Control Sample	Total/NA	Solid	5035A_L	

Analysis Batch: 389355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127922-2	MW-2 (2-4)	Total/NA	Solid	8260C	388783
480-127922-4	MW-3 (0.5-2.0)	Total/NA	Solid	8260C	388783
MB 480-388783/3-A	Method Blank	Total/NA	Solid	8260C	388783
LCS 480-388783/1-A	Lab Control Sample	Total/NA	Solid	8260C	388783

GC/MS Semi VOA

Prep Batch: 389053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127922-1	MW-6 (8-10)	Total/NA	Solid	3550C	
480-127922-2	MW-2 (2-4)	Total/NA	Solid	3550C	
480-127922-3	MW-3 (6-8)	Total/NA	Solid	3550C	
MB 480-389053/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-389053/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-127922-3 MS	MW-3 (6-8)	Total/NA	Solid	3550C	
480-127922-3 MSD	MW-3 (6-8)	Total/NA	Solid	3550C	

Analysis Batch: 389390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127922-1	MW-6 (8-10)	Total/NA	Solid	8270D	389053
480-127922-2	MW-2 (2-4)	Total/NA	Solid	8270D	389053
480-127922-3	MW-3 (6-8)	Total/NA	Solid	8270D	389053
MB 480-389053/1-A	Method Blank	Total/NA	Solid	8270D	389053
LCS 480-389053/2-A	Lab Control Sample	Total/NA	Solid	8270D	389053
480-127922-3 MS	MW-3 (6-8)	Total/NA	Solid	8270D	389053
480-127922-3 MSD	MW-3 (6-8)	Total/NA	Solid	8270D	389053

GC Semi VOA

Prep Batch: 389055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127922-2	MW-2 (2-4)	Total/NA	Solid	3550C	
MB 480-389055/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-389055/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Prep Batch: 389267

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127922-2	MW-2 (2-4)	Total/NA	Solid	3550C	
480-127922-3	MW-3 (6-8)	Total/NA	Solid	3550C	
MB 480-389267/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-389267/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-127922-3 MS	MW-3 (6-8)	Total/NA	Solid	3550C	
480-127922-3 MSD	MW-3 (6-8)	Total/NA	Solid	3550C	

GC Semi VOA (Continued)

Prep Batch: 389269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127922-2	MW-2 (2-4)	Total/NA	Solid	8151A	
480-127922-3	MW-3 (6-8)	Total/NA	Solid	8151A	
MB 480-389269/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 480-389269/2-A	Lab Control Sample	Total/NA	Solid	8151A	
480-127922-2 MS	MW-2 (2-4)	Total/NA	Solid	8151A	
480-127922-2 MSD	MW-2 (2-4)	Total/NA	Solid	8151A	

Analysis Batch: 389334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127922-2	MW-2 (2-4)	Total/NA	Solid	8081B	389267
480-127922-3	MW-3 (6-8)	Total/NA	Solid	8081B	389267
MB 480-389267/1-A	Method Blank	Total/NA	Solid	8081B	389267
LCS 480-389267/2-A	Lab Control Sample	Total/NA	Solid	8081B	389267
480-127922-3 MS	MW-3 (6-8)	Total/NA	Solid	8081B	389267
480-127922-3 MSD	MW-3 (6-8)	Total/NA	Solid	8081B	389267

Analysis Batch: 389409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127922-2	MW-2 (2-4)	Total/NA	Solid	8082A	389055
MB 480-389055/1-A	Method Blank	Total/NA	Solid	8082A	389055
LCS 480-389055/2-A	Lab Control Sample	Total/NA	Solid	8082A	389055

Analysis Batch: 389722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127922-2	MW-2 (2-4)	Total/NA	Solid	8151A	389269
480-127922-3	MW-3 (6-8)	Total/NA	Solid	8151A	389269
MB 480-389269/1-A	Method Blank	Total/NA	Solid	8151A	389269
LCS 480-389269/2-A	Lab Control Sample	Total/NA	Solid	8151A	389269
480-127922-2 MS	MW-2 (2-4)	Total/NA	Solid	8151A	389269
480-127922-2 MSD	MW-2 (2-4)	Total/NA	Solid	8151A	389269

Metals

Prep Batch: 388853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127922-1	MW-6 (8-10)	Total/NA	Solid	3050B	
480-127922-2	MW-2 (2-4)	Total/NA	Solid	3050B	
480-127922-3	MW-3 (6-8)	Total/NA	Solid	3050B	
MB 480-388853/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 480-388853/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Prep Batch: 389441

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127922-1	MW-6 (8-10)	Total/NA	Solid	7471B	
480-127922-2	MW-2 (2-4)	Total/NA	Solid	7471B	
480-127922-3	MW-3 (6-8)	Total/NA	Solid	7471B	
MB 480-389441/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 480-389441/2-A ^10	Lab Control Sample	Total/NA	Solid	7471B	

Metals (Continued)

Analysis Batch: 389577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127922-1	MW-6 (8-10)	Total/NA	Solid	6010C	388853
480-127922-2	MW-2 (2-4)	Total/NA	Solid	6010C	388853
480-127922-3	MW-3 (6-8)	Total/NA	Solid	6010C	388853
MB 480-388853/1-A	Method Blank	Total/NA	Solid	6010C	388853
LCSSRM 480-388853/2-A	Lab Control Sample	Total/NA	Solid	6010C	388853

Analysis Batch: 389578

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127922-1	MW-6 (8-10)	Total/NA	Solid	6010C	388853
480-127922-2	MW-2 (2-4)	Total/NA	Solid	6010C	388853
480-127922-3	MW-3 (6-8)	Total/NA	Solid	6010C	388853
MB 480-388853/1-A	Method Blank	Total/NA	Solid	6010C	388853
LCSSRM 480-388853/2-A	Lab Control Sample	Total/NA	Solid	6010C	388853

Analysis Batch: 389733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127922-1	MW-6 (8-10)	Total/NA	Solid	7471B	389441
480-127922-2	MW-2 (2-4)	Total/NA	Solid	7471B	389441
480-127922-3	MW-3 (6-8)	Total/NA	Solid	7471B	389441
MB 480-389441/1-A	Method Blank	Total/NA	Solid	7471B	389441
LCSSRM 480-389441/2-A ^10	Lab Control Sample	Total/NA	Solid	7471B	389441

General Chemistry

Analysis Batch: 388837

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127922-4	MW-3 (0.5-2.0)	Total/NA	Solid	Moisture	

Analysis Batch: 389213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127922-1	MW-6 (8-10)	Total/NA	Solid	Moisture	
480-127922-2	MW-2 (2-4)	Total/NA	Solid	Moisture	
480-127922-3	MW-3 (6-8)	Total/NA	Solid	Moisture	

Client Sample ID: MW-6 (8-10) — **Lab Sample ID: 480-127922-1**
Date Collected: 11/21/17 10:19 — **Matrix: Solid**
Date Received: 11/22/17 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	389213	11/27/17 11:17	CMJ	TAL BUF

Client Sample ID: MW-6 (8-10) — **Lab Sample ID: 480-127922-1**
Date Collected: 11/21/17 10:19 — **Matrix: Solid**
Date Received: 11/22/17 09:37 — **Percent Solids: 88.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			389053	11/24/17 14:25	BEK	TAL BUF
Total/NA	Analysis	8270D		20	389390	11/28/17 16:13	DMR	TAL BUF
Total/NA	Prep	3050B			388853	11/22/17 14:04	EMB	TAL BUF
Total/NA	Analysis	6010C		1	389577	11/28/17 15:34	LMH	TAL BUF
Total/NA	Prep	3050B			388853	11/22/17 14:04	EMB	TAL BUF
Total/NA	Analysis	6010C		1	389578	11/25/17 04:06	LMH	TAL BUF
Total/NA	Prep	7471B			389441	11/29/17 12:35	EMB	TAL BUF
Total/NA	Analysis	7471B		1	389733	11/29/17 16:12	BMB	TAL BUF

Client Sample ID: MW-2 (2-4) — **Lab Sample ID: 480-127922-2**
Date Collected: 11/21/17 13:42 — **Matrix: Solid**
Date Received: 11/22/17 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	389213	11/27/17 11:17	CMJ	TAL BUF

Client Sample ID: MW-2 (2-4) — **Lab Sample ID: 480-127922-2**
Date Collected: 11/21/17 13:42 — **Matrix: Solid**
Date Received: 11/22/17 09:37 — **Percent Solids: 84.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_L			388783	11/22/17 10:10	CDC	TAL BUF
Total/NA	Analysis	8260C		1	389355	11/28/17 16:22	CDC	TAL BUF
Total/NA	Prep	3550C			389053	11/24/17 14:25	BEK	TAL BUF
Total/NA	Analysis	8270D		20	389390	11/28/17 16:40	DMR	TAL BUF
Total/NA	Prep	3550C			389267	11/27/17 14:11	BEK	TAL BUF
Total/NA	Analysis	8081B		100	389334	11/28/17 12:48	JLS	TAL BUF
Total/NA	Prep	3550C			389055	11/24/17 14:32	BEK	TAL BUF
Total/NA	Analysis	8082A		1	389409	11/28/17 13:31	JMO	TAL BUF
Total/NA	Prep	8151A			389269	11/27/17 14:14	BEK	TAL BUF
Total/NA	Analysis	8151A		1	389722	11/30/17 02:26	JMO	TAL BUF
Total/NA	Prep	3050B			388853	11/22/17 14:04	EMB	TAL BUF
Total/NA	Analysis	6010C		1	389577	11/28/17 15:37	LMH	TAL BUF
Total/NA	Prep	3050B			388853	11/22/17 14:04	EMB	TAL BUF
Total/NA	Analysis	6010C		1	389578	11/25/17 04:09	LMH	TAL BUF
Total/NA	Prep	7471B			389441	11/29/17 12:35	EMB	TAL BUF

Client Sample ID: MW-2 (2-4) — **Lab Sample ID: 480-127922-2**
Date Collected: 11/21/17 13:42 — **Matrix: Solid**
Date Received: 11/22/17 09:37 — **Percent Solids: 84.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7471B		1	389733	11/29/17 16:14	BMB	TAL BUF

Client Sample ID: MW-3 (6-8) — **Lab Sample ID: 480-127922-3**
Date Collected: 11/21/17 15:04 — **Matrix: Solid**
Date Received: 11/22/17 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	389213	11/27/17 11:17	CMJ	TAL BUF

Client Sample ID: MW-3 (6-8) — **Lab Sample ID: 480-127922-3**
Date Collected: 11/21/17 15:04 — **Matrix: Solid**
Date Received: 11/22/17 09:37 — **Percent Solids: 89.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			389053	11/24/17 14:25	BEK	TAL BUF
Total/NA	Analysis	8270D		20	389390	11/28/17 15:47	DMR	TAL BUF
Total/NA	Prep	3550C			389267	11/27/17 14:11	BEK	TAL BUF
Total/NA	Analysis	8081B		20	389334	11/28/17 12:29	JLS	TAL BUF
Total/NA	Prep	8151A			389269	11/27/17 14:14	BEK	TAL BUF
Total/NA	Analysis	8151A		1	389722	11/30/17 02:56	JMO	TAL BUF
Total/NA	Prep	3050B			388853	11/22/17 14:04	EMB	TAL BUF
Total/NA	Analysis	6010C		1	389577	11/28/17 15:41	LMH	TAL BUF
Total/NA	Prep	3050B			388853	11/22/17 14:04	EMB	TAL BUF
Total/NA	Analysis	6010C		1	389578	11/25/17 04:13	LMH	TAL BUF
Total/NA	Prep	7471B			389441	11/29/17 12:35	EMB	TAL BUF
Total/NA	Analysis	7471B		1	389733	11/29/17 16:15	BMB	TAL BUF

Client Sample ID: MW-3 (0.5-2.0) — **Lab Sample ID: 480-127922-4**
Date Collected: 11/21/17 15:15 — **Matrix: Solid**
Date Received: 11/22/17 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	388837	11/22/17 12:16	CDC	TAL BUF

Client Sample ID: MW-3 (0.5-2.0) — **Lab Sample ID: 480-127922-4**
Date Collected: 11/21/17 15:15 — **Matrix: Solid**
Date Received: 11/22/17 09:37 — **Percent Solids: 93.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_L			388783	11/22/17 10:10	CDC	TAL BUF
Total/NA	Analysis	8260C		1	389355	11/28/17 16:47	CDC	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Benchmark Env. Eng. & Science, PLLC
TestAmerica Job ID: 480-127922-1
Project/Site: 1827 Fillmore Avenue Site

Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127922-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
8081B	Organochlorine Pesticides (GC)	SW846	TAL BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL BUF
8151A	Herbicides (GC)	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
7471B	Mercury (CVAA)	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127922-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-127922-1	MW-6 (8-10)	Solid	11/21/17 10:19	11/22/17 09:37
480-127922-2	MW-2 (2-4)	Solid	11/21/17 13:42	11/22/17 09:37
480-127922-3	MW-3 (6-8)	Solid	11/21/17 15:04	11/22/17 09:37
480-127922-4	MW-3 (0.5-2.0)	Solid	11/21/17 15:15	11/22/17 09:37

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228
Phone: 716.691.2600 Fax: 716.691.7991

Chain of Custody Record 242636

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Mike Lesakowski	Site Contact: T. Behrendt	Date: 11/20/17	COC No:
Company Name: Benchmark Eng. & Surveying	Tel/Fax:	Lab Contact:	Carrier:	____ of ____ COCs
Address: 2558 Hamburg Turnpike	Analysis Turnaround Time			Sampler:
City/State/Zip: Lackawanna, NY 14218	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: (716) 828-8558	TAT if different from Below STD			Walk-in Client:
Fax: (716) 550-0583	☐ 2 weeks			Lab Sampling:
Project Name: 130421-017-001	☐ 1 week			
Site:	☐ 2 days			Job / SDG No.:
PO #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	TCL VOCs + 10 TICs 8260	TCL SVOCs + 20 TICs 8270	TAL METALS	Hexavalent Cr	PCBs	Sample Specific Notes:
MW-6 (8-10)	11/20/17	1019	G	Soil	1	N	N		X	X			
MW-2 (2-4)		1342			5			X	X	X	X	X	
MW-3 ~~(0.5-2.0)~~ (6-8')		~~1304~~ 1315			4				X	X	X		
MW-3 ~~(6-8)~~ (0.5-2.0)		~~1504~~ 1515			2			X					

480-127922 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:

CAT B

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 2.8 Corr'd: ____ Therm ID No.: #1

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	Benchmark	11/21/17 1644		TAL	11/22/17 0900
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TAL	11/22/17 0935			11/22/17 0935
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Login Sample Receipt Checklist

Client: Benchmark Env. Eng. & Science, PLLC

Job Number: 480-127922-1

Login Number: 127922

List Source: TestAmerica Buffalo

List Number: 1

Creator: Janish, Carl M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	BM
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-127950-1
Client Project/Site: 1827 Fillmore Avenue Site

For:
Benchmark Env. Eng. & Science, PLLC
2558 Hamburg Turnpike
Suite 300
Lackawanna, New York 14218

Attn: Mr. Michael Lesakowski

Authorized for release by:
12/5/2017 3:36:06 PM

Brian Fischer, Manager of Project Management
(716)504-9835
brian.fischer@testamericainc.com

LINKS

Review your project results through TotalAccess

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Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

Glossary

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

Job ID: 480-127950-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-127950-1

Comments
No additional comments.

Receipt
The sample was received on 11/22/2017 12:39 PM; the sample arrived in good condition, properly preserved and, where required, on ice.
The temperature of the cooler at receipt was 3.7º C.

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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

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

Detection Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127950-1

Client Sample ID: MW-4 (12-14)

Lab Sample ID: 480-127950-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	38	J	210	21	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	54	J	210	31	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	74	J	210	33	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	37	J	210	22	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	27	J	210	27	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	52	J	210	22	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	47	J	210	26	ug/Kg	1	☼	8270D	Total/NA
Pyrene	46	J	210	24	ug/Kg	1	☼	8270D	Total/NA
Aluminum	5940		13.3	5.9	mg/Kg	1	☼	6010C	Total/NA
Arsenic	9.4		2.7	0.53	mg/Kg	1	☼	6010C	Total/NA
Barium	88.8		0.67	0.15	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.69		0.27	0.037	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.096	J B	0.27	0.040	mg/Kg	1	☼	6010C	Total/NA
Calcium	4150	B	66.7	4.4	mg/Kg	1	☼	6010C	Total/NA
Chromium	10		0.67	0.27	mg/Kg	1	☼	6010C	Total/NA
Cobalt	5.5		0.67	0.067	mg/Kg	1	☼	6010C	Total/NA
Copper	32.5		1.3	0.28	mg/Kg	1	☼	6010C	Total/NA
Iron	15000		13.3	4.7	mg/Kg	1	☼	6010C	Total/NA
Lead	125		1.3	0.32	mg/Kg	1	☼	6010C	Total/NA
Magnesium	844		26.7	1.2	mg/Kg	1	☼	6010C	Total/NA
Manganese	114	B	0.27	0.043	mg/Kg	1	☼	6010C	Total/NA
Nickel	12.9		6.7	0.31	mg/Kg	1	☼	6010C	Total/NA
Potassium	789		40.0	26.7	mg/Kg	1	☼	6010C	Total/NA
Selenium	1.5	J B	5.3	0.53	mg/Kg	1	☼	6010C	Total/NA
Sodium	197		187	17.3	mg/Kg	1	☼	6010C	Total/NA
Vanadium	22.6		0.67	0.15	mg/Kg	1	☼	6010C	Total/NA
Zinc	82.2		2.7	0.85	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.081		0.025	0.010	mg/Kg	1	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127950-1

Client Sample ID: MW-4 (12-14)
Date Collected: 11/22/17 11:02
Date Received: 11/22/17 12:39

Lab Sample ID: 480-127950-1
Matrix: Solid
Percent Solids: 81.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		210	56	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
2,4,6-Trichlorophenol	ND		210	42	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
2,4-Dichlorophenol	ND		210	22	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
2,4-Dimethylphenol	ND		210	50	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
2,4-Dinitrophenol	ND		2000	960	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
2,4-Dinitrotoluene	ND		210	43	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
2,6-Dinitrotoluene	ND		210	24	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
2-Chloronaphthalene	ND		210	34	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
2-Chlorophenol	ND		210	38	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
2-Methylnaphthalene	ND		210	42	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
2-Methylphenol	ND		210	24	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
2-Nitroaniline	ND		400	31	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
2-Nitrophenol	ND		210	59	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
3,3'-Dichlorobenzidine	ND		400	240	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
3-Nitroaniline	ND		400	57	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
4,6-Dinitro-2-methylphenol	ND		400	210	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
4-Bromophenyl phenyl ether	ND		210	29	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
4-Chloro-3-methylphenol	ND		210	51	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
4-Chloroaniline	ND		210	51	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
4-Chlorophenyl phenyl ether	ND		210	26	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
4-Methylphenol	ND		400	24	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
4-Nitroaniline	ND		400	110	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
4-Nitrophenol	ND		400	150	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Acenaphthene	ND		210	31	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Acenaphthylene	ND		210	27	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Acetophenone	ND		210	28	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Anthracene	ND		210	51	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Atrazine	ND		210	72	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Benzaldehyde	ND		210	170	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Benzo[a]anthracene	**38**	**J**	210	21	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Benzo[a]pyrene	**54**	**J**	210	31	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Benzo[b]fluoranthene	**74**	**J**	210	33	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Benzo[g,h,i]perylene	**37**	**J**	210	22	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Benzo[k]fluoranthene	**27**	**J**	210	27	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Biphenyl	ND		210	31	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
bis (2-chloroisopropyl) ether	ND		210	42	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Bis(2-chloroethoxy)methane	ND		210	44	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Bis(2-chloroethyl)ether	ND		210	27	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Bis(2-ethylhexyl) phthalate	ND		210	71	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Butyl benzyl phthalate	ND		210	34	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Caprolactam	ND		210	62	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Carbazole	ND		210	24	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Chrysene	ND		210	46	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Dibenz(a,h)anthracene	ND		210	37	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Dibenzofuran	ND		210	24	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Diethyl phthalate	ND		210	27	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Dimethyl phthalate	ND		210	24	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Di-n-butyl phthalate	ND		210	35	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Di-n-octyl phthalate	ND		210	24	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1

Client Sample ID: MW-4 (12-14)
Date Collected: 11/22/17 11:02
Date Received: 11/22/17 12:39

Lab Sample ID: 480-127950-1
Matrix: Solid
Percent Solids: 81.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	52	J	210	22	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Fluorene	ND		210	24	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Hexachlorobenzene	ND		210	28	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Hexachlorobutadiene	ND		210	31	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Hexachlorocyclopentadiene	ND		210	28	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Hexachloroethane	ND		210	27	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Indeno[1,2,3-cd]pyrene	47	J	210	26	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Isophorone	ND		210	44	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Naphthalene	ND		210	27	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Nitrobenzene	ND		210	23	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
N-Nitrosodi-n-propylamine	ND		210	35	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
N-Nitrosodiphenylamine	ND		210	170	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Pentachlorophenol	ND		400	210	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Phenanthrene	ND		210	31	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Phenol	ND		210	32	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1
Pyrene	46	J	210	24	ug/Kg	☼	11/24/17 14:25	11/28/17 17:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*83*		*54 - 120*	*11/24/17 14:25*	*11/28/17 17:06*	*1*
2-Fluorobiphenyl	*80*		*60 - 120*	*11/24/17 14:25*	*11/28/17 17:06*	*1*
2-Fluorophenol	*77*		*52 - 120*	*11/24/17 14:25*	*11/28/17 17:06*	*1*
Nitrobenzene-d5	*79*		*53 - 120*	*11/24/17 14:25*	*11/28/17 17:06*	*1*
Phenol-d5	*79*		*54 - 120*	*11/24/17 14:25*	*11/28/17 17:06*	*1*
p-Terphenyl-d14	*95*		*65 - 121*	*11/24/17 14:25*	*11/28/17 17:06*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	5940		13.3	5.9	mg/Kg	☼	11/27/17 14:35	11/30/17 12:25	1
Antimony	ND		20.0	0.53	mg/Kg	☼	11/27/17 14:35	11/30/17 12:25	1
Arsenic	9.4		2.7	0.53	mg/Kg	☼	11/27/17 14:35	11/30/17 12:25	1
Barium	88.8		0.67	0.15	mg/Kg	☼	11/27/17 14:35	11/30/17 12:25	1
Beryllium	0.69		0.27	0.037	mg/Kg	☼	11/27/17 14:35	11/30/17 12:25	1
Cadmium	0.096	J B	0.27	0.040	mg/Kg	☼	11/27/17 14:35	11/30/17 12:25	1
Calcium	4150	B	66.7	4.4	mg/Kg	☼	11/27/17 14:35	11/30/17 12:25	1
Chromium	10		0.67	0.27	mg/Kg	☼	11/27/17 14:35	12/01/17 13:02	1
Cobalt	5.5		0.67	0.067	mg/Kg	☼	11/27/17 14:35	11/30/17 12:25	1
Copper	32.5		1.3	0.28	mg/Kg	☼	11/27/17 14:35	11/30/17 12:25	1
Iron	15000		13.3	4.7	mg/Kg	☼	11/27/17 14:35	12/01/17 13:02	1
Lead	125		1.3	0.32	mg/Kg	☼	11/27/17 14:35	11/30/17 12:25	1
Magnesium	844		26.7	1.2	mg/Kg	☼	11/27/17 14:35	11/30/17 12:25	1
Manganese	114	B	0.27	0.043	mg/Kg	☼	11/27/17 14:35	11/30/17 12:25	1
Nickel	12.9		6.7	0.31	mg/Kg	☼	11/27/17 14:35	11/30/17 12:25	1
Potassium	789		40.0	26.7	mg/Kg	☼	11/27/17 14:35	11/30/17 12:25	1
Selenium	1.5	J B	5.3	0.53	mg/Kg	☼	11/27/17 14:35	11/30/17 12:25	1
Silver	ND		0.80	0.27	mg/Kg	☼	11/27/17 14:35	11/30/17 12:25	1
Sodium	197		187	17.3	mg/Kg	☼	11/27/17 14:35	11/30/17 12:25	1
Thallium	ND		8.0	0.40	mg/Kg	☼	11/27/17 14:35	11/30/17 12:25	1
Vanadium	22.6		0.67	0.15	mg/Kg	☼	11/27/17 14:35	11/30/17 12:25	1
Zinc	82.2		2.7	0.85	mg/Kg	☼	11/27/17 14:35	11/30/17 12:25	1

Client Sample Results

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127950-1

Client Sample ID: MW-4 (12-14)
Date Collected: 11/22/17 11:02
Date Received: 11/22/17 12:39

Lab Sample ID: 480-127950-1
Matrix: Solid
Percent Solids: 81.7

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.081		0.025	0.010	mg/Kg	☼	11/27/17 15:00	11/27/17 16:32	1

Surrogate Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127950-1

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
		TBP	FBP	2FP	NBZ	PHL	TPH		
Lab Sample ID	Client Sample ID	(54-120)	(60-120)	(52-120)	(53-120)	(54-120)	(65-121)		
480-127950-1	MW-4 (12-14)	83	80	77	79	79	95		
LCS 480-389053/2-A	Lab Control Sample	98	87	77	84	77	101		
MB 480-389053/1-A	Method Blank	76	86	75	83	81	98		

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPH = p-Terphenyl-d14

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127950-1

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

Lab Sample ID: MB 480-389053/1-A
Matrix: Solid
Analysis Batch: 389390

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389053

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		170	46	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
2,4,6-Trichlorophenol	ND		170	34	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
2,4-Dichlorophenol	ND		170	18	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
2,4-Dimethylphenol	ND		170	41	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
2,4-Dinitrophenol	ND		1700	780	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
2,4-Dinitrotoluene	ND		170	35	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
2,6-Dinitrotoluene	ND		170	20	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
2-Chloronaphthalene	ND		170	28	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
2-Chlorophenol	ND		170	31	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
2-Methylnaphthalene	ND		170	34	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
2-Methylphenol	ND		170	20	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
2-Nitroaniline	ND		330	25	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
2-Nitrophenol	ND		170	48	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
3,3'-Dichlorobenzidine	ND		330	200	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
3-Nitroaniline	ND		330	47	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
4,6-Dinitro-2-methylphenol	ND		330	170	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
4-Bromophenyl phenyl ether	ND		170	24	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
4-Chloro-3-methylphenol	ND		170	42	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
4-Chloroaniline	ND		170	42	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
4-Chlorophenyl phenyl ether	ND		170	21	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
4-Methylphenol	ND		330	20	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
4-Nitroaniline	ND		330	89	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
4-Nitrophenol	ND		330	120	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Acenaphthene	ND		170	25	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Acenaphthylene	ND		170	22	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Acetophenone	ND		170	23	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Anthracene	ND		170	42	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Atrazine	ND		170	59	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Benzaldehyde	ND		170	130	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Benzo[a]anthracene	ND		170	17	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Benzo[a]pyrene	ND		170	25	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Benzo[b]fluoranthene	ND		170	27	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Benzo[g,h,i]perylene	ND		170	18	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Benzo[k]fluoranthene	ND		170	22	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Biphenyl	ND		170	25	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
bis (2-chloroisopropyl) ether	ND		170	34	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Bis(2-chloroethoxy)methane	ND		170	36	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Bis(2-chloroethyl)ether	ND		170	22	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Bis(2-ethylhexyl) phthalate	ND		170	58	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Butyl benzyl phthalate	ND		170	28	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Caprolactam	ND		170	51	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Carbazole	ND		170	20	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Chrysene	ND		170	38	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Dibenz(a,h)anthracene	ND		170	30	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Dibenzofuran	ND		170	20	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Diethyl phthalate	ND		170	22	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Dimethyl phthalate	ND		170	20	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Di-n-butyl phthalate	ND		170	29	ug/Kg		11/24/17 14:25	11/28/17 14:01	1

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

Lab Sample ID: MB 480-389053/1-A
Matrix: Solid
Analysis Batch: 389390

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389053

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate	ND		170	20	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Fluoranthene	ND		170	18	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Fluorene	ND		170	20	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Hexachlorobenzene	ND		170	23	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Hexachlorobutadiene	ND		170	25	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Hexachlorocyclopentadiene	ND		170	23	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Hexachloroethane	ND		170	22	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Indeno[1,2,3-cd]pyrene	ND		170	21	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Isophorone	ND		170	36	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Naphthalene	ND		170	22	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Nitrobenzene	ND		170	19	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
N-Nitrosodi-n-propylamine	ND		170	29	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
N-Nitrosodiphenylamine	ND		170	140	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Pentachlorophenol	ND		330	170	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Phenanthrene	ND		170	25	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Phenol	ND		170	26	ug/Kg		11/24/17 14:25	11/28/17 14:01	1
Pyrene	ND		170	20	ug/Kg		11/24/17 14:25	11/28/17 14:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*76*		*54 - 120*	*11/24/17 14:25*	*11/28/17 14:01*	*1*
2-Fluorobiphenyl	*86*		*60 - 120*	*11/24/17 14:25*	*11/28/17 14:01*	*1*
2-Fluorophenol	*75*		*52 - 120*	*11/24/17 14:25*	*11/28/17 14:01*	*1*
Nitrobenzene-d5	*83*		*53 - 120*	*11/24/17 14:25*	*11/28/17 14:01*	*1*
Phenol-d5	*81*		*54 - 120*	*11/24/17 14:25*	*11/28/17 14:01*	*1*
p-Terphenyl-d14	*98*		*65 - 121*	*11/24/17 14:25*	*11/28/17 14:01*	*1*

Lab Sample ID: LCS 480-389053/2-A
Matrix: Solid
Analysis Batch: 389390

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389053

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-Trichlorophenol	1640	1440		ug/Kg		87	59 - 126
2,4,6-Trichlorophenol	1640	1450		ug/Kg		88	59 - 123
2,4-Dichlorophenol	1640	1280		ug/Kg		78	61 - 120
2,4-Dimethylphenol	1640	1320		ug/Kg		80	59 - 120
2,4-Dinitrophenol	3280	2250		ug/Kg		68	41 - 146
2,4-Dinitrotoluene	1640	1450		ug/Kg		88	63 - 120
2,6-Dinitrotoluene	1640	1450		ug/Kg		88	66 - 120
2-Chloronaphthalene	1640	1410		ug/Kg		86	57 - 120
2-Chlorophenol	1640	1230		ug/Kg		75	53 - 120
2-Methylnaphthalene	1640	1290		ug/Kg		78	59 - 120
2-Methylphenol	1640	1280		ug/Kg		78	54 - 120
2-Nitroaniline	1640	1430		ug/Kg		87	61 - 120
2-Nitrophenol	1640	1350		ug/Kg		82	56 - 120
3,3'-Dichlorobenzidine	3280	2370		ug/Kg		72	54 - 120
3-Nitroaniline	1640	1210		ug/Kg		74	48 - 120
4,6-Dinitro-2-methylphenol	3280	2910		ug/Kg		89	49 - 122
4-Bromophenyl phenyl ether	1640	1600		ug/Kg		97	58 - 120

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

Lab Sample ID: LCS 480-389053/2-A
Matrix: Solid
Analysis Batch: 389390

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389053

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chloro-3-methylphenol	1640	1380		ug/Kg		84	61 - 120
4-Chloroaniline	1640	1040		ug/Kg		63	38 - 120
4-Chlorophenyl phenyl ether	1640	1410		ug/Kg		86	63 - 124
4-Methylphenol	1640	1280		ug/Kg		78	55 - 120
4-Nitroaniline	1640	1330		ug/Kg		81	56 - 120
4-Nitrophenol	3280	2790		ug/Kg		85	43 - 147
Acenaphthene	1640	1410		ug/Kg		86	62 - 120
Acenaphthylene	1640	1390		ug/Kg		85	58 - 121
Acetophenone	1640	1270		ug/Kg		77	54 - 120
Anthracene	1640	1510		ug/Kg		92	62 - 120
Atrazine	3280	2980		ug/Kg		91	60 - 127
Benzaldehyde	3280	1600		ug/Kg		49	10 - 150
Benzo[a]anthracene	1640	1500		ug/Kg		92	65 - 120
Benzo[a]pyrene	1640	1530		ug/Kg		93	64 - 120
Benzo[b]fluoranthene	1640	1490		ug/Kg		91	64 - 120
Benzo[g,h,i]perylene	1640	1500		ug/Kg		92	45 - 145
Benzo[k]fluoranthene	1640	1560		ug/Kg		95	65 - 120
Biphenyl	1640	1430		ug/Kg		87	59 - 120
bis (2-chloroisopropyl) ether	1640	1210		ug/Kg		74	44 - 120
Bis(2-chloroethoxy)methane	1640	1310		ug/Kg		80	55 - 120
Bis(2-chloroethyl)ether	1640	1230		ug/Kg		75	45 - 120
Bis(2-ethylhexyl) phthalate	1640	1440		ug/Kg		88	61 - 133
Butyl benzyl phthalate	1640	1540		ug/Kg		94	61 - 129
Caprolactam	3280	2540		ug/Kg		77	47 - 120
Carbazole	1640	1500		ug/Kg		91	65 - 120
Chrysene	1640	1470		ug/Kg		90	64 - 120
Dibenz(a,h)anthracene	1640	1540		ug/Kg		94	54 - 132
Dibenzofuran	1640	1470		ug/Kg		90	63 - 120
Diethyl phthalate	1640	1430		ug/Kg		87	66 - 120
Dimethyl phthalate	1640	1430		ug/Kg		87	65 - 124
Di-n-butyl phthalate	1640	1530		ug/Kg		93	58 - 130
Di-n-octyl phthalate	1640	1410		ug/Kg		86	57 - 133
Fluoranthene	1640	1510		ug/Kg		92	62 - 120
Fluorene	1640	1420		ug/Kg		87	63 - 120
Hexachlorobenzene	1640	1570		ug/Kg		96	60 - 120
Hexachlorobutadiene	1640	1340		ug/Kg		81	45 - 120
Hexachlorocyclopentadiene	1640	1400		ug/Kg		85	47 - 120
Hexachloroethane	1640	1170		ug/Kg		71	41 - 120
Indeno[1,2,3-cd]pyrene	1640	1500		ug/Kg		92	56 - 134
Isophorone	1640	1360		ug/Kg		83	56 - 120
Naphthalene	1640	1270		ug/Kg		77	55 - 120
Nitrobenzene	1640	1250		ug/Kg		76	54 - 120
N-Nitrosodi-n-propylamine	1640	1280		ug/Kg		78	52 - 120
Pentachlorophenol	3280	2820		ug/Kg		86	51 - 120
Phenanthrene	1640	1500		ug/Kg		92	60 - 120
Phenol	1640	1250		ug/Kg		76	53 - 120
Pyrene	1640	1630		ug/Kg		99	61 - 133

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

Lab Sample ID: LCS 480-389053/2-A
Matrix: Solid
Analysis Batch: 389390

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389053

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*98*		*54 - 120*
2-Fluorobiphenyl	*87*		*60 - 120*
2-Fluorophenol	*77*		*52 - 120*
Nitrobenzene-d5	*84*		*53 - 120*
Phenol-d5	*77*		*54 - 120*
p-Terphenyl-d14	*101*		*65 - 121*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-389263/1-A
Matrix: Solid
Analysis Batch: 390118

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389263

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		10.9	4.8	mg/Kg		11/27/17 14:35	12/01/17 12:26	1
Antimony	ND		16.3	0.44	mg/Kg		11/27/17 14:35	12/01/17 12:26	1
Arsenic	ND		2.2	0.44	mg/Kg		11/27/17 14:35	12/01/17 12:26	1
Barium	ND		0.54	0.12	mg/Kg		11/27/17 14:35	12/01/17 12:26	1
Beryllium	ND		0.22	0.030	mg/Kg		11/27/17 14:35	12/01/17 12:26	1
Cadmium	0.0392	J	0.22	0.033	mg/Kg		11/27/17 14:35	12/01/17 12:26	1
Calcium	8.11	J	54.4	3.6	mg/Kg		11/27/17 14:35	12/01/17 12:26	1
Chromium	ND		0.54	0.22	mg/Kg		11/27/17 14:35	12/01/17 12:26	1
Cobalt	ND		0.54	0.054	mg/Kg		11/27/17 14:35	12/01/17 12:26	1
Copper	ND		1.1	0.23	mg/Kg		11/27/17 14:35	12/01/17 12:26	1
Iron	ND		10.9	3.8	mg/Kg		11/27/17 14:35	12/01/17 12:26	1
Lead	ND		1.1	0.26	mg/Kg		11/27/17 14:35	12/01/17 12:26	1
Magnesium	ND		21.8	1.0	mg/Kg		11/27/17 14:35	12/01/17 12:26	1
Manganese	0.0697	J	0.22	0.035	mg/Kg		11/27/17 14:35	12/01/17 12:26	1
Nickel	ND		5.4	0.25	mg/Kg		11/27/17 14:35	12/01/17 12:26	1
Potassium	ND		32.7	21.8	mg/Kg		11/27/17 14:35	12/01/17 12:26	1
Selenium	0.454	J	4.4	0.44	mg/Kg		11/27/17 14:35	12/01/17 12:26	1
Silver	ND		0.65	0.22	mg/Kg		11/27/17 14:35	12/01/17 12:26	1
Sodium	ND		152	14.1	mg/Kg		11/27/17 14:35	12/01/17 12:26	1
Thallium	ND		6.5	0.33	mg/Kg		11/27/17 14:35	12/01/17 12:26	1
Vanadium	ND		0.54	0.12	mg/Kg		11/27/17 14:35	12/01/17 12:26	1
Zinc	ND		2.2	0.70	mg/Kg		11/27/17 14:35	12/01/17 12:26	1

Lab Sample ID: LCSSRM 480-389263/2-A
Matrix: Solid
Analysis Batch: 390045

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389263

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	8090	8563		mg/Kg		105.8	39.6 - 160.7
Antimony	99.3	59.40		mg/Kg		59.8	21.6 - 256.8
Arsenic	100	81.72		mg/Kg		81.7	69.6 - 131.0

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 480-389263/2-A
Matrix: Solid
Analysis Batch: 390045

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389263

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	217	173.0		mg/Kg		79.7	73.7 - 128.1
Beryllium	147	119.2		mg/Kg		81.1	75.5 - 125.9
Cadmium	83.7	64.32		mg/Kg		76.8	73.2 - 131.4
Calcium	6010	4778		mg/Kg		79.5	73.7 - 126.3
Chromium	107	87.43	^	mg/Kg		81.7	69.4 - 134.6
Cobalt	123	114.9		mg/Kg		93.4	74.3 - 130.1
Copper	166	128.3		mg/Kg		77.3	75.3 - 128.3
Iron	14600	13940	^	mg/Kg		95.4	36.1 - 163.7
Lead	88.4	86.96		mg/Kg		98.4	69.9 - 130.1
Magnesium	2930	2416		mg/Kg		82.4	65.9 - 134.5
Manganese	311	269.3		mg/Kg		86.6	74.9 - 125.4
Nickel	49.8	46.75		mg/Kg		93.9	69.1 - 135.1
Potassium	2620	2440		mg/Kg		93.1	61.1 - 138.9
Selenium	87.7	71.13		mg/Kg		81.1	64.1 - 135.7
Silver	41.4	31.20		mg/Kg		75.4	65.9 - 133.8
Sodium	252	226.5		mg/Kg		89.9	32.9 - 167.5
Thallium	58.1	53.25		mg/Kg		91.6	63.9 - 136.3
Vanadium	140	122.4		mg/Kg		87.4	69.9 - 129.3
Zinc	145	115.4		mg/Kg		79.6	67.7 - 132.4

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-389260/1-A
Matrix: Solid
Analysis Batch: 389294

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389260

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.0081	mg/Kg		11/27/17 15:00	11/27/17 16:26	1

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: LCSSRM 480-389260/2-A ^10
Matrix: Solid
Analysis Batch: 389294

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389260

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			12.6	11.99		mg/Kg		95.1	44.4 - 128.6		

Lab Sample ID: 480-127950-1 MS
Matrix: Solid
Analysis Batch: 389294

Client Sample ID: MW-4 (12-14)
Prep Type: Total/NA
Prep Batch: 389260

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	0.081		0.421	0.499		mg/Kg	☼	99	80 - 120		

Lab Sample ID: 480-127950-1 MSD
Matrix: Solid
Analysis Batch: 389294

Client Sample ID: MW-4 (12-14)
Prep Type: Total/NA
Prep Batch: 389260

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.081		0.388	0.480		mg/Kg	☼	103	80 - 120	4	20

GC/MS Semi VOA

Prep Batch: 389053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127950-1	MW-4 (12-14)	Total/NA	Solid	3550C	
MB 480-389053/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-389053/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Analysis Batch: 389390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127950-1	MW-4 (12-14)	Total/NA	Solid	8270D	389053
MB 480-389053/1-A	Method Blank	Total/NA	Solid	8270D	389053
LCS 480-389053/2-A	Lab Control Sample	Total/NA	Solid	8270D	389053

Metals

Prep Batch: 389260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127950-1	MW-4 (12-14)	Total/NA	Solid	7471B	
MB 480-389260/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 480-389260/2-A ^10	Lab Control Sample	Total/NA	Solid	7471B	
480-127950-1 MS	MW-4 (12-14)	Total/NA	Solid	7471B	
480-127950-1 MSD	MW-4 (12-14)	Total/NA	Solid	7471B	

Prep Batch: 389263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127950-1	MW-4 (12-14)	Total/NA	Solid	3050B	
MB 480-389263/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 480-389263/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 389294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127950-1	MW-4 (12-14)	Total/NA	Solid	7471B	389260
MB 480-389260/1-A	Method Blank	Total/NA	Solid	7471B	389260
LCSSRM 480-389260/2-A ^10	Lab Control Sample	Total/NA	Solid	7471B	389260
480-127950-1 MS	MW-4 (12-14)	Total/NA	Solid	7471B	389260
480-127950-1 MSD	MW-4 (12-14)	Total/NA	Solid	7471B	389260

Analysis Batch: 390045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127950-1	MW-4 (12-14)	Total/NA	Solid	6010C	389263
LCSSRM 480-389263/2-A	Lab Control Sample	Total/NA	Solid	6010C	389263

Analysis Batch: 390118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127950-1	MW-4 (12-14)	Total/NA	Solid	6010C	389263
MB 480-389263/1-A	Method Blank	Total/NA	Solid	6010C	389263

General Chemistry

Analysis Batch: 389120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127950-1	MW-4 (12-14)	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127950-1

Client Sample ID: MW-4 (12-14) — **Lab Sample ID: 480-127950-1**
Date Collected: 11/22/17 11:02 — **Matrix: Solid**
Date Received: 11/22/17 12:39

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	389120	11/25/17 14:06	MDH	TAL BUF

Client Sample ID: MW-4 (12-14) — **Lab Sample ID: 480-127950-1**
Date Collected: 11/22/17 11:02 — **Matrix: Solid**
Date Received: 11/22/17 12:39 — **Percent Solids: 81.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			389053	11/24/17 14:25	BEK	TAL BUF
Total/NA	Analysis	8270D		1	389390	11/28/17 17:06	DMR	TAL BUF
Total/NA	Prep	3050B			389263	11/27/17 14:35	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390045	11/30/17 12:25	AMH	TAL BUF
Total/NA	Prep	3050B			389263	11/27/17 14:35	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390118	12/01/17 13:02	AMH	TAL BUF
Total/NA	Prep	7471B			389260	11/27/17 15:00	EMB	TAL BUF
Total/NA	Analysis	7471B		1	389294	11/27/17 16:32	BMB	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127950-1

Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127950-1

Method	Method Description	Protocol	Laboratory
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
7471B	Mercury (CVAA)	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127950-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-127950-1	MW-4 (12-14)	Solid	11/22/17 11:02	11/22/17 12:39

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: T. Behrendt	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-105119-24832.8
Client Contact: Bryan Mayback	Phone: (716) 818-5357	E-Mail: brian.fischer@testamericainc.com		Page: Page 8 of 8
Company: Benchmark Env. Eng. & Science, PLLC				Job #:
Address: 2558 Hamburg Turnpike	Due Date Requested:			
City: Lackawanna	TAT Requested (days):			
State, Zip: NY, 14218				
Phone: 716-856-0599(Tel)	PO #: B0421-017-001			
Email: bmayback@turnkeyllc.com	WO #:			
Project Name: 1827 Fillmore Avenue Site - Soil	Project #: 48017094			
Site:	SSOW#:			

Analysis Requested

Preservation Codes: A - HCL M - Hexane; L - EDA; Other:

480-127950 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010C, 7471B, 8270D	8081B, 8082A, 8151A	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N		
MW-4 (12-14)	11/22/17	1102	G	Solid	N	N	X		1	
				Solid						
				Solid						

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) CAT B

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
		11/22/17 1239	BM		11/22/17 1234	
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.7 IR1

Ver: 08/04/2016

Login Sample Receipt Checklist

Client: Benchmark Env. Eng. & Science, PLLC

Job Number: 480-127950-1

Login Number: 127950

List Source: TestAmerica Buffalo

List Number: 1

Creator: Janish, Carl M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	BM
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-128053-1
Client Project/Site: 1827 Fillmore Avenue Site

For:
Benchmark Env. Eng. & Science, PLLC
2558 Hamburg Turnpike
Suite 300
Lackawanna, New York 14218

Attn: Mr. Michael Lesakowski

Joseph V. Giacomazza

Authorized for release by:
12/12/2017 9:31:54 AM
Joe Giacomazza, Project Management Assistant II
joe.giacomazza@testamericainc.com

Designee for

Brian Fischer, Manager of Project Management
(716)504-9835
brian.fischer@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
X	Surrogate is outside control limits

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
F2	MS/MSD RPD exceeds control limits
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.

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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-128053-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-128053-1

Comments
No additional comments.

Receipt
The samples were received on 11/28/2017 12:10 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.0º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA
Method(s) 8270D: The following sample required a dilution due to the nature of the sample matrix: MW-1 (4-5.4) (480-128053-3). 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.

Method(s) 8270D: The following samples was diluted due to color and viscosity: MW-7 (2-4) (480-128053-1), MW-1 (4-5.4) (480-128053-3), (480-128053-A-1-D MS) and (480-128053-A-1-E MSD). Elevated reporting limits (RL) are provided.

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

GC Semi VOA
Method(s) 8081B: The following sample was diluted due to the nature of the sample matrix: MW-7 (2-4) (480-128053-1). As such, surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method(s) 8081B: The method blank (MB) and laboratory control sample (LCS) for preparation batch 480-389769 and analytical batch 480-390001 were elevated and recovered outside control limits for the following surrogate: DCB Decachlorobiphenyl. The blank is not detect for all analytes, the LCS spike is compliant for all analytes, and the sample surrogate recoveries are compliant; therefore, the data have been reported.

Method(s) 8081B: All primary data for analytical batch 390001 is reported from the RTX-CLPI column.

Method(s) 8082A: All primary data for analytical batch 389872 is reported from the ZB-5 column.

Method(s) 8151A: The continuing calibration verification (CCV) associated with batch 480-390371 recovered above the upper control limit for multiple analytes and surrogate 2,4-Dichlorophenylacetic acid. The samples associated with these CCVs were non-detect for the affected analytes and the surrogate results are not adversely affected; therefore, the data have been reported. The following sample is impacted: MW-7 (2-4) (480-128053-1).

Method(s) 8151A: All primary data for analytical batch 390371 is reported from the RTX-CLPI column.

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

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

Organic Prep
Method(s) 3550C: Due to the matrix, the following sample could not be concentrated to the final method required volume: MW-1 (4-5.4) (480-128053-3). The reporting limits (RLs) are elevated proportionately.

Method(s) 3550C: The following samples required a Florisil clean-up, via 3620C, to reduce matrix interferences: MW-7 (2-4) (480-128053-1).

Job ID: 480-128053-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

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

Detection Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128053-1

Client Sample ID: MW-7 (2-4) — Lab Sample ID: 480-128053-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	260	J	940	94	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]pyrene	360	J	940	140	ug/Kg	5	☼	8270D	Total/NA
Benzo[b]fluoranthene	530	J F1	940	150	ug/Kg	5	☼	8270D	Total/NA
Benzo[g,h,i]perylene	210	J	940	99	ug/Kg	5	☼	8270D	Total/NA
Benzo[k]fluoranthene	160	J	940	120	ug/Kg	5	☼	8270D	Total/NA
Chrysene	280	J	940	210	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene	400	J F1	940	99	ug/Kg	5	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	270	J	940	120	ug/Kg	5	☼	8270D	Total/NA
Pyrene	430	J	940	110	ug/Kg	5	☼	8270D	Total/NA
4,4'-DDT	3.5	J	9.2	2.1	ug/Kg	5	☼	8081B	Total/NA
alpha-BHC	2.8	J B	9.2	1.6	ug/Kg	5	☼	8081B	Total/NA
gamma-BHC (Lindane)	2.6	J B	9.2	1.7	ug/Kg	5	☼	8081B	Total/NA
Aluminum	5240	F1	11.3	5.0	mg/Kg	1	☼	6010C	Total/NA
Antimony	1.3	J F1	17.0	0.45	mg/Kg	1	☼	6010C	Total/NA
Arsenic	8.6		2.3	0.45	mg/Kg	1	☼	6010C	Total/NA
Barium	110	F1	0.57	0.12	mg/Kg	1	☼	6010C	Total/NA
Beryllium	1.0		0.23	0.032	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.13	J	0.23	0.034	mg/Kg	1	☼	6010C	Total/NA
Calcium	13400	F2 B	56.7	3.7	mg/Kg	1	☼	6010C	Total/NA
Chromium	13.2	^ B	0.57	0.23	mg/Kg	1	☼	6010C	Total/NA
Cobalt	10.1		0.57	0.057	mg/Kg	1	☼	6010C	Total/NA
Copper	33.9	F1 B	1.1	0.24	mg/Kg	1	☼	6010C	Total/NA
Iron	25300	^ F2	11.3	4.0	mg/Kg	1	☼	6010C	Total/NA
Lead	39.7	F2 F1	1.1	0.27	mg/Kg	1	☼	6010C	Total/NA
Magnesium	3990	F1	22.7	1.1	mg/Kg	1	☼	6010C	Total/NA
Manganese	333	F2 B	0.23	0.036	mg/Kg	1	☼	6010C	Total/NA
Nickel	16.4		5.7	0.26	mg/Kg	1	☼	6010C	Total/NA
Potassium	1100	F1	34.0	22.7	mg/Kg	1	☼	6010C	Total/NA
Selenium	1.3	J B	4.5	0.45	mg/Kg	1	☼	6010C	Total/NA
Sodium	131	J B	159	14.7	mg/Kg	1	☼	6010C	Total/NA
Vanadium	14.7		0.57	0.12	mg/Kg	1	☼	6010C	Total/NA
Zinc	45.0	F1	2.3	0.73	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.050		0.022	0.0087	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: MW-7 (10-12) — Lab Sample ID: 480-128053-2

No Detections.

Client Sample ID: MW-1 (4-5.4) — Lab Sample ID: 480-128053-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	8270	F1	11.1	4.9	mg/Kg	1	☼	6010C	Total/NA
Antimony	1.2	J	16.7	0.44	mg/Kg	1	☼	6010C	Total/NA
Arsenic	8.2	B	2.2	0.44	mg/Kg	1	☼	6010C	Total/NA
Barium	209		0.56	0.12	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.35		0.22	0.031	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.60		0.22	0.033	mg/Kg	1	☼	6010C	Total/NA
Calcium	92200	B	55.5	3.7	mg/Kg	1	☼	6010C	Total/NA
Chromium	27.9	^	0.56	0.22	mg/Kg	1	☼	6010C	Total/NA
Cobalt	5.9		0.56	0.056	mg/Kg	1	☼	6010C	Total/NA
Copper	36.5		1.1	0.23	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-1 (4-5.4) (Continued)

Lab Sample ID: 480-128053-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	17700	F2	11.1	3.9	mg/Kg	1	☼	6010C	Total/NA
Lead	148	F1	1.1	0.27	mg/Kg	1	☼	6010C	Total/NA
Magnesium	12000		22.2	1.0	mg/Kg	1	☼	6010C	Total/NA
Manganese	298	B	0.22	0.036	mg/Kg	1	☼	6010C	Total/NA
Nickel	18.6		5.6	0.26	mg/Kg	1	☼	6010C	Total/NA
Potassium	2120	F1	33.3	22.2	mg/Kg	1	☼	6010C	Total/NA
Sodium	322		156	14.4	mg/Kg	1	☼	6010C	Total/NA
Vanadium	23.0		0.56	0.12	mg/Kg	1	☼	6010C	Total/NA
Zinc	174	F1	2.2	0.71	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.28		0.022	0.0088	mg/Kg	1	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-7 (2-4)

Date Collected: 11/27/17 10:04
Date Received: 11/28/17 12:10

Lab Sample ID: 480-128053-1

Matrix: Solid
Percent Solids: 89.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		940	250	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
2,4,6-Trichlorophenol	ND		940	190	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
2,4-Dichlorophenol	ND		940	99	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
2,4-Dimethylphenol	ND		940	230	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
2,4-Dinitrophenol	ND		9200	4300	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
2,4-Dinitrotoluene	ND		940	190	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
2,6-Dinitrotoluene	ND		940	110	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
2-Chloronaphthalene	ND		940	150	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
2-Chlorophenol	ND		940	170	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
2-Methylnaphthalene	ND		940	190	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
2-Methylphenol	ND		940	110	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
2-Nitroaniline	ND		1800	140	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
2-Nitrophenol	ND		940	270	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
3,3'-Dichlorobenzidine	ND		1800	1100	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
3-Nitroaniline	ND		1800	260	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
4,6-Dinitro-2-methylphenol	ND		1800	940	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
4-Bromophenyl phenyl ether	ND		940	130	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
4-Chloro-3-methylphenol	ND		940	230	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
4-Chloroaniline	ND		940	230	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
4-Chlorophenyl phenyl ether	ND		940	120	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
4-Methylphenol	ND		1800	110	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
4-Nitroaniline	ND		1800	490	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
4-Nitrophenol	ND		1800	660	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Acenaphthene	ND		940	140	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Acenaphthylene	ND		940	120	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Acetophenone	ND		940	130	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Anthracene	ND		940	230	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Atrazine	ND		940	330	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Benzaldehyde	ND		940	750	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Benzo[a]anthracene	**260**	**J**	940	94	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Benzo[a]pyrene	**360**	**J**	940	140	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Benzo[b]fluoranthene	**530**	**J F1**	940	150	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Benzo[g,h,i]perylene	**210**	**J**	940	99	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Benzo[k]fluoranthene	**160**	**J**	940	120	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Biphenyl	ND		940	140	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
bis (2-chloroisopropyl) ether	ND		940	190	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Bis(2-chloroethoxy)methane	ND		940	200	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Bis(2-chloroethyl)ether	ND		940	120	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Bis(2-ethylhexyl) phthalate	ND		940	320	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Butyl benzyl phthalate	ND		940	150	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Caprolactam	ND		940	280	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Carbazole	ND		940	110	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Chrysene	**280**	**J**	940	210	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Dibenz(a,h)anthracene	ND		940	170	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Dibenzofuran	ND		940	110	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Diethyl phthalate	ND		940	120	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Dimethyl phthalate	ND		940	110	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Di-n-butyl phthalate	ND		940	160	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Di-n-octyl phthalate	ND		940	110	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5

Client Sample ID: MW-7 (2-4)
Date Collected: 11/27/17 10:04
Date Received: 11/28/17 12:10

Lab Sample ID: 480-128053-1
Matrix: Solid
Percent Solids: 89.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	**400**	**J F1**	940	99	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Fluorene	ND		940	110	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Hexachlorobenzene	ND		940	130	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Hexachlorobutadiene	ND		940	140	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Hexachlorocyclopentadiene	ND		940	130	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Hexachloroethane	ND		940	120	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Indeno[1,2,3-cd]pyrene	**270**	**J**	940	120	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Isophorone	ND		940	200	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Naphthalene	ND		940	120	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Nitrobenzene	ND		940	110	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
N-Nitrosodi-n-propylamine	ND		940	160	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
N-Nitrosodiphenylamine	ND		940	760	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Pentachlorophenol	ND		1800	940	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Phenanthrene	ND		940	140	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Phenol	ND		940	140	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5
Pyrene	**430**	**J**	940	110	ug/Kg	☼	11/29/17 07:34	11/30/17 17:01	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*86*		*54 - 120*	*11/29/17 07:34*	*11/30/17 17:01*	*5*
2-Fluorobiphenyl	*78*		*60 - 120*	*11/29/17 07:34*	*11/30/17 17:01*	*5*
2-Fluorophenol	*78*		*52 - 120*	*11/29/17 07:34*	*11/30/17 17:01*	*5*
Nitrobenzene-d5	*74*		*53 - 120*	*11/29/17 07:34*	*11/30/17 17:01*	*5*
Phenol-d5	*85*		*54 - 120*	*11/29/17 07:34*	*11/30/17 17:01*	*5*
p-Terphenyl-d14	*95*		*65 - 121*	*11/29/17 07:34*	*11/30/17 17:01*	*5*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		9.2	1.8	ug/Kg	☼	11/30/17 06:56	12/01/17 15:51	5
4,4'-DDE	ND		9.2	1.9	ug/Kg	☼	11/30/17 06:56	12/01/17 15:51	5
4,4'-DDT	**3.5**	**J**	9.2	2.1	ug/Kg	☼	11/30/17 06:56	12/01/17 15:51	5
Aldrin	ND		9.2	2.3	ug/Kg	☼	11/30/17 06:56	12/01/17 15:51	5
alpha-BHC	**2.8**	**J B**	9.2	1.6	ug/Kg	☼	11/30/17 06:56	12/01/17 15:51	5
alpha-Chlordane	ND		9.2	4.6	ug/Kg	☼	11/30/17 06:56	12/01/17 15:51	5
beta-BHC	ND		9.2	1.6	ug/Kg	☼	11/30/17 06:56	12/01/17 15:51	5
delta-BHC	ND		9.2	1.7	ug/Kg	☼	11/30/17 06:56	12/01/17 15:51	5
Dieldrin	ND		9.2	2.2	ug/Kg	☼	11/30/17 06:56	12/01/17 15:51	5
Endosulfan I	ND		9.2	1.8	ug/Kg	☼	11/30/17 06:56	12/01/17 15:51	5
Endosulfan II	ND		9.2	1.6	ug/Kg	☼	11/30/17 06:56	12/01/17 15:51	5
Endosulfan sulfate	ND		9.2	1.7	ug/Kg	☼	11/30/17 06:56	12/01/17 15:51	5
Endrin	ND		9.2	1.8	ug/Kg	☼	11/30/17 06:56	12/01/17 15:51	5
Endrin aldehyde	ND		9.2	2.3	ug/Kg	☼	11/30/17 06:56	12/01/17 15:51	5
Endrin ketone	ND		9.2	2.3	ug/Kg	☼	11/30/17 06:56	12/01/17 15:51	5
gamma-BHC (Lindane)	**2.6**	**J B**	9.2	1.7	ug/Kg	☼	11/30/17 06:56	12/01/17 15:51	5
gamma-Chlordane	ND		9.2	2.9	ug/Kg	☼	11/30/17 06:56	12/01/17 15:51	5
Heptachlor	ND		9.2	2.0	ug/Kg	☼	11/30/17 06:56	12/01/17 15:51	5
Heptachlor epoxide	ND		9.2	2.4	ug/Kg	☼	11/30/17 06:56	12/01/17 15:51	5
Methoxychlor	ND		9.2	1.9	ug/Kg	☼	11/30/17 06:56	12/01/17 15:51	5
Toxaphene	ND		92	53	ug/Kg	☼	11/30/17 06:56	12/01/17 15:51	5

Client Sample ID: MW-7 (2-4)

Date Collected: 11/27/17 10:04
Date Received: 11/28/17 12:10

Lab Sample ID: 480-128053-1

Matrix: Solid
Percent Solids: 89.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*116*		*45 - 120*	*11/30/17 06:56*	*12/01/17 15:51*	*5*
DCB Decachlorobiphenyl	*152*	*X*	*45 - 120*	*11/30/17 06:56*	*12/01/17 15:51*	*5*
Tetrachloro-m-xylene	*81*		*30 - 124*	*11/30/17 06:56*	*12/01/17 15:51*	*5*
Tetrachloro-m-xylene	*87*		*30 - 124*	*11/30/17 06:56*	*12/01/17 15:51*	*5*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.26	0.051	mg/Kg	☼	11/29/17 07:26	11/30/17 08:29	1
PCB-1221	ND		0.26	0.051	mg/Kg	☼	11/29/17 07:26	11/30/17 08:29	1
PCB-1232	ND		0.26	0.051	mg/Kg	☼	11/29/17 07:26	11/30/17 08:29	1
PCB-1242	ND		0.26	0.051	mg/Kg	☼	11/29/17 07:26	11/30/17 08:29	1
PCB-1248	ND		0.26	0.051	mg/Kg	☼	11/29/17 07:26	11/30/17 08:29	1
PCB-1254	ND		0.26	0.12	mg/Kg	☼	11/29/17 07:26	11/30/17 08:29	1
PCB-1260	ND		0.26	0.12	mg/Kg	☼	11/29/17 07:26	11/30/17 08:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*110*		*60 - 154*	*11/29/17 07:26*	*11/30/17 08:29*	*1*
Tetrachloro-m-xylene	*94*		*60 - 154*	*11/29/17 07:26*	*11/30/17 08:29*	*1*
DCB Decachlorobiphenyl	*95*		*65 - 174*	*11/29/17 07:26*	*11/30/17 08:29*	*1*
DCB Decachlorobiphenyl	*90*		*65 - 174*	*11/29/17 07:26*	*11/30/17 08:29*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		18	5.9	ug/Kg	☼	11/30/17 14:30	12/04/17 19:53	1
Silvex (2,4,5-TP)	ND		18	6.6	ug/Kg	☼	11/30/17 14:30	12/04/17 19:53	1
2,4-D	ND		18	12	ug/Kg	☼	11/30/17 14:30	12/04/17 19:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*119*		*28 - 129*	*11/30/17 14:30*	*12/04/17 19:53*	*1*
2,4-Dichlorophenylacetic acid	*131*	*X*	*28 - 129*	*11/30/17 14:30*	*12/04/17 19:53*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**5240**	**F1**	11.3	5.0	mg/Kg	☼	12/05/17 15:17	12/05/17 18:42	1
Antimony	**1.3**	**J F1**	17.0	0.45	mg/Kg	☼	12/05/17 15:17	12/05/17 18:42	1
Arsenic	**8.6**		2.3	0.45	mg/Kg	☼	12/05/17 15:17	12/05/17 18:42	1
Barium	**110**	**F1**	0.57	0.12	mg/Kg	☼	12/05/17 15:17	12/05/17 18:42	1
Beryllium	**1.0**		0.23	0.032	mg/Kg	☼	12/05/17 15:17	12/05/17 18:42	1
Cadmium	**0.13**	**J**	0.23	0.034	mg/Kg	☼	12/05/17 15:17	12/05/17 18:42	1
Calcium	**13400**	**F2 B**	56.7	3.7	mg/Kg	☼	12/05/17 15:17	12/05/17 18:42	1
Chromium	**13.2**	**^ B**	0.57	0.23	mg/Kg	☼	12/05/17 15:17	12/05/17 18:42	1
Cobalt	**10.1**		0.57	0.057	mg/Kg	☼	12/05/17 15:17	12/05/17 18:42	1
Copper	**33.9**	**F1 B**	1.1	0.24	mg/Kg	☼	12/05/17 15:17	12/05/17 18:42	1
Iron	**25300**	**^ F2**	11.3	4.0	mg/Kg	☼	12/05/17 15:17	12/05/17 18:42	1
Lead	**39.7**	**F2 F1**	1.1	0.27	mg/Kg	☼	12/05/17 15:17	12/05/17 18:42	1
Magnesium	**3990**	**F1**	22.7	1.1	mg/Kg	☼	12/05/17 15:17	12/05/17 18:42	1
Manganese	**333**	**F2 B**	0.23	0.036	mg/Kg	☼	12/05/17 15:17	12/05/17 18:42	1
Nickel	**16.4**		5.7	0.26	mg/Kg	☼	12/05/17 15:17	12/05/17 18:42	1
Potassium	**1100**	**F1**	34.0	22.7	mg/Kg	☼	12/05/17 15:17	12/05/17 18:42	1
Selenium	**1.3**	**J B**	4.5	0.45	mg/Kg	☼	12/05/17 15:17	12/05/17 18:42	1
Silver	ND		0.68	0.23	mg/Kg	☼	12/05/17 15:17	12/05/17 18:42	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128053-1

Client Sample ID: MW-7 (2-4)
Date Collected: 11/27/17 10:04
Date Received: 11/28/17 12:10

Lab Sample ID: 480-128053-1
Matrix: Solid
Percent Solids: 89.5

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	131	J B	159	14.7	mg/Kg	☼	12/05/17 15:17	12/05/17 18:42	1
Thallium	ND		6.8	0.34	mg/Kg	☼	12/05/17 15:17	12/05/17 18:42	1
Vanadium	14.7		0.57	0.12	mg/Kg	☼	12/05/17 15:17	12/05/17 18:42	1
Zinc	45.0	F1	2.3	0.73	mg/Kg	☼	12/05/17 15:17	12/05/17 18:42	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.050		0.022	0.0087	mg/Kg	☼	12/04/17 11:20	12/04/17 13:53	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128053-1

Client Sample ID: MW-7 (10-12)
Date Collected: 11/27/17 10:08
Date Received: 11/28/17 12:10

Lab Sample ID: 480-128053-2
Matrix: Solid
Percent Solids: 83.5

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		6.4	0.46	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
1,1,2,2-Tetrachloroethane	ND		6.4	1.0	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6.4	1.5	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
1,1,2-Trichloroethane	ND		6.4	0.83	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
1,1-Dichloroethane	ND		6.4	0.78	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
1,1-Dichloroethene	ND		6.4	0.78	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
1,2,4-Trichlorobenzene	ND		6.4	0.39	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
1,2,4-Trimethylbenzene	ND		6.4	1.2	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
1,2-Dibromo-3-Chloropropane	ND		6.4	3.2	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
1,2-Dibromoethane	ND		6.4	0.82	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
1,2-Dichlorobenzene	ND		6.4	0.50	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
1,2-Dichloroethane	ND		6.4	0.32	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
1,2-Dichloropropane	ND		6.4	3.2	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
1,3,5-Trimethylbenzene	ND		6.4	0.41	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
1,3-Dichlorobenzene	ND		6.4	0.33	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
1,4-Dichlorobenzene	ND		6.4	0.89	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
2-Butanone (MEK)	ND		32	2.3	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
2-Hexanone	ND		32	3.2	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
4-Isopropyltoluene	ND		6.4	0.51	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
4-Methyl-2-pentanone (MIBK)	ND		32	2.1	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
Acetone	ND		32	5.4	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
Benzene	ND		6.4	0.31	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
Bromodichloromethane	ND		6.4	0.86	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
Bromoform	ND		6.4	3.2	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
Bromomethane	ND		6.4	0.57	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
Carbon disulfide	ND		6.4	3.2	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
Carbon tetrachloride	ND		6.4	0.62	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
Chlorobenzene	ND		6.4	0.84	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
Chloroethane	ND		6.4	1.4	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
Chloroform	ND		6.4	0.39	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
Chloromethane	ND		6.4	0.39	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
cis-1,2-Dichloroethene	ND		6.4	0.82	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
cis-1,3-Dichloropropene	ND		6.4	0.92	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
Cyclohexane	ND		6.4	0.89	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
Dibromochloromethane	ND		6.4	0.82	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
Dichlorodifluoromethane	ND		6.4	0.53	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
Ethylbenzene	ND		6.4	0.44	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
Isopropylbenzene	ND		6.4	0.96	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
m,p-Xylene	ND		13	1.1	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
Methyl acetate	ND		32	3.9	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
Methyl tert-butyl ether	ND		6.4	0.63	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
Methylcyclohexane	ND		6.4	0.97	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
Methylene Chloride	ND		6.4	2.9	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
n-Butylbenzene	ND		6.4	0.56	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
N-Propylbenzene	ND		6.4	0.51	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
o-Xylene	ND		6.4	0.83	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
sec-Butylbenzene	ND		6.4	0.56	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
Styrene	ND		6.4	0.32	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
tert-Butylbenzene	ND		6.4	0.66	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128053-1

Client Sample ID: MW-7 (10-12)
Date Collected: 11/27/17 10:08
Date Received: 11/28/17 12:10

Lab Sample ID: 480-128053-2
Matrix: Solid
Percent Solids: 83.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		6.4	0.86	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
Toluene	ND		6.4	0.48	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
trans-1,2-Dichloroethene	ND		6.4	0.66	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
trans-1,3-Dichloropropene	ND		6.4	2.8	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
Trichloroethene	ND		6.4	1.4	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
Trichlorofluoromethane	ND		6.4	0.60	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
Vinyl chloride	ND		6.4	0.78	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1
Xylenes, Total	ND		13	1.1	ug/Kg	☼	11/28/17 14:40	12/05/17 17:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*64 - 126*	*11/28/17 14:40*	*12/05/17 17:55*	*1*
4-Bromofluorobenzene (Surr)	*83*		*72 - 126*	*11/28/17 14:40*	*12/05/17 17:55*	*1*
Dibromofluoromethane (Surr)	*92*		*60 - 140*	*11/28/17 14:40*	*12/05/17 17:55*	*1*
Toluene-d8 (Surr)	*89*		*71 - 125*	*11/28/17 14:40*	*12/05/17 17:55*	*1*

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128053-1

Client Sample ID: MW-1 (4-5.4)
Date Collected: 11/27/17 13:12
Date Received: 11/28/17 12:10

Lab Sample ID: 480-128053-3
Matrix: Solid
Percent Solids: 88.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		37000	10000	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
2,4,6-Trichlorophenol	ND		37000	7500	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
2,4-Dichlorophenol	ND		37000	4000	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
2,4-Dimethylphenol	ND		37000	9000	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
2,4-Dinitrophenol	ND		370000	170000	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
2,4-Dinitrotoluene	ND		37000	7700	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
2,6-Dinitrotoluene	ND		37000	4400	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
2-Chloronaphthalene	ND		37000	6200	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
2-Chlorophenol	ND		37000	6800	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
2-Methylnaphthalene	ND		37000	7500	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
2-Methylphenol	ND		37000	4400	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
2-Nitroaniline	ND		73000	5500	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
2-Nitrophenol	ND		37000	11000	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
3,3'-Dichlorobenzidine	ND		73000	44000	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
3-Nitroaniline	ND		73000	10000	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
4,6-Dinitro-2-methylphenol	ND		73000	37000	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
4-Bromophenyl phenyl ether	ND		37000	5300	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
4-Chloro-3-methylphenol	ND		37000	9300	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
4-Chloroaniline	ND		37000	9300	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
4-Chlorophenyl phenyl ether	ND		37000	4600	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
4-Methylphenol	ND		73000	4400	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
4-Nitroaniline	ND		73000	20000	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
4-Nitrophenol	ND		73000	26000	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Acenaphthene	ND		37000	5500	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Acenaphthylene	ND		37000	4800	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Acetophenone	ND		37000	5100	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Anthracene	ND		37000	9300	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Atrazine	ND		37000	13000	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Benzaldehyde	ND		37000	30000	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Benzo[a]anthracene	ND		37000	3700	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Benzo[a]pyrene	ND		37000	5500	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Benzo[b]fluoranthene	ND		37000	6000	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Benzo[g,h,i]perylene	ND		37000	4000	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Benzo[k]fluoranthene	ND		37000	4800	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Biphenyl	ND		37000	5500	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
bis (2-chloroisopropyl) ether	ND		37000	7500	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Bis(2-chloroethoxy)methane	ND		37000	7900	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Bis(2-chloroethyl)ether	ND		37000	4800	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Bis(2-ethylhexyl) phthalate	ND		37000	13000	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Butyl benzyl phthalate	ND		37000	6200	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Caprolactam	ND		37000	11000	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Carbazole	ND		37000	4400	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Chrysene	ND		37000	8400	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Dibenz(a,h)anthracene	ND		37000	6600	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Dibenzofuran	ND		37000	4400	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Diethyl phthalate	ND		37000	4800	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Dimethyl phthalate	ND		37000	4400	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Di-n-butyl phthalate	ND		37000	6400	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Di-n-octyl phthalate	ND		37000	4400	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20

Client Sample ID: MW-1 (4-5.4)
Date Collected: 11/27/17 13:12
Date Received: 11/28/17 12:10

Lab Sample ID: 480-128053-3
Matrix: Solid
Percent Solids: 88.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		37000	4000	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Fluorene	ND		37000	4400	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Hexachlorobenzene	ND		37000	5100	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Hexachlorobutadiene	ND		37000	5500	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Hexachlorocyclopentadiene	ND		37000	5100	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Hexachloroethane	ND		37000	4800	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Indeno[1,2,3-cd]pyrene	ND		37000	4600	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Isophorone	ND		37000	7900	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Naphthalene	ND		37000	4800	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Nitrobenzene	ND		37000	4200	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
N-Nitrosodi-n-propylamine	ND		37000	6400	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
N-Nitrosodiphenylamine	ND		37000	30000	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Pentachlorophenol	ND		73000	37000	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Phenanthrene	ND		37000	5500	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Phenol	ND		37000	5700	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20
Pyrene	ND		37000	4400	ug/Kg	☼	11/29/17 07:34	11/30/17 17:28	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*0*	*X*	*54 - 120*	*11/29/17 07:34*	*11/30/17 17:28*	*20*
2-Fluorobiphenyl	*0*	*X*	*60 - 120*	*11/29/17 07:34*	*11/30/17 17:28*	*20*
2-Fluorophenol	*0*	*X*	*52 - 120*	*11/29/17 07:34*	*11/30/17 17:28*	*20*
Nitrobenzene-d5	*0*	*X*	*53 - 120*	*11/29/17 07:34*	*11/30/17 17:28*	*20*
Phenol-d5	*0*	*X*	*54 - 120*	*11/29/17 07:34*	*11/30/17 17:28*	*20*
p-Terphenyl-d14	*0*	*X*	*65 - 121*	*11/29/17 07:34*	*11/30/17 17:28*	*20*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**8270**	**F1**	11.1	4.9	mg/Kg	☼	12/05/17 13:44	12/06/17 20:58	1
Antimony	**1.2**	**J**	16.7	0.44	mg/Kg	☼	12/05/17 13:44	12/06/17 20:58	1
Arsenic	**8.2**	**B**	2.2	0.44	mg/Kg	☼	12/05/17 13:44	12/06/17 20:58	1
Barium	**209**		0.56	0.12	mg/Kg	☼	12/05/17 13:44	12/06/17 20:58	1
Beryllium	**0.35**		0.22	0.031	mg/Kg	☼	12/05/17 13:44	12/06/17 20:58	1
Cadmium	**0.60**		0.22	0.033	mg/Kg	☼	12/05/17 13:44	12/06/17 20:58	1
Calcium	**92200**	**B**	55.5	3.7	mg/Kg	☼	12/05/17 13:44	12/06/17 20:58	1
Chromium	**27.9**	**^**	0.56	0.22	mg/Kg	☼	12/05/17 13:44	12/06/17 20:58	1
Cobalt	**5.9**		0.56	0.056	mg/Kg	☼	12/05/17 13:44	12/06/17 20:58	1
Copper	**36.5**		1.1	0.23	mg/Kg	☼	12/05/17 13:44	12/06/17 20:58	1
Iron	**17700**	**F2**	11.1	3.9	mg/Kg	☼	12/05/17 13:44	12/06/17 20:58	1
Lead	**148**	**F1**	1.1	0.27	mg/Kg	☼	12/05/17 13:44	12/06/17 20:58	1
Magnesium	**12000**		22.2	1.0	mg/Kg	☼	12/05/17 13:44	12/06/17 20:58	1
Manganese	**298**	**B**	0.22	0.036	mg/Kg	☼	12/05/17 13:44	12/06/17 20:58	1
Nickel	**18.6**		5.6	0.26	mg/Kg	☼	12/05/17 13:44	12/06/17 20:58	1
Potassium	**2120**	**F1**	33.3	22.2	mg/Kg	☼	12/05/17 13:44	12/06/17 20:58	1
Selenium	ND		4.4	0.44	mg/Kg	☼	12/05/17 13:44	12/06/17 20:58	1
Silver	ND		0.67	0.22	mg/Kg	☼	12/05/17 13:44	12/06/17 20:58	1
Sodium	**322**		156	14.4	mg/Kg	☼	12/05/17 13:44	12/06/17 20:58	1
Thallium	ND		6.7	0.33	mg/Kg	☼	12/05/17 13:44	12/06/17 20:58	1
Vanadium	**23.0**		0.56	0.12	mg/Kg	☼	12/05/17 13:44	12/06/17 20:58	1
Zinc	**174**	**F1**	2.2	0.71	mg/Kg	☼	12/05/17 13:44	12/06/17 20:58	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128053-1

Client Sample ID: MW-1 (4-5.4)
Date Collected: 11/27/17 13:12
Date Received: 11/28/17 12:10

Lab Sample ID: 480-128053-3
Matrix: Solid
Percent Solids: 88.8

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.28		0.022	0.0088	mg/Kg	☼	12/04/17 11:20	12/04/17 13:55	1

Surrogate Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128053-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(64-126)	(72-126)	(60-140)	(71-125)
480-128053-2	MW-7 (10-12)	96	83	92	89
LCS 480-389470/1-A	Lab Control Sample	105	101	109	106
LCSD 480-389470/2-A	Lab Control Sample Dup	119	113	122	119
MB 480-389470/3-A	Method Blank	103	95	103	99

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPH
Lab Sample ID	Client Sample ID	(54-120)	(60-120)	(52-120)	(53-120)	(54-120)	(65-121)
480-128053-1	MW-7 (2-4)	86	78	78	74	85	95
480-128053-1 MS	MW-7 (2-4)	97	91	73	92	84	101
480-128053-1 MSD	MW-7 (2-4)	102	84	79	86	84	95
480-128053-3	MW-1 (4-5.4)	0 X	0 X	0 X	0 X	0 X	0 X
LCS 480-389536/2-A	Lab Control Sample	92	87	79	82	78	95
MB 480-389536/1-A	Method Blank	73	86	78	84	81	98

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPH = p-Terphenyl-d14

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCB1	DCB2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(45-120)	(45-120)	(30-124)	(30-124)
480-128053-1	MW-7 (2-4)	116	152 X	81	87
LCS 480-389769/2-A	Lab Control Sample	143 X	130 X	94	78
MB 480-389769/1-A	Method Blank	137 X	124 X	91	75

Surrogate Legend

DCB = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Surrogate Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128053-1

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCB1	DCB2
Lab Sample ID	Client Sample ID	(60-154)	(60-154)	(65-174)	(65-174)
480-128053-1	MW-7 (2-4)	110	94	95	90
480-128053-1 MS	MW-7 (2-4)	131	101	104	101
480-128053-1 MSD	MW-7 (2-4)	146	126	116	113
LCS 480-389535/2-A	Lab Control Sample	137	107	108	105
MB 480-389535/1-A	Method Blank	124	108	102	98

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

Method: 8151A - Herbicides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCPA1	DCPA2
Lab Sample ID	Client Sample ID	(28-129)	(28-129)
480-128053-1	MW-7 (2-4)	119	131 X
LCS 480-389934/2-A	Lab Control Sample	81	112
MB 480-389934/1-A	Method Blank	120	144 X

Surrogate Legend

DCPA = 2,4-Dichlorophenylacetic acid

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-389470/3-A
Matrix: Solid
Analysis Batch: 390557

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389470

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
1,2,4-Trimethylbenzene	ND		5.0	0.96	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
1,3,5-Trimethylbenzene	ND		5.0	0.32	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
2-Hexanone	ND		25	2.5	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
4-Isopropyltoluene	ND		5.0	0.40	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
Acetone	ND		25	4.2	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
Benzene	ND		5.0	0.25	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
Bromoform	ND		5.0	2.5	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
Bromomethane	ND		5.0	0.45	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
Carbon disulfide	ND		5.0	2.5	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
Chlorobenzene	ND		5.0	0.66	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
Chloroethane	ND		5.0	1.1	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
Chloroform	ND		5.0	0.31	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
Chloromethane	ND		5.0	0.30	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
Cyclohexane	ND		5.0	0.70	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
Ethylbenzene	ND		5.0	0.35	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
m,p-Xylene	ND		10	0.84	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
Methyl acetate	ND		25	3.0	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
Methylene Chloride	ND		5.0	2.3	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
n-Butylbenzene	ND		5.0	0.44	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
N-Propylbenzene	ND		5.0	0.40	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
o-Xylene	ND		5.0	0.65	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
sec-Butylbenzene	ND		5.0	0.44	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
Styrene	ND		5.0	0.25	ug/Kg		11/28/17 14:40	12/05/17 17:19	1

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

Lab Sample ID: MB 480-389470/3-A
Matrix: Solid
Analysis Batch: 390557

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389470

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	ND		5.0	0.52	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
Tetrachloroethene	ND		5.0	0.67	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
Toluene	ND		5.0	0.38	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
Trichloroethene	ND		5.0	1.1	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
Vinyl chloride	ND		5.0	0.61	ug/Kg		11/28/17 14:40	12/05/17 17:19	1
Xylenes, Total	ND		10	0.84	ug/Kg		11/28/17 14:40	12/05/17 17:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*64 - 126*	*11/28/17 14:40*	*12/05/17 17:19*	*1*
4-Bromofluorobenzene (Surr)	*95*		*72 - 126*	*11/28/17 14:40*	*12/05/17 17:19*	*1*
Dibromofluoromethane (Surr)	*103*		*60 - 140*	*11/28/17 14:40*	*12/05/17 17:19*	*1*
Toluene-d8 (Surr)	*99*		*71 - 125*	*11/28/17 14:40*	*12/05/17 17:19*	*1*

Lab Sample ID: LCS 480-389470/1-A
Matrix: Solid
Analysis Batch: 390557

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389470

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	50.0	46.4		ug/Kg		93	77 - 121
1,1,2,2-Tetrachloroethane	50.0	48.8		ug/Kg		98	80 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	46.9		ug/Kg		94	60 - 140
1,1,2-Trichloroethane	50.0	47.9		ug/Kg		96	78 - 122
1,1-Dichloroethane	50.0	47.5		ug/Kg		95	73 - 126
1,1-Dichloroethene	50.0	47.6		ug/Kg		95	59 - 125
1,2,4-Trichlorobenzene	50.0	47.0		ug/Kg		94	64 - 120
1,2,4-Trimethylbenzene	50.0	49.1		ug/Kg		98	74 - 120
1,2-Dibromo-3-Chloropropane	50.0	51.4		ug/Kg		103	63 - 124
1,2-Dibromoethane	50.0	48.6		ug/Kg		97	78 - 120
1,2-Dichlorobenzene	50.0	47.7		ug/Kg		95	75 - 120
1,2-Dichloroethane	50.0	47.2		ug/Kg		94	77 - 122
1,2-Dichloropropane	50.0	46.3		ug/Kg		93	75 - 124
1,3,5-Trimethylbenzene	50.0	49.5		ug/Kg		99	74 - 120
1,3-Dichlorobenzene	50.0	48.0		ug/Kg		96	74 - 120
1,4-Dichlorobenzene	50.0	48.1		ug/Kg		96	73 - 120
2-Butanone (MEK)	250	236		ug/Kg		94	70 - 134
2-Hexanone	250	246		ug/Kg		98	59 - 130
4-Isopropyltoluene	50.0	49.5		ug/Kg		99	74 - 120
4-Methyl-2-pentanone (MIBK)	250	235		ug/Kg		94	65 - 133
Acetone	250	268		ug/Kg		107	61 - 137
Benzene	50.0	48.2		ug/Kg		96	79 - 127
Bromodichloromethane	50.0	50.5		ug/Kg		101	80 - 122
Bromoform	50.0	48.2		ug/Kg		96	68 - 126
Bromomethane	50.0	59.0		ug/Kg		118	37 - 149
Carbon disulfide	50.0	47.4		ug/Kg		95	64 - 131

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

Lab Sample ID: LCS 480-389470/1-A
Matrix: Solid
Analysis Batch: 390557

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389470

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbon tetrachloride	50.0	48.8		ug/Kg		98	75 - 135
Chlorobenzene	50.0	47.8		ug/Kg		96	76 - 124
Chloroethane	50.0	56.1		ug/Kg		112	69 - 135
Chloroform	50.0	48.4		ug/Kg		97	80 - 120
Chloromethane	50.0	53.6		ug/Kg		107	63 - 127
cis-1,2-Dichloroethene	50.0	48.6		ug/Kg		97	81 - 120
cis-1,3-Dichloropropene	50.0	48.5		ug/Kg		97	80 - 120
Cyclohexane	50.0	45.2		ug/Kg		90	65 - 120
Dibromochloromethane	50.0	55.3		ug/Kg		111	76 - 125
Dichlorodifluoromethane	50.0	60.4		ug/Kg		121	57 - 142
Ethylbenzene	50.0	48.5		ug/Kg		97	80 - 120
Isopropylbenzene	50.0	48.8		ug/Kg		98	72 - 120
m,p-Xylene	50.0	46.2		ug/Kg		92	70 - 130
Methyl acetate	100	93.8		ug/Kg		94	55 - 136
Methyl tert-butyl ether	50.0	47.2		ug/Kg		94	63 - 125
Methylcyclohexane	50.0	46.3		ug/Kg		93	60 - 140
Methylene Chloride	50.0	49.4		ug/Kg		99	61 - 127
Naphthalene	50.0	48.0		ug/Kg		96	38 - 137
n-Butylbenzene	50.0	49.2		ug/Kg		98	70 - 120
N-Propylbenzene	50.0	49.2		ug/Kg		98	70 - 130
o-Xylene	50.0	47.7		ug/Kg		95	70 - 130
sec-Butylbenzene	50.0	48.9		ug/Kg		98	74 - 120
Styrene	50.0	48.2		ug/Kg		96	80 - 120
tert-Butylbenzene	50.0	46.7		ug/Kg		93	73 - 120
Tetrachloroethene	50.0	46.2		ug/Kg		92	74 - 122
Toluene	50.0	47.1		ug/Kg		94	74 - 128
trans-1,2-Dichloroethene	50.0	48.2		ug/Kg		96	78 - 126
trans-1,3-Dichloropropene	50.0	48.6		ug/Kg		97	73 - 123
Trichloroethene	50.0	46.5		ug/Kg		93	77 - 129
Trichlorofluoromethane	50.0	51.5		ug/Kg		103	65 - 146
Vinyl chloride	50.0	55.5		ug/Kg		111	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*64 - 126*
4-Bromofluorobenzene (Surr)	*101*		*72 - 126*
Dibromofluoromethane (Surr)	*109*		*60 - 140*
Toluene-d8 (Surr)	*106*		*71 - 125*

Lab Sample ID: LCSD 480-389470/2-A
Matrix: Solid
Analysis Batch: 390557

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 389470

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	50.0	50.8		ug/Kg		102	77 - 121	9	20
1,1,2,2-Tetrachloroethane	50.0	56.3		ug/Kg		113	80 - 120	14	20
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	51.1		ug/Kg		102	60 - 140	8	20
1,1,2-Trichloroethane	50.0	53.5		ug/Kg		107	78 - 122	11	20

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

Lab Sample ID: LCSD 480-389470/2-A
Matrix: Solid
Analysis Batch: 390557

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 389470

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethane	50.0	52.1		ug/Kg		104	73 - 126	9	20
1,1-Dichloroethene	50.0	52.3		ug/Kg		105	59 - 125	9	20
1,2,4-Trichlorobenzene	50.0	52.5		ug/Kg		105	64 - 120	11	20
1,2,4-Trimethylbenzene	50.0	54.0		ug/Kg		108	74 - 120	9	20
1,2-Dibromo-3-Chloropropane	50.0	60.4		ug/Kg		121	63 - 124	16	20
1,2-Dibromoethane	50.0	55.3		ug/Kg		111	78 - 120	13	20
1,2-Dichlorobenzene	50.0	53.2		ug/Kg		106	75 - 120	11	20
1,2-Dichloroethane	50.0	52.4		ug/Kg		105	77 - 122	10	20
1,2-Dichloropropane	50.0	51.3		ug/Kg		103	75 - 124	10	20
1,3,5-Trimethylbenzene	50.0	54.0		ug/Kg		108	74 - 120	9	20
1,3-Dichlorobenzene	50.0	53.2		ug/Kg		106	74 - 120	10	20
1,4-Dichlorobenzene	50.0	53.0		ug/Kg		106	73 - 120	10	20
2-Butanone (MEK)	250	279		ug/Kg		112	70 - 134	17	20
2-Hexanone	250	286		ug/Kg		114	59 - 130	15	20
4-Isopropyltoluene	50.0	54.0		ug/Kg		108	74 - 120	9	20
4-Methyl-2-pentanone (MIBK)	250	273		ug/Kg		109	65 - 133	15	20
Acetone	250	307		ug/Kg		123	61 - 137	13	20
Benzene	50.0	53.1		ug/Kg		106	79 - 127	10	20
Bromodichloromethane	50.0	56.7		ug/Kg		113	80 - 122	12	20
Bromoform	50.0	53.9		ug/Kg		108	68 - 126	11	20
Bromomethane	50.0	68.0		ug/Kg		136	37 - 149	14	20
Carbon disulfide	50.0	53.1		ug/Kg		106	64 - 131	11	20
Carbon tetrachloride	50.0	53.9		ug/Kg		108	75 - 135	10	20
Chlorobenzene	50.0	53.0		ug/Kg		106	76 - 124	10	20
Chloroethane	50.0	64.0		ug/Kg		128	69 - 135	13	20
Chloroform	50.0	53.4		ug/Kg		107	80 - 120	10	20
Chloromethane	50.0	62.9		ug/Kg		126	63 - 127	16	20
cis-1,2-Dichloroethene	50.0	53.7		ug/Kg		107	81 - 120	10	20
cis-1,3-Dichloropropene	50.0	53.4		ug/Kg		107	80 - 120	10	20
Cyclohexane	50.0	50.3		ug/Kg		101	65 - 120	11	20
Dibromochloromethane	50.0	61.5		ug/Kg		123	76 - 125	11	20
Dichlorodifluoromethane	50.0	66.1		ug/Kg		132	57 - 142	9	20
Ethylbenzene	50.0	53.2		ug/Kg		106	80 - 120	9	20
Isopropylbenzene	50.0	53.4		ug/Kg		107	72 - 120	9	20
m,p-Xylene	50.0	51.3		ug/Kg		103	70 - 130	10	20
Methyl acetate	100	108		ug/Kg		108	55 - 136	14	20
Methyl tert-butyl ether	50.0	53.7		ug/Kg		107	63 - 125	13	20
Methylcyclohexane	50.0	50.2		ug/Kg		100	60 - 140	8	20
Methylene Chloride	50.0	55.6		ug/Kg		111	61 - 127	12	20
Naphthalene	50.0	55.5		ug/Kg		111	38 - 137	14	20
n-Butylbenzene	50.0	53.5		ug/Kg		107	70 - 120	8	20
N-Propylbenzene	50.0	54.1		ug/Kg		108	70 - 130	9	20
o-Xylene	50.0	53.1		ug/Kg		106	70 - 130	11	20
sec-Butylbenzene	50.0	53.4		ug/Kg		107	74 - 120	9	20
Styrene	50.0	53.1		ug/Kg		106	80 - 120	10	20
tert-Butylbenzene	50.0	50.0		ug/Kg		100	73 - 120	7	20
Tetrachloroethene	50.0	50.4		ug/Kg		101	74 - 122	9	20
Toluene	50.0	52.3		ug/Kg		105	74 - 128	11	20

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

Lab Sample ID: LCSD 480-389470/2-A
Matrix: Solid
Analysis Batch: 390557

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 389470

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
trans-1,2-Dichloroethene			50.0	53.4		ug/Kg		107	78 - 126	10	20
trans-1,3-Dichloropropene			50.0	53.6		ug/Kg		107	73 - 123	10	20
Trichloroethene			50.0	51.0		ug/Kg		102	77 - 129	9	20
Trichlorofluoromethane			50.0	57.8		ug/Kg		116	65 - 146	12	20
Vinyl chloride			50.0	62.8		ug/Kg		126	61 - 133	12	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*119*		*64 - 126*
4-Bromofluorobenzene (Surr)	*113*		*72 - 126*
Dibromofluoromethane (Surr)	*122*		*60 - 140*
Toluene-d8 (Surr)	*119*		*71 - 125*

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

Lab Sample ID: MB 480-389536/1-A
Matrix: Solid
Analysis Batch: 389895

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389536

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		170	45	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
2,4,6-Trichlorophenol	ND		170	34	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
2,4-Dichlorophenol	ND		170	18	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
2,4-Dimethylphenol	ND		170	41	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
2,4-Dinitrophenol	ND		1600	780	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
2,4-Dinitrotoluene	ND		170	35	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
2,6-Dinitrotoluene	ND		170	20	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
2-Chloronaphthalene	ND		170	28	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
2-Chlorophenol	ND		170	31	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
2-Methylnaphthalene	ND		170	34	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
2-Methylphenol	ND		170	20	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
2-Nitroaniline	ND		330	25	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
2-Nitrophenol	ND		170	47	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
3,3'-Dichlorobenzidine	ND		330	200	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
3-Nitroaniline	ND		330	46	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
4,6-Dinitro-2-methylphenol	ND		330	170	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
4-Bromophenyl phenyl ether	ND		170	24	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
4-Chloro-3-methylphenol	ND		170	42	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
4-Chloroaniline	ND		170	42	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
4-Chlorophenyl phenyl ether	ND		170	21	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
4-Methylphenol	ND		330	20	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
4-Nitroaniline	ND		330	88	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
4-Nitrophenol	ND		330	120	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Acenaphthene	ND		170	25	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Acenaphthylene	ND		170	22	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Acetophenone	ND		170	23	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Anthracene	ND		170	42	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Atrazine	ND		170	58	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Benzaldehyde	ND		170	130	ug/Kg		11/29/17 07:34	11/30/17 15:15	1

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

Lab Sample ID: MB 480-389536/1-A
Matrix: Solid
Analysis Batch: 389895

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389536

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		170	17	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Benzo[a]pyrene	ND		170	25	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Benzo[b]fluoranthene	ND		170	27	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Benzo[g,h,i]perylene	ND		170	18	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Benzo[k]fluoranthene	ND		170	22	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Biphenyl	ND		170	25	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
bis (2-chloroisopropyl) ether	ND		170	34	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Bis(2-chloroethoxy)methane	ND		170	36	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Bis(2-chloroethyl)ether	ND		170	22	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Bis(2-ethylhexyl) phthalate	ND		170	57	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Butyl benzyl phthalate	ND		170	28	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Caprolactam	ND		170	50	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Carbazole	ND		170	20	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Chrysene	ND		170	38	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Dibenz(a,h)anthracene	ND		170	30	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Dibenzofuran	ND		170	20	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Diethyl phthalate	ND		170	22	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Dimethyl phthalate	ND		170	20	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Di-n-butyl phthalate	ND		170	29	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Di-n-octyl phthalate	ND		170	20	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Fluoranthene	ND		170	18	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Fluorene	ND		170	20	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Hexachlorobenzene	ND		170	23	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Hexachlorobutadiene	ND		170	25	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Hexachlorocyclopentadiene	ND		170	23	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Hexachloroethane	ND		170	22	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Indeno[1,2,3-cd]pyrene	ND		170	21	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Isophorone	ND		170	36	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Naphthalene	ND		170	22	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Nitrobenzene	ND		170	19	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
N-Nitrosodi-n-propylamine	ND		170	29	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
N-Nitrosodiphenylamine	ND		170	140	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Pentachlorophenol	ND		330	170	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Phenanthrene	ND		170	25	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Phenol	ND		170	26	ug/Kg		11/29/17 07:34	11/30/17 15:15	1
Pyrene	ND		170	20	ug/Kg		11/29/17 07:34	11/30/17 15:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*73*		*54 - 120*	*11/29/17 07:34*	*11/30/17 15:15*	*1*
2-Fluorobiphenyl	*86*		*60 - 120*	*11/29/17 07:34*	*11/30/17 15:15*	*1*
2-Fluorophenol	*78*		*52 - 120*	*11/29/17 07:34*	*11/30/17 15:15*	*1*
Nitrobenzene-d5	*84*		*53 - 120*	*11/29/17 07:34*	*11/30/17 15:15*	*1*
Phenol-d5	*81*		*54 - 120*	*11/29/17 07:34*	*11/30/17 15:15*	*1*
p-Terphenyl-d14	*98*		*65 - 121*	*11/29/17 07:34*	*11/30/17 15:15*	*1*

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

Lab Sample ID: LCS 480-389536/2-A
Matrix: Solid
Analysis Batch: 389895

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389536

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-Trichlorophenol	1650	1400		ug/Kg		85	59 - 126
2,4,6-Trichlorophenol	1650	1410		ug/Kg		85	59 - 123
2,4-Dichlorophenol	1650	1310		ug/Kg		79	61 - 120
2,4-Dimethylphenol	1650	1360		ug/Kg		82	59 - 120
2,4-Dinitrophenol	3310	2320		ug/Kg		70	41 - 146
2,4-Dinitrotoluene	1650	1470		ug/Kg		89	63 - 120
2,6-Dinitrotoluene	1650	1400		ug/Kg		85	66 - 120
2-Chloronaphthalene	1650	1370		ug/Kg		83	57 - 120
2-Chlorophenol	1650	1240		ug/Kg		75	53 - 120
2-Methylnaphthalene	1650	1290		ug/Kg		78	59 - 120
2-Methylphenol	1650	1250		ug/Kg		76	54 - 120
2-Nitroaniline	1650	1410		ug/Kg		85	61 - 120
2-Nitrophenol	1650	1270		ug/Kg		77	56 - 120
3,3'-Dichlorobenzidine	3310	2440		ug/Kg		74	54 - 120
3-Nitroaniline	1650	1230		ug/Kg		75	48 - 120
4,6-Dinitro-2-methylphenol	3310	2820		ug/Kg		85	49 - 122
4-Bromophenyl phenyl ether	1650	1510		ug/Kg		91	58 - 120
4-Chloro-3-methylphenol	1650	1340		ug/Kg		81	61 - 120
4-Chloroaniline	1650	1070		ug/Kg		65	38 - 120
4-Chlorophenyl phenyl ether	1650	1430		ug/Kg		87	63 - 124
4-Methylphenol	1650	1260		ug/Kg		76	55 - 120
4-Nitroaniline	1650	1360		ug/Kg		82	56 - 120
4-Nitrophenol	3310	2740		ug/Kg		83	43 - 147
Acenaphthene	1650	1350		ug/Kg		82	62 - 120
Acenaphthylene	1650	1330		ug/Kg		81	58 - 121
Acetophenone	1650	1260		ug/Kg		76	54 - 120
Anthracene	1650	1470		ug/Kg		89	62 - 120
Atrazine	3310	3070		ug/Kg		93	60 - 127
Benzaldehyde	3310	1760		ug/Kg		53	10 - 150
Benzo[a]anthracene	1650	1440		ug/Kg		87	65 - 120
Benzo[a]pyrene	1650	1510		ug/Kg		91	64 - 120
Benzo[b]fluoranthene	1650	1520		ug/Kg		92	64 - 120
Benzo[g,h,i]perylene	1650	1470		ug/Kg		89	45 - 145
Benzo[k]fluoranthene	1650	1470		ug/Kg		89	65 - 120
Biphenyl	1650	1360		ug/Kg		82	59 - 120
bis (2-chloroisopropyl) ether	1650	1210		ug/Kg		73	44 - 120
Bis(2-chloroethoxy)methane	1650	1290		ug/Kg		78	55 - 120
Bis(2-chloroethyl)ether	1650	1240		ug/Kg		75	45 - 120
Bis(2-ethylhexyl) phthalate	1650	1380		ug/Kg		84	61 - 133
Butyl benzyl phthalate	1650	1430		ug/Kg		86	61 - 129
Caprolactam	3310	2550		ug/Kg		77	47 - 120
Carbazole	1650	1420		ug/Kg		86	65 - 120
Chrysene	1650	1450		ug/Kg		88	64 - 120
Dibenz(a,h)anthracene	1650	1490		ug/Kg		90	54 - 132
Dibenzofuran	1650	1400		ug/Kg		84	63 - 120
Diethyl phthalate	1650	1400		ug/Kg		85	66 - 120
Dimethyl phthalate	1650	1410		ug/Kg		85	65 - 124
Di-n-butyl phthalate	1650	1440		ug/Kg		87	58 - 130

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

Lab Sample ID: LCS 480-389536/2-A
Matrix: Solid
Analysis Batch: 389895

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389536

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Di-n-octyl phthalate	1650	1340		ug/Kg		81	57 - 133
Fluoranthene	1650	1430		ug/Kg		86	62 - 120
Fluorene	1650	1410		ug/Kg		85	63 - 120
Hexachlorobenzene	1650	1500		ug/Kg		90	60 - 120
Hexachlorobutadiene	1650	1290		ug/Kg		78	45 - 120
Hexachlorocyclopentadiene	1650	1330		ug/Kg		80	47 - 120
Hexachloroethane	1650	1190		ug/Kg		72	41 - 120
Indeno[1,2,3-cd]pyrene	1650	1460		ug/Kg		88	56 - 134
Isophorone	1650	1360		ug/Kg		82	56 - 120
Naphthalene	1650	1280		ug/Kg		77	55 - 120
Nitrobenzene	1650	1330		ug/Kg		80	54 - 120
N-Nitrosodi-n-propylamine	1650	1270		ug/Kg		76	52 - 120
Pentachlorophenol	3310	2640		ug/Kg		80	51 - 120
Phenanthrene	1650	1430		ug/Kg		87	60 - 120
Phenol	1650	1250		ug/Kg		75	53 - 120
Pyrene	1650	1490		ug/Kg		90	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*92*		*54 - 120*
2-Fluorobiphenyl	*87*		*60 - 120*
2-Fluorophenol	*79*		*52 - 120*
Nitrobenzene-d5	*82*		*53 - 120*
Phenol-d5	*78*		*54 - 120*
p-Terphenyl-d14	*95*		*65 - 121*

Lab Sample ID: 480-128053-1 MS
Matrix: Solid
Analysis Batch: 389895

Client Sample ID: MW-7 (2-4)
Prep Type: Total/NA
Prep Batch: 389536

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-Trichlorophenol	ND		1850	1820		ug/Kg	☼	98	46 - 120
2,4,6-Trichlorophenol	ND		1850	1650		ug/Kg	☼	89	41 - 123
2,4-Dichlorophenol	ND		1850	1600		ug/Kg	☼	87	45 - 120
2,4-Dimethylphenol	ND		1850	1550		ug/Kg	☼	84	52 - 120
2,4-Dinitrophenol	ND		3700	ND		ug/Kg	☼	NC	41 - 146
2,4-Dinitrotoluene	ND		1850	1970		ug/Kg	☼	107	63 - 125
2,6-Dinitrotoluene	ND		1850	1810		ug/Kg	☼	98	66 - 120
2-Chloronaphthalene	ND		1850	1710		ug/Kg	☼	93	57 - 120
2-Chlorophenol	ND		1850	1500		ug/Kg	☼	81	43 - 120
2-Methylnaphthalene	ND		1850	1760		ug/Kg	☼	95	55 - 120
2-Methylphenol	ND		1850	1450		ug/Kg	☼	79	48 - 120
2-Nitroaniline	ND		1850	1730	J	ug/Kg	☼	94	61 - 120
2-Nitrophenol	ND		1850	1650		ug/Kg	☼	89	37 - 120
3,3'-Dichlorobenzidine	ND		3700	2990		ug/Kg	☼	81	37 - 126
3-Nitroaniline	ND		1850	1720	J	ug/Kg	☼	93	48 - 120
4,6-Dinitro-2-methylphenol	ND		3700	3450		ug/Kg	☼	93	23 - 149
4-Bromophenyl phenyl ether	ND		1850	1860		ug/Kg	☼	101	58 - 120
4-Chloro-3-methylphenol	ND		1850	1610		ug/Kg	☼	87	49 - 125

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

Lab Sample ID: 480-128053-1 MS
Matrix: Solid
Analysis Batch: 389895

Client Sample ID: MW-7 (2-4)
Prep Type: Total/NA
Prep Batch: 389536

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chloroaniline	ND		1850	1190		ug/Kg	☼	64	38 - 120
4-Chlorophenyl phenyl ether	ND		1850	1780		ug/Kg	☼	96	63 - 124
4-Methylphenol	ND		1850	1550	J	ug/Kg	☼	84	50 - 120
4-Nitroaniline	ND		1850	1780	J	ug/Kg	☼	96	47 - 120
4-Nitrophenol	ND		3700	3450		ug/Kg	☼	93	31 - 147
Acenaphthene	ND		1850	1770		ug/Kg	☼	96	60 - 120
Acenaphthylene	ND		1850	1660		ug/Kg	☼	90	58 - 121
Acetophenone	ND		1850	1520		ug/Kg	☼	82	47 - 120
Anthracene	ND		1850	1830		ug/Kg	☼	99	62 - 120
Atrazine	ND		3700	3850		ug/Kg	☼	104	60 - 150
Benzaldehyde	ND		3700	1980		ug/Kg	☼	54	10 - 150
Benzo[a]anthracene	260	J	1850	2020		ug/Kg	☼	95	65 - 120
Benzo[a]pyrene	360	J	1850	2260		ug/Kg	☼	102	64 - 120
Benzo[b]fluoranthene	530	J F1	1850	2610		ug/Kg	☼	112	64 - 120
Benzo[g,h,i]perylene	210	J	1850	1990		ug/Kg	☼	96	45 - 145
Benzo[k]fluoranthene	160	J	1850	1990		ug/Kg	☼	99	65 - 120
Biphenyl	ND		1850	1710		ug/Kg	☼	93	58 - 120
bis (2-chloroisopropyl) ether	ND		1850	1330		ug/Kg	☼	72	31 - 120
Bis(2-chloroethoxy)methane	ND		1850	1610		ug/Kg	☼	87	52 - 120
Bis(2-chloroethyl)ether	ND		1850	1520		ug/Kg	☼	82	45 - 120
Bis(2-ethylhexyl) phthalate	ND		1850	1820		ug/Kg	☼	99	61 - 133
Butyl benzyl phthalate	ND		1850	1920		ug/Kg	☼	104	61 - 120
Caprolactam	ND		3700	3380		ug/Kg	☼	91	37 - 133
Carbazole	ND		1850	1820		ug/Kg	☼	99	59 - 120
Chrysene	280	J	1850	2140		ug/Kg	☼	100	64 - 120
Dibenz(a,h)anthracene	ND		1850	1900		ug/Kg	☼	103	54 - 132
Dibenzofuran	ND		1850	1770		ug/Kg	☼	96	62 - 120
Diethyl phthalate	ND		1850	1710		ug/Kg	☼	92	66 - 120
Dimethyl phthalate	ND		1850	1690		ug/Kg	☼	92	65 - 124
Di-n-butyl phthalate	ND		1850	1830		ug/Kg	☼	99	58 - 130
Di-n-octyl phthalate	ND		1850	1890		ug/Kg	☼	102	57 - 133
Fluoranthene	400	J F1	1850	2330		ug/Kg	☼	105	62 - 120
Fluorene	ND		1850	1690		ug/Kg	☼	91	63 - 120
Hexachlorobenzene	ND		1850	1730		ug/Kg	☼	94	60 - 120
Hexachlorobutadiene	ND		1850	1600		ug/Kg	☼	86	45 - 120
Hexachlorocyclopentadiene	ND		1850	1450		ug/Kg	☼	79	31 - 120
Hexachloroethane	ND		1850	1410		ug/Kg	☼	76	21 - 120
Indeno[1,2,3-cd]pyrene	270	J	1850	2050		ug/Kg	☼	97	56 - 134
Isophorone	ND		1850	1550		ug/Kg	☼	84	56 - 120
Naphthalene	ND		1850	1680		ug/Kg	☼	91	46 - 120
Nitrobenzene	ND		1850	1590		ug/Kg	☼	86	49 - 120
N-Nitrosodi-n-propylamine	ND		1850	1610		ug/Kg	☼	87	46 - 120
Pentachlorophenol	ND		3700	2840		ug/Kg	☼	77	25 - 136
Phenanthrene	ND		1850	2000		ug/Kg	☼	108	60 - 122
Phenol	ND		1850	1520		ug/Kg	☼	82	50 - 120
Pyrene	430	J	1850	2370		ug/Kg	☼	105	61 - 133

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

Lab Sample ID: 480-128053-1 MS
Matrix: Solid
Analysis Batch: 389895

Client Sample ID: MW-7 (2-4)
Prep Type: Total/NA
Prep Batch: 389536

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol	*97*		*54 - 120*
2-Fluorobiphenyl	*91*		*60 - 120*
2-Fluorophenol	*73*		*52 - 120*
Nitrobenzene-d5	*92*		*53 - 120*
Phenol-d5	*84*		*54 - 120*
p-Terphenyl-d14	*101*		*65 - 121*

Lab Sample ID: 480-128053-1 MSD
Matrix: Solid
Analysis Batch: 389895

Client Sample ID: MW-7 (2-4)
Prep Type: Total/NA
Prep Batch: 389536

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,5-Trichlorophenol	ND		1840	1580		ug/Kg	☼	86	46 - 120	14	18
2,4,6-Trichlorophenol	ND		1840	1630		ug/Kg	☼	89	41 - 123	1	19
2,4-Dichlorophenol	ND		1840	1570		ug/Kg	☼	85	45 - 120	2	19
2,4-Dimethylphenol	ND		1840	1450		ug/Kg	☼	79	52 - 120	6	42
2,4-Dinitrophenol	ND		3680	ND		ug/Kg	☼	NC	41 - 146	NC	22
2,4-Dinitrotoluene	ND		1840	1770		ug/Kg	☼	96	63 - 125	10	20
2,6-Dinitrotoluene	ND		1840	1660		ug/Kg	☼	90	66 - 120	8	15
2-Chloronaphthalene	ND		1840	1690		ug/Kg	☼	92	57 - 120	1	21
2-Chlorophenol	ND		1840	1600		ug/Kg	☼	87	43 - 120	7	25
2-Methylnaphthalene	ND		1840	1590		ug/Kg	☼	86	55 - 120	10	21
2-Methylphenol	ND		1840	1610		ug/Kg	☼	87	48 - 120	10	27
2-Nitroaniline	ND		1840	1760	J	ug/Kg	☼	95	61 - 120	1	15
2-Nitrophenol	ND		1840	1660		ug/Kg	☼	90	37 - 120	1	18
3,3'-Dichlorobenzidine	ND		3680	3040		ug/Kg	☼	83	37 - 126	2	25
3-Nitroaniline	ND		1840	1610	J	ug/Kg	☼	87	48 - 120	7	19
4,6-Dinitro-2-methylphenol	ND		3680	3410		ug/Kg	☼	93	23 - 149	1	15
4-Bromophenyl phenyl ether	ND		1840	1780		ug/Kg	☼	97	58 - 120	4	15
4-Chloro-3-methylphenol	ND		1840	1620		ug/Kg	☼	88	49 - 125	1	27
4-Chloroaniline	ND		1840	1180		ug/Kg	☼	64	38 - 120	1	22
4-Chlorophenyl phenyl ether	ND		1840	1730		ug/Kg	☼	94	63 - 124	2	16
4-Methylphenol	ND		1840	1520	J	ug/Kg	☼	82	50 - 120	2	24
4-Nitroaniline	ND		1840	1740	J	ug/Kg	☼	95	47 - 120	2	24
4-Nitrophenol	ND		3680	3220		ug/Kg	☼	87	31 - 147	7	25
Acenaphthene	ND		1840	1610		ug/Kg	☼	87	60 - 120	10	35
Acenaphthylene	ND		1840	1660		ug/Kg	☼	90	58 - 121	0	18
Acetophenone	ND		1840	1550		ug/Kg	☼	84	47 - 120	2	20
Anthracene	ND		1840	1840		ug/Kg	☼	100	62 - 120	1	15
Atrazine	ND		3680	3720		ug/Kg	☼	101	60 - 150	3	20
Benzaldehyde	ND		3680	2190		ug/Kg	☼	60	10 - 150	10	20
Benzo[a]anthracene	260	J	1840	2260		ug/Kg	☼	108	65 - 120	11	15
Benzo[a]pyrene	360	J	1840	2480		ug/Kg	☼	115	64 - 120	10	15
Benzo[b]fluoranthene	530	J F1	1840	2840	F1	ug/Kg	☼	125	64 - 120	8	15
Benzo[g,h,i]perylene	210	J	1840	2170		ug/Kg	☼	106	45 - 145	9	15
Benzo[k]fluoranthene	160	J	1840	2050		ug/Kg	☼	102	65 - 120	3	22
Biphenyl	ND		1840	1600		ug/Kg	☼	87	58 - 120	7	20
bis (2-chloroisopropyl) ether	ND		1840	1320		ug/Kg	☼	72	31 - 120	1	24

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

Lab Sample ID: 480-128053-1 MSD
Matrix: Solid
Analysis Batch: 389895

Client Sample ID: MW-7 (2-4)
Prep Type: Total/NA
Prep Batch: 389536

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bis(2-chloroethoxy)methane	ND		1840	1490		ug/Kg	☼	81	52 - 120	8	17
Bis(2-chloroethyl)ether	ND		1840	1560		ug/Kg	☼	85	45 - 120	2	21
Bis(2-ethylhexyl) phthalate	ND		1840	1870		ug/Kg	☼	102	61 - 133	3	15
Butyl benzyl phthalate	ND		1840	1890		ug/Kg	☼	103	61 - 120	1	16
Caprolactam	ND		3680	3260		ug/Kg	☼	89	37 - 133	4	20
Carbazole	ND		1840	1700		ug/Kg	☼	93	59 - 120	7	20
Chrysene	280	J	1840	2280		ug/Kg	☼	109	64 - 120	7	15
Dibenz(a,h)anthracene	ND		1840	1880		ug/Kg	☼	102	54 - 132	1	15
Dibenzofuran	ND		1840	1720		ug/Kg	☼	93	62 - 120	3	15
Diethyl phthalate	ND		1840	1570		ug/Kg	☼	85	66 - 120	8	15
Dimethyl phthalate	ND		1840	1570		ug/Kg	☼	85	65 - 124	8	15
Di-n-butyl phthalate	ND		1840	1790		ug/Kg	☼	97	58 - 130	2	15
Di-n-octyl phthalate	ND		1840	1860		ug/Kg	☼	101	57 - 133	2	16
Fluoranthene	400	J F1	1840	2700	F1	ug/Kg	☼	125	62 - 120	14	15
Fluorene	ND		1840	1690		ug/Kg	☼	92	63 - 120	0	15
Hexachlorobenzene	ND		1840	1650		ug/Kg	☼	90	60 - 120	5	15
Hexachlorobutadiene	ND		1840	1650		ug/Kg	☼	90	45 - 120	3	44
Hexachlorocyclopentadiene	ND		1840	1430		ug/Kg	☼	78	31 - 120	1	49
Hexachloroethane	ND		1840	1480		ug/Kg	☼	80	21 - 120	5	46
Indeno[1,2,3-cd]pyrene	270	J	1840	2150		ug/Kg	☼	102	56 - 134	5	15
Isophorone	ND		1840	1580		ug/Kg	☼	86	56 - 120	2	17
Naphthalene	ND		1840	1620		ug/Kg	☼	88	46 - 120	4	29
Nitrobenzene	ND		1840	1550		ug/Kg	☼	84	49 - 120	3	24
N-Nitrosodi-n-propylamine	ND		1840	1630		ug/Kg	☼	88	46 - 120	1	31
Pentachlorophenol	ND		3680	2690		ug/Kg	☼	73	25 - 136	5	35
Phenanthrene	ND		1840	1840		ug/Kg	☼	100	60 - 122	8	15
Phenol	ND		1840	1580		ug/Kg	☼	86	50 - 120	4	35
Pyrene	430	J	1840	2710		ug/Kg	☼	124	61 - 133	13	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*102*		*54 - 120*
2-Fluorobiphenyl	*84*		*60 - 120*
2-Fluorophenol	*79*		*52 - 120*
Nitrobenzene-d5	*86*		*53 - 120*
Phenol-d5	*84*		*54 - 120*
p-Terphenyl-d14	*95*		*65 - 121*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-389769/1-A
Matrix: Solid
Analysis Batch: 390001

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389769

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.6	0.32	ug/Kg		11/30/17 06:56	12/01/17 09:41	1
4,4'-DDE	ND		1.6	0.35	ug/Kg		11/30/17 06:56	12/01/17 09:41	1
4,4'-DDT	ND		1.6	0.39	ug/Kg		11/30/17 06:56	12/01/17 09:41	1
Aldrin	ND		1.6	0.41	ug/Kg		11/30/17 06:56	12/01/17 09:41	1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 480-389769/1-A
Matrix: Solid
Analysis Batch: 390001

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389769

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
alpha-BHC	0.533	J	1.6	0.30	ug/Kg		11/30/17 06:56	12/01/17 09:41	1
alpha-Chlordane	ND		1.6	0.82	ug/Kg		11/30/17 06:56	12/01/17 09:41	1
beta-BHC	0.477	J	1.6	0.30	ug/Kg		11/30/17 06:56	12/01/17 09:41	1
delta-BHC	0.537	J	1.6	0.31	ug/Kg		11/30/17 06:56	12/01/17 09:41	1
Dieldrin	ND		1.6	0.40	ug/Kg		11/30/17 06:56	12/01/17 09:41	1
Endosulfan I	ND		1.6	0.32	ug/Kg		11/30/17 06:56	12/01/17 09:41	1
Endosulfan II	ND		1.6	0.30	ug/Kg		11/30/17 06:56	12/01/17 09:41	1
Endosulfan sulfate	ND		1.6	0.31	ug/Kg		11/30/17 06:56	12/01/17 09:41	1
Endrin	ND		1.6	0.33	ug/Kg		11/30/17 06:56	12/01/17 09:41	1
Endrin aldehyde	ND		1.6	0.42	ug/Kg		11/30/17 06:56	12/01/17 09:41	1
Endrin ketone	ND		1.6	0.41	ug/Kg		11/30/17 06:56	12/01/17 09:41	1
gamma-BHC (Lindane)	0.431	J	1.6	0.30	ug/Kg		11/30/17 06:56	12/01/17 09:41	1
gamma-Chlordane	ND		1.6	0.52	ug/Kg		11/30/17 06:56	12/01/17 09:41	1
Heptachlor	ND		1.6	0.36	ug/Kg		11/30/17 06:56	12/01/17 09:41	1
Heptachlor epoxide	ND		1.6	0.42	ug/Kg		11/30/17 06:56	12/01/17 09:41	1
Methoxychlor	ND		1.6	0.34	ug/Kg		11/30/17 06:56	12/01/17 09:41	1
Toxaphene	ND		16	9.6	ug/Kg		11/30/17 06:56	12/01/17 09:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*137*	*X*	*45 - 120*	*11/30/17 06:56*	*12/01/17 09:41*	*1*
DCB Decachlorobiphenyl	*124*	*X*	*45 - 120*	*11/30/17 06:56*	*12/01/17 09:41*	*1*
Tetrachloro-m-xylene	*91*		*30 - 124*	*11/30/17 06:56*	*12/01/17 09:41*	*1*
Tetrachloro-m-xylene	*75*		*30 - 124*	*11/30/17 06:56*	*12/01/17 09:41*	*1*

Lab Sample ID: LCS 480-389769/2-A
Matrix: Solid
Analysis Batch: 390001

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389769

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	16.3	16.3		ug/Kg		100	56 - 120
4,4'-DDE	16.3	15.2		ug/Kg		93	44 - 120
4,4'-DDT	16.3	17.9		ug/Kg		110	38 - 120
Aldrin	16.3	14.9		ug/Kg		92	38 - 120
alpha-BHC	16.3	12.3		ug/Kg		75	39 - 120
alpha-Chlordane	16.3	13.5		ug/Kg		83	47 - 120
beta-BHC	16.3	13.5		ug/Kg		83	40 - 120
delta-BHC	16.3	15.7		ug/Kg		97	45 - 120
Dieldrin	16.3	17.6		ug/Kg		108	58 - 120
Endosulfan I	16.3	18.0		ug/Kg		110	49 - 120
Endosulfan II	16.3	17.9		ug/Kg		110	55 - 120
Endosulfan sulfate	16.3	18.8		ug/Kg		115	49 - 124
Endrin	16.3	17.8		ug/Kg		109	58 - 120
Endrin aldehyde	16.3	14.1		ug/Kg		87	37 - 121
Endrin ketone	16.3	19.1		ug/Kg		117	46 - 123
gamma-BHC (Lindane)	16.3	13.3		ug/Kg		82	50 - 120
gamma-Chlordane	16.3	14.4		ug/Kg		89	48 - 120
Heptachlor	16.3	15.8		ug/Kg		97	50 - 120
Heptachlor epoxide	16.3	16.4		ug/Kg		101	50 - 120

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 480-389769/2-A
Matrix: Solid
Analysis Batch: 390001

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389769

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Methoxychlor			16.3	19.9		ug/Kg		122	58 - 133		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*143*	*X*	*45 - 120*
DCB Decachlorobiphenyl	*130*	*X*	*45 - 120*
Tetrachloro-m-xylene	*94*		*30 - 124*
Tetrachloro-m-xylene	*78*		*30 - 124*

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

Lab Sample ID: MB 480-389535/1-A
Matrix: Solid
Analysis Batch: 389872

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389535

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.21	0.041	mg/Kg		11/29/17 07:26	11/30/17 07:25	1
PCB-1221	ND		0.21	0.041	mg/Kg		11/29/17 07:26	11/30/17 07:25	1
PCB-1232	ND		0.21	0.041	mg/Kg		11/29/17 07:26	11/30/17 07:25	1
PCB-1242	ND		0.21	0.041	mg/Kg		11/29/17 07:26	11/30/17 07:25	1
PCB-1248	ND		0.21	0.041	mg/Kg		11/29/17 07:26	11/30/17 07:25	1
PCB-1254	ND		0.21	0.098	mg/Kg		11/29/17 07:26	11/30/17 07:25	1
PCB-1260	ND		0.21	0.098	mg/Kg		11/29/17 07:26	11/30/17 07:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*124*		*60 - 154*	*11/29/17 07:26*	*11/30/17 07:25*	*1*
Tetrachloro-m-xylene	*108*		*60 - 154*	*11/29/17 07:26*	*11/30/17 07:25*	*1*
DCB Decachlorobiphenyl	*102*		*65 - 174*	*11/29/17 07:26*	*11/30/17 07:25*	*1*
DCB Decachlorobiphenyl	*98*		*65 - 174*	*11/29/17 07:26*	*11/30/17 07:25*	*1*

Lab Sample ID: LCS 480-389535/2-A
Matrix: Solid
Analysis Batch: 389872

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389535

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016			2.40	3.25		mg/Kg		135	51 - 185		
PCB-1260			2.40	3.10		mg/Kg		129	61 - 184		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*137*		*60 - 154*
Tetrachloro-m-xylene	*107*		*60 - 154*
DCB Decachlorobiphenyl	*108*		*65 - 174*
DCB Decachlorobiphenyl	*105*		*65 - 174*

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

Lab Sample ID: 480-128053-1 MS
Matrix: Solid
Analysis Batch: 389872

Client Sample ID: MW-7 (2-4)
Prep Type: Total/NA
Prep Batch: 389535

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	ND		2.34	2.96		mg/Kg	☼	127	50 - 177
PCB-1260	ND		2.34	2.81		mg/Kg	☼	120	33 - 200

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*131*		*60 - 154*
Tetrachloro-m-xylene	*101*		*60 - 154*
DCB Decachlorobiphenyl	*104*		*65 - 174*
DCB Decachlorobiphenyl	*101*		*65 - 174*

Lab Sample ID: 480-128053-1 MSD
Matrix: Solid
Analysis Batch: 389872

Client Sample ID: MW-7 (2-4)
Prep Type: Total/NA
Prep Batch: 389535

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	ND		2.36	3.35		mg/Kg	☼	142	50 - 177	12	50
PCB-1260	ND		2.36	3.17		mg/Kg	☼	134	33 - 200	12	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*146*		*60 - 154*
Tetrachloro-m-xylene	*126*		*60 - 154*
DCB Decachlorobiphenyl	*116*		*65 - 174*
DCB Decachlorobiphenyl	*113*		*65 - 174*

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 480-389934/1-A
Matrix: Solid
Analysis Batch: 390371

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389934

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		17	5.3	ug/Kg		11/30/17 14:30	12/04/17 17:24	1
Silvex (2,4,5-TP)	ND		17	6.0	ug/Kg		11/30/17 14:30	12/04/17 17:24	1
2,4-D	ND		17	10	ug/Kg		11/30/17 14:30	12/04/17 17:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*120*		*28 - 129*	*11/30/17 14:30*	*12/04/17 17:24*	*1*
2,4-Dichlorophenylacetic acid	*144*	*X*	*28 - 129*	*11/30/17 14:30*	*12/04/17 17:24*	*1*

Lab Sample ID: LCS 480-389934/2-A
Matrix: Solid
Analysis Batch: 390371

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389934

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-T	66.6	76.9		ug/Kg		116	41 - 120
Silvex (2,4,5-TP)	66.6	64.6		ug/Kg		97	39 - 125
2,4-D	66.6	65.3		ug/Kg		98	40 - 120

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCS 480-389934/2-A
Matrix: Solid
Analysis Batch: 390371

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389934

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*81*		*28 - 129*
2,4-Dichlorophenylacetic acid	*112*		*28 - 129*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-390363/1-A
Matrix: Solid
Analysis Batch: 390700

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390363

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		10.9	4.8	mg/Kg		12/05/17 15:17	12/05/17 18:35	1
Antimony	ND		16.4	0.44	mg/Kg		12/05/17 15:17	12/05/17 18:35	1
Arsenic	ND		2.2	0.44	mg/Kg		12/05/17 15:17	12/05/17 18:35	1
Barium	ND		0.55	0.12	mg/Kg		12/05/17 15:17	12/05/17 18:35	1
Beryllium	ND		0.22	0.031	mg/Kg		12/05/17 15:17	12/05/17 18:35	1
Cadmium	ND		0.22	0.033	mg/Kg		12/05/17 15:17	12/05/17 18:35	1
Calcium	3.80	J	54.5	3.6	mg/Kg		12/05/17 15:17	12/05/17 18:35	1
Chromium	0.279	J ^	0.55	0.22	mg/Kg		12/05/17 15:17	12/05/17 18:35	1
Cobalt	ND		0.55	0.055	mg/Kg		12/05/17 15:17	12/05/17 18:35	1
Copper	0.565	J	1.1	0.23	mg/Kg		12/05/17 15:17	12/05/17 18:35	1
Iron	ND	^	10.9	3.8	mg/Kg		12/05/17 15:17	12/05/17 18:35	1
Lead	ND		1.1	0.26	mg/Kg		12/05/17 15:17	12/05/17 18:35	1
Magnesium	ND		21.8	1.0	mg/Kg		12/05/17 15:17	12/05/17 18:35	1
Manganese	0.0742	J	0.22	0.035	mg/Kg		12/05/17 15:17	12/05/17 18:35	1
Nickel	ND		5.5	0.25	mg/Kg		12/05/17 15:17	12/05/17 18:35	1
Potassium	ND		32.7	21.8	mg/Kg		12/05/17 15:17	12/05/17 18:35	1
Selenium	0.448	J	4.4	0.44	mg/Kg		12/05/17 15:17	12/05/17 18:35	1
Silver	ND		0.65	0.22	mg/Kg		12/05/17 15:17	12/05/17 18:35	1
Sodium	26.01	J	153	14.2	mg/Kg		12/05/17 15:17	12/05/17 18:35	1
Thallium	ND		6.5	0.33	mg/Kg		12/05/17 15:17	12/05/17 18:35	1
Vanadium	ND		0.55	0.12	mg/Kg		12/05/17 15:17	12/05/17 18:35	1
Zinc	ND		2.2	0.70	mg/Kg		12/05/17 15:17	12/05/17 18:35	1

Lab Sample ID: LCSSRM 480-390363/2-A
Matrix: Solid
Analysis Batch: 390700

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390363

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	8090	8331		mg/Kg		103.0	39.6 - 160.7
Antimony	99.3	69.33		mg/Kg		69.8	21.6 - 256.8
Arsenic	100	79.54		mg/Kg		79.5	69.6 - 131.0
Barium	217	177.3		mg/Kg		81.7	73.7 - 128.1
Beryllium	147	115.0		mg/Kg		78.2	75.5 - 125.9

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 480-390363/2-A
Matrix: Solid
Analysis Batch: 390700

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390363

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	83.7	69.72		mg/Kg		83.3	73.2 - 131.4
Calcium	6010	5021		mg/Kg		83.5	73.7 - 126.3
Chromium	107	93.18	^	mg/Kg		87.1	69.4 - 134.6
Cobalt	123	123.6		mg/Kg		100.5	74.3 - 130.1
Copper	166	141.4		mg/Kg		85.2	75.3 - 128.3
Iron	14600	13210	^	mg/Kg		90.5	36.1 - 163.7
Lead	88.4	83.51		mg/Kg		94.5	69.9 - 130.1
Magnesium	2930	2445		mg/Kg		83.4	65.9 - 134.5
Manganese	311	274.9		mg/Kg		88.4	74.9 - 125.4
Nickel	49.8	49.95		mg/Kg		100.3	69.1 - 135.1
Potassium	2620	2493		mg/Kg		95.2	61.1 - 138.9
Selenium	87.7	74.60		mg/Kg		85.1	64.1 - 135.7
Silver	41.4	32.52		mg/Kg		78.6	65.9 - 133.8
Sodium	252	237.8		mg/Kg		94.4	32.9 - 167.5
Thallium	58.1	56.92		mg/Kg		98.0	63.9 - 136.3
Vanadium	140	122.0		mg/Kg		87.1	69.9 - 129.3
Zinc	145	126.0		mg/Kg		86.9	67.7 - 132.4

Lab Sample ID: 480-128053-1 MS
Matrix: Solid
Analysis Batch: 390700

Client Sample ID: MW-7 (2-4)
Prep Type: Total/NA
Prep Batch: 390363

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	5240	F1	2040	13310	F1	mg/Kg	☼	395	75 - 125
Antimony	1.3	J F1	40.8	24.69	F1	mg/Kg	☼	57	75 - 125
Arsenic	8.6		40.8	40.25		mg/Kg	☼	77	75 - 125
Barium	110	F1	40.8	216.3	F1	mg/Kg	☼	259	75 - 125
Beryllium	1.0		40.8	33.52		mg/Kg	☼	80	75 - 125
Cadmium	0.13	J	40.8	35.17		mg/Kg	☼	86	75 - 125
Calcium	13400	F2 B	2040	21760	4	mg/Kg	☼	411	75 - 125
Chromium	13.2	^ B	40.8	54.82	^	mg/Kg	☼	102	75 - 125
Cobalt	10.1		40.8	42.83		mg/Kg	☼	80	75 - 125
Copper	33.9	F1 B	40.8	62.99	F1	mg/Kg	☼	71	75 - 125
Iron	25300	^ F2	2040	23210	^ 4	mg/Kg	☼	-102	75 - 125
Lead	39.7	F2 F1	40.8	88.24		mg/Kg	☼	119	75 - 125
Magnesium	3990	F1	2040	6419		mg/Kg	☼	119	75 - 125

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-128053-1 MS
Matrix: Solid
Analysis Batch: 390700

Client Sample ID: MW-7 (2-4)
Prep Type: Total/NA
Prep Batch: 390363

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese	333	F2 B	40.8	893.8	4	mg/Kg	☼	1374	75 - 125
Nickel	16.4		40.8	52.17		mg/Kg	☼	87	75 - 125
Potassium	1100	F1	2040	4363	F1	mg/Kg	☼	160	75 - 125
Selenium	1.3	J B	40.8	36.03		mg/Kg	☼	85	75 - 125
Silver	ND		10.2	8.92		mg/Kg	☼	87	75 - 125
Sodium	131	J B	2050	1844		mg/Kg	☼	84	75 - 125
Thallium	ND		40.8	38.18		mg/Kg	☼	93	75 - 125
Vanadium	14.7		40.8	63.70		mg/Kg	☼	120	75 - 125
Zinc	45.0	F1	40.8	97.37	F1	mg/Kg	☼	128	75 - 125

Lab Sample ID: 480-128053-1 MSD
Matrix: Solid
Analysis Batch: 390700

Client Sample ID: MW-7 (2-4)
Prep Type: Total/NA
Prep Batch: 390363

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	5240	F1	2180	12640	F1	mg/Kg	☼	339	75 - 125	5	20
Antimony	1.3	J F1	43.6	27.91	F1	mg/Kg	☼	61	75 - 125	12	20
Arsenic	8.6		43.6	43.90		mg/Kg	☼	81	75 - 125	9	20
Barium	110	F1	43.6	200.1	F1	mg/Kg	☼	206	75 - 125	8	20
Beryllium	1.0		43.6	36.14		mg/Kg	☼	81	75 - 125	8	20
Cadmium	0.13	J	43.6	38.05		mg/Kg	☼	87	75 - 125	8	20
Calcium	13400	F2 B	2180	44400	4 F2	mg/Kg	☼	1424	75 - 125	68	20
Chromium	13.2	^ B	43.6	55.00	^	mg/Kg	☼	96	75 - 125	0	20
Cobalt	10.1		43.6	45.70		mg/Kg	☼	82	75 - 125	6	20
Copper	33.9	F1 B	43.6	61.38	F1	mg/Kg	☼	63	75 - 125	3	20
Iron	25300	^ F2	2180	18630	^ 4 F2	mg/Kg	☼	-306	75 - 125	22	20
Lead	39.7	F2 F1	43.6	159.3	F1 F2	mg/Kg	☼	274	75 - 125	57	20
Magnesium	3990	F1	2180	6853	F1	mg/Kg	☼	131	75 - 125	7	20
Manganese	333	F2 B	43.6	560.2	4 F2	mg/Kg	☼	522	75 - 125	46	20
Nickel	16.4		43.6	54.38		mg/Kg	☼	87	75 - 125	4	20
Potassium	1100	F1	2180	4533	F1	mg/Kg	☼	157	75 - 125	4	20
Selenium	1.3	J B	43.6	39.55		mg/Kg	☼	88	75 - 125	9	20
Silver	ND		10.9	9.83		mg/Kg	☼	90	75 - 125	10	20
Sodium	131	J B	2180	1959		mg/Kg	☼	84	75 - 125	6	20
Thallium	ND		43.6	40.75		mg/Kg	☼	93	75 - 125	7	20
Vanadium	14.7		43.6	62.58		mg/Kg	☼	110	75 - 125	2	20
Zinc	45.0	F1	43.6	92.26		mg/Kg	☼	108	75 - 125	5	20

Lab Sample ID: MB 480-390531/1-A
Matrix: Solid
Analysis Batch: 390887

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390531

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		9.9	4.3	mg/Kg		12/05/17 13:44	12/06/17 20:51	1
Antimony	ND		14.8	0.39	mg/Kg		12/05/17 13:44	12/06/17 20:51	1
Arsenic	0.400	J	2.0	0.39	mg/Kg		12/05/17 13:44	12/06/17 20:51	1
Barium	ND		0.49	0.11	mg/Kg		12/05/17 13:44	12/06/17 20:51	1
Beryllium	ND		0.20	0.028	mg/Kg		12/05/17 13:44	12/06/17 20:51	1
Cadmium	ND		0.20	0.030	mg/Kg		12/05/17 13:44	12/06/17 20:51	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 480-390531/1-A
Matrix: Solid
Analysis Batch: 390887

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390531

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	7.30	J	49.3	3.3	mg/Kg		12/05/17 13:44	12/06/17 20:51	1
Chromium	ND	^	0.49	0.20	mg/Kg		12/05/17 13:44	12/06/17 20:51	1
Cobalt	ND		0.49	0.049	mg/Kg		12/05/17 13:44	12/06/17 20:51	1
Copper	ND		0.99	0.21	mg/Kg		12/05/17 13:44	12/06/17 20:51	1
Iron	ND		9.9	3.5	mg/Kg		12/05/17 13:44	12/06/17 20:51	1
Lead	ND		0.99	0.24	mg/Kg		12/05/17 13:44	12/06/17 20:51	1
Magnesium	ND		19.7	0.91	mg/Kg		12/05/17 13:44	12/06/17 20:51	1
Manganese	0.0326	J	0.20	0.032	mg/Kg		12/05/17 13:44	12/06/17 20:51	1
Nickel	ND		4.9	0.23	mg/Kg		12/05/17 13:44	12/06/17 20:51	1
Potassium	ND		29.6	19.7	mg/Kg		12/05/17 13:44	12/06/17 20:51	1
Selenium	ND		3.9	0.39	mg/Kg		12/05/17 13:44	12/06/17 20:51	1
Silver	ND		0.59	0.20	mg/Kg		12/05/17 13:44	12/06/17 20:51	1
Sodium	ND		138	12.8	mg/Kg		12/05/17 13:44	12/06/17 20:51	1
Thallium	ND		5.9	0.30	mg/Kg		12/05/17 13:44	12/06/17 20:51	1
Vanadium	ND		0.49	0.11	mg/Kg		12/05/17 13:44	12/06/17 20:51	1
Zinc	ND		2.0	0.63	mg/Kg		12/05/17 13:44	12/06/17 20:51	1

Lab Sample ID: LCSSRM 480-390531/2-A
Matrix: Solid
Analysis Batch: 390887

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390531

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	8090	9583		mg/Kg		118.5	39.6 - 160.7
Antimony	99.3	70.22		mg/Kg		70.7	21.6 - 256.8
Arsenic	100	91.02		mg/Kg		91.0	69.6 - 131.0
Barium	217	213.4		mg/Kg		98.3	73.7 - 128.1
Beryllium	147	129.7		mg/Kg		88.2	75.5 - 125.9
Cadmium	83.7	76.22		mg/Kg		91.1	73.2 - 131.4
Calcium	6010	5316		mg/Kg		88.4	73.7 - 126.3
Chromium	107	103.9	^	mg/Kg		97.1	69.4 - 134.6
Cobalt	123	131.8		mg/Kg		107.1	74.3 - 130.1
Copper	166	159.0		mg/Kg		95.8	75.3 - 128.3
Iron	14600	14300		mg/Kg		97.9	36.1 - 163.7
Lead	88.4	94.23		mg/Kg		106.6	69.9 - 130.1
Magnesium	2930	2897		mg/Kg		98.9	65.9 - 134.5
Manganese	311	272.9		mg/Kg		87.7	74.9 - 125.4
Nickel	49.8	52.95		mg/Kg		106.3	69.1 - 135.1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 480-390531/2-A
Matrix: Solid
Analysis Batch: 390887

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390531

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	2620	2862		mg/Kg		109.2	61.1 - 138.9
Selenium	87.7	81.50		mg/Kg		92.9	64.1 - 135.7
Silver	41.4	38.13		mg/Kg		92.1	65.9 - 133.8
Sodium	252	279.3		mg/Kg		110.8	32.9 - 167.5
Thallium	58.1	60.27		mg/Kg		103.7	63.9 - 136.3
Vanadium	140	138.5		mg/Kg		98.9	69.9 - 129.3
Zinc	145	133.8		mg/Kg		92.3	67.7 - 132.4

Lab Sample ID: 480-128053-3 MS
Matrix: Solid
Analysis Batch: 390887

Client Sample ID: MW-1 (4-5.4)
Prep Type: Total/NA
Prep Batch: 390531

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	8270	F1	2240	12630	F1	mg/Kg	☼	195	75 - 125
Antimony	1.2	J	44.7	35.05		mg/Kg	☼	76	75 - 125
Arsenic	8.2	B	44.7	49.09		mg/Kg	☼	91	75 - 125
Barium	209		44.7	206.5	4	mg/Kg	☼	-5	75 - 125
Beryllium	0.35		44.7	41.15		mg/Kg	☼	91	75 - 125
Cadmium	0.60		44.7	41.87		mg/Kg	☼	92	75 - 125
Calcium	92200	B	2240	81320	4	mg/Kg	☼	-486	75 - 125
Chromium	27.9	^	44.7	65.55	^	mg/Kg	☼	84	75 - 125
Cobalt	5.9		44.7	48.74		mg/Kg	☼	96	75 - 125
Copper	36.5		44.7	76.25		mg/Kg	☼	89	75 - 125
Iron	17700	F2	2240	18830	4	mg/Kg	☼	50	75 - 125
Lead	148	F1	44.7	187.2		mg/Kg	☼	87	75 - 125
Magnesium	12000		2240	11900	4	mg/Kg	☼	-2	75 - 125
Manganese	298	B	44.7	352.8	4	mg/Kg	☼	122	75 - 125
Nickel	18.6		44.7	58.99		mg/Kg	☼	90	75 - 125
Potassium	2120	F1	2240	5636	F1	mg/Kg	☼	157	75 - 125
Selenium	ND		44.7	40.77		mg/Kg	☼	91	75 - 125
Silver	ND		11.2	11.15		mg/Kg	☼	100	75 - 125
Sodium	322		2240	2791		mg/Kg	☼	110	75 - 125
Thallium	ND		44.7	41.16		mg/Kg	☼	92	75 - 125
Vanadium	23.0		44.7	66.44		mg/Kg	☼	97	75 - 125
Zinc	174	F1	44.7	184.1	F1	mg/Kg	☼	24	75 - 125

Lab Sample ID: 480-128053-3 MSD
Matrix: Solid
Analysis Batch: 390887

Client Sample ID: MW-1 (4-5.4)
Prep Type: Total/NA
Prep Batch: 390531

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	8270	F1	2120	13560	F1	mg/Kg	☼	250	75 - 125	7	20
Antimony	1.2	J	42.3	33.42		mg/Kg	☼	76	75 - 125	5	20

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-128053-3 MSD
Matrix: Solid
Analysis Batch: 390887

Client Sample ID: MW-1 (4-5.4)
Prep Type: Total/NA
Prep Batch: 390531

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	8.2	B	42.3	47.93		mg/Kg	☼	94	75 - 125	2	20
Barium	209		42.3	191.6	4	mg/Kg	☼	-41	75 - 125	7	20
Beryllium	0.35		42.3	40.15		mg/Kg	☼	94	75 - 125	2	20
Cadmium	0.60		42.3	40.93		mg/Kg	☼	95	75 - 125	2	20
Calcium	92200	B	2120	96950	E 4	mg/Kg	☼	225	75 - 125	18	20
Chromium	27.9	^	42.3	60.54	^	mg/Kg	☼	77	75 - 125	8	20
Cobalt	5.9		42.3	47.84		mg/Kg	☼	99	75 - 125	2	20
Copper	36.5		42.3	72.32		mg/Kg	☼	85	75 - 125	5	20
Iron	17700	F2	2120	14400	4 F2	mg/Kg	☼	-156	75 - 125	27	20
Lead	148	F1	42.3	162.6	F1	mg/Kg	☼	34	75 - 125	14	20
Magnesium	12000		2120	12620	4	mg/Kg	☼	32	75 - 125	6	20
Manganese	298	B	42.3	366.3	4	mg/Kg	☼	160	75 - 125	4	20
Nickel	18.6		42.3	59.79		mg/Kg	☼	97	75 - 125	1	20
Potassium	2120	F1	2120	5934	F1	mg/Kg	☼	180	75 - 125	5	20
Selenium	ND		42.3	40.51		mg/Kg	☼	96	75 - 125	1	20
Silver	ND		10.6	10.94		mg/Kg	☼	103	75 - 125	2	20
Sodium	322		2120	2848		mg/Kg	☼	119	75 - 125	2	20
Thallium	ND		42.3	39.93		mg/Kg	☼	94	75 - 125	3	20
Vanadium	23.0		42.3	66.34		mg/Kg	☼	102	75 - 125	0	20
Zinc	174	F1	42.3	176.4	4	mg/Kg	☼	7	75 - 125	4	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-389941/1-A
Matrix: Solid
Analysis Batch: 390376

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389941

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.0082	mg/Kg		12/04/17 11:20	12/04/17 13:15	1

Lab Sample ID: LCSSRM 480-389941/2-A ^10
Matrix: Solid
Analysis Batch: 390376

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389941

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			12.6	11.82		mg/Kg		93.8	44.4 - 128.6		

GC/MS VOA

Prep Batch: 389470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128053-2	MW-7 (10-12)	Total/NA	Solid	5035A_L	
MB 480-389470/3-A	Method Blank	Total/NA	Solid	5035A_L	
LCS 480-389470/1-A	Lab Control Sample	Total/NA	Solid	5035A_L	
LCSD 480-389470/2-A	Lab Control Sample Dup	Total/NA	Solid	5035A_L	

Analysis Batch: 390557

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128053-2	MW-7 (10-12)	Total/NA	Solid	8260C	389470
MB 480-389470/3-A	Method Blank	Total/NA	Solid	8260C	389470
LCS 480-389470/1-A	Lab Control Sample	Total/NA	Solid	8260C	389470
LCSD 480-389470/2-A	Lab Control Sample Dup	Total/NA	Solid	8260C	389470

GC/MS Semi VOA

Prep Batch: 389536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128053-1	MW-7 (2-4)	Total/NA	Solid	3550C	
480-128053-3	MW-1 (4-5.4)	Total/NA	Solid	3550C	
MB 480-389536/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-389536/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-128053-1 MS	MW-7 (2-4)	Total/NA	Solid	3550C	
480-128053-1 MSD	MW-7 (2-4)	Total/NA	Solid	3550C	

Analysis Batch: 389895

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128053-1	MW-7 (2-4)	Total/NA	Solid	8270D	389536
480-128053-3	MW-1 (4-5.4)	Total/NA	Solid	8270D	389536
MB 480-389536/1-A	Method Blank	Total/NA	Solid	8270D	389536
LCS 480-389536/2-A	Lab Control Sample	Total/NA	Solid	8270D	389536
480-128053-1 MS	MW-7 (2-4)	Total/NA	Solid	8270D	389536
480-128053-1 MSD	MW-7 (2-4)	Total/NA	Solid	8270D	389536

GC Semi VOA

Prep Batch: 389535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128053-1	MW-7 (2-4)	Total/NA	Solid	3550C	
MB 480-389535/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-389535/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-128053-1 MS	MW-7 (2-4)	Total/NA	Solid	3550C	
480-128053-1 MSD	MW-7 (2-4)	Total/NA	Solid	3550C	

Prep Batch: 389769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128053-1	MW-7 (2-4)	Total/NA	Solid	3550C	
MB 480-389769/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-389769/2-A	Lab Control Sample	Total/NA	Solid	3550C	

GC Semi VOA (Continued)

Analysis Batch: 389872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128053-1	MW-7 (2-4)	Total/NA	Solid	8082A	389535
MB 480-389535/1-A	Method Blank	Total/NA	Solid	8082A	389535
LCS 480-389535/2-A	Lab Control Sample	Total/NA	Solid	8082A	389535
480-128053-1 MS	MW-7 (2-4)	Total/NA	Solid	8082A	389535
480-128053-1 MSD	MW-7 (2-4)	Total/NA	Solid	8082A	389535

Prep Batch: 389934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128053-1	MW-7 (2-4)	Total/NA	Solid	8151A	
MB 480-389934/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 480-389934/2-A	Lab Control Sample	Total/NA	Solid	8151A	

Analysis Batch: 390001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128053-1	MW-7 (2-4)	Total/NA	Solid	8081B	389769
MB 480-389769/1-A	Method Blank	Total/NA	Solid	8081B	389769
LCS 480-389769/2-A	Lab Control Sample	Total/NA	Solid	8081B	389769

Analysis Batch: 390371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128053-1	MW-7 (2-4)	Total/NA	Solid	8151A	389934
MB 480-389934/1-A	Method Blank	Total/NA	Solid	8151A	389934
LCS 480-389934/2-A	Lab Control Sample	Total/NA	Solid	8151A	389934

Metals

Prep Batch: 389941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128053-1	MW-7 (2-4)	Total/NA	Solid	7471B	
480-128053-3	MW-1 (4-5.4)	Total/NA	Solid	7471B	
MB 480-389941/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 480-389941/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	

Prep Batch: 390363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128053-1	MW-7 (2-4)	Total/NA	Solid	3050B	
MB 480-390363/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 480-390363/2-A	Lab Control Sample	Total/NA	Solid	3050B	
480-128053-1 MS	MW-7 (2-4)	Total/NA	Solid	3050B	
480-128053-1 MSD	MW-7 (2-4)	Total/NA	Solid	3050B	

Analysis Batch: 390376

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128053-1	MW-7 (2-4)	Total/NA	Solid	7471B	389941
480-128053-3	MW-1 (4-5.4)	Total/NA	Solid	7471B	389941
MB 480-389941/1-A	Method Blank	Total/NA	Solid	7471B	389941
LCSSRM 480-389941/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	389941

Metals (Continued)

Prep Batch: 390531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128053-3	MW-1 (4-5.4)	Total/NA	Solid	3050B	
MB 480-390531/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 480-390531/2-A	Lab Control Sample	Total/NA	Solid	3050B	
480-128053-3 MS	MW-1 (4-5.4)	Total/NA	Solid	3050B	
480-128053-3 MSD	MW-1 (4-5.4)	Total/NA	Solid	3050B	

Analysis Batch: 390700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128053-1	MW-7 (2-4)	Total/NA	Solid	6010C	390363
MB 480-390363/1-A	Method Blank	Total/NA	Solid	6010C	390363
LCSSRM 480-390363/2-A	Lab Control Sample	Total/NA	Solid	6010C	390363
480-128053-1 MS	MW-7 (2-4)	Total/NA	Solid	6010C	390363
480-128053-1 MSD	MW-7 (2-4)	Total/NA	Solid	6010C	390363

Analysis Batch: 390887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128053-3	MW-1 (4-5.4)	Total/NA	Solid	6010C	390531
MB 480-390531/1-A	Method Blank	Total/NA	Solid	6010C	390531
LCSSRM 480-390531/2-A	Lab Control Sample	Total/NA	Solid	6010C	390531
480-128053-3 MS	MW-1 (4-5.4)	Total/NA	Solid	6010C	390531
480-128053-3 MSD	MW-1 (4-5.4)	Total/NA	Solid	6010C	390531

General Chemistry

Analysis Batch: 389472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128053-2	MW-7 (10-12)	Total/NA	Solid	Moisture	

Analysis Batch: 389500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128053-1	MW-7 (2-4)	Total/NA	Solid	Moisture	

Analysis Batch: 390380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128053-3	MW-1 (4-5.4)	Total/NA	Solid	Moisture	

Client Sample ID: MW-7 (2-4)
Date Collected: 11/27/17 10:04
Date Received: 11/28/17 12:10

Lab Sample ID: 480-128053-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	389500	11/28/17 18:51	MDH	TAL BUF

Client Sample ID: MW-7 (2-4)
Date Collected: 11/27/17 10:04
Date Received: 11/28/17 12:10

Lab Sample ID: 480-128053-1
Matrix: Solid
Percent Solids: 89.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			389536	11/29/17 07:34	SMP	TAL BUF
Total/NA	Analysis	8270D		5	389895	11/30/17 17:01	DMR	TAL BUF
Total/NA	Prep	3550C			389769	11/30/17 06:56	CAM	TAL BUF
Total/NA	Analysis	8081B		5	390001	12/01/17 15:51	JLS	TAL BUF
Total/NA	Prep	3550C			389535	11/29/17 07:26	SMP	TAL BUF
Total/NA	Analysis	8082A		1	389872	11/30/17 08:29	JMO	TAL BUF
Total/NA	Prep	8151A			389934	11/30/17 14:30	BEK	TAL BUF
Total/NA	Analysis	8151A		1	390371	12/04/17 19:53	JMO	TAL BUF
Total/NA	Prep	3050B			390363	12/05/17 15:17	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390700	12/05/17 18:42	LMH	TAL BUF
Total/NA	Prep	7471B			389941	12/04/17 11:20	EMB	TAL BUF
Total/NA	Analysis	7471B		1	390376	12/04/17 13:53	BMB	TAL BUF

Client Sample ID: MW-7 (10-12)
Date Collected: 11/27/17 10:08
Date Received: 11/28/17 12:10

Lab Sample ID: 480-128053-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	389472	11/28/17 14:52	AEM	TAL BUF

Client Sample ID: MW-7 (10-12)
Date Collected: 11/27/17 10:08
Date Received: 11/28/17 12:10

Lab Sample ID: 480-128053-2
Matrix: Solid
Percent Solids: 83.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_L			389470	11/28/17 14:40	AEM	TAL BUF
Total/NA	Analysis	8260C		1	390557	12/05/17 17:55	AEM	TAL BUF

Client Sample ID: MW-1 (4-5.4)
Date Collected: 11/27/17 13:12
Date Received: 11/28/17 12:10

Lab Sample ID: 480-128053-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390380	12/04/17 17:06	MJH	TAL BUF

Lab Chronicle

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128053-1

Client Sample ID: MW-1 (4-5.4)

Date Collected: 11/27/17 13:12
Date Received: 11/28/17 12:10

Lab Sample ID: 480-128053-3

Matrix: Solid
Percent Solids: 88.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			389536	11/29/17 07:34	SMP	TAL BUF
Total/NA	Analysis	8270D		20	389895	11/30/17 17:28	DMR	TAL BUF
Total/NA	Prep	3050B			390531	12/05/17 13:44	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390887	12/06/17 20:58	LMH	TAL BUF
Total/NA	Prep	7471B			389941	12/04/17 11:20	EMB	TAL BUF
Total/NA	Analysis	7471B		1	390376	12/04/17 13:55	BMB	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Benchmark Env. Eng. & Science, PLLC
TestAmerica Job ID: 480-128053-1
Project/Site: 1827 Fillmore Avenue Site

Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128053-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
8081B	Organochlorine Pesticides (GC)	SW846	TAL BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL BUF
8151A	Herbicides (GC)	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
7471B	Mercury (CVAA)	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128053-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-128053-1	MW-7 (2-4)	Solid	11/27/17 10:04	11/28/17 12:10
480-128053-2	MW-7 (10-12)	Solid	11/27/17 10:08	11/28/17 12:10
480-128053-3	MW-1 (4-5.4)	Solid	11/27/17 13:12	11/28/17 12:10

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Tom Behrendt	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-105119-24832.7
Client Contact: Bryan Mayback	Phone: (716) 818-8358	E-Mail: brian.fischer@testamericainc.com		Page: Page 7 of 8
Company: Benchmark Env. Eng. & Science, PLLC				Job #:

Address: 2558 Hamburg Turnpike	Due Date Requested:
City: Lackawanna	TAT Requested (days): STD
State, Zip: NY, 14218	
Phone: 716-856-0599(Tel)	PO #: B0421-017-001
Email: bmayback@turnkeyllc.com	WO #:
Project Name: 1827 Fillmore Avenue Site - Soil	Project #: 48017094
Site:	SSOW#:

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010C, 7471B, 8270D	8081B, 8082A, 8151A	TCLP-SIM TAGS 8260	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N			
MW-7 (2-4)	11/27/17	1004	Grab	Solid			X	X			
MW-7 (10-12)	↓	1008	↓	Solid					X		
MW-1 (4-5.4)	↓	1312	↓	Solid			X				
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, Other:

480-128053 COC

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) CAT B

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		11/27/17 1500	BM		11-28-17 1120	TAL
2		11-28-17 1210	TAL		11/28/17 1210	
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.0 #1

Ver: 08/04/2016

Login Sample Receipt Checklist

Client: Benchmark Env. Eng. & Science, PLLC

Job Number: 480-128053-1

Login Number: 128053
List Number: 1
Creator: Janish, Carl M

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	BM
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-128098-1
Client Project/Site: 1827 Fillmore Avenue Site

For:
Benchmark Env. Eng. & Science, PLLC
2558 Hamburg Turnpike
Suite 300
Lackawanna, New York 14218

Attn: Mr. Michael Lesakowski

Joseph V. Giacomazza

Authorized for release by:
12/8/2017 12:50:54 PM
Joe Giacomazza, Project Management Assistant II
joe.giacomazza@testamericainc.com

Designee for

Brian Fischer, Manager of Project Management
(716)504-9835
brian.fischer@testamericainc.com

LINKS

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Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits
E	Result exceeded calibration range.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

GC/MS Semi VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F4	MS/MSD RPD exceeds control limits due to sample size difference.

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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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 (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-128098-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-128098-1

Comments
No additional comments.

Receipt
The samples were received on 11/29/2017 12:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.9º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-390018 recovered outside acceptance criteria, low biased, for 1,1,2-Trichloro-1,2,2-trifluoroethane. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported. The following samples are impacted: TP-3 (10-14.5) (480-128098-19) and TP-6 (10-11.5) (480-128098-22).

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

GC/MS Semi VOA
Method(s) 8270D: The following samples was diluted due to color and, viscosity: TP-5 (6-8) (480-128098-21) and TP-7 (8-10) (480-128098-23). Elevated reporting limits (RL) are provided.

Method(s) 8270D: The following sample required a dilution due to the nature of the sample matrix: TP-5 (6-8) (480-128098-21). 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.

Method(s) 8270D: The following samples were diluted due to the nature of the sample matrix: SS-7 (480-128098-7[MS]) and SS-7 (480-128098-7[MSD]). Because of this dilution, the surrogate spike and matrix spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method(s) 8270D: The following samples were diluted due to color, appearance and viscosity: SS-1 (480-128098-1), SS-2 (480-128098-2), SS-3 (480-128098-3), SS-4 (480-128098-4), SS-5 (480-128098-5), SS-6 (480-128098-6) and SS-7 (480-128098-7). Elevated reporting limits (RL) are provided.

Method(s) 8270D: The following samples required a dilution due to the nature of the sample matrix: SS-3 (480-128098-3) and SS-7 (480-128098-7). 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.

Method(s) 8270D: The continuing calibration verification (CCV) associated with batch 480-390093 recovered above the upper control limit for bis (2-chloroisopropyl) ether. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: SS-1 (480-128098-1), SS-2 (480-128098-2), SS-3 (480-128098-3), SS-4 (480-128098-4), SS-5 (480-128098-5), SS-6 (480-128098-6) and SS-7 (480-128098-7).

Method(s) 8270D: The continuing calibration verification (CCV) associated with batch 480-390352 recovered above the upper control limit for bis (2-chloroisopropyl) ether and N-Nitrosodi-n-propylamine. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: SS-8 (480-128098-8), SS-9 (480-128098-9), SS-10 (480-128098-10), SS-11 (480-128098-11), SS-12 (480-128098-12), SS-13 (480-128098-13), SS-14 (480-128098-14), SS-15 (480-128098-15), BLIND DUP #1 (480-128098-16), TP-1 (4-6) (480-128098-17), TP-2 (6-8) (480-128098-18), TP-3 (10-14.5) (480-128098-19) and TP-4 (1-3) (480-128098-20).

Method(s) 8270D: The following samples were diluted due to color, appearance and viscosity: SS-8 (480-128098-8), SS-9 (480-128098-9), SS-10 (480-128098-10), SS-11 (480-128098-11), SS-12 (480-128098-12), SS-13 (480-128098-13), SS-14 (480-128098-14), SS-15 (480-128098-15), BLIND DUP #1 (480-128098-16), TP-1 (4-6) (480-128098-17) and TP-3 (10-14.5) (480-128098-19). Elevated reporting limits (RL) are provided.

Job ID: 480-128098-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

Method(s) 8270D: The following samples required a dilution due to the nature of the sample matrix: SS-9 (480-128098-9), SS-11 (480-128098-11), SS-13 (480-128098-13), SS-14 (480-128098-14), TP-1 (4-6) (480-128098-17) and TP-3 (10-14.5) (480-128098-19). 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.

Method(s) 8270D: The continuing calibration verification (CCV) associated with batch 480-390533 recovered above the upper control limit for bis (2-chloroisopropyl) ether and N-Nitrosodi-n-propylamine. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: SS-13 (480-128098-13).

Method(s) 8270D: The following sample was diluted to bring the concentration of target analytes within the calibration range: SS-13 (480-128098-13). Elevated reporting limits (RLs) are provided.

Method(s) 8270D: The following sample required a dilution due to target analytes: SS-13 (480-128098-13). 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.

Method(s) 8270D: The initial calibration curve analyzed in analytical batch 480-385352 and associated with analytical batches 480-390093, 480-390352 and 480-390533 was outside acceptance criteria for the analyte Di-n-octyl phthalate. A standard at the reporting limit (RL) was analyzed and found to be acceptable. Since the samples were non-detect for this analyte the data has been reported.

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

GC Semi VOA

Method(s) 8081B: The following samples were diluted due to the nature of the sample matrix: SS-7 (480-128098-7[MS]) and SS-7 (480-128098-7[MSD]). As such, spike and surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method(s) 8081B: The following samples were diluted due to the nature of the sample matrix: SS-2 (480-128098-2), SS-7 (480-128098-7) and TP-1 (4-6) (480-128098-17). As such, surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method(s) 8081B: The following samples were diluted due to the abundance of target analytes: SS-8 (480-128098-8), SS-12 (480-128098-12), SS-13 (480-128098-13) and BLIND DUP #1 (480-128098-16). As such, surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method(s) 8081B: For method 8081, the recovery of the one surrogate in samples TP-4 (1-3) (480-128098-20) and TP-6 (10-11.5) (480-128098-22) exceeds quality control limits due to the sample matrix. The recovery of the secondary surrogate is within quality control criteria; no corrective action is required.

Method(s) 8081B: All primary data for analytical batch 390176 is reported from the RTX-CLPII column.

Method(s) 8081B: The percent difference in a multi-component continuing calibration verification is assessed on the basis of the total amount, individual peak calculations are only listed for completeness.

Method(s) 8082A: All primary data for analytical batch 390069 is reported from the ZB-5 column.

Method(s) 8082A: The percent difference in a multi-component continuing calibration verification is assessed on the basis of the total amount, individual peak calculations are only listed for completeness.

Method(s) 8151A: The continuing calibration verification (CCV) associated with batch 480-390371 recovered above the upper control limit for multiple analytes and surrogate 2,4-Dichlorophenylacetic acid. The samples associated with these CCVs were non-detect for the affected analytes and the surrogate results are not adversely affected; therefore, the data have been reported. The following samples are impacted: SS-2 (480-128098-2), SS-7 (480-128098-7), SS-8 (480-128098-8), SS-12 (480-128098-12), SS-13 (480-128098-13), BLIND DUP #1 (480-128098-16), TP-1 (4-6) (480-128098-17), TP-4 (1-3) (480-128098-20) and TP-6 (10-11.5) (480-128098-22).

Method(s) 8151A: Surrogate recovery for the following samples was outside control limits: SS-8 (480-128098-8) and TP-1 (4-6)

Job ID: 480-128098-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

(480-128098-17). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8151A: All primary data for analytical batch 390371 is reported from the RTX-CLPI column.

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

Metals

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

Organic Prep

Method(s) 3550C: The following samples required a Florisil clean-up, via EPA Method 3620C, to reduce matrix interferences: SS-2 (480-128098-2), SS-7 (480-128098-7), SS-7 (480-128098-7[MS]), SS-7 (480-128098-7[MSD]), SS-8 (480-128098-8), SS-12 (480-128098-12), SS-13 (480-128098-13), BLIND DUP #1 (480-128098-16), TP-1 (4-6) (480-128098-17), TP-4 (1-3) (480-128098-20) and TP-6 (10-11.5) (480-128098-22).

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

Detection Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: SS-1 — Lab Sample ID: 480-128098-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	1400	J	1700	170	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]pyrene	1200	J	1700	250	ug/Kg	10	☼	8270D	Total/NA
Benzo[b]fluoranthene	1800		1700	270	ug/Kg	10	☼	8270D	Total/NA
Benzo[g,h,i]perylene	990	J	1700	180	ug/Kg	10	☼	8270D	Total/NA
Benzo[k]fluoranthene	980	J	1700	220	ug/Kg	10	☼	8270D	Total/NA
Chrysene	1500	J	1700	380	ug/Kg	10	☼	8270D	Total/NA
Fluoranthene	2900		1700	180	ug/Kg	10	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	830	J	1700	210	ug/Kg	10	☼	8270D	Total/NA
Phenanthrene	1400	J	1700	250	ug/Kg	10	☼	8270D	Total/NA
Pyrene	2200		1700	200	ug/Kg	10	☼	8270D	Total/NA
Aluminum	4030		9.5	4.2	mg/Kg	1	☼	6010C	Total/NA
Arsenic	3.5		1.9	0.38	mg/Kg	1	☼	6010C	Total/NA
Barium	45.4		0.47	0.10	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.32		0.19	0.027	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.28		0.19	0.028	mg/Kg	1	☼	6010C	Total/NA
Calcium	118000	B	237	15.6	mg/Kg	5	☼	6010C	Total/NA
Chromium	7.9		0.47	0.19	mg/Kg	1	☼	6010C	Total/NA
Cobalt	2.8		0.47	0.047	mg/Kg	1	☼	6010C	Total/NA
Copper	15.5		4.7	0.99	mg/Kg	5	☼	6010C	Total/NA
Iron	8280		9.5	3.3	mg/Kg	1	☼	6010C	Total/NA
Lead	43.8		0.95	0.23	mg/Kg	1	☼	6010C	Total/NA
Magnesium	6410		18.9	0.88	mg/Kg	1	☼	6010C	Total/NA
Manganese	199		0.19	0.030	mg/Kg	1	☼	6010C	Total/NA
Nickel	10.8		4.7	0.22	mg/Kg	1	☼	6010C	Total/NA
Potassium	950		28.4	18.9	mg/Kg	1	☼	6010C	Total/NA
Sodium	168		133	12.3	mg/Kg	1	☼	6010C	Total/NA
Vanadium	12.6		0.47	0.10	mg/Kg	1	☼	6010C	Total/NA
Zinc	68.4		1.9	0.61	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.036		0.021	0.0086	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SS-2 — Lab Sample ID: 480-128098-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	2200		2000	300	ug/Kg	10	☼	8270D	Total/NA
Anthracene	4100		2000	500	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]anthracene	6000		2000	200	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]pyrene	4800		2000	300	ug/Kg	10	☼	8270D	Total/NA
Benzo[b]fluoranthene	6100		2000	320	ug/Kg	10	☼	8270D	Total/NA
Benzo[g,h,i]perylene	3000		2000	210	ug/Kg	10	☼	8270D	Total/NA
Benzo[k]fluoranthene	3600		2000	260	ug/Kg	10	☼	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	700	J	2000	690	ug/Kg	10	☼	8270D	Total/NA
Carbazole	2100		2000	240	ug/Kg	10	☼	8270D	Total/NA
Chrysene	5800		2000	450	ug/Kg	10	☼	8270D	Total/NA
Dibenz(a,h)anthracene	890	J	2000	360	ug/Kg	10	☼	8270D	Total/NA
Dibenzofuran	1300	J	2000	240	ug/Kg	10	☼	8270D	Total/NA
Fluoranthene	16000		2000	210	ug/Kg	10	☼	8270D	Total/NA
Fluorene	2100		2000	240	ug/Kg	10	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	2800		2000	250	ug/Kg	10	☼	8270D	Total/NA
Naphthalene	530	J	2000	260	ug/Kg	10	☼	8270D	Total/NA
Phenanthrene	15000		2000	300	ug/Kg	10	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SS-2 (Continued)

Lab Sample ID: 480-128098-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pyrene	12000		2000	240	ug/Kg	10	☼	8270D	Total/NA
4,4'-DDT	33	J	40	9.3	ug/Kg	20	☼	8081B	Total/NA
delta-BHC	12	J B	40	7.4	ug/Kg	20	☼	8081B	Total/NA
gamma-BHC (Lindane)	15	J	40	7.3	ug/Kg	20	☼	8081B	Total/NA
Aluminum	10800		12.9	5.7	mg/Kg	1	☼	6010C	Total/NA
Antimony	1.5	J	19.4	0.52	mg/Kg	1	☼	6010C	Total/NA
Arsenic	8.8		2.6	0.52	mg/Kg	1	☼	6010C	Total/NA
Barium	127		0.65	0.14	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.51		0.26	0.036	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.60		0.26	0.039	mg/Kg	1	☼	6010C	Total/NA
Calcium	29300	B	64.7	4.3	mg/Kg	1	☼	6010C	Total/NA
Chromium	26.6		0.65	0.26	mg/Kg	1	☼	6010C	Total/NA
Cobalt	7.2		0.65	0.065	mg/Kg	1	☼	6010C	Total/NA
Copper	81.2		1.3	0.27	mg/Kg	1	☼	6010C	Total/NA
Iron	45200		12.9	4.5	mg/Kg	1	☼	6010C	Total/NA
Lead	124		1.3	0.31	mg/Kg	1	☼	6010C	Total/NA
Magnesium	8570		25.9	1.2	mg/Kg	1	☼	6010C	Total/NA
Manganese	700		0.26	0.041	mg/Kg	1	☼	6010C	Total/NA
Nickel	21.3		6.5	0.30	mg/Kg	1	☼	6010C	Total/NA
Potassium	2160		38.8	25.9	mg/Kg	1	☼	6010C	Total/NA
Selenium	0.86	J	5.2	0.52	mg/Kg	1	☼	6010C	Total/NA
Sodium	150	J	181	16.8	mg/Kg	1	☼	6010C	Total/NA
Vanadium	36.4		0.65	0.14	mg/Kg	1	☼	6010C	Total/NA
Zinc	269		2.6	0.83	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.12		0.025	0.010	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SS-3

Lab Sample ID: 480-128098-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	4800	J	9100	1300	ug/Kg	50	☼	8270D	Total/NA
Anthracene	11000		9100	2300	ug/Kg	50	☼	8270D	Total/NA
Benzo[a]anthracene	21000		9100	910	ug/Kg	50	☼	8270D	Total/NA
Benzo[a]pyrene	17000		9100	1300	ug/Kg	50	☼	8270D	Total/NA
Benzo[b]fluoranthene	20000		9100	1500	ug/Kg	50	☼	8270D	Total/NA
Benzo[g,h,i]perylene	10000		9100	970	ug/Kg	50	☼	8270D	Total/NA
Benzo[k]fluoranthene	12000		9100	1200	ug/Kg	50	☼	8270D	Total/NA
Carbazole	5700	J	9100	1100	ug/Kg	50	☼	8270D	Total/NA
Chrysene	19000		9100	2000	ug/Kg	50	☼	8270D	Total/NA
Dibenzofuran	2400	J	9100	1100	ug/Kg	50	☼	8270D	Total/NA
Fluoranthene	49000		9100	970	ug/Kg	50	☼	8270D	Total/NA
Fluorene	4600	J	9100	1100	ug/Kg	50	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	9500		9100	1100	ug/Kg	50	☼	8270D	Total/NA
Naphthalene	1800	J	9100	1200	ug/Kg	50	☼	8270D	Total/NA
Phenanthrene	41000		9100	1300	ug/Kg	50	☼	8270D	Total/NA
Pyrene	37000		9100	1100	ug/Kg	50	☼	8270D	Total/NA
Aluminum	7150		12.0	5.3	mg/Kg	1	☼	6010C	Total/NA
Arsenic	2.8		2.4	0.48	mg/Kg	1	☼	6010C	Total/NA
Barium	131		0.60	0.13	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.33		0.24	0.034	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.34		0.24	0.036	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SS-3 (Continued)

Lab Sample ID: 480-128098-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	105000	B	60.2	4.0	mg/Kg	1	☼	6010C	Total/NA
Chromium	11.5		0.60	0.24	mg/Kg	1	☼	6010C	Total/NA
Cobalt	3.9		0.60	0.060	mg/Kg	1	☼	6010C	Total/NA
Copper	13.1		1.2	0.25	mg/Kg	1	☼	6010C	Total/NA
Iron	9460		12.0	4.2	mg/Kg	1	☼	6010C	Total/NA
Lead	36.6		1.2	0.29	mg/Kg	1	☼	6010C	Total/NA
Magnesium	23800		24.1	1.1	mg/Kg	1	☼	6010C	Total/NA
Manganese	248		0.24	0.039	mg/Kg	1	☼	6010C	Total/NA
Nickel	10.5		6.0	0.28	mg/Kg	1	☼	6010C	Total/NA
Potassium	1760		36.1	24.1	mg/Kg	1	☼	6010C	Total/NA
Sodium	222		169	15.7	mg/Kg	1	☼	6010C	Total/NA
Vanadium	16.8		0.60	0.13	mg/Kg	1	☼	6010C	Total/NA
Zinc	153		2.4	0.77	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.091		0.022	0.0089	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SS-4

Lab Sample ID: 480-128098-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	670	J	2000	390	ug/Kg	10	☼	8270D	Total/NA
Acenaphthene	4400		2000	290	ug/Kg	10	☼	8270D	Total/NA
Anthracene	9400		2000	490	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]anthracene	18000		2000	200	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]pyrene	15000		2000	290	ug/Kg	10	☼	8270D	Total/NA
Benzo[b]fluoranthene	19000		2000	310	ug/Kg	10	☼	8270D	Total/NA
Benzo[g,h,i]perylene	9000		2000	210	ug/Kg	10	☼	8270D	Total/NA
Benzo[k]fluoranthene	8600		2000	250	ug/Kg	10	☼	8270D	Total/NA
Carbazole	4600		2000	230	ug/Kg	10	☼	8270D	Total/NA
Chrysene	15000		2000	440	ug/Kg	10	☼	8270D	Total/NA
Dibenz(a,h)anthracene	2800		2000	350	ug/Kg	10	☼	8270D	Total/NA
Dibenzofuran	2200		2000	230	ug/Kg	10	☼	8270D	Total/NA
Fluoranthene	40000		2000	210	ug/Kg	10	☼	8270D	Total/NA
Fluorene	4300		2000	230	ug/Kg	10	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	8500		2000	240	ug/Kg	10	☼	8270D	Total/NA
Naphthalene	1500	J	2000	250	ug/Kg	10	☼	8270D	Total/NA
Phenanthrene	33000		2000	290	ug/Kg	10	☼	8270D	Total/NA
Pyrene	31000		2000	230	ug/Kg	10	☼	8270D	Total/NA
Aluminum	10500		12.1	5.3	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.74	J	18.2	0.49	mg/Kg	1	☼	6010C	Total/NA
Arsenic	4.6		2.4	0.49	mg/Kg	1	☼	6010C	Total/NA
Barium	194		0.61	0.13	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.49		0.24	0.034	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.50		0.24	0.036	mg/Kg	1	☼	6010C	Total/NA
Calcium	50800	B	60.6	4.0	mg/Kg	1	☼	6010C	Total/NA
Chromium	17.8		0.61	0.24	mg/Kg	1	☼	6010C	Total/NA
Cobalt	6.1		0.61	0.061	mg/Kg	1	☼	6010C	Total/NA
Copper	42.0		1.2	0.25	mg/Kg	1	☼	6010C	Total/NA
Iron	23200		12.1	4.2	mg/Kg	1	☼	6010C	Total/NA
Lead	109		1.2	0.29	mg/Kg	1	☼	6010C	Total/NA
Magnesium	16500		24.3	1.1	mg/Kg	1	☼	6010C	Total/NA
Manganese	493		0.24	0.039	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SS-4 (Continued) — Lab Sample ID: 480-128098-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	16.9		6.1	0.28	mg/Kg	1	☼	6010C	Total/NA
Potassium	2420		36.4	24.3	mg/Kg	1	☼	6010C	Total/NA
Selenium	0.88	J	4.9	0.49	mg/Kg	1	☼	6010C	Total/NA
Sodium	253		170	15.8	mg/Kg	1	☼	6010C	Total/NA
Vanadium	21.9		0.61	0.13	mg/Kg	1	☼	6010C	Total/NA
Zinc	285		2.4	0.78	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.073		0.023	0.0094	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SS-5 — Lab Sample ID: 480-128098-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	1200	J	1900	190	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]pyrene	1000	J	1900	280	ug/Kg	10	☼	8270D	Total/NA
Benzo[b]fluoranthene	1400	J	1900	310	ug/Kg	10	☼	8270D	Total/NA
Benzo[g,h,i]perylene	760	J	1900	200	ug/Kg	10	☼	8270D	Total/NA
Benzo[k]fluoranthene	640	J	1900	250	ug/Kg	10	☼	8270D	Total/NA
Chrysene	1100	J	1900	430	ug/Kg	10	☼	8270D	Total/NA
Fluoranthene	2400		1900	200	ug/Kg	10	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	670	J	1900	240	ug/Kg	10	☼	8270D	Total/NA
Phenanthrene	1500	J	1900	280	ug/Kg	10	☼	8270D	Total/NA
Pyrene	1900		1900	230	ug/Kg	10	☼	8270D	Total/NA
Aluminum	12000		11.4	5.0	mg/Kg	1	☼	6010C	Total/NA
Antimony	1.4	J	17.1	0.46	mg/Kg	1	☼	6010C	Total/NA
Arsenic	5.8		2.3	0.46	mg/Kg	1	☼	6010C	Total/NA
Barium	115		0.57	0.13	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.55		0.23	0.032	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.37		0.23	0.034	mg/Kg	1	☼	6010C	Total/NA
Calcium	37400	B	57.1	3.8	mg/Kg	1	☼	6010C	Total/NA
Chromium	20.9		0.57	0.23	mg/Kg	1	☼	6010C	Total/NA
Cobalt	6.4		0.57	0.057	mg/Kg	1	☼	6010C	Total/NA
Copper	80.0		1.1	0.24	mg/Kg	1	☼	6010C	Total/NA
Iron	20300		11.4	4.0	mg/Kg	1	☼	6010C	Total/NA
Lead	128		1.1	0.27	mg/Kg	1	☼	6010C	Total/NA
Magnesium	9450		22.8	1.1	mg/Kg	1	☼	6010C	Total/NA
Manganese	380		0.23	0.037	mg/Kg	1	☼	6010C	Total/NA
Nickel	21.9		5.7	0.26	mg/Kg	1	☼	6010C	Total/NA
Potassium	2800		34.3	22.8	mg/Kg	1	☼	6010C	Total/NA
Selenium	0.76	J	4.6	0.46	mg/Kg	1	☼	6010C	Total/NA
Sodium	148	J	160	14.8	mg/Kg	1	☼	6010C	Total/NA
Vanadium	27.2		0.57	0.13	mg/Kg	1	☼	6010C	Total/NA
Zinc	433		2.3	0.73	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.10		0.022	0.0089	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SS-6 — Lab Sample ID: 480-128098-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	1300	J	2000	300	ug/Kg	10	☼	8270D	Total/NA
Anthracene	3900		2000	500	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]anthracene	8300		2000	200	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]pyrene	7700		2000	300	ug/Kg	10	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SS-6 (Continued)

Lab Sample ID: 480-128098-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	10000		2000	320	ug/Kg	10	☼	8270D	Total/NA
Benzo[g,h,i]perylene	4600		2000	220	ug/Kg	10	☼	8270D	Total/NA
Benzo[k]fluoranthene	4000		2000	260	ug/Kg	10	☼	8270D	Total/NA
Carbazole	1700	J	2000	240	ug/Kg	10	☼	8270D	Total/NA
Chrysene	7700		2000	460	ug/Kg	10	☼	8270D	Total/NA
Dibenz(a,h)anthracene	1200	J	2000	360	ug/Kg	10	☼	8270D	Total/NA
Dibenzofuran	690	J	2000	240	ug/Kg	10	☼	8270D	Total/NA
Fluoranthene	20000		2000	220	ug/Kg	10	☼	8270D	Total/NA
Fluorene	1500	J	2000	240	ug/Kg	10	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	4400		2000	250	ug/Kg	10	☼	8270D	Total/NA
Naphthalene	400	J	2000	260	ug/Kg	10	☼	8270D	Total/NA
Phenanthrene	14000		2000	300	ug/Kg	10	☼	8270D	Total/NA
Pyrene	16000		2000	240	ug/Kg	10	☼	8270D	Total/NA
Aluminum	9520		12.6	5.5	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.56	J	18.8	0.50	mg/Kg	1	☼	6010C	Total/NA
Arsenic	4.9		2.5	0.50	mg/Kg	1	☼	6010C	Total/NA
Barium	115		0.63	0.14	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.52		0.25	0.035	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.49		0.25	0.038	mg/Kg	1	☼	6010C	Total/NA
Calcium	54200	B	62.8	4.1	mg/Kg	1	☼	6010C	Total/NA
Chromium	17.3		0.63	0.25	mg/Kg	1	☼	6010C	Total/NA
Cobalt	4.6		0.63	0.063	mg/Kg	1	☼	6010C	Total/NA
Copper	124		1.3	0.26	mg/Kg	1	☼	6010C	Total/NA
Iron	15800		12.6	4.4	mg/Kg	1	☼	6010C	Total/NA
Lead	115		1.3	0.30	mg/Kg	1	☼	6010C	Total/NA
Magnesium	14700		25.1	1.2	mg/Kg	1	☼	6010C	Total/NA
Manganese	386		0.25	0.040	mg/Kg	1	☼	6010C	Total/NA
Nickel	18.0		6.3	0.29	mg/Kg	1	☼	6010C	Total/NA
Potassium	2110		37.7	25.1	mg/Kg	1	☼	6010C	Total/NA
Sodium	187		176	16.3	mg/Kg	1	☼	6010C	Total/NA
Vanadium	19.9		0.63	0.14	mg/Kg	1	☼	6010C	Total/NA
Zinc	154		2.5	0.80	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.075		0.025	0.010	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SS-7

Lab Sample ID: 480-128098-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	1600	J F1	4000	580	ug/Kg	20	☼	8270D	Total/NA
Anthracene	3100	J F2 F1	4000	980	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]anthracene	6900	F2 F1	4000	400	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]pyrene	6200	F2 F1	4000	580	ug/Kg	20	☼	8270D	Total/NA
Benzo[b]fluoranthene	8100	F2	4000	630	ug/Kg	20	☼	8270D	Total/NA
Benzo[g,h,i]perylene	3700	J F2 F1	4000	420	ug/Kg	20	☼	8270D	Total/NA
Benzo[k]fluoranthene	4400	F2 F1	4000	510	ug/Kg	20	☼	8270D	Total/NA
Carbazole	1500	J F1	4000	470	ug/Kg	20	☼	8270D	Total/NA
Chrysene	6800	F2 F1	4000	880	ug/Kg	20	☼	8270D	Total/NA
Dibenz(a,h)anthracene	1100	J F2	4000	700	ug/Kg	20	☼	8270D	Total/NA
Dibenzofuran	730	J	4000	470	ug/Kg	20	☼	8270D	Total/NA
Fluoranthene	16000	F2	4000	420	ug/Kg	20	☼	8270D	Total/NA
Fluorene	1600	J F2 F1	4000	470	ug/Kg	20	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SS-7 (Continued)

Lab Sample ID: 480-128098-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Indeno[1,2,3-cd]pyrene	3200	J F2 F1	4000	490	ug/Kg	20	☼	8270D	Total/NA
Phenanthrene	12000	F2	4000	580	ug/Kg	20	☼	8270D	Total/NA
Pyrene	13000		4000	470	ug/Kg	20	☼	8270D	Total/NA
4,4'-DDT	42	J	97	23	ug/Kg	50	☼	8081B	Total/NA
alpha-BHC	27	J B	97	17	ug/Kg	50	☼	8081B	Total/NA
gamma-BHC (Lindane)	37	J	97	18	ug/Kg	50	☼	8081B	Total/NA
Aluminum	15600	F2	13.0	5.7	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.76	J F1	19.4	0.52	mg/Kg	1	☼	6010C	Total/NA
Arsenic	5.6		2.6	0.52	mg/Kg	1	☼	6010C	Total/NA
Barium	166	F2 F1	0.65	0.14	mg/Kg	1	☼	6010C	Total/NA
Beryllium	1.1		0.26	0.036	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.56		0.26	0.039	mg/Kg	1	☼	6010C	Total/NA
Calcium	51400	F2 B	64.8	4.3	mg/Kg	1	☼	6010C	Total/NA
Chromium	21.8		0.65	0.26	mg/Kg	1	☼	6010C	Total/NA
Cobalt	6.0		0.65	0.065	mg/Kg	1	☼	6010C	Total/NA
Copper	49.2		1.3	0.27	mg/Kg	1	☼	6010C	Total/NA
Iron	17400		13.0	4.5	mg/Kg	1	☼	6010C	Total/NA
Lead	188	F2 F1	1.3	0.31	mg/Kg	1	☼	6010C	Total/NA
Magnesium	10600		25.9	1.2	mg/Kg	1	☼	6010C	Total/NA
Manganese	930	F2	0.26	0.041	mg/Kg	1	☼	6010C	Total/NA
Nickel	18.2		6.5	0.30	mg/Kg	1	☼	6010C	Total/NA
Potassium	3400	F1	38.9	25.9	mg/Kg	1	☼	6010C	Total/NA
Selenium	0.57	J	5.2	0.52	mg/Kg	1	☼	6010C	Total/NA
Sodium	322		181	16.9	mg/Kg	1	☼	6010C	Total/NA
Vanadium	28.7		0.65	0.14	mg/Kg	1	☼	6010C	Total/NA
Zinc	166	F1	2.6	0.83	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.10		0.023	0.0095	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SS-8

Lab Sample ID: 480-128098-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	470	J	2400	360	ug/Kg	10	☼	8270D	Total/NA
Anthracene	1200	J	2400	600	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]anthracene	3600		2400	240	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]pyrene	3400		2400	360	ug/Kg	10	☼	8270D	Total/NA
Benzo[b]fluoranthene	4400		2400	390	ug/Kg	10	☼	8270D	Total/NA
Benzo[g,h,i]perylene	2100	J	2400	260	ug/Kg	10	☼	8270D	Total/NA
Benzo[k]fluoranthene	2500		2400	320	ug/Kg	10	☼	8270D	Total/NA
Carbazole	760	J	2400	290	ug/Kg	10	☼	8270D	Total/NA
Chrysene	4000		2400	550	ug/Kg	10	☼	8270D	Total/NA
Fluoranthene	9000		2400	260	ug/Kg	10	☼	8270D	Total/NA
Fluorene	460	J	2400	290	ug/Kg	10	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	1700	J	2400	300	ug/Kg	10	☼	8270D	Total/NA
Phenanthrene	6200		2400	360	ug/Kg	10	☼	8270D	Total/NA
Pyrene	7400		2400	290	ug/Kg	10	☼	8270D	Total/NA
4,4'-DDE	44		24	5.0	ug/Kg	10	☼	8081B	Total/NA
4,4'-DDT	47		24	5.6	ug/Kg	10	☼	8081B	Total/NA
alpha-BHC	6.7	J B	24	4.3	ug/Kg	10	☼	8081B	Total/NA
alpha-Chlordane	16	J	24	12	ug/Kg	10	☼	8081B	Total/NA
delta-BHC	7.0	J B	24	4.5	ug/Kg	10	☼	8081B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SS-8 (Continued)

Lab Sample ID: 480-128098-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
gamma-BHC (Lindane)	11	J	24	4.4	ug/Kg	10	☼	8081B	Total/NA
Heptachlor epoxide	13	J	24	6.2	ug/Kg	10	☼	8081B	Total/NA
Aluminum	14300		13.2	5.8	mg/Kg	1	☼	6010C	Total/NA
Arsenic	4.9		2.6	0.53	mg/Kg	1	☼	6010C	Total/NA
Barium	110		0.66	0.15	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.57		0.26	0.037	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.58		0.26	0.040	mg/Kg	1	☼	6010C	Total/NA
Calcium	7190	B	66.1	4.4	mg/Kg	1	☼	6010C	Total/NA
Chromium	25.2		0.66	0.26	mg/Kg	1	☼	6010C	Total/NA
Cobalt	6.5		0.66	0.066	mg/Kg	1	☼	6010C	Total/NA
Copper	30.7		1.3	0.28	mg/Kg	1	☼	6010C	Total/NA
Iron	19800		13.2	4.6	mg/Kg	1	☼	6010C	Total/NA
Lead	67.3		1.3	0.32	mg/Kg	1	☼	6010C	Total/NA
Magnesium	2870		26.4	1.2	mg/Kg	1	☼	6010C	Total/NA
Manganese	371		0.26	0.042	mg/Kg	1	☼	6010C	Total/NA
Nickel	19.8		6.6	0.30	mg/Kg	1	☼	6010C	Total/NA
Potassium	2420		39.6	26.4	mg/Kg	1	☼	6010C	Total/NA
Selenium	0.78	J	5.3	0.53	mg/Kg	1	☼	6010C	Total/NA
Sodium	90.6	J	185	17.2	mg/Kg	1	☼	6010C	Total/NA
Vanadium	30.4		0.66	0.15	mg/Kg	1	☼	6010C	Total/NA
Zinc	127		2.6	0.85	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.10		0.029	0.012	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SS-9

Lab Sample ID: 480-128098-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	850	J	3900	780	ug/Kg	20	☼	8270D	Total/NA
Acenaphthene	8100		3900	580	ug/Kg	20	☼	8270D	Total/NA
Anthracene	22000		3900	970	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]anthracene	37000		3900	390	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]pyrene	32000		3900	580	ug/Kg	20	☼	8270D	Total/NA
Benzo[b]fluoranthene	39000		3900	620	ug/Kg	20	☼	8270D	Total/NA
Benzo[g,h,i]perylene	17000		3900	420	ug/Kg	20	☼	8270D	Total/NA
Benzo[k]fluoranthene	21000		3900	510	ug/Kg	20	☼	8270D	Total/NA
Carbazole	9100		3900	460	ug/Kg	20	☼	8270D	Total/NA
Chrysene	32000		3900	880	ug/Kg	20	☼	8270D	Total/NA
Dibenz(a,h)anthracene	5400		3900	690	ug/Kg	20	☼	8270D	Total/NA
Dibenzofuran	4400		3900	460	ug/Kg	20	☼	8270D	Total/NA
Fluoranthene	84000		3900	420	ug/Kg	20	☼	8270D	Total/NA
Fluorene	8800		3900	460	ug/Kg	20	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	17000		3900	480	ug/Kg	20	☼	8270D	Total/NA
Naphthalene	1700	J	3900	510	ug/Kg	20	☼	8270D	Total/NA
Phenanthrene	67000		3900	580	ug/Kg	20	☼	8270D	Total/NA
Pyrene	67000		3900	460	ug/Kg	20	☼	8270D	Total/NA
Aluminum	7590		11.2	4.9	mg/Kg	1	☼	6010C	Total/NA
Arsenic	2.6		2.2	0.45	mg/Kg	1	☼	6010C	Total/NA
Barium	98.6		0.56	0.12	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.43		0.22	0.031	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.59		0.22	0.034	mg/Kg	1	☼	6010C	Total/NA
Calcium	137000	B	279	18.4	mg/Kg	5	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SS-9 (Continued)

Lab Sample ID: 480-128098-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	11.2		0.56	0.22	mg/Kg	1	☼	6010C	Total/NA
Cobalt	3.2		0.56	0.056	mg/Kg	1	☼	6010C	Total/NA
Copper	17.0		5.6	1.2	mg/Kg	5	☼	6010C	Total/NA
Iron	9320		11.2	3.9	mg/Kg	1	☼	6010C	Total/NA
Lead	27.1		1.1	0.27	mg/Kg	1	☼	6010C	Total/NA
Magnesium	39300		22.3	1.0	mg/Kg	1	☼	6010C	Total/NA
Manganese	308		0.22	0.036	mg/Kg	1	☼	6010C	Total/NA
Nickel	8.6		5.6	0.26	mg/Kg	1	☼	6010C	Total/NA
Potassium	1670		33.5	22.3	mg/Kg	1	☼	6010C	Total/NA
Sodium	278		156	14.5	mg/Kg	1	☼	6010C	Total/NA
Vanadium	16.3		0.56	0.12	mg/Kg	1	☼	6010C	Total/NA
Zinc	105		2.2	0.72	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.15		0.022	0.0089	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SS-10

Lab Sample ID: 480-128098-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	800	J	2400	350	ug/Kg	10	☼	8270D	Total/NA
Anthracene	1900	J	2400	590	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]anthracene	4900		2400	240	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]pyrene	4500		2400	350	ug/Kg	10	☼	8270D	Total/NA
Benzo[b]fluoranthene	5600		2400	380	ug/Kg	10	☼	8270D	Total/NA
Benzo[g,h,i]perylene	2800		2400	250	ug/Kg	10	☼	8270D	Total/NA
Benzo[k]fluoranthene	3600		2400	310	ug/Kg	10	☼	8270D	Total/NA
Carbazole	910	J	2400	280	ug/Kg	10	☼	8270D	Total/NA
Chrysene	5100		2400	530	ug/Kg	10	☼	8270D	Total/NA
Dibenzofuran	350	J	2400	280	ug/Kg	10	☼	8270D	Total/NA
Fluoranthene	12000		2400	250	ug/Kg	10	☼	8270D	Total/NA
Fluorene	730	J	2400	280	ug/Kg	10	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	2600		2400	290	ug/Kg	10	☼	8270D	Total/NA
Phenanthrene	7800		2400	350	ug/Kg	10	☼	8270D	Total/NA
Pyrene	9100		2400	280	ug/Kg	10	☼	8270D	Total/NA
Aluminum	11800		15.6	6.9	mg/Kg	1	☼	6010C	Total/NA
Arsenic	5.2		3.1	0.62	mg/Kg	1	☼	6010C	Total/NA
Barium	95.5		0.78	0.17	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.55		0.31	0.044	mg/Kg	1	☼	6010C	Total/NA
Cadmium	1.6		0.31	0.047	mg/Kg	1	☼	6010C	Total/NA
Calcium	41300	B	78.1	5.2	mg/Kg	1	☼	6010C	Total/NA
Chromium	23.6		0.78	0.31	mg/Kg	1	☼	6010C	Total/NA
Cobalt	8.8		0.78	0.078	mg/Kg	1	☼	6010C	Total/NA
Copper	35.1		1.6	0.33	mg/Kg	1	☼	6010C	Total/NA
Iron	16000		15.6	5.5	mg/Kg	1	☼	6010C	Total/NA
Lead	158		1.6	0.37	mg/Kg	1	☼	6010C	Total/NA
Magnesium	8950		31.2	1.4	mg/Kg	1	☼	6010C	Total/NA
Manganese	467		0.31	0.050	mg/Kg	1	☼	6010C	Total/NA
Nickel	19.9		7.8	0.36	mg/Kg	1	☼	6010C	Total/NA
Potassium	2540		46.8	31.2	mg/Kg	1	☼	6010C	Total/NA
Sodium	145	J	219	20.3	mg/Kg	1	☼	6010C	Total/NA
Vanadium	27.0		0.78	0.17	mg/Kg	1	☼	6010C	Total/NA
Zinc	179		3.1	1.0	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SS-10 (Continued)

Lab Sample ID: 480-128098-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.24		0.028	0.011	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SS-11

Lab Sample ID: 480-128098-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	1700	J	3900	570	ug/Kg	20	☼	8270D	Total/NA
Anthracene	4500		3900	960	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]anthracene	11000		3900	390	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]pyrene	9300		3900	570	ug/Kg	20	☼	8270D	Total/NA
Benzo[b]fluoranthene	12000		3900	620	ug/Kg	20	☼	8270D	Total/NA
Benzo[g,h,i]perylene	5300		3900	410	ug/Kg	20	☼	8270D	Total/NA
Benzo[k]fluoranthene	5500		3900	500	ug/Kg	20	☼	8270D	Total/NA
Carbazole	1900	J	3900	460	ug/Kg	20	☼	8270D	Total/NA
Chrysene	9600		3900	870	ug/Kg	20	☼	8270D	Total/NA
Dibenz(a,h)anthracene	1700	J	3900	690	ug/Kg	20	☼	8270D	Total/NA
Dibenzofuran	850	J	3900	460	ug/Kg	20	☼	8270D	Total/NA
Fluoranthene	25000		3900	410	ug/Kg	20	☼	8270D	Total/NA
Fluorene	1800	J	3900	460	ug/Kg	20	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	5100		3900	480	ug/Kg	20	☼	8270D	Total/NA
Phenanthrene	17000		3900	570	ug/Kg	20	☼	8270D	Total/NA
Pyrene	19000		3900	460	ug/Kg	20	☼	8270D	Total/NA
Aluminum	7240		12.4	5.5	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.77	J	18.6	0.50	mg/Kg	1	☼	6010C	Total/NA
Arsenic	3.8		2.5	0.50	mg/Kg	1	☼	6010C	Total/NA
Barium	77.5		0.62	0.14	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.35		0.25	0.035	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.44		0.25	0.037	mg/Kg	1	☼	6010C	Total/NA
Calcium	69700	B	62.0	4.1	mg/Kg	1	☼	6010C	Total/NA
Chromium	12.4		0.62	0.25	mg/Kg	1	☼	6010C	Total/NA
Cobalt	3.3		0.62	0.062	mg/Kg	1	☼	6010C	Total/NA
Copper	34.6		1.2	0.26	mg/Kg	1	☼	6010C	Total/NA
Iron	14900		12.4	4.3	mg/Kg	1	☼	6010C	Total/NA
Lead	74.0		1.2	0.30	mg/Kg	1	☼	6010C	Total/NA
Magnesium	7800		24.8	1.1	mg/Kg	1	☼	6010C	Total/NA
Manganese	646		0.25	0.040	mg/Kg	1	☼	6010C	Total/NA
Nickel	10.8		6.2	0.29	mg/Kg	1	☼	6010C	Total/NA
Potassium	1420		37.2	24.8	mg/Kg	1	☼	6010C	Total/NA
Sodium	220		174	16.1	mg/Kg	1	☼	6010C	Total/NA
Vanadium	15.4		0.62	0.14	mg/Kg	1	☼	6010C	Total/NA
Zinc	674		2.5	0.79	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.092		0.023	0.0094	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SS-12

Lab Sample ID: 480-128098-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	220	J	1100	170	ug/Kg	5	☼	8270D	Total/NA
Anthracene	460	J	1100	280	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]anthracene	830	J	1100	110	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]pyrene	690	J	1100	170	ug/Kg	5	☼	8270D	Total/NA
Benzo[b]fluoranthene	950	J	1100	180	ug/Kg	5	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SS-12 (Continued)

Lab Sample ID: 480-128098-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[g,h,i]perylene	440	J	1100	120	ug/Kg	5	☼	8270D	Total/NA
Benzo[k]fluoranthene	380	J	1100	150	ug/Kg	5	☼	8270D	Total/NA
Carbazole	210	J	1100	130	ug/Kg	5	☼	8270D	Total/NA
Chrysene	770	J	1100	250	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene	1900		1100	120	ug/Kg	5	☼	8270D	Total/NA
Fluorene	210	J	1100	130	ug/Kg	5	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	390	J	1100	140	ug/Kg	5	☼	8270D	Total/NA
Phenanthrene	1700		1100	170	ug/Kg	5	☼	8270D	Total/NA
Pyrene	1500		1100	130	ug/Kg	5	☼	8270D	Total/NA
4,4'-DDE	5.3	J	11	2.3	ug/Kg	5	☼	8081B	Total/NA
4,4'-DDT	12		11	2.6	ug/Kg	5	☼	8081B	Total/NA
Methoxychlor	12		11	2.3	ug/Kg	5	☼	8081B	Total/NA
Aluminum	15100		13.8	6.1	mg/Kg	1	☼	6010C	Total/NA
Arsenic	7.6		2.8	0.55	mg/Kg	1	☼	6010C	Total/NA
Barium	92.0		0.69	0.15	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.62		0.28	0.039	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.28		0.28	0.041	mg/Kg	1	☼	6010C	Total/NA
Calcium	10000	B	69.1	4.6	mg/Kg	1	☼	6010C	Total/NA
Chromium	21.1		0.69	0.28	mg/Kg	1	☼	6010C	Total/NA
Cobalt	7.2		0.69	0.069	mg/Kg	1	☼	6010C	Total/NA
Copper	19.4		1.4	0.29	mg/Kg	1	☼	6010C	Total/NA
Iron	18200		13.8	4.8	mg/Kg	1	☼	6010C	Total/NA
Lead	48.0		1.4	0.33	mg/Kg	1	☼	6010C	Total/NA
Magnesium	5250		27.6	1.3	mg/Kg	1	☼	6010C	Total/NA
Manganese	438		0.28	0.044	mg/Kg	1	☼	6010C	Total/NA
Nickel	20.4		6.9	0.32	mg/Kg	1	☼	6010C	Total/NA
Potassium	2550		41.5	27.6	mg/Kg	1	☼	6010C	Total/NA
Selenium	0.80	J	5.5	0.55	mg/Kg	1	☼	6010C	Total/NA
Sodium	105	J	193	18.0	mg/Kg	1	☼	6010C	Total/NA
Vanadium	29.1		0.69	0.15	mg/Kg	1	☼	6010C	Total/NA
Zinc	94.9		2.8	0.88	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.098		0.027	0.011	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SS-13

Lab Sample ID: 480-128098-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	2600	J	3700	750	ug/Kg	20	☼	8270D	Total/NA
Acenaphthene	16000		3700	550	ug/Kg	20	☼	8270D	Total/NA
Acenaphthylene	650	J	3700	480	ug/Kg	20	☼	8270D	Total/NA
Anthracene	41000		3700	930	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]anthracene	66000		3700	370	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]pyrene	51000		3700	550	ug/Kg	20	☼	8270D	Total/NA
Benzo[b]fluoranthene	63000		3700	590	ug/Kg	20	☼	8270D	Total/NA
Benzo[g,h,i]perylene	30000		3700	400	ug/Kg	20	☼	8270D	Total/NA
Benzo[k]fluoranthene	32000		3700	480	ug/Kg	20	☼	8270D	Total/NA
Biphenyl	940	J	3700	550	ug/Kg	20	☼	8270D	Total/NA
Carbazole	18000		3700	440	ug/Kg	20	☼	8270D	Total/NA
Chrysene	54000		3700	840	ug/Kg	20	☼	8270D	Total/NA
Dibenzofuran	10000		3700	440	ug/Kg	20	☼	8270D	Total/NA
Fluoranthene	150000	E	3700	400	ug/Kg	20	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SS-13 (Continued)

Lab Sample ID: 480-128098-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluorene	20000		3700	440	ug/Kg	20	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	30000		3700	460	ug/Kg	20	☼	8270D	Total/NA
Naphthalene	5400		3700	480	ug/Kg	20	☼	8270D	Total/NA
Phenanthrene	130000	E	3700	550	ug/Kg	20	☼	8270D	Total/NA
Pyrene	110000		3700	440	ug/Kg	20	☼	8270D	Total/NA
Acenaphthene - DL	16000	J	19000	2800	ug/Kg	100	☼	8270D	Total/NA
Anthracene - DL	38000		19000	4600	ug/Kg	100	☼	8270D	Total/NA
Benzo[a]anthracene - DL	64000		19000	1900	ug/Kg	100	☼	8270D	Total/NA
Benzo[a]pyrene - DL	52000		19000	2800	ug/Kg	100	☼	8270D	Total/NA
Benzo[b]fluoranthene - DL	61000		19000	3000	ug/Kg	100	☼	8270D	Total/NA
Benzo[g,h,i]perylene - DL	26000		19000	2000	ug/Kg	100	☼	8270D	Total/NA
Benzo[k]fluoranthene - DL	35000		19000	2400	ug/Kg	100	☼	8270D	Total/NA
Carbazole - DL	16000	J	19000	2200	ug/Kg	100	☼	8270D	Total/NA
Chrysene - DL	57000		19000	4200	ug/Kg	100	☼	8270D	Total/NA
Dibenz(a,h)anthracene - DL	8800	J	19000	3300	ug/Kg	100	☼	8270D	Total/NA
Dibenzofuran - DL	10000	J	19000	2200	ug/Kg	100	☼	8270D	Total/NA
Fluoranthene - DL	160000		19000	2000	ug/Kg	100	☼	8270D	Total/NA
Fluorene - DL	19000		19000	2200	ug/Kg	100	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene - DL	25000		19000	2300	ug/Kg	100	☼	8270D	Total/NA
Naphthalene - DL	5400	J	19000	2400	ug/Kg	100	☼	8270D	Total/NA
Phenanthrene - DL	140000		19000	2800	ug/Kg	100	☼	8270D	Total/NA
Pyrene - DL	120000		19000	2200	ug/Kg	100	☼	8270D	Total/NA
4,4'-DDD	12	J	37	7.1	ug/Kg	20	☼	8081B	Total/NA
4,4'-DDT	43		37	8.6	ug/Kg	20	☼	8081B	Total/NA
alpha-BHC	11	J B	37	6.6	ug/Kg	20	☼	8081B	Total/NA
delta-BHC	14	J B	37	6.8	ug/Kg	20	☼	8081B	Total/NA
Endrin	9.5	J	37	7.3	ug/Kg	20	☼	8081B	Total/NA
Endrin aldehyde	20	J	37	9.4	ug/Kg	20	☼	8081B	Total/NA
gamma-BHC (Lindane)	54		37	6.7	ug/Kg	20	☼	8081B	Total/NA
Methoxychlor	350		37	7.5	ug/Kg	20	☼	8081B	Total/NA
Aluminum	9590		11.3	5.0	mg/Kg	1	☼	6010C	Total/NA
Antimony	1.4	J	17.0	0.45	mg/Kg	1	☼	6010C	Total/NA
Arsenic	5.8		2.3	0.45	mg/Kg	1	☼	6010C	Total/NA
Barium	78.4		0.57	0.12	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.53		0.23	0.032	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.25		0.23	0.034	mg/Kg	1	☼	6010C	Total/NA
Calcium	48600	B	56.6	3.7	mg/Kg	1	☼	6010C	Total/NA
Chromium	15.6		0.57	0.23	mg/Kg	1	☼	6010C	Total/NA
Cobalt	4.2		0.57	0.057	mg/Kg	1	☼	6010C	Total/NA
Copper	45.0		1.1	0.24	mg/Kg	1	☼	6010C	Total/NA
Iron	18100		11.3	4.0	mg/Kg	1	☼	6010C	Total/NA
Lead	91.9		1.1	0.27	mg/Kg	1	☼	6010C	Total/NA
Magnesium	8000		22.6	1.0	mg/Kg	1	☼	6010C	Total/NA
Manganese	838		0.23	0.036	mg/Kg	1	☼	6010C	Total/NA
Nickel	14.2		5.7	0.26	mg/Kg	1	☼	6010C	Total/NA
Potassium	1610		33.9	22.6	mg/Kg	1	☼	6010C	Total/NA
Selenium	0.52	J	4.5	0.45	mg/Kg	1	☼	6010C	Total/NA
Sodium	299		158	14.7	mg/Kg	1	☼	6010C	Total/NA
Vanadium	21.2		0.57	0.12	mg/Kg	1	☼	6010C	Total/NA
Zinc	125		2.3	0.72	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SS-13 (Continued) — Lab Sample ID: 480-128098-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.061		0.022	0.0087	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SS-14 — Lab Sample ID: 480-128098-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	1500	J	4300	1100	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]anthracene	6100		4300	430	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]pyrene	5800		4300	630	ug/Kg	20	☼	8270D	Total/NA
Benzo[b]fluoranthene	8300		4300	680	ug/Kg	20	☼	8270D	Total/NA
Benzo[g,h,i]perylene	4100	J	4300	450	ug/Kg	20	☼	8270D	Total/NA
Benzo[k]fluoranthene	3500	J	4300	550	ug/Kg	20	☼	8270D	Total/NA
Carbazole	1100	J	4300	500	ug/Kg	20	☼	8270D	Total/NA
Chrysene	6400		4300	960	ug/Kg	20	☼	8270D	Total/NA
Fluoranthene	15000		4300	450	ug/Kg	20	☼	8270D	Total/NA
Fluorene	570	J	4300	500	ug/Kg	20	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	3500	J	4300	530	ug/Kg	20	☼	8270D	Total/NA
Phenanthrene	8500		4300	630	ug/Kg	20	☼	8270D	Total/NA
Pyrene	12000		4300	500	ug/Kg	20	☼	8270D	Total/NA
Aluminum	5940		13.3	5.8	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.56	J	19.9	0.53	mg/Kg	1	☼	6010C	Total/NA
Arsenic	5.2		2.7	0.53	mg/Kg	1	☼	6010C	Total/NA
Barium	51.2		0.66	0.15	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.34		0.27	0.037	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.45		0.27	0.040	mg/Kg	1	☼	6010C	Total/NA
Calcium	21200	B	66.3	4.4	mg/Kg	1	☼	6010C	Total/NA
Chromium	12.1		0.66	0.27	mg/Kg	1	☼	6010C	Total/NA
Cobalt	4.2		0.66	0.066	mg/Kg	1	☼	6010C	Total/NA
Copper	31.4		1.3	0.28	mg/Kg	1	☼	6010C	Total/NA
Iron	14700		13.3	4.6	mg/Kg	1	☼	6010C	Total/NA
Lead	62.0		1.3	0.32	mg/Kg	1	☼	6010C	Total/NA
Magnesium	5030		26.5	1.2	mg/Kg	1	☼	6010C	Total/NA
Manganese	367		0.27	0.042	mg/Kg	1	☼	6010C	Total/NA
Nickel	12.8		6.6	0.30	mg/Kg	1	☼	6010C	Total/NA
Potassium	1070		39.8	26.5	mg/Kg	1	☼	6010C	Total/NA
Selenium	0.61	J	5.3	0.53	mg/Kg	1	☼	6010C	Total/NA
Sodium	87.5	J	186	17.2	mg/Kg	1	☼	6010C	Total/NA
Vanadium	15.6		0.66	0.15	mg/Kg	1	☼	6010C	Total/NA
Zinc	180		2.7	0.85	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.098		0.026	0.010	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SS-15 — Lab Sample ID: 480-128098-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	270	J	1200	180	ug/Kg	5	☼	8270D	Total/NA
Anthracene	550	J	1200	300	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]anthracene	1000	J	1200	120	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]pyrene	840	J	1200	180	ug/Kg	5	☼	8270D	Total/NA
Benzo[b]fluoranthene	1100	J	1200	190	ug/Kg	5	☼	8270D	Total/NA
Benzo[g,h,i]perylene	480	J	1200	130	ug/Kg	5	☼	8270D	Total/NA
Benzo[k]fluoranthene	490	J	1200	160	ug/Kg	5	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SS-15 (Continued)

Lab Sample ID: 480-128098-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbazole	270	J	1200	140	ug/Kg	5	☼	8270D	Total/NA
Chrysene	960	J	1200	270	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene	2400		1200	130	ug/Kg	5	☼	8270D	Total/NA
Fluorene	260	J	1200	140	ug/Kg	5	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	450	J	1200	150	ug/Kg	5	☼	8270D	Total/NA
Phenanthrene	2200		1200	180	ug/Kg	5	☼	8270D	Total/NA
Pyrene	1900		1200	140	ug/Kg	5	☼	8270D	Total/NA
Aluminum	14500		14.8	6.5	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.61	J	22.3	0.59	mg/Kg	1	☼	6010C	Total/NA
Arsenic	4.9		3.0	0.59	mg/Kg	1	☼	6010C	Total/NA
Barium	86.0		0.74	0.16	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.59		0.30	0.042	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.32		0.30	0.045	mg/Kg	1	☼	6010C	Total/NA
Calcium	6050	B	74.2	4.9	mg/Kg	1	☼	6010C	Total/NA
Chromium	20.1		0.74	0.30	mg/Kg	1	☼	6010C	Total/NA
Cobalt	6.5		0.74	0.074	mg/Kg	1	☼	6010C	Total/NA
Copper	19.0		1.5	0.31	mg/Kg	1	☼	6010C	Total/NA
Iron	17700		14.8	5.2	mg/Kg	1	☼	6010C	Total/NA
Lead	38.2		1.5	0.36	mg/Kg	1	☼	6010C	Total/NA
Magnesium	3560		29.7	1.4	mg/Kg	1	☼	6010C	Total/NA
Manganese	277		0.30	0.047	mg/Kg	1	☼	6010C	Total/NA
Nickel	20.6		7.4	0.34	mg/Kg	1	☼	6010C	Total/NA
Potassium	1980		44.5	29.7	mg/Kg	1	☼	6010C	Total/NA
Sodium	78.9	J	208	19.3	mg/Kg	1	☼	6010C	Total/NA
Vanadium	28.9		0.74	0.16	mg/Kg	1	☼	6010C	Total/NA
Zinc	90.5		3.0	0.95	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.088		0.029	0.012	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: BLIND DUP #1

Lab Sample ID: 480-128098-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	630	J	1100	160	ug/Kg	5	☼	8270D	Total/NA
Anthracene	1000	J	1100	270	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]anthracene	1700		1100	110	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]pyrene	1600		1100	160	ug/Kg	5	☼	8270D	Total/NA
Benzo[b]fluoranthene	2100		1100	180	ug/Kg	5	☼	8270D	Total/NA
Benzo[g,h,i]perylene	1100		1100	120	ug/Kg	5	☼	8270D	Total/NA
Benzo[k]fluoranthene	890	J	1100	140	ug/Kg	5	☼	8270D	Total/NA
Carbazole	520	J	1100	130	ug/Kg	5	☼	8270D	Total/NA
Chrysene	1500		1100	250	ug/Kg	5	☼	8270D	Total/NA
Dibenzofuran	380	J	1100	130	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene	4200		1100	120	ug/Kg	5	☼	8270D	Total/NA
Fluorene	620	J	1100	130	ug/Kg	5	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	970	J	1100	140	ug/Kg	5	☼	8270D	Total/NA
Naphthalene	460	J	1100	140	ug/Kg	5	☼	8270D	Total/NA
Phenanthrene	4000		1100	160	ug/Kg	5	☼	8270D	Total/NA
Pyrene	3300		1100	130	ug/Kg	5	☼	8270D	Total/NA
4,4'-DDE	6.7	J	11	2.2	ug/Kg	5	☼	8081B	Total/NA
4,4'-DDT	12		11	2.5	ug/Kg	5	☼	8081B	Total/NA
gamma-BHC (Lindane)	3.8	J	11	2.0	ug/Kg	5	☼	8081B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: BLIND DUP #1 (Continued)

Lab Sample ID: 480-128098-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	12900		14.5	6.4	mg/Kg	1	☼	6010C	Total/NA
Arsenic	5.6		2.9	0.58	mg/Kg	1	☼	6010C	Total/NA
Barium	80.3		0.72	0.16	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.52		0.29	0.041	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.42		0.29	0.043	mg/Kg	1	☼	6010C	Total/NA
Calcium	8810	B	72.3	4.8	mg/Kg	1	☼	6010C	Total/NA
Chromium	18.1		0.72	0.29	mg/Kg	1	☼	6010C	Total/NA
Cobalt	6.7		0.72	0.072	mg/Kg	1	☼	6010C	Total/NA
Copper	18.4		1.4	0.30	mg/Kg	1	☼	6010C	Total/NA
Iron	16400		14.5	5.1	mg/Kg	1	☼	6010C	Total/NA
Lead	44.8		1.4	0.35	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4260		28.9	1.3	mg/Kg	1	☼	6010C	Total/NA
Manganese	546		0.29	0.046	mg/Kg	1	☼	6010C	Total/NA
Nickel	18.1		7.2	0.33	mg/Kg	1	☼	6010C	Total/NA
Potassium	2140		43.4	28.9	mg/Kg	1	☼	6010C	Total/NA
Selenium	0.94	J	5.8	0.58	mg/Kg	1	☼	6010C	Total/NA
Sodium	94.7	J	203	18.8	mg/Kg	1	☼	6010C	Total/NA
Vanadium	26.3		0.72	0.16	mg/Kg	1	☼	6010C	Total/NA
Zinc	86.6		2.9	0.93	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.080		0.026	0.011	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: TP-1 (4-6)

Lab Sample ID: 480-128098-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	470	J	4100	410	ug/Kg	20	☼	8270D	Total/NA
Fluoranthene	810	J	4100	430	ug/Kg	20	☼	8270D	Total/NA
Pyrene	660	J	4100	480	ug/Kg	20	☼	8270D	Total/NA
4,4'-DDT	14	J	41	9.5	ug/Kg	20	☼	8081B	Total/NA
gamma-BHC (Lindane)	11	J	41	7.4	ug/Kg	20	☼	8081B	Total/NA
Aluminum	12300		11.8	5.2	mg/Kg	1	☼	6010C	Total/NA
Arsenic	5.0		2.4	0.47	mg/Kg	1	☼	6010C	Total/NA
Barium	94.5		0.59	0.13	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.58		0.24	0.033	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.40		0.24	0.035	mg/Kg	1	☼	6010C	Total/NA
Calcium	19300	B	59.0	3.9	mg/Kg	1	☼	6010C	Total/NA
Chromium	15.7		0.59	0.24	mg/Kg	1	☼	6010C	Total/NA
Cobalt	5.5		0.59	0.059	mg/Kg	1	☼	6010C	Total/NA
Copper	42.2		1.2	0.25	mg/Kg	1	☼	6010C	Total/NA
Iron	14700		11.8	4.1	mg/Kg	1	☼	6010C	Total/NA
Lead	153		1.2	0.28	mg/Kg	1	☼	6010C	Total/NA
Magnesium	6700		23.6	1.1	mg/Kg	1	☼	6010C	Total/NA
Manganese	589		0.24	0.038	mg/Kg	1	☼	6010C	Total/NA
Nickel	13.5		5.9	0.27	mg/Kg	1	☼	6010C	Total/NA
Potassium	1640		35.4	23.6	mg/Kg	1	☼	6010C	Total/NA
Selenium	0.89	J	4.7	0.47	mg/Kg	1	☼	6010C	Total/NA
Sodium	230		165	15.3	mg/Kg	1	☼	6010C	Total/NA
Vanadium	25.0		0.59	0.13	mg/Kg	1	☼	6010C	Total/NA
Zinc	172		2.4	0.75	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.19		0.023	0.0095	mg/Kg	1	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TP-2 (6-8)

Lab Sample ID: 480-128098-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	38	J	200	30	ug/Kg	1	☼	8270D	Total/NA
Anthracene	71	J	200	50	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	230		200	20	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	220		200	30	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	320		200	32	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	170	J	200	21	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	120	J	200	26	ug/Kg	1	☼	8270D	Total/NA
Carbazole	43	J	200	24	ug/Kg	1	☼	8270D	Total/NA
Chrysene	270		200	45	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	590		200	21	ug/Kg	1	☼	8270D	Total/NA
Fluorene	30	J	200	24	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	150	J	200	25	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	390		200	30	ug/Kg	1	☼	8270D	Total/NA
Pyrene	480		200	24	ug/Kg	1	☼	8270D	Total/NA
Aluminum	7610		11.8	5.2	mg/Kg	1	☼	6010C	Total/NA
Arsenic	3.1		2.4	0.47	mg/Kg	1	☼	6010C	Total/NA
Barium	31.2		0.59	0.13	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.37		0.24	0.033	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.20	J	0.24	0.035	mg/Kg	1	☼	6010C	Total/NA
Calcium	9460	B	58.8	3.9	mg/Kg	1	☼	6010C	Total/NA
Chromium	15.8		0.59	0.24	mg/Kg	1	☼	6010C	Total/NA
Cobalt	3.5		0.59	0.059	mg/Kg	1	☼	6010C	Total/NA
Copper	8.2		1.2	0.25	mg/Kg	1	☼	6010C	Total/NA
Iron	8530		11.8	4.1	mg/Kg	1	☼	6010C	Total/NA
Lead	12.2		1.2	0.28	mg/Kg	1	☼	6010C	Total/NA
Magnesium	1660		23.5	1.1	mg/Kg	1	☼	6010C	Total/NA
Manganese	309		0.24	0.038	mg/Kg	1	☼	6010C	Total/NA
Nickel	13.2		5.9	0.27	mg/Kg	1	☼	6010C	Total/NA
Potassium	1350		35.3	23.5	mg/Kg	1	☼	6010C	Total/NA
Selenium	0.53	J	4.7	0.47	mg/Kg	1	☼	6010C	Total/NA
Sodium	169		165	15.3	mg/Kg	1	☼	6010C	Total/NA
Vanadium	16.4		0.59	0.13	mg/Kg	1	☼	6010C	Total/NA
Zinc	30.3		2.4	0.75	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.068		0.023	0.0092	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: TP-3 (10-14.5)

Lab Sample ID: 480-128098-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	10	J	29	4.9	ug/Kg	1	☼	8260C	Total/NA
Benzo[a]anthracene	1400	J	4000	400	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]pyrene	1500	J	4000	580	ug/Kg	20	☼	8270D	Total/NA
Benzo[b]fluoranthene	1800	J	4000	630	ug/Kg	20	☼	8270D	Total/NA
Benzo[g,h,i]perylene	1400	J	4000	420	ug/Kg	20	☼	8270D	Total/NA
Benzo[k]fluoranthene	1100	J	4000	510	ug/Kg	20	☼	8270D	Total/NA
Chrysene	1600	J	4000	880	ug/Kg	20	☼	8270D	Total/NA
Fluoranthene	2500	J	4000	420	ug/Kg	20	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	1000	J	4000	490	ug/Kg	20	☼	8270D	Total/NA
Phenanthrene	1300	J	4000	580	ug/Kg	20	☼	8270D	Total/NA
Pyrene	2000	J	4000	470	ug/Kg	20	☼	8270D	Total/NA
Aluminum	12900		12.4	5.5	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TP-3 (10-14.5) (Continued)

Lab Sample ID: 480-128098-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.73	J	18.6	0.50	mg/Kg	1	☼	6010C	Total/NA
Arsenic	13.6		2.5	0.50	mg/Kg	1	☼	6010C	Total/NA
Barium	102		0.62	0.14	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.77		0.25	0.035	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.60		0.25	0.037	mg/Kg	1	☼	6010C	Total/NA
Calcium	22800	B	62.1	4.1	mg/Kg	1	☼	6010C	Total/NA
Chromium	27.6		0.62	0.25	mg/Kg	1	☼	6010C	Total/NA
Cobalt	29.1		0.62	0.062	mg/Kg	1	☼	6010C	Total/NA
Copper	54.8		1.2	0.26	mg/Kg	1	☼	6010C	Total/NA
Iron	28100	B	12.4	4.3	mg/Kg	1	☼	6010C	Total/NA
Lead	156		1.2	0.30	mg/Kg	1	☼	6010C	Total/NA
Magnesium	6350		24.8	1.2	mg/Kg	1	☼	6010C	Total/NA
Manganese	2120	B	0.25	0.040	mg/Kg	1	☼	6010C	Total/NA
Nickel	25.3		6.2	0.29	mg/Kg	1	☼	6010C	Total/NA
Potassium	1900		37.2	24.8	mg/Kg	1	☼	6010C	Total/NA
Selenium	1.8	J	5.0	0.50	mg/Kg	1	☼	6010C	Total/NA
Sodium	483		174	16.1	mg/Kg	1	☼	6010C	Total/NA
Vanadium	48.0		0.62	0.14	mg/Kg	1	☼	6010C	Total/NA
Zinc	238		2.5	0.79	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.27		0.024	0.0098	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: TP-4 (1-3)

Lab Sample ID: 480-128098-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	130	J	230	23	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	120	J	230	33	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	150	J	230	36	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	92	J	230	24	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	100	J	230	29	ug/Kg	1	☼	8270D	Total/NA
Chrysene	130	J	230	51	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	280		230	24	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	78	J	230	28	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	160	J	230	33	ug/Kg	1	☼	8270D	Total/NA
Pyrene	220	J	230	27	ug/Kg	1	☼	8270D	Total/NA
4,4'-DDE	0.84	J	2.2	0.46	ug/Kg	1	☼	8081B	Total/NA
4,4'-DDT	1.4	J	2.2	0.52	ug/Kg	1	☼	8081B	Total/NA
alpha-BHC	0.61	J B	2.2	0.40	ug/Kg	1	☼	8081B	Total/NA
delta-BHC	0.66	J B	2.2	0.41	ug/Kg	1	☼	8081B	Total/NA
Aluminum	5370		13.2	5.8	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.54	J	19.8	0.53	mg/Kg	1	☼	6010C	Total/NA
Arsenic	9.5		2.6	0.53	mg/Kg	1	☼	6010C	Total/NA
Barium	76.2		0.66	0.15	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.66		0.26	0.037	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.21	J	0.26	0.040	mg/Kg	1	☼	6010C	Total/NA
Calcium	3120	B	66.1	4.4	mg/Kg	1	☼	6010C	Total/NA
Chromium	10.6		0.66	0.26	mg/Kg	1	☼	6010C	Total/NA
Cobalt	6.6		0.66	0.066	mg/Kg	1	☼	6010C	Total/NA
Copper	28.9		1.3	0.28	mg/Kg	1	☼	6010C	Total/NA
Iron	8030	B	13.2	4.6	mg/Kg	1	☼	6010C	Total/NA
Lead	91.7		1.3	0.32	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TP-4 (1-3) (Continued)

Lab Sample ID: 480-128098-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	583		26.4	1.2	mg/Kg	1	☼	6010C	Total/NA
Manganese	85.5	B	0.26	0.042	mg/Kg	1	☼	6010C	Total/NA
Nickel	17.5		6.6	0.30	mg/Kg	1	☼	6010C	Total/NA
Potassium	465		39.7	26.4	mg/Kg	1	☼	6010C	Total/NA
Selenium	0.67	J	5.3	0.53	mg/Kg	1	☼	6010C	Total/NA
Sodium	215		185	17.2	mg/Kg	1	☼	6010C	Total/NA
Vanadium	24.6		0.66	0.15	mg/Kg	1	☼	6010C	Total/NA
Zinc	85.6		2.6	0.85	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.33		0.026	0.011	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: TP-5 (6-8)

Lab Sample ID: 480-128098-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	3700	J	4000	400	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]pyrene	4400		4000	590	ug/Kg	20	☼	8270D	Total/NA
Benzo[b]fluoranthene	6100		4000	640	ug/Kg	20	☼	8270D	Total/NA
Benzo[g,h,i]perylene	3100	J	4000	420	ug/Kg	20	☼	8270D	Total/NA
Benzo[k]fluoranthene	2000	J	4000	520	ug/Kg	20	☼	8270D	Total/NA
Chrysene	4200		4000	890	ug/Kg	20	☼	8270D	Total/NA
Fluoranthene	7800		4000	420	ug/Kg	20	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	2900	J	4000	490	ug/Kg	20	☼	8270D	Total/NA
Phenanthrene	4100		4000	590	ug/Kg	20	☼	8270D	Total/NA
Pyrene	6000		4000	470	ug/Kg	20	☼	8270D	Total/NA
Aluminum	8200		11.2	4.9	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.55	J	16.9	0.45	mg/Kg	1	☼	6010C	Total/NA
Arsenic	10.3		2.2	0.45	mg/Kg	1	☼	6010C	Total/NA
Barium	85.8		0.56	0.12	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.47		0.22	0.031	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.57		0.22	0.034	mg/Kg	1	☼	6010C	Total/NA
Calcium	35200	B	56.2	3.7	mg/Kg	1	☼	6010C	Total/NA
Chromium	33.5		0.56	0.22	mg/Kg	1	☼	6010C	Total/NA
Cobalt	5.9		0.56	0.056	mg/Kg	1	☼	6010C	Total/NA
Copper	68.1		1.1	0.24	mg/Kg	1	☼	6010C	Total/NA
Iron	17000	B	11.2	3.9	mg/Kg	1	☼	6010C	Total/NA
Lead	335		1.1	0.27	mg/Kg	1	☼	6010C	Total/NA
Magnesium	6570		22.5	1.0	mg/Kg	1	☼	6010C	Total/NA
Manganese	906	B	0.22	0.036	mg/Kg	1	☼	6010C	Total/NA
Nickel	17.5		5.6	0.26	mg/Kg	1	☼	6010C	Total/NA
Potassium	1530		33.7	22.5	mg/Kg	1	☼	6010C	Total/NA
Selenium	0.71	J	4.5	0.45	mg/Kg	1	☼	6010C	Total/NA
Sodium	147	J	157	14.6	mg/Kg	1	☼	6010C	Total/NA
Vanadium	23.7		0.56	0.12	mg/Kg	1	☼	6010C	Total/NA
Zinc	174		2.2	0.72	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.50		0.022	0.0088	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: TP-6 (10-11.5)

Lab Sample ID: 480-128098-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	33	J	180	29	ug/Kg	1	☼	8270D	Total/NA
alpha-BHC	0.62	J B	1.8	0.33	ug/Kg	1	☼	8081B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TP-6 (10-11.5) (Continued)

Lab Sample ID: 480-128098-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
delta-BHC	0.54	J B	1.8	0.34	ug/Kg	1	☼	8081B	Total/NA
gamma-BHC (Lindane)	0.63	J	1.8	0.33	ug/Kg	1	☼	8081B	Total/NA
Methoxychlor	1.5	J	1.8	0.37	ug/Kg	1	☼	8081B	Total/NA
Aluminum	3480	F1	11.0	4.8	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.55	J	16.4	0.44	mg/Kg	1	☼	6010C	Total/NA
Arsenic	3.0		2.2	0.44	mg/Kg	1	☼	6010C	Total/NA
Barium	17.0		0.55	0.12	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.17	J	0.22	0.031	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.050	J	0.22	0.033	mg/Kg	1	☼	6010C	Total/NA
Calcium	2450	F2 B F1	54.8	3.6	mg/Kg	1	☼	6010C	Total/NA
Chromium	8.1		0.55	0.22	mg/Kg	1	☼	6010C	Total/NA
Cobalt	1.8		0.55	0.055	mg/Kg	1	☼	6010C	Total/NA
Copper	6.0		1.1	0.23	mg/Kg	1	☼	6010C	Total/NA
Iron	7060	F1 B	11.0	3.8	mg/Kg	1	☼	6010C	Total/NA
Lead	16.0		1.1	0.26	mg/Kg	1	☼	6010C	Total/NA
Magnesium	1160	F2 F1	21.9	1.0	mg/Kg	1	☼	6010C	Total/NA
Manganese	189	B	0.22	0.035	mg/Kg	1	☼	6010C	Total/NA
Nickel	4.6	J	5.5	0.25	mg/Kg	1	☼	6010C	Total/NA
Potassium	543		32.9	21.9	mg/Kg	1	☼	6010C	Total/NA
Selenium	0.50	J	4.4	0.44	mg/Kg	1	☼	6010C	Total/NA
Sodium	68.4	J	154	14.3	mg/Kg	1	☼	6010C	Total/NA
Vanadium	9.8		0.55	0.12	mg/Kg	1	☼	6010C	Total/NA
Zinc	22.9		2.2	0.70	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: TP-7 (8-10)

Lab Sample ID: 480-128098-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	540	J	1800	270	ug/Kg	10	☼	8270D	Total/NA
Anthracene	1400	J	1800	450	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]anthracene	2500		1800	180	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]pyrene	2300		1800	270	ug/Kg	10	☼	8270D	Total/NA
Benzo[b]fluoranthene	3000		1800	290	ug/Kg	10	☼	8270D	Total/NA
Benzo[g,h,i]perylene	1200	J	1800	190	ug/Kg	10	☼	8270D	Total/NA
Benzo[k]fluoranthene	1100	J	1800	230	ug/Kg	10	☼	8270D	Total/NA
Carbazole	650	J	1800	210	ug/Kg	10	☼	8270D	Total/NA
Chrysene	2300		1800	400	ug/Kg	10	☼	8270D	Total/NA
Dibenzofuran	370	J	1800	210	ug/Kg	10	☼	8270D	Total/NA
Fluoranthene	5900		1800	190	ug/Kg	10	☼	8270D	Total/NA
Fluorene	640	J	1800	210	ug/Kg	10	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	1300	J	1800	220	ug/Kg	10	☼	8270D	Total/NA
Phenanthrene	5000		1800	270	ug/Kg	10	☼	8270D	Total/NA
Pyrene	4300		1800	210	ug/Kg	10	☼	8270D	Total/NA
Aluminum	7720		10.8	4.7	mg/Kg	1	☼	6010C	Total/NA
Arsenic	4.6		2.2	0.43	mg/Kg	1	☼	6010C	Total/NA
Barium	59.6		0.54	0.12	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.33		0.22	0.030	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.33		0.22	0.032	mg/Kg	1	☼	6010C	Total/NA
Calcium	20300	B	53.8	3.6	mg/Kg	1	☼	6010C	Total/NA
Chromium	12.9		0.54	0.22	mg/Kg	1	☼	6010C	Total/NA
Cobalt	3.3		0.54	0.054	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TP-7 (8-10) (Continued)

Lab Sample ID: 480-128098-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	19.0		1.1	0.23	mg/Kg	1	☼	6010C	Total/NA
Iron	15500	B	10.8	3.8	mg/Kg	1	☼	6010C	Total/NA
Lead	41.2		1.1	0.26	mg/Kg	1	☼	6010C	Total/NA
Magnesium	3720		21.5	1.0	mg/Kg	1	☼	6010C	Total/NA
Manganese	541	B	0.22	0.034	mg/Kg	1	☼	6010C	Total/NA
Nickel	11.2		5.4	0.25	mg/Kg	1	☼	6010C	Total/NA
Potassium	1370		32.3	21.5	mg/Kg	1	☼	6010C	Total/NA
Sodium	177		151	14.0	mg/Kg	1	☼	6010C	Total/NA
Vanadium	17.6		0.54	0.12	mg/Kg	1	☼	6010C	Total/NA
Zinc	68.9		2.2	0.69	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.046		0.021	0.0086	mg/Kg	1	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SS-1
Date Collected: 11/28/17 09:06
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-1
Matrix: Solid
Percent Solids: 96.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		1700	460	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
2,4,6-Trichlorophenol	ND		1700	340	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
2,4-Dichlorophenol	ND		1700	180	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
2,4-Dimethylphenol	ND		1700	410	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
2,4-Dinitrophenol	ND		17000	7900	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
2,4-Dinitrotoluene	ND		1700	350	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
2,6-Dinitrotoluene	ND		1700	200	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
2-Chloronaphthalene	ND		1700	280	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
2-Chlorophenol	ND		1700	310	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
2-Methylnaphthalene	ND		1700	340	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
2-Methylphenol	ND		1700	200	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
2-Nitroaniline	ND		3300	250	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
2-Nitrophenol	ND		1700	480	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
3,3'-Dichlorobenzidine	ND		3300	2000	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
3-Nitroaniline	ND		3300	470	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
4,6-Dinitro-2-methylphenol	ND		3300	1700	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
4-Bromophenyl phenyl ether	ND		1700	240	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
4-Chloro-3-methylphenol	ND		1700	420	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
4-Chloroaniline	ND		1700	420	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
4-Chlorophenyl phenyl ether	ND		1700	210	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
4-Methylphenol	ND		3300	200	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
4-Nitroaniline	ND		3300	900	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
4-Nitrophenol	ND		3300	1200	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Acenaphthene	ND		1700	250	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Acenaphthylene	ND		1700	220	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Acetophenone	ND		1700	230	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Anthracene	ND		1700	420	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Atrazine	ND		1700	590	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Benzaldehyde	ND		1700	1400	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Benzo[a]anthracene	**1400**	**J**	1700	170	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Benzo[a]pyrene	**1200**	**J**	1700	250	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Benzo[b]fluoranthene	**1800**		1700	270	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Benzo[g,h,i]perylene	**990**	**J**	1700	180	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Benzo[k]fluoranthene	**980**	**J**	1700	220	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Biphenyl	ND		1700	250	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
bis (2-chloroisopropyl) ether	ND		1700	340	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Bis(2-chloroethoxy)methane	ND		1700	360	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Bis(2-chloroethyl)ether	ND		1700	220	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Bis(2-ethylhexyl) phthalate	ND		1700	580	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Butyl benzyl phthalate	ND		1700	280	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Caprolactam	ND		1700	510	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Carbazole	ND		1700	200	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Chrysene	**1500**	**J**	1700	380	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Dibenz(a,h)anthracene	ND		1700	300	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Dibenzofuran	ND		1700	200	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Diethyl phthalate	ND		1700	220	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Dimethyl phthalate	ND		1700	200	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Di-n-butyl phthalate	ND		1700	290	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Di-n-octyl phthalate	ND		1700	200	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10

Client Sample ID: SS-1
Date Collected: 11/28/17 09:06
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-1
Matrix: Solid
Percent Solids: 96.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	2900		1700	180	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Fluorene	ND		1700	200	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Hexachlorobenzene	ND		1700	230	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Hexachlorobutadiene	ND		1700	250	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Hexachlorocyclopentadiene	ND		1700	230	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Hexachloroethane	ND		1700	220	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Indeno[1,2,3-cd]pyrene	830	J	1700	210	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Isophorone	ND		1700	360	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Naphthalene	ND		1700	220	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Nitrobenzene	ND		1700	190	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
N-Nitrosodi-n-propylamine	ND		1700	290	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
N-Nitrosodiphenylamine	ND		1700	1400	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Pentachlorophenol	ND		3300	1700	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Phenanthrene	1400	J	1700	250	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Phenol	ND		1700	260	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10
Pyrene	2200		1700	200	ug/Kg	☼	11/30/17 06:48	12/01/17 18:05	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼			*11/30/17 06:48*	*12/01/17 18:05*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*104*		*54 - 120*	*11/30/17 06:48*	*12/01/17 18:05*	*10*
2-Fluorobiphenyl	*81*		*60 - 120*	*11/30/17 06:48*	*12/01/17 18:05*	*10*
2-Fluorophenol	*75*		*52 - 120*	*11/30/17 06:48*	*12/01/17 18:05*	*10*
Nitrobenzene-d5	*75*		*53 - 120*	*11/30/17 06:48*	*12/01/17 18:05*	*10*
Phenol-d5	*78*		*54 - 120*	*11/30/17 06:48*	*12/01/17 18:05*	*10*
p-Terphenyl-d14	*79*		*65 - 121*	*11/30/17 06:48*	*12/01/17 18:05*	*10*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	4030		9.5	4.2	mg/Kg	☼	12/01/17 07:37	12/06/17 00:27	1
Antimony	ND		14.2	0.38	mg/Kg	☼	12/01/17 07:37	12/06/17 00:27	1
Arsenic	3.5		1.9	0.38	mg/Kg	☼	12/01/17 07:37	12/06/17 00:27	1
Barium	45.4		0.47	0.10	mg/Kg	☼	12/01/17 07:37	12/06/17 00:27	1
Beryllium	0.32		0.19	0.027	mg/Kg	☼	12/01/17 07:37	12/06/17 00:27	1
Cadmium	0.28		0.19	0.028	mg/Kg	☼	12/01/17 07:37	12/06/17 00:27	1
Calcium	118000	B	237	15.6	mg/Kg	☼	12/01/17 07:37	12/06/17 15:23	5
Chromium	7.9		0.47	0.19	mg/Kg	☼	12/01/17 07:37	12/06/17 00:27	1
Cobalt	2.8		0.47	0.047	mg/Kg	☼	12/01/17 07:37	12/06/17 00:27	1
Copper	15.5		4.7	0.99	mg/Kg	☼	12/01/17 07:37	12/06/17 15:23	5
Iron	8280		9.5	3.3	mg/Kg	☼	12/01/17 07:37	12/06/17 00:27	1
Lead	43.8		0.95	0.23	mg/Kg	☼	12/01/17 07:37	12/06/17 00:27	1
Magnesium	6410		18.9	0.88	mg/Kg	☼	12/01/17 07:37	12/06/17 00:27	1
Manganese	199		0.19	0.030	mg/Kg	☼	12/01/17 07:37	12/06/17 00:27	1
Nickel	10.8		4.7	0.22	mg/Kg	☼	12/01/17 07:37	12/06/17 00:27	1
Potassium	950		28.4	18.9	mg/Kg	☼	12/01/17 07:37	12/06/17 00:27	1
Selenium	ND		3.8	0.38	mg/Kg	☼	12/01/17 07:37	12/06/17 00:27	1
Silver	ND		0.57	0.19	mg/Kg	☼	12/01/17 07:37	12/06/17 00:27	1
Sodium	168		133	12.3	mg/Kg	☼	12/01/17 07:37	12/06/17 00:27	1
Thallium	ND		5.7	0.28	mg/Kg	☼	12/01/17 07:37	12/06/17 00:27	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: SS-1
Date Collected: 11/28/17 09:06
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-1
Matrix: Solid
Percent Solids: 96.2

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	12.6		0.47	0.10	mg/Kg	☼	12/01/17 07:37	12/06/17 00:27	1
Zinc	68.4		1.9	0.61	mg/Kg	☼	12/01/17 07:37	12/06/17 00:27	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.036		0.021	0.0086	mg/Kg	☼	12/06/17 15:35	12/06/17 17:35	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: SS-2
Date Collected: 11/28/17 09:38
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-2
Matrix: Solid
Percent Solids: 82.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		2000	550	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
2,4,6-Trichlorophenol	ND		2000	400	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
2,4-Dichlorophenol	ND		2000	210	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
2,4-Dimethylphenol	ND		2000	490	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
2,4-Dinitrophenol	ND		20000	9300	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
2,4-Dinitrotoluene	ND		2000	420	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
2,6-Dinitrotoluene	ND		2000	240	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
2-Chloronaphthalene	ND		2000	330	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
2-Chlorophenol	ND		2000	370	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
2-Methylnaphthalene	ND		2000	400	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
2-Methylphenol	ND		2000	240	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
2-Nitroaniline	ND		3900	300	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
2-Nitrophenol	ND		2000	570	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
3,3'-Dichlorobenzidine	ND		3900	2400	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
3-Nitroaniline	ND		3900	560	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
4,6-Dinitro-2-methylphenol	ND		3900	2000	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
4-Bromophenyl phenyl ether	ND		2000	290	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
4-Chloro-3-methylphenol	ND		2000	500	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
4-Chloroaniline	ND		2000	500	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
4-Chlorophenyl phenyl ether	ND		2000	250	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
4-Methylphenol	ND		3900	240	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
4-Nitroaniline	ND		3900	1100	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
4-Nitrophenol	ND		3900	1400	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Acenaphthene	**2200**		2000	300	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Acenaphthylene	ND		2000	260	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Acetophenone	ND		2000	270	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Anthracene	**4100**		2000	500	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Atrazine	ND		2000	700	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Benzaldehyde	ND		2000	1600	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Benzo[a]anthracene	**6000**		2000	200	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Benzo[a]pyrene	**4800**		2000	300	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Benzo[b]fluoranthene	**6100**		2000	320	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Benzo[g,h,i]perylene	**3000**		2000	210	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Benzo[k]fluoranthene	**3600**		2000	260	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Biphenyl	ND		2000	300	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
bis (2-chloroisopropyl) ether	ND		2000	400	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Bis(2-chloroethoxy)methane	ND		2000	430	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Bis(2-chloroethyl)ether	ND		2000	260	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Bis(2-ethylhexyl) phthalate	**700**	**J**	2000	690	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Butyl benzyl phthalate	ND		2000	330	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Caprolactam	ND		2000	610	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Carbazole	**2100**		2000	240	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Chrysene	**5800**		2000	450	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Dibenz(a,h)anthracene	**890**	**J**	2000	360	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Dibenzofuran	**1300**	**J**	2000	240	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Diethyl phthalate	ND		2000	260	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Dimethyl phthalate	ND		2000	240	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Di-n-butyl phthalate	ND		2000	350	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Di-n-octyl phthalate	ND		2000	240	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: SS-2
Date Collected: 11/28/17 09:38
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-2
Matrix: Solid
Percent Solids: 82.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	16000		2000	210	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Fluorene	2100		2000	240	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Hexachlorobenzene	ND		2000	270	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Hexachlorobutadiene	ND		2000	300	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Hexachlorocyclopentadiene	ND		2000	270	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Hexachloroethane	ND		2000	260	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Indeno[1,2,3-cd]pyrene	2800		2000	250	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Isophorone	ND		2000	430	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Naphthalene	530	J	2000	260	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Nitrobenzene	ND		2000	230	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
N-Nitrosodi-n-propylamine	ND		2000	350	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
N-Nitrosodiphenylamine	ND		2000	1600	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Pentachlorophenol	ND		3900	2000	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Phenanthrene	15000		2000	300	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Phenol	ND		2000	310	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10
Pyrene	12000		2000	240	ug/Kg	☼	11/30/17 06:48	12/01/17 18:31	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*108*		*54 - 120*	*11/30/17 06:48*	*12/01/17 18:31*	*10*
2-Fluorobiphenyl	*80*		*60 - 120*	*11/30/17 06:48*	*12/01/17 18:31*	*10*
2-Fluorophenol	*75*		*52 - 120*	*11/30/17 06:48*	*12/01/17 18:31*	*10*
Nitrobenzene-d5	*72*		*53 - 120*	*11/30/17 06:48*	*12/01/17 18:31*	*10*
Phenol-d5	*81*		*54 - 120*	*11/30/17 06:48*	*12/01/17 18:31*	*10*
p-Terphenyl-d14	*89*		*65 - 121*	*11/30/17 06:48*	*12/01/17 18:31*	*10*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		40	7.7	ug/Kg	☼	12/01/17 09:11	12/02/17 16:30	20
4,4'-DDE	ND		40	8.3	ug/Kg	☼	12/01/17 09:11	12/02/17 16:30	20
4,4'-DDT	33	J	40	9.3	ug/Kg	☼	12/01/17 09:11	12/02/17 16:30	20
Aldrin	ND		40	9.8	ug/Kg	☼	12/01/17 09:11	12/02/17 16:30	20
alpha-BHC	ND		40	7.1	ug/Kg	☼	12/01/17 09:11	12/02/17 16:30	20
alpha-Chlordane	ND		40	20	ug/Kg	☼	12/01/17 09:11	12/02/17 16:30	20
beta-BHC	ND		40	7.1	ug/Kg	☼	12/01/17 09:11	12/02/17 16:30	20
delta-BHC	12	J B	40	7.4	ug/Kg	☼	12/01/17 09:11	12/02/17 16:30	20
Dieldrin	ND		40	9.5	ug/Kg	☼	12/01/17 09:11	12/02/17 16:30	20
Endosulfan I	ND		40	7.6	ug/Kg	☼	12/01/17 09:11	12/02/17 16:30	20
Endosulfan II	ND		40	7.1	ug/Kg	☼	12/01/17 09:11	12/02/17 16:30	20
Endosulfan sulfate	ND		40	7.4	ug/Kg	☼	12/01/17 09:11	12/02/17 16:30	20
Endrin	ND		40	7.9	ug/Kg	☼	12/01/17 09:11	12/02/17 16:30	20
Endrin aldehyde	ND		40	10	ug/Kg	☼	12/01/17 09:11	12/02/17 16:30	20
Endrin ketone	ND		40	9.8	ug/Kg	☼	12/01/17 09:11	12/02/17 16:30	20
gamma-BHC (Lindane)	15	J	40	7.3	ug/Kg	☼	12/01/17 09:11	12/02/17 16:30	20
gamma-Chlordane	ND		40	13	ug/Kg	☼	12/01/17 09:11	12/02/17 16:30	20
Heptachlor	ND		40	8.6	ug/Kg	☼	12/01/17 09:11	12/02/17 16:30	20
Heptachlor epoxide	ND		40	10	ug/Kg	☼	12/01/17 09:11	12/02/17 16:30	20
Methoxychlor	ND		40	8.1	ug/Kg	☼	12/01/17 09:11	12/02/17 16:30	20
Toxaphene	ND		400	230	ug/Kg	☼	12/01/17 09:11	12/02/17 16:30	20

Client Sample ID: SS-2

Date Collected: 11/28/17 09:38
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-2

Matrix: Solid
Percent Solids: 82.8

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*X*	*45 - 120*	*12/01/17 09:11*	*12/02/17 16:30*	*20*
DCB Decachlorobiphenyl	*0*	*X*	*45 - 120*	*12/01/17 09:11*	*12/02/17 16:30*	*20*
Tetrachloro-m-xylene	*119*		*30 - 124*	*12/01/17 09:11*	*12/02/17 16:30*	*20*
Tetrachloro-m-xylene	*158*	*X*	*30 - 124*	*12/01/17 09:11*	*12/02/17 16:30*	*20*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.28	0.055	mg/Kg	☼	11/30/17 11:28	12/01/17 15:32	1
PCB-1221	ND		0.28	0.055	mg/Kg	☼	11/30/17 11:28	12/01/17 15:32	1
PCB-1232	ND		0.28	0.055	mg/Kg	☼	11/30/17 11:28	12/01/17 15:32	1
PCB-1242	ND		0.28	0.055	mg/Kg	☼	11/30/17 11:28	12/01/17 15:32	1
PCB-1248	ND		0.28	0.055	mg/Kg	☼	11/30/17 11:28	12/01/17 15:32	1
PCB-1254	ND		0.28	0.13	mg/Kg	☼	11/30/17 11:28	12/01/17 15:32	1
PCB-1260	ND		0.28	0.13	mg/Kg	☼	11/30/17 11:28	12/01/17 15:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*105*		*60 - 154*	*11/30/17 11:28*	*12/01/17 15:32*	*1*
Tetrachloro-m-xylene	*90*		*60 - 154*	*11/30/17 11:28*	*12/01/17 15:32*	*1*
DCB Decachlorobiphenyl	*85*		*65 - 174*	*11/30/17 11:28*	*12/01/17 15:32*	*1*
DCB Decachlorobiphenyl	*82*		*65 - 174*	*11/30/17 11:28*	*12/01/17 15:32*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		20	6.4	ug/Kg	☼	11/30/17 14:30	12/04/17 20:23	1
Silvex (2,4,5-TP)	ND		20	7.2	ug/Kg	☼	11/30/17 14:30	12/04/17 20:23	1
2,4-D	ND		20	13	ug/Kg	☼	11/30/17 14:30	12/04/17 20:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*78*		*28 - 129*	*11/30/17 14:30*	*12/04/17 20:23*	*1*
2,4-Dichlorophenylacetic acid	*114*		*28 - 129*	*11/30/17 14:30*	*12/04/17 20:23*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**10800**		12.9	5.7	mg/Kg	☼	12/01/17 07:37	12/06/17 00:31	1
Antimony	**1.5**	**J**	19.4	0.52	mg/Kg	☼	12/01/17 07:37	12/06/17 00:31	1
Arsenic	**8.8**		2.6	0.52	mg/Kg	☼	12/01/17 07:37	12/06/17 00:31	1
Barium	**127**		0.65	0.14	mg/Kg	☼	12/01/17 07:37	12/06/17 00:31	1
Beryllium	**0.51**		0.26	0.036	mg/Kg	☼	12/01/17 07:37	12/06/17 00:31	1
Cadmium	**0.60**		0.26	0.039	mg/Kg	☼	12/01/17 07:37	12/06/17 00:31	1
Calcium	**29300**	**B**	64.7	4.3	mg/Kg	☼	12/01/17 07:37	12/06/17 00:31	1
Chromium	**26.6**		0.65	0.26	mg/Kg	☼	12/01/17 07:37	12/06/17 00:31	1
Cobalt	**7.2**		0.65	0.065	mg/Kg	☼	12/01/17 07:37	12/06/17 00:31	1
Copper	**81.2**		1.3	0.27	mg/Kg	☼	12/01/17 07:37	12/06/17 00:31	1
Iron	**45200**		12.9	4.5	mg/Kg	☼	12/01/17 07:37	12/06/17 00:31	1
Lead	**124**		1.3	0.31	mg/Kg	☼	12/01/17 07:37	12/06/17 00:31	1
Magnesium	**8570**		25.9	1.2	mg/Kg	☼	12/01/17 07:37	12/06/17 00:31	1
Manganese	**700**		0.26	0.041	mg/Kg	☼	12/01/17 07:37	12/06/17 00:31	1
Nickel	**21.3**		6.5	0.30	mg/Kg	☼	12/01/17 07:37	12/06/17 00:31	1
Potassium	**2160**		38.8	25.9	mg/Kg	☼	12/01/17 07:37	12/06/17 00:31	1
Selenium	**0.86**	**J**	5.2	0.52	mg/Kg	☼	12/01/17 07:37	12/06/17 00:31	1
Silver	ND		0.78	0.26	mg/Kg	☼	12/01/17 07:37	12/06/17 00:31	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: SS-2
Date Collected: 11/28/17 09:38
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-2
Matrix: Solid
Percent Solids: 82.8

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	150	J	181	16.8	mg/Kg	☼	12/01/17 07:37	12/06/17 00:31	1
Thallium	ND		7.8	0.39	mg/Kg	☼	12/01/17 07:37	12/06/17 00:31	1
Vanadium	36.4		0.65	0.14	mg/Kg	☼	12/01/17 07:37	12/06/17 00:31	1
Zinc	269		2.6	0.83	mg/Kg	☼	12/01/17 07:37	12/06/17 00:31	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.12		0.025	0.010	mg/Kg	☼	12/06/17 15:35	12/06/17 17:36	1

Client Sample ID: SS-3
Date Collected: 11/28/17 09:28
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-3
Matrix: Solid
Percent Solids: 90.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		9100	2500	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
2,4,6-Trichlorophenol	ND		9100	1800	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
2,4-Dichlorophenol	ND		9100	970	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
2,4-Dimethylphenol	ND		9100	2200	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
2,4-Dinitrophenol	ND		89000	42000	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
2,4-Dinitrotoluene	ND		9100	1900	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
2,6-Dinitrotoluene	ND		9100	1100	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
2-Chloronaphthalene	ND		9100	1500	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
2-Chlorophenol	ND		9100	1700	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
2-Methylnaphthalene	ND		9100	1800	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
2-Methylphenol	ND		9100	1100	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
2-Nitroaniline	ND		18000	1300	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
2-Nitrophenol	ND		9100	2600	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
3,3'-Dichlorobenzidine	ND		18000	11000	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
3-Nitroaniline	ND		18000	2500	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
4,6-Dinitro-2-methylphenol	ND		18000	9100	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
4-Bromophenyl phenyl ether	ND		9100	1300	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
4-Chloro-3-methylphenol	ND		9100	2300	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
4-Chloroaniline	ND		9100	2300	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
4-Chlorophenyl phenyl ether	ND		9100	1100	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
4-Methylphenol	ND		18000	1100	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
4-Nitroaniline	ND		18000	4800	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
4-Nitrophenol	ND		18000	6400	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Acenaphthene	**4800**	**J**	9100	1300	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Acenaphthylene	ND		9100	1200	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Acetophenone	ND		9100	1200	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Anthracene	**11000**		9100	2300	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Atrazine	ND		9100	3200	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Benzaldehyde	ND		9100	7300	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Benzo[a]anthracene	**21000**		9100	910	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Benzo[a]pyrene	**17000**		9100	1300	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Benzo[b]fluoranthene	**20000**		9100	1500	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Benzo[g,h,i]perylene	**10000**		9100	970	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Benzo[k]fluoranthene	**12000**		9100	1200	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Biphenyl	ND		9100	1300	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
bis (2-chloroisopropyl) ether	ND		9100	1800	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Bis(2-chloroethoxy)methane	ND		9100	1900	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Bis(2-chloroethyl)ether	ND		9100	1200	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Bis(2-ethylhexyl) phthalate	ND		9100	3100	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Butyl benzyl phthalate	ND		9100	1500	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Caprolactam	ND		9100	2700	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Carbazole	**5700**	**J**	9100	1100	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Chrysene	**19000**		9100	2000	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Dibenz(a,h)anthracene	ND		9100	1600	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Dibenzofuran	**2400**	**J**	9100	1100	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Diethyl phthalate	ND		9100	1200	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Dimethyl phthalate	ND		9100	1100	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Di-n-butyl phthalate	ND		9100	1600	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Di-n-octyl phthalate	ND		9100	1100	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50

Client Sample ID: SS-3
Date Collected: 11/28/17 09:28
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-3
Matrix: Solid
Percent Solids: 90.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	49000		9100	970	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Fluorene	4600	J	9100	1100	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Hexachlorobenzene	ND		9100	1200	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Hexachlorobutadiene	ND		9100	1300	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Hexachlorocyclopentadiene	ND		9100	1200	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Hexachloroethane	ND		9100	1200	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Indeno[1,2,3-cd]pyrene	9500		9100	1100	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Isophorone	ND		9100	1900	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Naphthalene	1800	J	9100	1200	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Nitrobenzene	ND		9100	1000	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
N-Nitrosodi-n-propylamine	ND		9100	1600	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
N-Nitrosodiphenylamine	ND		9100	7400	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Pentachlorophenol	ND		18000	9100	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Phenanthrene	41000		9100	1300	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Phenol	ND		9100	1400	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50
Pyrene	37000		9100	1100	ug/Kg	☼	11/30/17 06:48	12/01/17 18:58	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*0*	*X*	*54 - 120*	*11/30/17 06:48*	*12/01/17 18:58*	*50*
2-Fluorobiphenyl	*54*	*X*	*60 - 120*	*11/30/17 06:48*	*12/01/17 18:58*	*50*
2-Fluorophenol	*0*	*X*	*52 - 120*	*11/30/17 06:48*	*12/01/17 18:58*	*50*
Nitrobenzene-d5	*41*	*X*	*53 - 120*	*11/30/17 06:48*	*12/01/17 18:58*	*50*
Phenol-d5	*43*	*X*	*54 - 120*	*11/30/17 06:48*	*12/01/17 18:58*	*50*
p-Terphenyl-d14	*0*	*X*	*65 - 121*	*11/30/17 06:48*	*12/01/17 18:58*	*50*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	7150		12.0	5.3	mg/Kg	☼	12/01/17 07:37	12/06/17 00:35	1
Antimony	ND		18.1	0.48	mg/Kg	☼	12/01/17 07:37	12/06/17 00:35	1
Arsenic	2.8		2.4	0.48	mg/Kg	☼	12/01/17 07:37	12/06/17 00:35	1
Barium	131		0.60	0.13	mg/Kg	☼	12/01/17 07:37	12/06/17 00:35	1
Beryllium	0.33		0.24	0.034	mg/Kg	☼	12/01/17 07:37	12/06/17 00:35	1
Cadmium	0.34		0.24	0.036	mg/Kg	☼	12/01/17 07:37	12/06/17 00:35	1
Calcium	105000	B	60.2	4.0	mg/Kg	☼	12/01/17 07:37	12/06/17 00:35	1
Chromium	11.5		0.60	0.24	mg/Kg	☼	12/01/17 07:37	12/06/17 00:35	1
Cobalt	3.9		0.60	0.060	mg/Kg	☼	12/01/17 07:37	12/06/17 00:35	1
Copper	13.1		1.2	0.25	mg/Kg	☼	12/01/17 07:37	12/06/17 00:35	1
Iron	9460		12.0	4.2	mg/Kg	☼	12/01/17 07:37	12/06/17 00:35	1
Lead	36.6		1.2	0.29	mg/Kg	☼	12/01/17 07:37	12/06/17 00:35	1
Magnesium	23800		24.1	1.1	mg/Kg	☼	12/01/17 07:37	12/06/17 00:35	1
Manganese	248		0.24	0.039	mg/Kg	☼	12/01/17 07:37	12/06/17 00:35	1
Nickel	10.5		6.0	0.28	mg/Kg	☼	12/01/17 07:37	12/06/17 00:35	1
Potassium	1760		36.1	24.1	mg/Kg	☼	12/01/17 07:37	12/06/17 00:35	1
Selenium	ND		4.8	0.48	mg/Kg	☼	12/01/17 07:37	12/06/17 00:35	1
Silver	ND		0.72	0.24	mg/Kg	☼	12/01/17 07:37	12/06/17 00:35	1
Sodium	222		169	15.7	mg/Kg	☼	12/01/17 07:37	12/06/17 00:35	1
Thallium	ND		7.2	0.36	mg/Kg	☼	12/01/17 07:37	12/06/17 00:35	1
Vanadium	16.8		0.60	0.13	mg/Kg	☼	12/01/17 07:37	12/06/17 00:35	1
Zinc	153		2.4	0.77	mg/Kg	☼	12/01/17 07:37	12/06/17 00:35	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: SS-3
Date Collected: 11/28/17 09:28
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-3
Matrix: Solid
Percent Solids: 90.2

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.091		0.022	0.0089	mg/Kg	☼	12/06/17 15:35	12/06/17 17:38	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: SS-4
Date Collected: 11/28/17 09:55
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-4
Matrix: Solid
Percent Solids: 85.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		2000	530	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
2,4,6-Trichlorophenol	ND		2000	390	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
2,4-Dichlorophenol	ND		2000	210	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
2,4-Dimethylphenol	ND		2000	470	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
2,4-Dinitrophenol	ND		19000	9100	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
2,4-Dinitrotoluene	ND		2000	400	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
2,6-Dinitrotoluene	ND		2000	230	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
2-Chloronaphthalene	ND		2000	320	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
2-Chlorophenol	ND		2000	360	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
2-Methylnaphthalene	**670**	**J**	2000	390	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
2-Methylphenol	ND		2000	230	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
2-Nitroaniline	ND		3800	290	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
2-Nitrophenol	ND		2000	560	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
3,3'-Dichlorobenzidine	ND		3800	2300	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
3-Nitroaniline	ND		3800	540	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
4,6-Dinitro-2-methylphenol	ND		3800	2000	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
4-Bromophenyl phenyl ether	ND		2000	280	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
4-Chloro-3-methylphenol	ND		2000	490	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
4-Chloroaniline	ND		2000	490	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
4-Chlorophenyl phenyl ether	ND		2000	240	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
4-Methylphenol	ND		3800	230	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
4-Nitroaniline	ND		3800	1000	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
4-Nitrophenol	ND		3800	1400	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Acenaphthene	**4400**		2000	290	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Acenaphthylene	ND		2000	250	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Acetophenone	ND		2000	270	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Anthracene	**9400**		2000	490	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Atrazine	ND		2000	680	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Benzaldehyde	ND		2000	1600	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Benzo[a]anthracene	**18000**		2000	200	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Benzo[a]pyrene	**15000**		2000	290	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Benzo[b]fluoranthene	**19000**		2000	310	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Benzo[g,h,i]perylene	**9000**		2000	210	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Benzo[k]fluoranthene	**8600**		2000	250	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Biphenyl	ND		2000	290	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
bis (2-chloroisopropyl) ether	ND		2000	390	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Bis(2-chloroethoxy)methane	ND		2000	420	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Bis(2-chloroethyl)ether	ND		2000	250	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Bis(2-ethylhexyl) phthalate	ND		2000	670	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Butyl benzyl phthalate	ND		2000	320	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Caprolactam	ND		2000	590	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Carbazole	**4600**		2000	230	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Chrysene	**15000**		2000	440	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Dibenz(a,h)anthracene	**2800**		2000	350	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Dibenzofuran	**2200**		2000	230	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Diethyl phthalate	ND		2000	250	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Dimethyl phthalate	ND		2000	230	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Di-n-butyl phthalate	ND		2000	340	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Di-n-octyl phthalate	ND		2000	230	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10

Client Sample ID: SS-4
Date Collected: 11/28/17 09:55
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-4
Matrix: Solid
Percent Solids: 85.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	40000		2000	210	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Fluorene	4300		2000	230	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Hexachlorobenzene	ND		2000	270	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Hexachlorobutadiene	ND		2000	290	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Hexachlorocyclopentadiene	ND		2000	270	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Hexachloroethane	ND		2000	250	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Indeno[1,2,3-cd]pyrene	8500		2000	240	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Isophorone	ND		2000	420	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Naphthalene	1500	J	2000	250	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Nitrobenzene	ND		2000	220	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
N-Nitrosodi-n-propylamine	ND		2000	340	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
N-Nitrosodiphenylamine	ND		2000	1600	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Pentachlorophenol	ND		3800	2000	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Phenanthrene	33000		2000	290	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Phenol	ND		2000	300	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10
Pyrene	31000		2000	230	ug/Kg	☼	11/30/17 06:48	12/01/17 19:24	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*109*		*54 - 120*	*11/30/17 06:48*	*12/01/17 19:24*	*10*
2-Fluorobiphenyl	*83*		*60 - 120*	*11/30/17 06:48*	*12/01/17 19:24*	*10*
2-Fluorophenol	*75*		*52 - 120*	*11/30/17 06:48*	*12/01/17 19:24*	*10*
Nitrobenzene-d5	*72*		*53 - 120*	*11/30/17 06:48*	*12/01/17 19:24*	*10*
Phenol-d5	*81*		*54 - 120*	*11/30/17 06:48*	*12/01/17 19:24*	*10*
p-Terphenyl-d14	*89*		*65 - 121*	*11/30/17 06:48*	*12/01/17 19:24*	*10*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	10500		12.1	5.3	mg/Kg	☼	12/01/17 07:37	12/06/17 00:38	1
Antimony	0.74	J	18.2	0.49	mg/Kg	☼	12/01/17 07:37	12/06/17 00:38	1
Arsenic	4.6		2.4	0.49	mg/Kg	☼	12/01/17 07:37	12/06/17 00:38	1
Barium	194		0.61	0.13	mg/Kg	☼	12/01/17 07:37	12/06/17 00:38	1
Beryllium	0.49		0.24	0.034	mg/Kg	☼	12/01/17 07:37	12/06/17 00:38	1
Cadmium	0.50		0.24	0.036	mg/Kg	☼	12/01/17 07:37	12/06/17 00:38	1
Calcium	50800	B	60.6	4.0	mg/Kg	☼	12/01/17 07:37	12/06/17 00:38	1
Chromium	17.8		0.61	0.24	mg/Kg	☼	12/01/17 07:37	12/06/17 00:38	1
Cobalt	6.1		0.61	0.061	mg/Kg	☼	12/01/17 07:37	12/06/17 00:38	1
Copper	42.0		1.2	0.25	mg/Kg	☼	12/01/17 07:37	12/06/17 00:38	1
Iron	23200		12.1	4.2	mg/Kg	☼	12/01/17 07:37	12/06/17 00:38	1
Lead	109		1.2	0.29	mg/Kg	☼	12/01/17 07:37	12/06/17 00:38	1
Magnesium	16500		24.3	1.1	mg/Kg	☼	12/01/17 07:37	12/06/17 00:38	1
Manganese	493		0.24	0.039	mg/Kg	☼	12/01/17 07:37	12/06/17 00:38	1
Nickel	16.9		6.1	0.28	mg/Kg	☼	12/01/17 07:37	12/06/17 00:38	1
Potassium	2420		36.4	24.3	mg/Kg	☼	12/01/17 07:37	12/06/17 00:38	1
Selenium	0.88	J	4.9	0.49	mg/Kg	☼	12/01/17 07:37	12/06/17 00:38	1
Silver	ND		0.73	0.24	mg/Kg	☼	12/01/17 07:37	12/06/17 00:38	1
Sodium	253		170	15.8	mg/Kg	☼	12/01/17 07:37	12/06/17 00:38	1
Thallium	ND		7.3	0.36	mg/Kg	☼	12/01/17 07:37	12/06/17 00:38	1
Vanadium	21.9		0.61	0.13	mg/Kg	☼	12/01/17 07:37	12/06/17 00:38	1
Zinc	285		2.4	0.78	mg/Kg	☼	12/01/17 07:37	12/06/17 00:38	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: SS-4
Date Collected: 11/28/17 09:55
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-4
Matrix: Solid
Percent Solids: 85.2

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.073		0.023	0.0094	mg/Kg	☼	12/06/17 15:35	12/06/17 17:40	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: SS-5
Date Collected: 11/28/17 10:12
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-5
Matrix: Solid
Percent Solids: 85.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		1900	520	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
2,4,6-Trichlorophenol	ND		1900	390	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
2,4-Dichlorophenol	ND		1900	200	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
2,4-Dimethylphenol	ND		1900	470	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
2,4-Dinitrophenol	ND		19000	8900	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
2,4-Dinitrotoluene	ND		1900	400	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
2,6-Dinitrotoluene	ND		1900	230	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
2-Chloronaphthalene	ND		1900	320	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
2-Chlorophenol	ND		1900	350	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
2-Methylnaphthalene	ND		1900	390	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
2-Methylphenol	ND		1900	230	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
2-Nitroaniline	ND		3800	280	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
2-Nitrophenol	ND		1900	550	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
3,3'-Dichlorobenzidine	ND		3800	2300	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
3-Nitroaniline	ND		3800	530	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
4,6-Dinitro-2-methylphenol	ND		3800	1900	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
4-Bromophenyl phenyl ether	ND		1900	270	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
4-Chloro-3-methylphenol	ND		1900	480	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
4-Chloroaniline	ND		1900	480	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
4-Chlorophenyl phenyl ether	ND		1900	240	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
4-Methylphenol	ND		3800	230	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
4-Nitroaniline	ND		3800	1000	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
4-Nitrophenol	ND		3800	1400	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Acenaphthene	ND		1900	280	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Acenaphthylene	ND		1900	250	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Acetophenone	ND		1900	260	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Anthracene	ND		1900	480	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Atrazine	ND		1900	670	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Benzaldehyde	ND		1900	1500	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Benzo[a]anthracene	**1200**	**J**	1900	190	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Benzo[a]pyrene	**1000**	**J**	1900	280	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Benzo[b]fluoranthene	**1400**	**J**	1900	310	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Benzo[g,h,i]perylene	**760**	**J**	1900	200	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Benzo[k]fluoranthene	**640**	**J**	1900	250	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Biphenyl	ND		1900	280	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
bis (2-chloroisopropyl) ether	ND		1900	390	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Bis(2-chloroethoxy)methane	ND		1900	410	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Bis(2-chloroethyl)ether	ND		1900	250	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Bis(2-ethylhexyl) phthalate	ND		1900	660	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Butyl benzyl phthalate	ND		1900	320	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Caprolactam	ND		1900	580	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Carbazole	ND		1900	230	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Chrysene	**1100**	**J**	1900	430	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Dibenz(a,h)anthracene	ND		1900	340	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Dibenzofuran	ND		1900	230	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Diethyl phthalate	ND		1900	250	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Dimethyl phthalate	ND		1900	230	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Di-n-butyl phthalate	ND		1900	330	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Di-n-octyl phthalate	ND		1900	230	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10

Client Sample ID: SS-5
Date Collected: 11/28/17 10:12
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-5
Matrix: Solid
Percent Solids: 85.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	2400		1900	200	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Fluorene	ND		1900	230	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Hexachlorobenzene	ND		1900	260	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Hexachlorobutadiene	ND		1900	280	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Hexachlorocyclopentadiene	ND		1900	260	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Hexachloroethane	ND		1900	250	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Indeno[1,2,3-cd]pyrene	670	J	1900	240	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Isophorone	ND		1900	410	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Naphthalene	ND		1900	250	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Nitrobenzene	ND		1900	220	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
N-Nitrosodi-n-propylamine	ND		1900	330	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
N-Nitrosodiphenylamine	ND		1900	1600	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Pentachlorophenol	ND		3800	1900	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Phenanthrene	1500	J	1900	280	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Phenol	ND		1900	300	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10
Pyrene	1900		1900	230	ug/Kg	☼	11/30/17 06:48	12/01/17 19:50	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*101*		*54 - 120*	*11/30/17 06:48*	*12/01/17 19:50*	*10*
2-Fluorobiphenyl	*70*		*60 - 120*	*11/30/17 06:48*	*12/01/17 19:50*	*10*
2-Fluorophenol	*68*		*52 - 120*	*11/30/17 06:48*	*12/01/17 19:50*	*10*
Nitrobenzene-d5	*62*		*53 - 120*	*11/30/17 06:48*	*12/01/17 19:50*	*10*
Phenol-d5	*69*		*54 - 120*	*11/30/17 06:48*	*12/01/17 19:50*	*10*
p-Terphenyl-d14	*75*		*65 - 121*	*11/30/17 06:48*	*12/01/17 19:50*	*10*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	12000		11.4	5.0	mg/Kg	☼	12/01/17 07:37	12/06/17 00:42	1
Antimony	1.4	J	17.1	0.46	mg/Kg	☼	12/01/17 07:37	12/06/17 00:42	1
Arsenic	5.8		2.3	0.46	mg/Kg	☼	12/01/17 07:37	12/06/17 00:42	1
Barium	115		0.57	0.13	mg/Kg	☼	12/01/17 07:37	12/06/17 00:42	1
Beryllium	0.55		0.23	0.032	mg/Kg	☼	12/01/17 07:37	12/06/17 00:42	1
Cadmium	0.37		0.23	0.034	mg/Kg	☼	12/01/17 07:37	12/06/17 00:42	1
Calcium	37400	B	57.1	3.8	mg/Kg	☼	12/01/17 07:37	12/06/17 00:42	1
Chromium	20.9		0.57	0.23	mg/Kg	☼	12/01/17 07:37	12/06/17 00:42	1
Cobalt	6.4		0.57	0.057	mg/Kg	☼	12/01/17 07:37	12/06/17 00:42	1
Copper	80.0		1.1	0.24	mg/Kg	☼	12/01/17 07:37	12/06/17 00:42	1
Iron	20300		11.4	4.0	mg/Kg	☼	12/01/17 07:37	12/06/17 00:42	1
Lead	128		1.1	0.27	mg/Kg	☼	12/01/17 07:37	12/06/17 00:42	1
Magnesium	9450		22.8	1.1	mg/Kg	☼	12/01/17 07:37	12/06/17 00:42	1
Manganese	380		0.23	0.037	mg/Kg	☼	12/01/17 07:37	12/06/17 00:42	1
Nickel	21.9		5.7	0.26	mg/Kg	☼	12/01/17 07:37	12/06/17 00:42	1
Potassium	2800		34.3	22.8	mg/Kg	☼	12/01/17 07:37	12/06/17 00:42	1
Selenium	0.76	J	4.6	0.46	mg/Kg	☼	12/01/17 07:37	12/06/17 00:42	1
Silver	ND		0.69	0.23	mg/Kg	☼	12/01/17 07:37	12/06/17 00:42	1
Sodium	148	J	160	14.8	mg/Kg	☼	12/01/17 07:37	12/06/17 00:42	1
Thallium	ND		6.9	0.34	mg/Kg	☼	12/01/17 07:37	12/06/17 00:42	1
Vanadium	27.2		0.57	0.13	mg/Kg	☼	12/01/17 07:37	12/06/17 00:42	1
Zinc	433		2.3	0.73	mg/Kg	☼	12/01/17 07:37	12/06/17 00:42	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: SS-5
Date Collected: 11/28/17 10:12
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-5
Matrix: Solid
Percent Solids: 85.5

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.10		0.022	0.0089	mg/Kg	☼	12/06/17 15:35	12/06/17 17:41	1

Client Sample ID: SS-6
Date Collected: 11/28/17 12:38
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-6
Matrix: Solid
Percent Solids: 82.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		2000	550	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
2,4,6-Trichlorophenol	ND		2000	410	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
2,4-Dichlorophenol	ND		2000	220	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
2,4-Dimethylphenol	ND		2000	490	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
2,4-Dinitrophenol	ND		20000	9400	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
2,4-Dinitrotoluene	ND		2000	420	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
2,6-Dinitrotoluene	ND		2000	240	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
2-Chloronaphthalene	ND		2000	340	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
2-Chlorophenol	ND		2000	370	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
2-Methylnaphthalene	ND		2000	410	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
2-Methylphenol	ND		2000	240	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
2-Nitroaniline	ND		4000	300	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
2-Nitrophenol	ND		2000	580	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
3,3'-Dichlorobenzidine	ND		4000	2400	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
3-Nitroaniline	ND		4000	560	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
4,6-Dinitro-2-methylphenol	ND		4000	2000	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
4-Bromophenyl phenyl ether	ND		2000	290	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
4-Chloro-3-methylphenol	ND		2000	500	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
4-Chloroaniline	ND		2000	500	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
4-Chlorophenyl phenyl ether	ND		2000	250	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
4-Methylphenol	ND		4000	240	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
4-Nitroaniline	ND		4000	1100	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
4-Nitrophenol	ND		4000	1400	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Acenaphthene	**1300**	**J**	2000	300	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Acenaphthylene	ND		2000	260	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Acetophenone	ND		2000	280	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Anthracene	**3900**		2000	500	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Atrazine	ND		2000	710	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Benzaldehyde	ND		2000	1600	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Benzo[a]anthracene	**8300**		2000	200	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Benzo[a]pyrene	**7700**		2000	300	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Benzo[b]fluoranthene	**10000**		2000	320	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Benzo[g,h,i]perylene	**4600**		2000	220	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Benzo[k]fluoranthene	**4000**		2000	260	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Biphenyl	ND		2000	300	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
bis (2-chloroisopropyl) ether	ND		2000	410	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Bis(2-chloroethoxy)methane	ND		2000	430	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Bis(2-chloroethyl)ether	ND		2000	260	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Bis(2-ethylhexyl) phthalate	ND		2000	700	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Butyl benzyl phthalate	ND		2000	340	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Caprolactam	ND		2000	610	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Carbazole	**1700**	**J**	2000	240	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Chrysene	**7700**		2000	460	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Dibenz(a,h)anthracene	**1200**	**J**	2000	360	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Dibenzofuran	**690**	**J**	2000	240	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Diethyl phthalate	ND		2000	260	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Dimethyl phthalate	ND		2000	240	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Di-n-butyl phthalate	ND		2000	350	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Di-n-octyl phthalate	ND		2000	240	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: SS-6
Date Collected: 11/28/17 12:38
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-6
Matrix: Solid
Percent Solids: 82.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	20000		2000	220	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Fluorene	1500	J	2000	240	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Hexachlorobenzene	ND		2000	280	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Hexachlorobutadiene	ND		2000	300	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Hexachlorocyclopentadiene	ND		2000	280	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Hexachloroethane	ND		2000	260	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Indeno[1,2,3-cd]pyrene	4400		2000	250	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Isophorone	ND		2000	430	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Naphthalene	400	J	2000	260	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Nitrobenzene	ND		2000	230	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
N-Nitrosodi-n-propylamine	ND		2000	350	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
N-Nitrosodiphenylamine	ND		2000	1700	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Pentachlorophenol	ND		4000	2000	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Phenanthrene	14000		2000	300	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Phenol	ND		2000	310	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10
Pyrene	16000		2000	240	ug/Kg	☼	11/30/17 06:48	12/01/17 20:16	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*111*		*54 - 120*	*11/30/17 06:48*	*12/01/17 20:16*	*10*
2-Fluorobiphenyl	*83*		*60 - 120*	*11/30/17 06:48*	*12/01/17 20:16*	*10*
2-Fluorophenol	*73*		*52 - 120*	*11/30/17 06:48*	*12/01/17 20:16*	*10*
Nitrobenzene-d5	*73*		*53 - 120*	*11/30/17 06:48*	*12/01/17 20:16*	*10*
Phenol-d5	*80*		*54 - 120*	*11/30/17 06:48*	*12/01/17 20:16*	*10*
p-Terphenyl-d14	*92*		*65 - 121*	*11/30/17 06:48*	*12/01/17 20:16*	*10*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	9520		12.6	5.5	mg/Kg	☼	12/01/17 07:37	12/06/17 00:45	1
Antimony	0.56	J	18.8	0.50	mg/Kg	☼	12/01/17 07:37	12/06/17 00:45	1
Arsenic	4.9		2.5	0.50	mg/Kg	☼	12/01/17 07:37	12/06/17 00:45	1
Barium	115		0.63	0.14	mg/Kg	☼	12/01/17 07:37	12/06/17 00:45	1
Beryllium	0.52		0.25	0.035	mg/Kg	☼	12/01/17 07:37	12/06/17 00:45	1
Cadmium	0.49		0.25	0.038	mg/Kg	☼	12/01/17 07:37	12/06/17 00:45	1
Calcium	54200	B	62.8	4.1	mg/Kg	☼	12/01/17 07:37	12/06/17 00:45	1
Chromium	17.3		0.63	0.25	mg/Kg	☼	12/01/17 07:37	12/06/17 00:45	1
Cobalt	4.6		0.63	0.063	mg/Kg	☼	12/01/17 07:37	12/06/17 00:45	1
Copper	124		1.3	0.26	mg/Kg	☼	12/01/17 07:37	12/06/17 00:45	1
Iron	15800		12.6	4.4	mg/Kg	☼	12/01/17 07:37	12/06/17 00:45	1
Lead	115		1.3	0.30	mg/Kg	☼	12/01/17 07:37	12/06/17 00:45	1
Magnesium	14700		25.1	1.2	mg/Kg	☼	12/01/17 07:37	12/06/17 00:45	1
Manganese	386		0.25	0.040	mg/Kg	☼	12/01/17 07:37	12/06/17 00:45	1
Nickel	18.0		6.3	0.29	mg/Kg	☼	12/01/17 07:37	12/06/17 00:45	1
Potassium	2110		37.7	25.1	mg/Kg	☼	12/01/17 07:37	12/06/17 00:45	1
Selenium	ND		5.0	0.50	mg/Kg	☼	12/01/17 07:37	12/06/17 00:45	1
Silver	ND		0.75	0.25	mg/Kg	☼	12/01/17 07:37	12/06/17 00:45	1
Sodium	187		176	16.3	mg/Kg	☼	12/01/17 07:37	12/06/17 00:45	1
Thallium	ND		7.5	0.38	mg/Kg	☼	12/01/17 07:37	12/06/17 00:45	1
Vanadium	19.9		0.63	0.14	mg/Kg	☼	12/01/17 07:37	12/06/17 00:45	1
Zinc	154		2.5	0.80	mg/Kg	☼	12/01/17 07:37	12/06/17 00:45	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: SS-6
Date Collected: 11/28/17 12:38
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-6
Matrix: Solid
Percent Solids: 82.4

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.075		0.025	0.010	mg/Kg	☼	12/06/17 15:35	12/06/17 17:42	1

Client Sample ID: SS-7
Date Collected: 11/28/17 10:32
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-7
Matrix: Solid
Percent Solids: 85.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		4000	1100	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
2,4,6-Trichlorophenol	ND		4000	790	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
2,4-Dichlorophenol	ND		4000	420	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
2,4-Dimethylphenol	ND		4000	950	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
2,4-Dinitrophenol	ND		39000	18000	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
2,4-Dinitrotoluene	ND		4000	810	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
2,6-Dinitrotoluene	ND		4000	470	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
2-Chloronaphthalene	ND		4000	650	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
2-Chlorophenol	ND		4000	720	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
2-Methylnaphthalene	ND		4000	790	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
2-Methylphenol	ND		4000	470	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
2-Nitroaniline	ND	F1	7700	580	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
2-Nitrophenol	ND		4000	1100	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
3,3'-Dichlorobenzidine	ND		7700	4700	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
3-Nitroaniline	ND		7700	1100	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
4,6-Dinitro-2-methylphenol	ND		7700	4000	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
4-Bromophenyl phenyl ether	ND		4000	560	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
4-Chloro-3-methylphenol	ND		4000	980	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
4-Chloroaniline	ND	F1	4000	980	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
4-Chlorophenyl phenyl ether	ND		4000	490	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
4-Methylphenol	ND		7700	470	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
4-Nitroaniline	ND		7700	2100	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
4-Nitrophenol	ND	F1	7700	2800	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Acenaphthene	**1600**	**J F1**	4000	580	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Acenaphthylene	ND		4000	510	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Acetophenone	ND		4000	530	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Anthracene	**3100**	**J F2 F1**	4000	980	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Atrazine	ND		4000	1400	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Benzaldehyde	ND	F1	4000	3100	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Benzo[a]anthracene	**6900**	**F2 F1**	4000	400	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Benzo[a]pyrene	**6200**	**F2 F1**	4000	580	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Benzo[b]fluoranthene	**8100**	**F2**	4000	630	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Benzo[g,h,i]perylene	**3700**	**J F2 F1**	4000	420	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Benzo[k]fluoranthene	**4400**	**F2 F1**	4000	510	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Biphenyl	ND		4000	580	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
bis (2-chloroisopropyl) ether	ND		4000	790	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Bis(2-chloroethoxy)methane	ND		4000	840	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Bis(2-chloroethyl)ether	ND		4000	510	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Bis(2-ethylhexyl) phthalate	ND		4000	1300	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Butyl benzyl phthalate	ND	F1	4000	650	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Caprolactam	ND		4000	1200	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Carbazole	**1500**	**J F1**	4000	470	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Chrysene	**6800**	**F2 F1**	4000	880	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Dibenz(a,h)anthracene	**1100**	**J F2**	4000	700	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Dibenzofuran	**730**	**J**	4000	470	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Diethyl phthalate	ND		4000	510	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Dimethyl phthalate	ND		4000	470	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Di-n-butyl phthalate	ND		4000	670	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Di-n-octyl phthalate	ND		4000	470	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20

Client Sample ID: SS-7
Date Collected: 11/28/17 10:32
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-7
Matrix: Solid
Percent Solids: 85.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	16000	F2	4000	420	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Fluorene	1600	J F2 F1	4000	470	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Hexachlorobenzene	ND		4000	530	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Hexachlorobutadiene	ND		4000	580	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Hexachlorocyclopentadiene	ND		4000	530	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Hexachloroethane	ND		4000	510	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Indeno[1,2,3-cd]pyrene	3200	J F2 F1	4000	490	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Isophorone	ND		4000	840	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Naphthalene	ND		4000	510	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Nitrobenzene	ND		4000	440	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
N-Nitrosodi-n-propylamine	ND		4000	670	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
N-Nitrosodiphenylamine	ND		4000	3200	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Pentachlorophenol	ND		7700	4000	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Phenanthrene	12000	F2	4000	580	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Phenol	ND		4000	600	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20
Pyrene	13000		4000	470	ug/Kg	☼	11/30/17 06:48	12/01/17 17:38	20

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Benzo[e]pyrene	*4000*	*T J N*	*ug/Kg*	☼	*14.44*	*192-97-2*	*11/30/17 06:48*	*12/01/17 17:38*	*20*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*167*	*X*	*54 - 120*	*11/30/17 06:48*	*12/01/17 17:38*	*20*
2-Fluorobiphenyl	*76*		*60 - 120*	*11/30/17 06:48*	*12/01/17 17:38*	*20*
2-Fluorophenol	*71*		*52 - 120*	*11/30/17 06:48*	*12/01/17 17:38*	*20*
Nitrobenzene-d5	*67*		*53 - 120*	*11/30/17 06:48*	*12/01/17 17:38*	*20*
Phenol-d5	*76*		*54 - 120*	*11/30/17 06:48*	*12/01/17 17:38*	*20*
p-Terphenyl-d14	*80*		*65 - 121*	*11/30/17 06:48*	*12/01/17 17:38*	*20*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND	F1	97	19	ug/Kg	☼	12/01/17 09:11	12/02/17 16:10	50
4,4'-DDE	ND		97	20	ug/Kg	☼	12/01/17 09:11	12/02/17 16:10	50
4,4'-DDT	42	J	97	23	ug/Kg	☼	12/01/17 09:11	12/02/17 16:10	50
Aldrin	ND		97	24	ug/Kg	☼	12/01/17 09:11	12/02/17 16:10	50
alpha-BHC	27	J B	97	17	ug/Kg	☼	12/01/17 09:11	12/02/17 16:10	50
alpha-Chlordane	ND		97	48	ug/Kg	☼	12/01/17 09:11	12/02/17 16:10	50
beta-BHC	ND	F1	97	17	ug/Kg	☼	12/01/17 09:11	12/02/17 16:10	50
delta-BHC	ND	F1	97	18	ug/Kg	☼	12/01/17 09:11	12/02/17 16:10	50
Dieldrin	ND		97	23	ug/Kg	☼	12/01/17 09:11	12/02/17 16:10	50
Endosulfan I	ND	F1	97	19	ug/Kg	☼	12/01/17 09:11	12/02/17 16:10	50
Endosulfan II	ND	F1	97	17	ug/Kg	☼	12/01/17 09:11	12/02/17 16:10	50
Endosulfan sulfate	ND	F1	97	18	ug/Kg	☼	12/01/17 09:11	12/02/17 16:10	50
Endrin	ND	F1	97	19	ug/Kg	☼	12/01/17 09:11	12/02/17 16:10	50
Endrin aldehyde	ND		97	25	ug/Kg	☼	12/01/17 09:11	12/02/17 16:10	50
Endrin ketone	ND		97	24	ug/Kg	☼	12/01/17 09:11	12/02/17 16:10	50
gamma-BHC (Lindane)	37	J	97	18	ug/Kg	☼	12/01/17 09:11	12/02/17 16:10	50
gamma-Chlordane	ND		97	31	ug/Kg	☼	12/01/17 09:11	12/02/17 16:10	50
Heptachlor	ND		97	21	ug/Kg	☼	12/01/17 09:11	12/02/17 16:10	50
Heptachlor epoxide	ND		97	25	ug/Kg	☼	12/01/17 09:11	12/02/17 16:10	50
Methoxychlor	ND	F1	97	20	ug/Kg	☼	12/01/17 09:11	12/02/17 16:10	50

Client Sample ID: SS-7
Date Collected: 11/28/17 10:32
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-7
Matrix: Solid
Percent Solids: 85.3

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	ND		970	560	ug/Kg	☼	12/01/17 09:11	12/02/17 16:10	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*X*	*45 - 120*	*12/01/17 09:11*	*12/02/17 16:10*	*50*
DCB Decachlorobiphenyl	*0*	*X*	*45 - 120*	*12/01/17 09:11*	*12/02/17 16:10*	*50*
Tetrachloro-m-xylene	*255*	*X*	*30 - 124*	*12/01/17 09:11*	*12/02/17 16:10*	*50*
Tetrachloro-m-xylene	*301*	*X*	*30 - 124*	*12/01/17 09:11*	*12/02/17 16:10*	*50*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.25	0.048	mg/Kg	☼	11/30/17 11:28	12/01/17 15:16	1
PCB-1221	ND		0.25	0.048	mg/Kg	☼	11/30/17 11:28	12/01/17 15:16	1
PCB-1232	ND		0.25	0.048	mg/Kg	☼	11/30/17 11:28	12/01/17 15:16	1
PCB-1242	ND		0.25	0.048	mg/Kg	☼	11/30/17 11:28	12/01/17 15:16	1
PCB-1248	ND		0.25	0.048	mg/Kg	☼	11/30/17 11:28	12/01/17 15:16	1
PCB-1254	ND		0.25	0.12	mg/Kg	☼	11/30/17 11:28	12/01/17 15:16	1
PCB-1260	ND		0.25	0.12	mg/Kg	☼	11/30/17 11:28	12/01/17 15:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*97*		*60 - 154*	*11/30/17 11:28*	*12/01/17 15:16*	*1*
Tetrachloro-m-xylene	*78*		*60 - 154*	*11/30/17 11:28*	*12/01/17 15:16*	*1*
DCB Decachlorobiphenyl	*75*		*65 - 174*	*11/30/17 11:28*	*12/01/17 15:16*	*1*
DCB Decachlorobiphenyl	*75*		*65 - 174*	*11/30/17 11:28*	*12/01/17 15:16*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		20	6.2	ug/Kg	☼	11/30/17 14:30	12/04/17 19:23	1
Silvex (2,4,5-TP)	ND		20	7.0	ug/Kg	☼	11/30/17 14:30	12/04/17 19:23	1
2,4-D	ND		20	12	ug/Kg	☼	11/30/17 14:30	12/04/17 19:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*111*		*28 - 129*	*11/30/17 14:30*	*12/04/17 19:23*	*1*
2,4-Dichlorophenylacetic acid	*143*	*X*	*28 - 129*	*11/30/17 14:30*	*12/04/17 19:23*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**15600**	**F2**	13.0	5.7	mg/Kg	☼	12/01/17 07:37	12/06/17 00:49	1
Antimony	**0.76**	**J F1**	19.4	0.52	mg/Kg	☼	12/01/17 07:37	12/06/17 00:49	1
Arsenic	**5.6**		2.6	0.52	mg/Kg	☼	12/01/17 07:37	12/06/17 00:49	1
Barium	**166**	**F2 F1**	0.65	0.14	mg/Kg	☼	12/01/17 07:37	12/06/17 00:49	1
Beryllium	**1.1**		0.26	0.036	mg/Kg	☼	12/01/17 07:37	12/06/17 00:49	1
Cadmium	**0.56**		0.26	0.039	mg/Kg	☼	12/01/17 07:37	12/06/17 00:49	1
Calcium	**51400**	**F2 B**	64.8	4.3	mg/Kg	☼	12/01/17 07:37	12/06/17 00:49	1
Chromium	**21.8**		0.65	0.26	mg/Kg	☼	12/01/17 07:37	12/06/17 00:49	1
Cobalt	**6.0**		0.65	0.065	mg/Kg	☼	12/01/17 07:37	12/06/17 00:49	1
Copper	**49.2**		1.3	0.27	mg/Kg	☼	12/01/17 07:37	12/06/17 00:49	1
Iron	**17400**		13.0	4.5	mg/Kg	☼	12/01/17 07:37	12/06/17 00:49	1
Lead	**188**	**F2 F1**	1.3	0.31	mg/Kg	☼	12/01/17 07:37	12/06/17 00:49	1
Magnesium	**10600**		25.9	1.2	mg/Kg	☼	12/01/17 07:37	12/06/17 00:49	1
Manganese	**930**	**F2**	0.26	0.041	mg/Kg	☼	12/01/17 07:37	12/06/17 00:49	1
Nickel	**18.2**		6.5	0.30	mg/Kg	☼	12/01/17 07:37	12/06/17 00:49	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: SS-7
Date Collected: 11/28/17 10:32
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-7
Matrix: Solid
Percent Solids: 85.3

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	3400	F1	38.9	25.9	mg/Kg	☼	12/01/17 07:37	12/06/17 00:49	1
Selenium	0.57	J	5.2	0.52	mg/Kg	☼	12/01/17 07:37	12/06/17 00:49	1
Silver	ND		0.78	0.26	mg/Kg	☼	12/01/17 07:37	12/06/17 00:49	1
Sodium	322		181	16.9	mg/Kg	☼	12/01/17 07:37	12/06/17 00:49	1
Thallium	ND		7.8	0.39	mg/Kg	☼	12/01/17 07:37	12/06/17 00:49	1
Vanadium	28.7		0.65	0.14	mg/Kg	☼	12/01/17 07:37	12/06/17 00:49	1
Zinc	166	F1	2.6	0.83	mg/Kg	☼	12/01/17 07:37	12/06/17 00:49	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.10		0.023	0.0095	mg/Kg	☼	12/06/17 15:35	12/06/17 17:44	1

Client Sample ID: SS-8
Date Collected: 11/28/17 12:46
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-8
Matrix: Solid
Percent Solids: 68.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		2400	660	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
2,4,6-Trichlorophenol	ND		2400	490	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
2,4-Dichlorophenol	ND		2400	260	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
2,4-Dimethylphenol	ND		2400	590	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
2,4-Dinitrophenol	ND		24000	11000	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
2,4-Dinitrotoluene	ND		2400	500	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
2,6-Dinitrotoluene	ND		2400	290	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
2-Chloronaphthalene	ND		2400	400	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
2-Chlorophenol	ND		2400	450	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
2-Methylnaphthalene	ND		2400	490	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
2-Methylphenol	ND		2400	290	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
2-Nitroaniline	ND		4700	360	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
2-Nitrophenol	ND		2400	690	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
3,3'-Dichlorobenzidine	ND		4700	2900	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
3-Nitroaniline	ND		4700	680	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
4,6-Dinitro-2-methylphenol	ND		4700	2400	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
4-Bromophenyl phenyl ether	ND		2400	350	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
4-Chloro-3-methylphenol	ND		2400	600	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
4-Chloroaniline	ND		2400	600	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
4-Chlorophenyl phenyl ether	ND		2400	300	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
4-Methylphenol	ND		4700	290	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
4-Nitroaniline	ND		4700	1300	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
4-Nitrophenol	ND		4700	1700	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Acenaphthene	**470**	**J**	2400	360	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Acenaphthylene	ND		2400	320	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Acetophenone	ND		2400	330	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Anthracene	**1200**	**J**	2400	600	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Atrazine	ND		2400	850	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Benzaldehyde	ND		2400	1900	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Benzo[a]anthracene	**3600**		2400	240	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Benzo[a]pyrene	**3400**		2400	360	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Benzo[b]fluoranthene	**4400**		2400	390	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Benzo[g,h,i]perylene	**2100**	**J**	2400	260	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Benzo[k]fluoranthene	**2500**		2400	320	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Biphenyl	ND		2400	360	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
bis (2-chloroisopropyl) ether	ND		2400	490	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Bis(2-chloroethoxy)methane	ND		2400	520	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Bis(2-chloroethyl)ether	ND		2400	320	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Bis(2-ethylhexyl) phthalate	ND		2400	830	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Butyl benzyl phthalate	ND		2400	400	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Caprolactam	ND		2400	730	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Carbazole	**760**	**J**	2400	290	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Chrysene	**4000**		2400	550	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Dibenz(a,h)anthracene	ND		2400	430	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Dibenzofuran	ND		2400	290	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Diethyl phthalate	ND		2400	320	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Dimethyl phthalate	ND		2400	290	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Di-n-butyl phthalate	ND		2400	420	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Di-n-octyl phthalate	ND		2400	290	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: SS-8
Date Collected: 11/28/17 12:46
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-8
Matrix: Solid
Percent Solids: 68.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	9000		2400	260	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Fluorene	460	J	2400	290	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Hexachlorobenzene	ND		2400	330	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Hexachlorobutadiene	ND		2400	360	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Hexachlorocyclopentadiene	ND		2400	330	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Hexachloroethane	ND		2400	320	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Indeno[1,2,3-cd]pyrene	1700	J	2400	300	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Isophorone	ND		2400	520	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Naphthalene	ND		2400	320	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Nitrobenzene	ND		2400	270	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
N-Nitrosodi-n-propylamine	ND		2400	420	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
N-Nitrosodiphenylamine	ND		2400	2000	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Pentachlorophenol	ND		4700	2400	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Phenanthrene	6200		2400	360	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Phenol	ND		2400	370	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10
Pyrene	7400		2400	290	ug/Kg	☼	11/30/17 06:48	12/04/17 14:58	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*109*		*54 - 120*	*11/30/17 06:48*	*12/04/17 14:58*	*10*
2-Fluorobiphenyl	*87*		*60 - 120*	*11/30/17 06:48*	*12/04/17 14:58*	*10*
2-Fluorophenol	*77*		*52 - 120*	*11/30/17 06:48*	*12/04/17 14:58*	*10*
Nitrobenzene-d5	*81*		*53 - 120*	*11/30/17 06:48*	*12/04/17 14:58*	*10*
Phenol-d5	*86*		*54 - 120*	*11/30/17 06:48*	*12/04/17 14:58*	*10*
p-Terphenyl-d14	*91*		*65 - 121*	*11/30/17 06:48*	*12/04/17 14:58*	*10*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		24	4.7	ug/Kg	☼	12/01/17 09:11	12/02/17 16:49	10
4,4'-DDE	44		24	5.0	ug/Kg	☼	12/01/17 09:11	12/02/17 16:49	10
4,4'-DDT	47		24	5.6	ug/Kg	☼	12/01/17 09:11	12/02/17 16:49	10
Aldrin	ND		24	5.9	ug/Kg	☼	12/01/17 09:11	12/02/17 16:49	10
alpha-BHC	6.7	J B	24	4.3	ug/Kg	☼	12/01/17 09:11	12/02/17 16:49	10
alpha-Chlordane	16	J	24	12	ug/Kg	☼	12/01/17 09:11	12/02/17 16:49	10
beta-BHC	ND		24	4.3	ug/Kg	☼	12/01/17 09:11	12/02/17 16:49	10
delta-BHC	7.0	J B	24	4.5	ug/Kg	☼	12/01/17 09:11	12/02/17 16:49	10
Dieldrin	ND		24	5.8	ug/Kg	☼	12/01/17 09:11	12/02/17 16:49	10
Endosulfan I	ND		24	4.6	ug/Kg	☼	12/01/17 09:11	12/02/17 16:49	10
Endosulfan II	ND		24	4.3	ug/Kg	☼	12/01/17 09:11	12/02/17 16:49	10
Endosulfan sulfate	ND		24	4.5	ug/Kg	☼	12/01/17 09:11	12/02/17 16:49	10
Endrin	ND		24	4.7	ug/Kg	☼	12/01/17 09:11	12/02/17 16:49	10
Endrin aldehyde	ND		24	6.1	ug/Kg	☼	12/01/17 09:11	12/02/17 16:49	10
Endrin ketone	ND		24	5.9	ug/Kg	☼	12/01/17 09:11	12/02/17 16:49	10
gamma-BHC (Lindane)	11	J	24	4.4	ug/Kg	☼	12/01/17 09:11	12/02/17 16:49	10
gamma-Chlordane	ND		24	7.6	ug/Kg	☼	12/01/17 09:11	12/02/17 16:49	10
Heptachlor	ND		24	5.2	ug/Kg	☼	12/01/17 09:11	12/02/17 16:49	10
Heptachlor epoxide	13	J	24	6.2	ug/Kg	☼	12/01/17 09:11	12/02/17 16:49	10
Methoxychlor	ND		24	4.9	ug/Kg	☼	12/01/17 09:11	12/02/17 16:49	10
Toxaphene	ND		240	140	ug/Kg	☼	12/01/17 09:11	12/02/17 16:49	10

Client Sample ID: SS-8
Date Collected: 11/28/17 12:46
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-8
Matrix: Solid
Percent Solids: 68.6

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*X*	*45 - 120*	*12/01/17 09:11*	*12/02/17 16:49*	*10*
DCB Decachlorobiphenyl	*0*	*X*	*45 - 120*	*12/01/17 09:11*	*12/02/17 16:49*	*10*
Tetrachloro-m-xylene	*118*		*30 - 124*	*12/01/17 09:11*	*12/02/17 16:49*	*10*
Tetrachloro-m-xylene	*117*		*30 - 124*	*12/01/17 09:11*	*12/02/17 16:49*	*10*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.33	0.065	mg/Kg	☼	11/30/17 11:28	12/01/17 16:21	1
PCB-1221	ND		0.33	0.065	mg/Kg	☼	11/30/17 11:28	12/01/17 16:21	1
PCB-1232	ND		0.33	0.065	mg/Kg	☼	11/30/17 11:28	12/01/17 16:21	1
PCB-1242	ND		0.33	0.065	mg/Kg	☼	11/30/17 11:28	12/01/17 16:21	1
PCB-1248	ND		0.33	0.065	mg/Kg	☼	11/30/17 11:28	12/01/17 16:21	1
PCB-1254	ND		0.33	0.16	mg/Kg	☼	11/30/17 11:28	12/01/17 16:21	1
PCB-1260	ND		0.33	0.16	mg/Kg	☼	11/30/17 11:28	12/01/17 16:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*86*		*60 - 154*	*11/30/17 11:28*	*12/01/17 16:21*	*1*
Tetrachloro-m-xylene	*75*		*60 - 154*	*11/30/17 11:28*	*12/01/17 16:21*	*1*
DCB Decachlorobiphenyl	*70*		*65 - 174*	*11/30/17 11:28*	*12/01/17 16:21*	*1*
DCB Decachlorobiphenyl	*72*		*65 - 174*	*11/30/17 11:28*	*12/01/17 16:21*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		24	7.6	ug/Kg	☼	11/30/17 14:30	12/04/17 20:53	1
Silvex (2,4,5-TP)	ND		24	8.6	ug/Kg	☼	11/30/17 14:30	12/04/17 20:53	1
2,4-D	ND		24	15	ug/Kg	☼	11/30/17 14:30	12/04/17 20:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*138*	*X*	*28 - 129*	*11/30/17 14:30*	*12/04/17 20:53*	*1*
2,4-Dichlorophenylacetic acid	*132*	*X*	*28 - 129*	*11/30/17 14:30*	*12/04/17 20:53*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**14300**		13.2	5.8	mg/Kg	☼	12/01/17 07:37	12/06/17 01:18	1
Antimony	ND		19.8	0.53	mg/Kg	☼	12/01/17 07:37	12/06/17 01:18	1
Arsenic	**4.9**		2.6	0.53	mg/Kg	☼	12/01/17 07:37	12/06/17 01:18	1
Barium	**110**		0.66	0.15	mg/Kg	☼	12/01/17 07:37	12/06/17 01:18	1
Beryllium	**0.57**		0.26	0.037	mg/Kg	☼	12/01/17 07:37	12/06/17 01:18	1
Cadmium	**0.58**		0.26	0.040	mg/Kg	☼	12/01/17 07:37	12/06/17 01:18	1
Calcium	**7190**	**B**	66.1	4.4	mg/Kg	☼	12/01/17 07:37	12/06/17 01:18	1
Chromium	**25.2**		0.66	0.26	mg/Kg	☼	12/01/17 07:37	12/06/17 01:18	1
Cobalt	**6.5**		0.66	0.066	mg/Kg	☼	12/01/17 07:37	12/06/17 01:18	1
Copper	**30.7**		1.3	0.28	mg/Kg	☼	12/01/17 07:37	12/06/17 01:18	1
Iron	**19800**		13.2	4.6	mg/Kg	☼	12/01/17 07:37	12/06/17 01:18	1
Lead	**67.3**		1.3	0.32	mg/Kg	☼	12/01/17 07:37	12/06/17 01:18	1
Magnesium	**2870**		26.4	1.2	mg/Kg	☼	12/01/17 07:37	12/06/17 01:18	1
Manganese	**371**		0.26	0.042	mg/Kg	☼	12/01/17 07:37	12/06/17 01:18	1
Nickel	**19.8**		6.6	0.30	mg/Kg	☼	12/01/17 07:37	12/06/17 01:18	1
Potassium	**2420**		39.6	26.4	mg/Kg	☼	12/01/17 07:37	12/06/17 01:18	1
Selenium	**0.78**	**J**	5.3	0.53	mg/Kg	☼	12/01/17 07:37	12/06/17 01:18	1
Silver	ND		0.79	0.26	mg/Kg	☼	12/01/17 07:37	12/06/17 01:18	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: SS-8
Date Collected: 11/28/17 12:46
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-8
Matrix: Solid
Percent Solids: 68.6

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	90.6	J	185	17.2	mg/Kg	☼	12/01/17 07:37	12/06/17 01:18	1
Thallium	ND		7.9	0.40	mg/Kg	☼	12/01/17 07:37	12/06/17 01:18	1
Vanadium	30.4		0.66	0.15	mg/Kg	☼	12/01/17 07:37	12/06/17 01:18	1
Zinc	127		2.6	0.85	mg/Kg	☼	12/01/17 07:37	12/06/17 01:18	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.10		0.029	0.012	mg/Kg	☼	12/06/17 15:35	12/06/17 18:01	1

Client Sample ID: SS-9
Date Collected: 11/28/17 10:48
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-9
Matrix: Solid
Percent Solids: 86.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		3900	1100	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
2,4,6-Trichlorophenol	ND		3900	780	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
2,4-Dichlorophenol	ND		3900	420	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
2,4-Dimethylphenol	ND		3900	950	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
2,4-Dinitrophenol	ND		38000	18000	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
2,4-Dinitrotoluene	ND		3900	810	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
2,6-Dinitrotoluene	ND		3900	460	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
2-Chloronaphthalene	ND		3900	650	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
2-Chlorophenol	ND		3900	720	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
2-Methylnaphthalene	**850**	**J**	3900	780	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
2-Methylphenol	ND		3900	460	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
2-Nitroaniline	ND		7600	580	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
2-Nitrophenol	ND		3900	1100	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
3,3'-Dichlorobenzidine	ND		7600	4600	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
3-Nitroaniline	ND		7600	1100	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
4,6-Dinitro-2-methylphenol	ND		7600	3900	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
4-Bromophenyl phenyl ether	ND		3900	550	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
4-Chloro-3-methylphenol	ND		3900	970	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
4-Chloroaniline	ND		3900	970	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
4-Chlorophenyl phenyl ether	ND		3900	480	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
4-Methylphenol	ND		7600	460	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
4-Nitroaniline	ND		7600	2100	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
4-Nitrophenol	ND		7600	2700	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Acenaphthene	**8100**		3900	580	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Acenaphthylene	ND		3900	510	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Acetophenone	ND		3900	530	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Anthracene	**22000**		3900	970	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Atrazine	ND		3900	1400	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Benzaldehyde	ND		3900	3100	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Benzo[a]anthracene	**37000**		3900	390	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Benzo[a]pyrene	**32000**		3900	580	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Benzo[b]fluoranthene	**39000**		3900	620	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Benzo[g,h,i]perylene	**17000**		3900	420	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Benzo[k]fluoranthene	**21000**		3900	510	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Biphenyl	ND		3900	580	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
bis (2-chloroisopropyl) ether	ND		3900	780	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Bis(2-chloroethoxy)methane	ND		3900	830	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Bis(2-chloroethyl)ether	ND		3900	510	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Bis(2-ethylhexyl) phthalate	ND		3900	1300	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Butyl benzyl phthalate	ND		3900	650	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Caprolactam	ND		3900	1200	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Carbazole	**9100**		3900	460	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Chrysene	**32000**		3900	880	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Dibenz(a,h)anthracene	**5400**		3900	690	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Dibenzofuran	**4400**		3900	460	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Diethyl phthalate	ND		3900	510	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Dimethyl phthalate	ND		3900	460	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Di-n-butyl phthalate	ND		3900	670	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Di-n-octyl phthalate	ND		3900	460	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20

Client Sample ID: SS-9
Date Collected: 11/28/17 10:48
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-9
Matrix: Solid
Percent Solids: 86.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	84000		3900	420	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Fluorene	8800		3900	460	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Hexachlorobenzene	ND		3900	530	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Hexachlorobutadiene	ND		3900	580	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Hexachlorocyclopentadiene	ND		3900	530	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Hexachloroethane	ND		3900	510	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Indeno[1,2,3-cd]pyrene	17000		3900	480	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Isophorone	ND		3900	830	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Naphthalene	1700	J	3900	510	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Nitrobenzene	ND		3900	440	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
N-Nitrosodi-n-propylamine	ND		3900	670	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
N-Nitrosodiphenylamine	ND		3900	3200	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Pentachlorophenol	ND		7600	3900	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Phenanthrene	67000		3900	580	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Phenol	ND		3900	600	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20
Pyrene	67000		3900	460	ug/Kg	☼	11/30/17 06:48	12/04/17 15:25	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*163*	*X*	*54 - 120*	*11/30/17 06:48*	*12/04/17 15:25*	*20*
2-Fluorobiphenyl	*84*		*60 - 120*	*11/30/17 06:48*	*12/04/17 15:25*	*20*
2-Fluorophenol	*76*		*52 - 120*	*11/30/17 06:48*	*12/04/17 15:25*	*20*
Nitrobenzene-d5	*76*		*53 - 120*	*11/30/17 06:48*	*12/04/17 15:25*	*20*
Phenol-d5	*76*		*54 - 120*	*11/30/17 06:48*	*12/04/17 15:25*	*20*
p-Terphenyl-d14	*94*		*65 - 121*	*11/30/17 06:48*	*12/04/17 15:25*	*20*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	7590		11.2	4.9	mg/Kg	☼	12/01/17 07:37	12/06/17 01:22	1
Antimony	ND		16.8	0.45	mg/Kg	☼	12/01/17 07:37	12/06/17 01:22	1
Arsenic	2.6		2.2	0.45	mg/Kg	☼	12/01/17 07:37	12/06/17 01:22	1
Barium	98.6		0.56	0.12	mg/Kg	☼	12/01/17 07:37	12/06/17 01:22	1
Beryllium	0.43		0.22	0.031	mg/Kg	☼	12/01/17 07:37	12/06/17 01:22	1
Cadmium	0.59		0.22	0.034	mg/Kg	☼	12/01/17 07:37	12/06/17 01:22	1
Calcium	137000	B	279	18.4	mg/Kg	☼	12/01/17 07:37	12/06/17 15:26	5
Chromium	11.2		0.56	0.22	mg/Kg	☼	12/01/17 07:37	12/06/17 01:22	1
Cobalt	3.2		0.56	0.056	mg/Kg	☼	12/01/17 07:37	12/06/17 01:22	1
Copper	17.0		5.6	1.2	mg/Kg	☼	12/01/17 07:37	12/06/17 15:26	5
Iron	9320		11.2	3.9	mg/Kg	☼	12/01/17 07:37	12/06/17 01:22	1
Lead	27.1		1.1	0.27	mg/Kg	☼	12/01/17 07:37	12/06/17 01:22	1
Magnesium	39300		22.3	1.0	mg/Kg	☼	12/01/17 07:37	12/06/17 01:22	1
Manganese	308		0.22	0.036	mg/Kg	☼	12/01/17 07:37	12/06/17 01:22	1
Nickel	8.6		5.6	0.26	mg/Kg	☼	12/01/17 07:37	12/06/17 01:22	1
Potassium	1670		33.5	22.3	mg/Kg	☼	12/01/17 07:37	12/06/17 01:22	1
Selenium	ND		4.5	0.45	mg/Kg	☼	12/01/17 07:37	12/06/17 01:22	1
Silver	ND		0.67	0.22	mg/Kg	☼	12/01/17 07:37	12/06/17 01:22	1
Sodium	278		156	14.5	mg/Kg	☼	12/01/17 07:37	12/06/17 01:22	1
Thallium	ND		6.7	0.34	mg/Kg	☼	12/01/17 07:37	12/06/17 01:22	1
Vanadium	16.3		0.56	0.12	mg/Kg	☼	12/01/17 07:37	12/06/17 01:22	1
Zinc	105		2.2	0.72	mg/Kg	☼	12/01/17 07:37	12/06/17 01:22	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: SS-9
Date Collected: 11/28/17 10:48
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-9
Matrix: Solid
Percent Solids: 86.2

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.15		0.022	0.0089	mg/Kg	☼	12/06/17 15:35	12/06/17 18:03	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: SS-10
Date Collected: 11/28/17 10:58
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-10
Matrix: Solid
Percent Solids: 70.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		2400	640	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
2,4,6-Trichlorophenol	ND		2400	470	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
2,4-Dichlorophenol	ND		2400	250	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
2,4-Dimethylphenol	ND		2400	570	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
2,4-Dinitrophenol	ND		23000	11000	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
2,4-Dinitrotoluene	ND		2400	490	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
2,6-Dinitrotoluene	ND		2400	280	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
2-Chloronaphthalene	ND		2400	390	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
2-Chlorophenol	ND		2400	430	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
2-Methylnaphthalene	ND		2400	470	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
2-Methylphenol	ND		2400	280	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
2-Nitroaniline	ND		4600	350	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
2-Nitrophenol	ND		2400	670	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
3,3'-Dichlorobenzidine	ND		4600	2800	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
3-Nitroaniline	ND		4600	660	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
4,6-Dinitro-2-methylphenol	ND		4600	2400	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
4-Bromophenyl phenyl ether	ND		2400	330	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
4-Chloro-3-methylphenol	ND		2400	590	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
4-Chloroaniline	ND		2400	590	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
4-Chlorophenyl phenyl ether	ND		2400	290	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
4-Methylphenol	ND		4600	280	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
4-Nitroaniline	ND		4600	1200	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
4-Nitrophenol	ND		4600	1700	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Acenaphthene	**800**	**J**	2400	350	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Acenaphthylene	ND		2400	310	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Acetophenone	ND		2400	320	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Anthracene	**1900**	**J**	2400	590	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Atrazine	ND		2400	820	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Benzaldehyde	ND		2400	1900	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Benzo[a]anthracene	**4900**		2400	240	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Benzo[a]pyrene	**4500**		2400	350	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Benzo[b]fluoranthene	**5600**		2400	380	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Benzo[g,h,i]perylene	**2800**		2400	250	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Benzo[k]fluoranthene	**3600**		2400	310	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Biphenyl	ND		2400	350	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
bis (2-chloroisopropyl) ether	ND		2400	470	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Bis(2-chloroethoxy)methane	ND		2400	500	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Bis(2-chloroethyl)ether	ND		2400	310	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Bis(2-ethylhexyl) phthalate	ND		2400	810	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Butyl benzyl phthalate	ND		2400	390	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Caprolactam	ND		2400	710	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Carbazole	**910**	**J**	2400	280	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Chrysene	**5100**		2400	530	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Dibenz(a,h)anthracene	ND		2400	420	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Dibenzofuran	**350**	**J**	2400	280	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Diethyl phthalate	ND		2400	310	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Dimethyl phthalate	ND		2400	280	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Di-n-butyl phthalate	ND		2400	400	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Di-n-octyl phthalate	ND		2400	280	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10

Client Sample ID: SS-10
Date Collected: 11/28/17 10:58
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-10
Matrix: Solid
Percent Solids: 70.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	12000		2400	250	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Fluorene	730	J	2400	280	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Hexachlorobenzene	ND		2400	320	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Hexachlorobutadiene	ND		2400	350	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Hexachlorocyclopentadiene	ND		2400	320	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Hexachloroethane	ND		2400	310	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Indeno[1,2,3-cd]pyrene	2600		2400	290	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Isophorone	ND		2400	500	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Naphthalene	ND		2400	310	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Nitrobenzene	ND		2400	270	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
N-Nitrosodi-n-propylamine	ND		2400	400	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
N-Nitrosodiphenylamine	ND		2400	1900	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Pentachlorophenol	ND		4600	2400	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Phenanthrene	7800		2400	350	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Phenol	ND		2400	360	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10
Pyrene	9100		2400	280	ug/Kg	☼	11/30/17 06:48	12/04/17 15:50	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Perylene	*3400*	*T J N*	*ug/Kg*	☼	*14.44*	*198-55-0*	*11/30/17 06:48*	*12/04/17 15:50*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*110*		*54 - 120*	*11/30/17 06:48*	*12/04/17 15:50*	*10*
2-Fluorobiphenyl	*81*		*60 - 120*	*11/30/17 06:48*	*12/04/17 15:50*	*10*
2-Fluorophenol	*78*		*52 - 120*	*11/30/17 06:48*	*12/04/17 15:50*	*10*
Nitrobenzene-d5	*74*		*53 - 120*	*11/30/17 06:48*	*12/04/17 15:50*	*10*
Phenol-d5	*83*		*54 - 120*	*11/30/17 06:48*	*12/04/17 15:50*	*10*
p-Terphenyl-d14	*86*		*65 - 121*	*11/30/17 06:48*	*12/04/17 15:50*	*10*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	11800		15.6	6.9	mg/Kg	☼	12/01/17 07:37	12/06/17 01:25	1
Antimony	ND		23.4	0.62	mg/Kg	☼	12/01/17 07:37	12/06/17 01:25	1
Arsenic	5.2		3.1	0.62	mg/Kg	☼	12/01/17 07:37	12/06/17 01:25	1
Barium	95.5		0.78	0.17	mg/Kg	☼	12/01/17 07:37	12/06/17 01:25	1
Beryllium	0.55		0.31	0.044	mg/Kg	☼	12/01/17 07:37	12/06/17 01:25	1
Cadmium	1.6		0.31	0.047	mg/Kg	☼	12/01/17 07:37	12/06/17 01:25	1
Calcium	41300	B	78.1	5.2	mg/Kg	☼	12/01/17 07:37	12/06/17 01:25	1
Chromium	23.6		0.78	0.31	mg/Kg	☼	12/01/17 07:37	12/06/17 01:25	1
Cobalt	8.8		0.78	0.078	mg/Kg	☼	12/01/17 07:37	12/06/17 01:25	1
Copper	35.1		1.6	0.33	mg/Kg	☼	12/01/17 07:37	12/06/17 01:25	1
Iron	16000		15.6	5.5	mg/Kg	☼	12/01/17 07:37	12/06/17 01:25	1
Lead	158		1.6	0.37	mg/Kg	☼	12/01/17 07:37	12/06/17 01:25	1
Magnesium	8950		31.2	1.4	mg/Kg	☼	12/01/17 07:37	12/06/17 01:25	1
Manganese	467		0.31	0.050	mg/Kg	☼	12/01/17 07:37	12/06/17 01:25	1
Nickel	19.9		7.8	0.36	mg/Kg	☼	12/01/17 07:37	12/06/17 01:25	1
Potassium	2540		46.8	31.2	mg/Kg	☼	12/01/17 07:37	12/06/17 01:25	1
Selenium	ND		6.2	0.62	mg/Kg	☼	12/01/17 07:37	12/06/17 01:25	1
Silver	ND		0.94	0.31	mg/Kg	☼	12/01/17 07:37	12/06/17 01:25	1
Sodium	145	J	219	20.3	mg/Kg	☼	12/01/17 07:37	12/06/17 01:25	1
Thallium	ND		9.4	0.47	mg/Kg	☼	12/01/17 07:37	12/06/17 01:25	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: SS-10
Date Collected: 11/28/17 10:58
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-10
Matrix: Solid
Percent Solids: 70.3

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	27.0		0.78	0.17	mg/Kg	☼	12/01/17 07:37	12/06/17 01:25	1
Zinc	179		3.1	1.0	mg/Kg	☼	12/01/17 07:37	12/06/17 01:25	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.24		0.028	0.011	mg/Kg	☼	12/06/17 15:35	12/06/17 18:05	1

Client Sample ID: SS-11
Date Collected: 11/28/17 12:19
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-11
Matrix: Solid
Percent Solids: 86.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		3900	1100	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
2,4,6-Trichlorophenol	ND		3900	780	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
2,4-Dichlorophenol	ND		3900	410	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
2,4-Dimethylphenol	ND		3900	940	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
2,4-Dinitrophenol	ND		38000	18000	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
2,4-Dinitrotoluene	ND		3900	800	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
2,6-Dinitrotoluene	ND		3900	460	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
2-Chloronaphthalene	ND		3900	640	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
2-Chlorophenol	ND		3900	710	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
2-Methylnaphthalene	ND		3900	780	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
2-Methylphenol	ND		3900	460	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
2-Nitroaniline	ND		7600	570	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
2-Nitrophenol	ND		3900	1100	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
3,3'-Dichlorobenzidine	ND		7600	4600	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
3-Nitroaniline	ND		7600	1100	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
4,6-Dinitro-2-methylphenol	ND		7600	3900	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
4-Bromophenyl phenyl ether	ND		3900	550	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
4-Chloro-3-methylphenol	ND		3900	960	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
4-Chloroaniline	ND		3900	960	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
4-Chlorophenyl phenyl ether	ND		3900	480	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
4-Methylphenol	ND		7600	460	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
4-Nitroaniline	ND		7600	2000	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
4-Nitrophenol	ND		7600	2700	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Acenaphthene	**1700**	**J**	3900	570	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Acenaphthylene	ND		3900	500	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Acetophenone	ND		3900	530	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Anthracene	**4500**		3900	960	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Atrazine	ND		3900	1400	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Benzaldehyde	ND		3900	3100	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Benzo[a]anthracene	**11000**		3900	390	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Benzo[a]pyrene	**9300**		3900	570	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Benzo[b]fluoranthene	**12000**		3900	620	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Benzo[g,h,i]perylene	**5300**		3900	410	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Benzo[k]fluoranthene	**5500**		3900	500	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Biphenyl	ND		3900	570	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
bis (2-chloroisopropyl) ether	ND		3900	780	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Bis(2-chloroethoxy)methane	ND		3900	820	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Bis(2-chloroethyl)ether	ND		3900	500	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Bis(2-ethylhexyl) phthalate	ND		3900	1300	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Butyl benzyl phthalate	ND		3900	640	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Caprolactam	ND		3900	1200	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Carbazole	**1900**	**J**	3900	460	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Chrysene	**9600**		3900	870	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Dibenz(a,h)anthracene	**1700**	**J**	3900	690	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Dibenzofuran	**850**	**J**	3900	460	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Diethyl phthalate	ND		3900	500	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Dimethyl phthalate	ND		3900	460	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Di-n-butyl phthalate	ND		3900	660	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Di-n-octyl phthalate	ND		3900	460	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: SS-11
Date Collected: 11/28/17 12:19
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-11
Matrix: Solid
Percent Solids: 86.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	25000		3900	410	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Fluorene	1800	J	3900	460	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Hexachlorobenzene	ND		3900	530	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Hexachlorobutadiene	ND		3900	570	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Hexachlorocyclopentadiene	ND		3900	530	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Hexachloroethane	ND		3900	500	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Indeno[1,2,3-cd]pyrene	5100		3900	480	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Isophorone	ND		3900	820	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Naphthalene	ND		3900	500	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Nitrobenzene	ND		3900	430	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
N-Nitrosodi-n-propylamine	ND		3900	660	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
N-Nitrosodiphenylamine	ND		3900	3200	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Pentachlorophenol	ND		7600	3900	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Phenanthrene	17000		3900	570	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Phenol	ND		3900	590	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20
Pyrene	19000		3900	460	ug/Kg	☼	11/30/17 06:48	12/04/17 16:17	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*166*	*X*	*54 - 120*	*11/30/17 06:48*	*12/04/17 16:17*	*20*
2-Fluorobiphenyl	*83*		*60 - 120*	*11/30/17 06:48*	*12/04/17 16:17*	*20*
2-Fluorophenol	*77*		*52 - 120*	*11/30/17 06:48*	*12/04/17 16:17*	*20*
Nitrobenzene-d5	*82*		*53 - 120*	*11/30/17 06:48*	*12/04/17 16:17*	*20*
Phenol-d5	*87*		*54 - 120*	*11/30/17 06:48*	*12/04/17 16:17*	*20*
p-Terphenyl-d14	*88*		*65 - 121*	*11/30/17 06:48*	*12/04/17 16:17*	*20*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	7240		12.4	5.5	mg/Kg	☼	12/01/17 07:37	12/06/17 01:29	1
Antimony	0.77	J	18.6	0.50	mg/Kg	☼	12/01/17 07:37	12/06/17 01:29	1
Arsenic	3.8		2.5	0.50	mg/Kg	☼	12/01/17 07:37	12/06/17 01:29	1
Barium	77.5		0.62	0.14	mg/Kg	☼	12/01/17 07:37	12/06/17 01:29	1
Beryllium	0.35		0.25	0.035	mg/Kg	☼	12/01/17 07:37	12/06/17 01:29	1
Cadmium	0.44		0.25	0.037	mg/Kg	☼	12/01/17 07:37	12/06/17 01:29	1
Calcium	69700	B	62.0	4.1	mg/Kg	☼	12/01/17 07:37	12/06/17 01:29	1
Chromium	12.4		0.62	0.25	mg/Kg	☼	12/01/17 07:37	12/06/17 01:29	1
Cobalt	3.3		0.62	0.062	mg/Kg	☼	12/01/17 07:37	12/06/17 01:29	1
Copper	34.6		1.2	0.26	mg/Kg	☼	12/01/17 07:37	12/06/17 01:29	1
Iron	14900		12.4	4.3	mg/Kg	☼	12/01/17 07:37	12/06/17 01:29	1
Lead	74.0		1.2	0.30	mg/Kg	☼	12/01/17 07:37	12/06/17 01:29	1
Magnesium	7800		24.8	1.1	mg/Kg	☼	12/01/17 07:37	12/06/17 01:29	1
Manganese	646		0.25	0.040	mg/Kg	☼	12/01/17 07:37	12/06/17 01:29	1
Nickel	10.8		6.2	0.29	mg/Kg	☼	12/01/17 07:37	12/06/17 01:29	1
Potassium	1420		37.2	24.8	mg/Kg	☼	12/01/17 07:37	12/06/17 01:29	1
Selenium	ND		5.0	0.50	mg/Kg	☼	12/01/17 07:37	12/06/17 01:29	1
Silver	ND		0.74	0.25	mg/Kg	☼	12/01/17 07:37	12/06/17 01:29	1
Sodium	220		174	16.1	mg/Kg	☼	12/01/17 07:37	12/06/17 01:29	1
Thallium	ND		7.4	0.37	mg/Kg	☼	12/01/17 07:37	12/06/17 01:29	1
Vanadium	15.4		0.62	0.14	mg/Kg	☼	12/01/17 07:37	12/06/17 01:29	1
Zinc	674		2.5	0.79	mg/Kg	☼	12/01/17 07:37	12/06/17 01:29	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: SS-11
Date Collected: 11/28/17 12:19
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-11
Matrix: Solid
Percent Solids: 86.1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.092		0.023	0.0094	mg/Kg	☼	12/06/17 15:35	12/06/17 18:06	1

Client Sample ID: SS-12
Date Collected: 11/28/17 11:06
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-12
Matrix: Solid
Percent Solids: 74.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		1100	300	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
2,4,6-Trichlorophenol	ND		1100	230	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
2,4-Dichlorophenol	ND		1100	120	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
2,4-Dimethylphenol	ND		1100	270	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
2,4-Dinitrophenol	ND		11000	5200	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
2,4-Dinitrotoluene	ND		1100	230	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
2,6-Dinitrotoluene	ND		1100	130	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
2-Chloronaphthalene	ND		1100	190	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
2-Chlorophenol	ND		1100	210	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
2-Methylnaphthalene	ND		1100	230	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
2-Methylphenol	ND		1100	130	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
2-Nitroaniline	ND		2200	170	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
2-Nitrophenol	ND		1100	320	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
3,3'-Dichlorobenzidine	ND		2200	1300	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
3-Nitroaniline	ND		2200	310	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
4,6-Dinitro-2-methylphenol	ND		2200	1100	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
4-Bromophenyl phenyl ether	ND		1100	160	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
4-Chloro-3-methylphenol	ND		1100	280	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
4-Chloroaniline	ND		1100	280	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
4-Chlorophenyl phenyl ether	ND		1100	140	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
4-Methylphenol	ND		2200	130	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
4-Nitroaniline	ND		2200	590	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
4-Nitrophenol	ND		2200	790	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Acenaphthene	**220**	**J**	1100	170	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Acenaphthylene	ND		1100	150	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Acetophenone	ND		1100	150	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Anthracene	**460**	**J**	1100	280	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Atrazine	ND		1100	390	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Benzaldehyde	ND		1100	890	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Benzo[a]anthracene	**830**	**J**	1100	110	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Benzo[a]pyrene	**690**	**J**	1100	170	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Benzo[b]fluoranthene	**950**	**J**	1100	180	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Benzo[g,h,i]perylene	**440**	**J**	1100	120	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Benzo[k]fluoranthene	**380**	**J**	1100	150	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Biphenyl	ND		1100	170	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
bis (2-chloroisopropyl) ether	ND		1100	230	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Bis(2-chloroethoxy)methane	ND		1100	240	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Bis(2-chloroethyl)ether	ND		1100	150	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Bis(2-ethylhexyl) phthalate	ND		1100	380	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Butyl benzyl phthalate	ND		1100	190	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Caprolactam	ND		1100	340	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Carbazole	**210**	**J**	1100	130	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Chrysene	**770**	**J**	1100	250	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Dibenz(a,h)anthracene	ND		1100	200	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Dibenzofuran	ND		1100	130	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Diethyl phthalate	ND		1100	150	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Dimethyl phthalate	ND		1100	130	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Di-n-butyl phthalate	ND		1100	190	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Di-n-octyl phthalate	ND		1100	130	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5

Client Sample ID: SS-12
Date Collected: 11/28/17 11:06
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-12
Matrix: Solid
Percent Solids: 74.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	**1900**		1100	120	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Fluorene	**210**	**J**	1100	130	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Hexachlorobenzene	ND		1100	150	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Hexachlorobutadiene	ND		1100	170	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Hexachlorocyclopentadiene	ND		1100	150	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Hexachloroethane	ND		1100	150	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Indeno[1,2,3-cd]pyrene	**390**	**J**	1100	140	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Isophorone	ND		1100	240	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Naphthalene	ND		1100	150	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Nitrobenzene	ND		1100	130	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
N-Nitrosodi-n-propylamine	ND		1100	190	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
N-Nitrosodiphenylamine	ND		1100	910	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Pentachlorophenol	ND		2200	1100	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Phenanthrene	**1700**		1100	170	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Phenol	ND		1100	170	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5
Pyrene	**1500**		1100	130	ug/Kg	☼	11/30/17 06:48	12/04/17 16:43	5

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tricosane	*2100*	*T J N*	*ug/Kg*	☼	*14.82*	*638-67-5*	*11/30/17 06:48*	*12/04/17 16:43*	*5*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*88*		*54 - 120*	*11/30/17 06:48*	*12/04/17 16:43*	*5*
2-Fluorobiphenyl	*88*		*60 - 120*	*11/30/17 06:48*	*12/04/17 16:43*	*5*
2-Fluorophenol	*84*		*52 - 120*	*11/30/17 06:48*	*12/04/17 16:43*	*5*
Nitrobenzene-d5	*82*		*53 - 120*	*11/30/17 06:48*	*12/04/17 16:43*	*5*
Phenol-d5	*96*		*54 - 120*	*11/30/17 06:48*	*12/04/17 16:43*	*5*
p-Terphenyl-d14	*97*		*65 - 121*	*11/30/17 06:48*	*12/04/17 16:43*	*5*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		11	2.2	ug/Kg	☼	12/01/17 09:11	12/02/17 17:09	5
4,4'-DDE	**5.3**	**J**	11	2.3	ug/Kg	☼	12/01/17 09:11	12/02/17 17:09	5
4,4'-DDT	**12**		11	2.6	ug/Kg	☼	12/01/17 09:11	12/02/17 17:09	5
Aldrin	ND		11	2.7	ug/Kg	☼	12/01/17 09:11	12/02/17 17:09	5
alpha-BHC	ND		11	2.0	ug/Kg	☼	12/01/17 09:11	12/02/17 17:09	5
alpha-Chlordane	ND		11	5.5	ug/Kg	☼	12/01/17 09:11	12/02/17 17:09	5
beta-BHC	ND		11	2.0	ug/Kg	☼	12/01/17 09:11	12/02/17 17:09	5
delta-BHC	ND		11	2.1	ug/Kg	☼	12/01/17 09:11	12/02/17 17:09	5
Dieldrin	ND		11	2.7	ug/Kg	☼	12/01/17 09:11	12/02/17 17:09	5
Endosulfan I	ND		11	2.1	ug/Kg	☼	12/01/17 09:11	12/02/17 17:09	5
Endosulfan II	ND		11	2.0	ug/Kg	☼	12/01/17 09:11	12/02/17 17:09	5
Endosulfan sulfate	ND		11	2.1	ug/Kg	☼	12/01/17 09:11	12/02/17 17:09	5
Endrin	ND		11	2.2	ug/Kg	☼	12/01/17 09:11	12/02/17 17:09	5
Endrin aldehyde	ND		11	2.8	ug/Kg	☼	12/01/17 09:11	12/02/17 17:09	5
Endrin ketone	ND		11	2.7	ug/Kg	☼	12/01/17 09:11	12/02/17 17:09	5
gamma-BHC (Lindane)	ND		11	2.0	ug/Kg	☼	12/01/17 09:11	12/02/17 17:09	5
gamma-Chlordane	ND		11	3.5	ug/Kg	☼	12/01/17 09:11	12/02/17 17:09	5
Heptachlor	ND		11	2.4	ug/Kg	☼	12/01/17 09:11	12/02/17 17:09	5
Heptachlor epoxide	ND		11	2.9	ug/Kg	☼	12/01/17 09:11	12/02/17 17:09	5
Methoxychlor	**12**		11	2.3	ug/Kg	☼	12/01/17 09:11	12/02/17 17:09	5

Client Sample ID: SS-12
Date Collected: 11/28/17 11:06
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-12
Matrix: Solid
Percent Solids: 74.2

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	ND		110	65	ug/Kg	☼	12/01/17 09:11	12/02/17 17:09	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*139*	*X*	*45 - 120*	*12/01/17 09:11*	*12/02/17 17:09*	*5*
DCB Decachlorobiphenyl	*203*	*X*	*45 - 120*	*12/01/17 09:11*	*12/02/17 17:09*	*5*
Tetrachloro-m-xylene	*107*		*30 - 124*	*12/01/17 09:11*	*12/02/17 17:09*	*5*
Tetrachloro-m-xylene	*101*		*30 - 124*	*12/01/17 09:11*	*12/02/17 17:09*	*5*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.28	0.054	mg/Kg	☼	11/30/17 11:28	12/01/17 16:36	1
PCB-1221	ND		0.28	0.054	mg/Kg	☼	11/30/17 11:28	12/01/17 16:36	1
PCB-1232	ND		0.28	0.054	mg/Kg	☼	11/30/17 11:28	12/01/17 16:36	1
PCB-1242	ND		0.28	0.054	mg/Kg	☼	11/30/17 11:28	12/01/17 16:36	1
PCB-1248	ND		0.28	0.054	mg/Kg	☼	11/30/17 11:28	12/01/17 16:36	1
PCB-1254	ND		0.28	0.13	mg/Kg	☼	11/30/17 11:28	12/01/17 16:36	1
PCB-1260	ND		0.28	0.13	mg/Kg	☼	11/30/17 11:28	12/01/17 16:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*92*		*60 - 154*	*11/30/17 11:28*	*12/01/17 16:36*	*1*
Tetrachloro-m-xylene	*84*		*60 - 154*	*11/30/17 11:28*	*12/01/17 16:36*	*1*
DCB Decachlorobiphenyl	*74*		*65 - 174*	*11/30/17 11:28*	*12/01/17 16:36*	*1*
DCB Decachlorobiphenyl	*75*		*65 - 174*	*11/30/17 11:28*	*12/01/17 16:36*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		22	7.1	ug/Kg	☼	11/30/17 14:30	12/04/17 21:22	1
Silvex (2,4,5-TP)	ND		22	8.0	ug/Kg	☼	11/30/17 14:30	12/04/17 21:22	1
2,4-D	ND		22	14	ug/Kg	☼	11/30/17 14:30	12/04/17 21:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*97*		*28 - 129*	*11/30/17 14:30*	*12/04/17 21:22*	*1*
2,4-Dichlorophenylacetic acid	*120*		*28 - 129*	*11/30/17 14:30*	*12/04/17 21:22*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**15100**		13.8	6.1	mg/Kg	☼	12/01/17 07:37	12/06/17 01:33	1
Antimony	ND		20.7	0.55	mg/Kg	☼	12/01/17 07:37	12/06/17 01:33	1
Arsenic	**7.6**		2.8	0.55	mg/Kg	☼	12/01/17 07:37	12/06/17 01:33	1
Barium	**92.0**		0.69	0.15	mg/Kg	☼	12/01/17 07:37	12/06/17 01:33	1
Beryllium	**0.62**		0.28	0.039	mg/Kg	☼	12/01/17 07:37	12/06/17 01:33	1
Cadmium	**0.28**		0.28	0.041	mg/Kg	☼	12/01/17 07:37	12/06/17 01:33	1
Calcium	**10000**	**B**	69.1	4.6	mg/Kg	☼	12/01/17 07:37	12/06/17 01:33	1
Chromium	**21.1**		0.69	0.28	mg/Kg	☼	12/01/17 07:37	12/06/17 01:33	1
Cobalt	**7.2**		0.69	0.069	mg/Kg	☼	12/01/17 07:37	12/06/17 01:33	1
Copper	**19.4**		1.4	0.29	mg/Kg	☼	12/01/17 07:37	12/06/17 01:33	1
Iron	**18200**		13.8	4.8	mg/Kg	☼	12/01/17 07:37	12/06/17 01:33	1
Lead	**48.0**		1.4	0.33	mg/Kg	☼	12/01/17 07:37	12/06/17 01:33	1
Magnesium	**5250**		27.6	1.3	mg/Kg	☼	12/01/17 07:37	12/06/17 01:33	1
Manganese	**438**		0.28	0.044	mg/Kg	☼	12/01/17 07:37	12/06/17 01:33	1
Nickel	**20.4**		6.9	0.32	mg/Kg	☼	12/01/17 07:37	12/06/17 01:33	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: SS-12
Date Collected: 11/28/17 11:06
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-12
Matrix: Solid
Percent Solids: 74.2

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	2550		41.5	27.6	mg/Kg	☼	12/01/17 07:37	12/06/17 01:33	1
Selenium	0.80	J	5.5	0.55	mg/Kg	☼	12/01/17 07:37	12/06/17 01:33	1
Silver	ND		0.83	0.28	mg/Kg	☼	12/01/17 07:37	12/06/17 01:33	1
Sodium	105	J	193	18.0	mg/Kg	☼	12/01/17 07:37	12/06/17 01:33	1
Thallium	ND		8.3	0.41	mg/Kg	☼	12/01/17 07:37	12/06/17 01:33	1
Vanadium	29.1		0.69	0.15	mg/Kg	☼	12/01/17 07:37	12/06/17 01:33	1
Zinc	94.9		2.8	0.88	mg/Kg	☼	12/01/17 07:37	12/06/17 01:33	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.098		0.027	0.011	mg/Kg	☼	12/06/17 15:35	12/06/17 18:08	1

Client Sample ID: SS-13
Date Collected: 11/28/17 12:29
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-13
Matrix: Solid
Percent Solids: 89.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		3700	1000	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
2,4,6-Trichlorophenol	ND		3700	750	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
2,4-Dichlorophenol	ND		3700	400	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
2,4-Dimethylphenol	ND		3700	900	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
2,4-Dinitrophenol	ND		37000	17000	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
2,4-Dinitrotoluene	ND		3700	770	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
2,6-Dinitrotoluene	ND		3700	440	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
2-Chloronaphthalene	ND		3700	620	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
2-Chlorophenol	ND		3700	680	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
2-Methylnaphthalene	**2600**	**J**	3700	750	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
2-Methylphenol	ND		3700	440	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
2-Nitroaniline	ND		7300	550	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
2-Nitrophenol	ND		3700	1100	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
3,3'-Dichlorobenzidine	ND		7300	4400	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
3-Nitroaniline	ND		7300	1000	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
4,6-Dinitro-2-methylphenol	ND		7300	3700	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
4-Bromophenyl phenyl ether	ND		3700	530	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
4-Chloro-3-methylphenol	ND		3700	930	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
4-Chloroaniline	ND		3700	930	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
4-Chlorophenyl phenyl ether	ND		3700	460	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
4-Methylphenol	ND		7300	440	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
4-Nitroaniline	ND		7300	2000	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
4-Nitrophenol	ND		7300	2600	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Acenaphthene	**16000**		3700	550	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Acenaphthylene	**650**	**J**	3700	480	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Acetophenone	ND		3700	510	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Anthracene	**41000**		3700	930	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Atrazine	ND		3700	1300	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Benzaldehyde	ND		3700	3000	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Benzo[a]anthracene	**66000**		3700	370	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Benzo[a]pyrene	**51000**		3700	550	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Benzo[b]fluoranthene	**63000**		3700	590	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Benzo[g,h,i]perylene	**30000**		3700	400	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Benzo[k]fluoranthene	**32000**		3700	480	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Biphenyl	**940**	**J**	3700	550	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
bis (2-chloroisopropyl) ether	ND		3700	750	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Bis(2-chloroethoxy)methane	ND		3700	790	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Bis(2-chloroethyl)ether	ND		3700	480	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Bis(2-ethylhexyl) phthalate	ND		3700	1300	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Butyl benzyl phthalate	ND		3700	620	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Caprolactam	ND		3700	1100	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Carbazole	**18000**		3700	440	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Chrysene	**54000**		3700	840	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Dibenz(a,h)anthracene	ND		3700	660	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Dibenzofuran	**10000**		3700	440	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Diethyl phthalate	ND		3700	480	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Dimethyl phthalate	ND		3700	440	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Di-n-butyl phthalate	ND		3700	640	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Di-n-octyl phthalate	ND		3700	440	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: SS-13
Date Collected: 11/28/17 12:29
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-13
Matrix: Solid
Percent Solids: 89.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	150000	E	3700	400	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Fluorene	20000		3700	440	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Hexachlorobenzene	ND		3700	510	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Hexachlorobutadiene	ND		3700	550	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Hexachlorocyclopentadiene	ND		3700	510	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Hexachloroethane	ND		3700	480	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Indeno[1,2,3-cd]pyrene	30000		3700	460	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Isophorone	ND		3700	790	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Naphthalene	5400		3700	480	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Nitrobenzene	ND		3700	420	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
N-Nitrosodi-n-propylamine	ND		3700	640	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
N-Nitrosodiphenylamine	ND		3700	3000	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Pentachlorophenol	ND		7300	3700	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Phenanthrene	130000	E	3700	550	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Phenol	ND		3700	570	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20
Pyrene	110000		3700	440	ug/Kg	☼	11/30/17 06:48	12/04/17 17:10	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*163*	*X*	*54 - 120*	*11/30/17 06:48*	*12/04/17 17:10*	*20*
2-Fluorobiphenyl	*90*		*60 - 120*	*11/30/17 06:48*	*12/04/17 17:10*	*20*
2-Fluorophenol	*77*		*52 - 120*	*11/30/17 06:48*	*12/04/17 17:10*	*20*
Nitrobenzene-d5	*71*		*53 - 120*	*11/30/17 06:48*	*12/04/17 17:10*	*20*
Phenol-d5	*85*		*54 - 120*	*11/30/17 06:48*	*12/04/17 17:10*	*20*
p-Terphenyl-d14	*100*		*65 - 121*	*11/30/17 06:48*	*12/04/17 17:10*	*20*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		19000	5100	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
2,4,6-Trichlorophenol	ND		19000	3700	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
2,4-Dichlorophenol	ND		19000	2000	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
2,4-Dimethylphenol	ND		19000	4500	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
2,4-Dinitrophenol	ND		180000	86000	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
2,4-Dinitrotoluene	ND		19000	3900	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
2,6-Dinitrotoluene	ND		19000	2200	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
2-Chloronaphthalene	ND		19000	3100	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
2-Chlorophenol	ND		19000	3400	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
2-Methylnaphthalene	ND		19000	3700	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
2-Methylphenol	ND		19000	2200	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
2-Nitroaniline	ND		36000	2800	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
2-Nitrophenol	ND		19000	5300	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
3,3'-Dichlorobenzidine	ND		36000	22000	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
3-Nitroaniline	ND		36000	5200	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
4,6-Dinitro-2-methylphenol	ND		36000	19000	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
4-Bromophenyl phenyl ether	ND		19000	2600	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
4-Chloro-3-methylphenol	ND		19000	4600	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
4-Chloroaniline	ND		19000	4600	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
4-Chlorophenyl phenyl ether	ND		19000	2300	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
4-Methylphenol	ND		36000	2200	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
4-Nitroaniline	ND		36000	9800	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
4-Nitrophenol	ND		36000	13000	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: SS-13
Date Collected: 11/28/17 12:29
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-13
Matrix: Solid
Percent Solids: 89.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	16000	J	19000	2800	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Acenaphthylene	ND		19000	2400	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Acetophenone	ND		19000	2500	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Anthracene	38000		19000	4600	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Atrazine	ND		19000	6500	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Benzaldehyde	ND		19000	15000	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Benzo[a]anthracene	64000		19000	1900	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Benzo[a]pyrene	52000		19000	2800	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Benzo[b]fluoranthene	61000		19000	3000	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Benzo[g,h,i]perylene	26000		19000	2000	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Benzo[k]fluoranthene	35000		19000	2400	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Biphenyl	ND		19000	2800	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
bis (2-chloroisopropyl) ether	ND		19000	3700	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Bis(2-chloroethoxy)methane	ND		19000	4000	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Bis(2-chloroethyl)ether	ND		19000	2400	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Bis(2-ethylhexyl) phthalate	ND		19000	6400	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Butyl benzyl phthalate	ND		19000	3100	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Caprolactam	ND		19000	5600	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Carbazole	16000	J	19000	2200	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Chrysene	57000		19000	4200	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Dibenz(a,h)anthracene	8800	J	19000	3300	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Dibenzofuran	10000	J	19000	2200	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Diethyl phthalate	ND		19000	2400	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Dimethyl phthalate	ND		19000	2200	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Di-n-butyl phthalate	ND		19000	3200	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Di-n-octyl phthalate	ND		19000	2200	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Fluoranthene	160000		19000	2000	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Fluorene	19000		19000	2200	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Hexachlorobenzene	ND		19000	2500	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Hexachlorobutadiene	ND		19000	2800	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Hexachlorocyclopentadiene	ND		19000	2500	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Hexachloroethane	ND		19000	2400	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Indeno[1,2,3-cd]pyrene	25000		19000	2300	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Isophorone	ND		19000	4000	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Naphthalene	5400	J	19000	2400	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Nitrobenzene	ND		19000	2100	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
N-Nitrosodi-n-propylamine	ND		19000	3200	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
N-Nitrosodiphenylamine	ND		19000	15000	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Pentachlorophenol	ND		36000	19000	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Phenanthrene	140000		19000	2800	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Phenol	ND		19000	2900	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100
Pyrene	120000		19000	2200	ug/Kg	☼	11/30/17 06:48	12/05/17 14:55	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*0*	*X*	*54 - 120*	*11/30/17 06:48*	*12/05/17 14:55*	*100*
2-Fluorobiphenyl	*77*		*60 - 120*	*11/30/17 06:48*	*12/05/17 14:55*	*100*
2-Fluorophenol	*0*	*X*	*52 - 120*	*11/30/17 06:48*	*12/05/17 14:55*	*100*
Nitrobenzene-d5	*0*	*X*	*53 - 120*	*11/30/17 06:48*	*12/05/17 14:55*	*100*
Phenol-d5	*0*	*X*	*54 - 120*	*11/30/17 06:48*	*12/05/17 14:55*	*100*
p-Terphenyl-d14	*0*	*X*	*65 - 121*	*11/30/17 06:48*	*12/05/17 14:55*	*100*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	12	J	37	7.1	ug/Kg	☼	12/01/17 09:11	12/02/17 17:28	20
4,4'-DDE	ND		37	7.7	ug/Kg	☼	12/01/17 09:11	12/02/17 17:28	20
4,4'-DDT	43		37	8.6	ug/Kg	☼	12/01/17 09:11	12/02/17 17:28	20
Aldrin	ND		37	9.0	ug/Kg	☼	12/01/17 09:11	12/02/17 17:28	20
alpha-BHC	11	J B	37	6.6	ug/Kg	☼	12/01/17 09:11	12/02/17 17:28	20
alpha-Chlordane	ND		37	18	ug/Kg	☼	12/01/17 09:11	12/02/17 17:28	20
beta-BHC	ND		37	6.6	ug/Kg	☼	12/01/17 09:11	12/02/17 17:28	20
delta-BHC	14	J B	37	6.8	ug/Kg	☼	12/01/17 09:11	12/02/17 17:28	20
Dieldrin	ND		37	8.8	ug/Kg	☼	12/01/17 09:11	12/02/17 17:28	20
Endosulfan I	ND		37	7.1	ug/Kg	☼	12/01/17 09:11	12/02/17 17:28	20
Endosulfan II	ND		37	6.6	ug/Kg	☼	12/01/17 09:11	12/02/17 17:28	20
Endosulfan sulfate	ND		37	6.9	ug/Kg	☼	12/01/17 09:11	12/02/17 17:28	20
Endrin	9.5	J	37	7.3	ug/Kg	☼	12/01/17 09:11	12/02/17 17:28	20
Endrin aldehyde	20	J	37	9.4	ug/Kg	☼	12/01/17 09:11	12/02/17 17:28	20
Endrin ketone	ND		37	9.0	ug/Kg	☼	12/01/17 09:11	12/02/17 17:28	20
gamma-BHC (Lindane)	54		37	6.7	ug/Kg	☼	12/01/17 09:11	12/02/17 17:28	20
gamma-Chlordane	ND		37	12	ug/Kg	☼	12/01/17 09:11	12/02/17 17:28	20
Heptachlor	ND		37	8.0	ug/Kg	☼	12/01/17 09:11	12/02/17 17:28	20
Heptachlor epoxide	ND		37	9.5	ug/Kg	☼	12/01/17 09:11	12/02/17 17:28	20
Methoxychlor	350		37	7.5	ug/Kg	☼	12/01/17 09:11	12/02/17 17:28	20
Toxaphene	ND		370	210	ug/Kg	☼	12/01/17 09:11	12/02/17 17:28	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*528*	*X*	*45 - 120*	*12/01/17 09:11*	*12/02/17 17:28*	*20*
DCB Decachlorobiphenyl	*265*	*X*	*45 - 120*	*12/01/17 09:11*	*12/02/17 17:28*	*20*
Tetrachloro-m-xylene	*142*	*X*	*30 - 124*	*12/01/17 09:11*	*12/02/17 17:28*	*20*
Tetrachloro-m-xylene	*168*	*X*	*30 - 124*	*12/01/17 09:11*	*12/02/17 17:28*	*20*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.23	0.046	mg/Kg	☼	11/30/17 11:28	12/01/17 16:52	1
PCB-1221	ND		0.23	0.046	mg/Kg	☼	11/30/17 11:28	12/01/17 16:52	1
PCB-1232	ND		0.23	0.046	mg/Kg	☼	11/30/17 11:28	12/01/17 16:52	1
PCB-1242	ND		0.23	0.046	mg/Kg	☼	11/30/17 11:28	12/01/17 16:52	1
PCB-1248	ND		0.23	0.046	mg/Kg	☼	11/30/17 11:28	12/01/17 16:52	1
PCB-1254	ND		0.23	0.11	mg/Kg	☼	11/30/17 11:28	12/01/17 16:52	1
PCB-1260	ND		0.23	0.11	mg/Kg	☼	11/30/17 11:28	12/01/17 16:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*84*		*60 - 154*	*11/30/17 11:28*	*12/01/17 16:52*	*1*
Tetrachloro-m-xylene	*82*		*60 - 154*	*11/30/17 11:28*	*12/01/17 16:52*	*1*
DCB Decachlorobiphenyl	*75*		*65 - 174*	*11/30/17 11:28*	*12/01/17 16:52*	*1*
DCB Decachlorobiphenyl	*93*		*65 - 174*	*11/30/17 11:28*	*12/01/17 16:52*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		19	5.9	ug/Kg	☼	11/30/17 14:30	12/04/17 21:52	1
Silvex (2,4,5-TP)	ND		19	6.7	ug/Kg	☼	11/30/17 14:30	12/04/17 21:52	1
2,4-D	ND		19	12	ug/Kg	☼	11/30/17 14:30	12/04/17 21:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*90*		*28 - 129*	*11/30/17 14:30*	*12/04/17 21:52*	*1*
2,4-Dichlorophenylacetic acid	*80*		*28 - 129*	*11/30/17 14:30*	*12/04/17 21:52*	*1*

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: SS-13
Date Collected: 11/28/17 12:29
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-13
Matrix: Solid
Percent Solids: 89.5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	9590		11.3	5.0	mg/Kg	☼	12/01/17 07:37	12/06/17 01:47	1
Antimony	1.4	J	17.0	0.45	mg/Kg	☼	12/01/17 07:37	12/06/17 01:47	1
Arsenic	5.8		2.3	0.45	mg/Kg	☼	12/01/17 07:37	12/06/17 01:47	1
Barium	78.4		0.57	0.12	mg/Kg	☼	12/01/17 07:37	12/06/17 01:47	1
Beryllium	0.53		0.23	0.032	mg/Kg	☼	12/01/17 07:37	12/06/17 01:47	1
Cadmium	0.25		0.23	0.034	mg/Kg	☼	12/01/17 07:37	12/06/17 01:47	1
Calcium	48600	B	56.6	3.7	mg/Kg	☼	12/01/17 07:37	12/06/17 01:47	1
Chromium	15.6		0.57	0.23	mg/Kg	☼	12/01/17 07:37	12/06/17 01:47	1
Cobalt	4.2		0.57	0.057	mg/Kg	☼	12/01/17 07:37	12/06/17 01:47	1
Copper	45.0		1.1	0.24	mg/Kg	☼	12/01/17 07:37	12/06/17 01:47	1
Iron	18100		11.3	4.0	mg/Kg	☼	12/01/17 07:37	12/06/17 01:47	1
Lead	91.9		1.1	0.27	mg/Kg	☼	12/01/17 07:37	12/06/17 01:47	1
Magnesium	8000		22.6	1.0	mg/Kg	☼	12/01/17 07:37	12/06/17 01:47	1
Manganese	838		0.23	0.036	mg/Kg	☼	12/01/17 07:37	12/06/17 01:47	1
Nickel	14.2		5.7	0.26	mg/Kg	☼	12/01/17 07:37	12/06/17 01:47	1
Potassium	1610		33.9	22.6	mg/Kg	☼	12/01/17 07:37	12/06/17 01:47	1
Selenium	0.52	J	4.5	0.45	mg/Kg	☼	12/01/17 07:37	12/06/17 01:47	1
Silver	ND		0.68	0.23	mg/Kg	☼	12/01/17 07:37	12/06/17 01:47	1
Sodium	299		158	14.7	mg/Kg	☼	12/01/17 07:37	12/06/17 01:47	1
Thallium	ND		6.8	0.34	mg/Kg	☼	12/01/17 07:37	12/06/17 01:47	1
Vanadium	21.2		0.57	0.12	mg/Kg	☼	12/01/17 07:37	12/06/17 01:47	1
Zinc	125		2.3	0.72	mg/Kg	☼	12/01/17 07:37	12/06/17 01:47	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.061		0.022	0.0087	mg/Kg	☼	12/06/17 15:35	12/06/17 18:11	1

Client Sample ID: SS-14
Date Collected: 11/28/17 11:37
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-14
Matrix: Solid
Percent Solids: 78.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		4300	1200	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
2,4,6-Trichlorophenol	ND		4300	860	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
2,4-Dichlorophenol	ND		4300	450	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
2,4-Dimethylphenol	ND		4300	1000	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
2,4-Dinitrophenol	ND		42000	20000	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
2,4-Dinitrotoluene	ND		4300	880	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
2,6-Dinitrotoluene	ND		4300	500	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
2-Chloronaphthalene	ND		4300	710	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
2-Chlorophenol	ND		4300	780	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
2-Methylnaphthalene	ND		4300	860	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
2-Methylphenol	ND		4300	500	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
2-Nitroaniline	ND		8300	630	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
2-Nitrophenol	ND		4300	1200	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
3,3'-Dichlorobenzidine	ND		8300	5000	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
3-Nitroaniline	ND		8300	1200	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
4,6-Dinitro-2-methylphenol	ND		8300	4300	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
4-Bromophenyl phenyl ether	ND		4300	600	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
4-Chloro-3-methylphenol	ND		4300	1100	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
4-Chloroaniline	ND		4300	1100	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
4-Chlorophenyl phenyl ether	ND		4300	530	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
4-Methylphenol	ND		8300	500	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
4-Nitroaniline	ND		8300	2200	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
4-Nitrophenol	ND		8300	3000	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Acenaphthene	ND		4300	630	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Acenaphthylene	ND		4300	550	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Acetophenone	ND		4300	580	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Anthracene	**1500**	**J**	4300	1100	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Atrazine	ND		4300	1500	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Benzaldehyde	ND		4300	3400	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Benzo[a]anthracene	**6100**		4300	430	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Benzo[a]pyrene	**5800**		4300	630	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Benzo[b]fluoranthene	**8300**		4300	680	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Benzo[g,h,i]perylene	**4100**	**J**	4300	450	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Benzo[k]fluoranthene	**3500**	**J**	4300	550	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Biphenyl	ND		4300	630	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
bis (2-chloroisopropyl) ether	ND		4300	860	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Bis(2-chloroethoxy)methane	ND		4300	910	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Bis(2-chloroethyl)ether	ND		4300	550	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Bis(2-ethylhexyl) phthalate	ND		4300	1500	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Butyl benzyl phthalate	ND		4300	710	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Caprolactam	ND		4300	1300	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Carbazole	**1100**	**J**	4300	500	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Chrysene	**6400**		4300	960	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Dibenz(a,h)anthracene	ND		4300	760	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Dibenzofuran	ND		4300	500	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Diethyl phthalate	ND		4300	550	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Dimethyl phthalate	ND		4300	500	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Di-n-butyl phthalate	ND		4300	730	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Di-n-octyl phthalate	ND		4300	500	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20

Client Sample ID: SS-14
Date Collected: 11/28/17 11:37
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-14
Matrix: Solid
Percent Solids: 78.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	15000		4300	450	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Fluorene	570	J	4300	500	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Hexachlorobenzene	ND		4300	580	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Hexachlorobutadiene	ND		4300	630	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Hexachlorocyclopentadiene	ND		4300	580	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Hexachloroethane	ND		4300	550	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Indeno[1,2,3-cd]pyrene	3500	J	4300	530	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Isophorone	ND		4300	910	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Naphthalene	ND		4300	550	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Nitrobenzene	ND		4300	480	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
N-Nitrosodi-n-propylamine	ND		4300	730	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
N-Nitrosodiphenylamine	ND		4300	3500	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Pentachlorophenol	ND		8300	4300	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Phenanthrene	8500		4300	630	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Phenol	ND		4300	650	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20
Pyrene	12000		4300	500	ug/Kg	☼	11/30/17 06:48	12/04/17 17:36	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*177*	*X*	*54 - 120*	*11/30/17 06:48*	*12/04/17 17:36*	*20*
2-Fluorobiphenyl	*88*		*60 - 120*	*11/30/17 06:48*	*12/04/17 17:36*	*20*
2-Fluorophenol	*76*		*52 - 120*	*11/30/17 06:48*	*12/04/17 17:36*	*20*
Nitrobenzene-d5	*80*		*53 - 120*	*11/30/17 06:48*	*12/04/17 17:36*	*20*
Phenol-d5	*85*		*54 - 120*	*11/30/17 06:48*	*12/04/17 17:36*	*20*
p-Terphenyl-d14	*94*		*65 - 121*	*11/30/17 06:48*	*12/04/17 17:36*	*20*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	5940		13.3	5.8	mg/Kg	☼	12/01/17 07:37	12/06/17 01:51	1
Antimony	0.56	J	19.9	0.53	mg/Kg	☼	12/01/17 07:37	12/06/17 01:51	1
Arsenic	5.2		2.7	0.53	mg/Kg	☼	12/01/17 07:37	12/06/17 01:51	1
Barium	51.2		0.66	0.15	mg/Kg	☼	12/01/17 07:37	12/06/17 01:51	1
Beryllium	0.34		0.27	0.037	mg/Kg	☼	12/01/17 07:37	12/06/17 01:51	1
Cadmium	0.45		0.27	0.040	mg/Kg	☼	12/01/17 07:37	12/06/17 01:51	1
Calcium	21200	B	66.3	4.4	mg/Kg	☼	12/01/17 07:37	12/06/17 01:51	1
Chromium	12.1		0.66	0.27	mg/Kg	☼	12/01/17 07:37	12/06/17 01:51	1
Cobalt	4.2		0.66	0.066	mg/Kg	☼	12/01/17 07:37	12/06/17 01:51	1
Copper	31.4		1.3	0.28	mg/Kg	☼	12/01/17 07:37	12/06/17 01:51	1
Iron	14700		13.3	4.6	mg/Kg	☼	12/01/17 07:37	12/06/17 01:51	1
Lead	62.0		1.3	0.32	mg/Kg	☼	12/01/17 07:37	12/06/17 01:51	1
Magnesium	5030		26.5	1.2	mg/Kg	☼	12/01/17 07:37	12/06/17 01:51	1
Manganese	367		0.27	0.042	mg/Kg	☼	12/01/17 07:37	12/06/17 01:51	1
Nickel	12.8		6.6	0.30	mg/Kg	☼	12/01/17 07:37	12/06/17 01:51	1
Potassium	1070		39.8	26.5	mg/Kg	☼	12/01/17 07:37	12/06/17 01:51	1
Selenium	0.61	J	5.3	0.53	mg/Kg	☼	12/01/17 07:37	12/06/17 01:51	1
Silver	ND		0.80	0.27	mg/Kg	☼	12/01/17 07:37	12/06/17 01:51	1
Sodium	87.5	J	186	17.2	mg/Kg	☼	12/01/17 07:37	12/06/17 01:51	1
Thallium	ND		8.0	0.40	mg/Kg	☼	12/01/17 07:37	12/06/17 01:51	1
Vanadium	15.6		0.66	0.15	mg/Kg	☼	12/01/17 07:37	12/06/17 01:51	1
Zinc	180		2.7	0.85	mg/Kg	☼	12/01/17 07:37	12/06/17 01:51	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: SS-14
Date Collected: 11/28/17 11:37
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-14
Matrix: Solid
Percent Solids: 78.1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.098		0.026	0.010	mg/Kg	☼	12/06/17 15:35	12/06/17 18:12	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: SS-15
Date Collected: 11/28/17 11:24
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-15
Matrix: Solid
Percent Solids: 69.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		1200	330	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
2,4,6-Trichlorophenol	ND		1200	240	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
2,4-Dichlorophenol	ND		1200	130	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
2,4-Dimethylphenol	ND		1200	290	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
2,4-Dinitrophenol	ND		12000	5500	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
2,4-Dinitrotoluene	ND		1200	250	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
2,6-Dinitrotoluene	ND		1200	140	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
2-Chloronaphthalene	ND		1200	200	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
2-Chlorophenol	ND		1200	220	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
2-Methylnaphthalene	ND		1200	240	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
2-Methylphenol	ND		1200	140	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
2-Nitroaniline	ND		2300	180	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
2-Nitrophenol	ND		1200	340	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
3,3'-Dichlorobenzidine	ND		2300	1400	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
3-Nitroaniline	ND		2300	330	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
4,6-Dinitro-2-methylphenol	ND		2300	1200	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
4-Bromophenyl phenyl ether	ND		1200	170	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
4-Chloro-3-methylphenol	ND		1200	300	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
4-Chloroaniline	ND		1200	300	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
4-Chlorophenyl phenyl ether	ND		1200	150	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
4-Methylphenol	ND		2300	140	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
4-Nitroaniline	ND		2300	630	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
4-Nitrophenol	ND		2300	840	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Acenaphthene	**270**	**J**	1200	180	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Acenaphthylene	ND		1200	160	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Acetophenone	ND		1200	160	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Anthracene	**550**	**J**	1200	300	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Atrazine	ND		1200	420	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Benzaldehyde	ND		1200	950	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Benzo[a]anthracene	**1000**	**J**	1200	120	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Benzo[a]pyrene	**840**	**J**	1200	180	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Benzo[b]fluoranthene	**1100**	**J**	1200	190	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Benzo[g,h,i]perylene	**480**	**J**	1200	130	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Benzo[k]fluoranthene	**490**	**J**	1200	160	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Biphenyl	ND		1200	180	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
bis (2-chloroisopropyl) ether	ND		1200	240	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Bis(2-chloroethoxy)methane	ND		1200	250	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Bis(2-chloroethyl)ether	ND		1200	160	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Bis(2-ethylhexyl) phthalate	ND		1200	410	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Butyl benzyl phthalate	ND		1200	200	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Caprolactam	ND		1200	360	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Carbazole	**270**	**J**	1200	140	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Chrysene	**960**	**J**	1200	270	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Dibenz(a,h)anthracene	ND		1200	210	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Dibenzofuran	ND		1200	140	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Diethyl phthalate	ND		1200	160	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Dimethyl phthalate	ND		1200	140	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Di-n-butyl phthalate	ND		1200	210	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Di-n-octyl phthalate	ND		1200	140	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: SS-15
Date Collected: 11/28/17 11:24
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-15
Matrix: Solid
Percent Solids: 69.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	2400		1200	130	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Fluorene	260	J	1200	140	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Hexachlorobenzene	ND		1200	160	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Hexachlorobutadiene	ND		1200	180	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Hexachlorocyclopentadiene	ND		1200	160	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Hexachloroethane	ND		1200	160	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Indeno[1,2,3-cd]pyrene	450	J	1200	150	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Isophorone	ND		1200	250	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Naphthalene	ND		1200	160	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Nitrobenzene	ND		1200	130	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
N-Nitrosodi-n-propylamine	ND		1200	210	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
N-Nitrosodiphenylamine	ND		1200	980	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Pentachlorophenol	ND		2300	1200	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Phenanthrene	2200		1200	180	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Phenol	ND		1200	180	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5
Pyrene	1900		1200	140	ug/Kg	☼	11/30/17 06:48	12/04/17 18:03	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*88*		*54 - 120*	*11/30/17 06:48*	*12/04/17 18:03*	*5*
2-Fluorobiphenyl	*89*		*60 - 120*	*11/30/17 06:48*	*12/04/17 18:03*	*5*
2-Fluorophenol	*83*		*52 - 120*	*11/30/17 06:48*	*12/04/17 18:03*	*5*
Nitrobenzene-d5	*85*		*53 - 120*	*11/30/17 06:48*	*12/04/17 18:03*	*5*
Phenol-d5	*91*		*54 - 120*	*11/30/17 06:48*	*12/04/17 18:03*	*5*
p-Terphenyl-d14	*94*		*65 - 121*	*11/30/17 06:48*	*12/04/17 18:03*	*5*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	14500		14.8	6.5	mg/Kg	☼	12/01/17 07:37	12/06/17 01:54	1
Antimony	0.61	J	22.3	0.59	mg/Kg	☼	12/01/17 07:37	12/06/17 01:54	1
Arsenic	4.9		3.0	0.59	mg/Kg	☼	12/01/17 07:37	12/06/17 01:54	1
Barium	86.0		0.74	0.16	mg/Kg	☼	12/01/17 07:37	12/06/17 01:54	1
Beryllium	0.59		0.30	0.042	mg/Kg	☼	12/01/17 07:37	12/06/17 01:54	1
Cadmium	0.32		0.30	0.045	mg/Kg	☼	12/01/17 07:37	12/06/17 01:54	1
Calcium	6050	B	74.2	4.9	mg/Kg	☼	12/01/17 07:37	12/06/17 01:54	1
Chromium	20.1		0.74	0.30	mg/Kg	☼	12/01/17 07:37	12/06/17 01:54	1
Cobalt	6.5		0.74	0.074	mg/Kg	☼	12/01/17 07:37	12/06/17 01:54	1
Copper	19.0		1.5	0.31	mg/Kg	☼	12/01/17 07:37	12/06/17 01:54	1
Iron	17700		14.8	5.2	mg/Kg	☼	12/01/17 07:37	12/06/17 01:54	1
Lead	38.2		1.5	0.36	mg/Kg	☼	12/01/17 07:37	12/06/17 01:54	1
Magnesium	3560		29.7	1.4	mg/Kg	☼	12/01/17 07:37	12/06/17 01:54	1
Manganese	277		0.30	0.047	mg/Kg	☼	12/01/17 07:37	12/06/17 01:54	1
Nickel	20.6		7.4	0.34	mg/Kg	☼	12/01/17 07:37	12/06/17 01:54	1
Potassium	1980		44.5	29.7	mg/Kg	☼	12/01/17 07:37	12/06/17 01:54	1
Selenium	ND		5.9	0.59	mg/Kg	☼	12/01/17 07:37	12/06/17 01:54	1
Silver	ND		0.89	0.30	mg/Kg	☼	12/01/17 07:37	12/06/17 01:54	1
Sodium	78.9	J	208	19.3	mg/Kg	☼	12/01/17 07:37	12/06/17 01:54	1
Thallium	ND		8.9	0.45	mg/Kg	☼	12/01/17 07:37	12/06/17 01:54	1
Vanadium	28.9		0.74	0.16	mg/Kg	☼	12/01/17 07:37	12/06/17 01:54	1
Zinc	90.5		3.0	0.95	mg/Kg	☼	12/01/17 07:37	12/06/17 01:54	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: SS-15
Date Collected: 11/28/17 11:24
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-15
Matrix: Solid
Percent Solids: 69.9

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.088		0.029	0.012	mg/Kg	☼	12/06/17 15:35	12/06/17 18:14	1

Client Sample ID: BLIND DUP #1

Date Collected: 11/28/17 12:00
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-16

Matrix: Solid
Percent Solids: 76.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		1100	300	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
2,4,6-Trichlorophenol	ND		1100	220	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
2,4-Dichlorophenol	ND		1100	120	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
2,4-Dimethylphenol	ND		1100	270	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
2,4-Dinitrophenol	ND		11000	5100	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
2,4-Dinitrotoluene	ND		1100	230	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
2,6-Dinitrotoluene	ND		1100	130	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
2-Chloronaphthalene	ND		1100	180	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
2-Chlorophenol	ND		1100	200	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
2-Methylnaphthalene	ND		1100	220	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
2-Methylphenol	ND		1100	130	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
2-Nitroaniline	ND		2100	160	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
2-Nitrophenol	ND		1100	310	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
3,3'-Dichlorobenzidine	ND		2100	1300	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
3-Nitroaniline	ND		2100	310	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
4,6-Dinitro-2-methylphenol	ND		2100	1100	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
4-Bromophenyl phenyl ether	ND		1100	160	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
4-Chloro-3-methylphenol	ND		1100	270	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
4-Chloroaniline	ND		1100	270	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
4-Chlorophenyl phenyl ether	ND		1100	140	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
4-Methylphenol	ND		2100	130	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
4-Nitroaniline	ND		2100	580	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
4-Nitrophenol	ND		2100	780	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Acenaphthene	**630**	**J**	1100	160	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Acenaphthylene	ND		1100	140	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Acetophenone	ND		1100	150	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Anthracene	**1000**	**J**	1100	270	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Atrazine	ND		1100	380	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Benzaldehyde	ND		1100	880	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Benzo[a]anthracene	**1700**		1100	110	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Benzo[a]pyrene	**1600**		1100	160	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Benzo[b]fluoranthene	**2100**		1100	180	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Benzo[g,h,i]perylene	**1100**		1100	120	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Benzo[k]fluoranthene	**890**	**J**	1100	140	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Biphenyl	ND		1100	160	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
bis (2-chloroisopropyl) ether	ND		1100	220	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Bis(2-chloroethoxy)methane	ND		1100	230	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Bis(2-chloroethyl)ether	ND		1100	140	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Bis(2-ethylhexyl) phthalate	ND		1100	380	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Butyl benzyl phthalate	ND		1100	180	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Caprolactam	ND		1100	330	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Carbazole	**520**	**J**	1100	130	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Chrysene	**1500**		1100	250	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Dibenz(a,h)anthracene	ND		1100	200	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Dibenzofuran	**380**	**J**	1100	130	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Diethyl phthalate	ND		1100	140	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Dimethyl phthalate	ND		1100	130	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Di-n-butyl phthalate	ND		1100	190	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Di-n-octyl phthalate	ND		1100	130	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5

Client Sample ID: BLIND DUP #1
Date Collected: 11/28/17 12:00
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-16
Matrix: Solid
Percent Solids: 76.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	4200		1100	120	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Fluorene	620	J	1100	130	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Hexachlorobenzene	ND		1100	150	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Hexachlorobutadiene	ND		1100	160	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Hexachlorocyclopentadiene	ND		1100	150	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Hexachloroethane	ND		1100	140	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Indeno[1,2,3-cd]pyrene	970	J	1100	140	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Isophorone	ND		1100	230	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Naphthalene	460	J	1100	140	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Nitrobenzene	ND		1100	120	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
N-Nitrosodi-n-propylamine	ND		1100	190	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
N-Nitrosodiphenylamine	ND		1100	900	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Pentachlorophenol	ND		2100	1100	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Phenanthrene	4000		1100	160	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Phenol	ND		1100	170	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5
Pyrene	3300		1100	130	ug/Kg	☼	11/30/17 06:48	12/04/17 18:29	5

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*4600*	*T J*	*ug/Kg*	☼	*2.01*		*11/30/17 06:48*	*12/04/17 18:29*	*5*
Octadecane	*1000*	*T J N*	*ug/Kg*	☼	*14.29*	*593-45-3*	*11/30/17 06:48*	*12/04/17 18:29*	*5*
Benzo[e]pyrene	*1100*	*T J N*	*ug/Kg*	☼	*14.44*	*192-97-2*	*11/30/17 06:48*	*12/04/17 18:29*	*5*
Hentriacontane	*2600*	*T J N*	*ug/Kg*	☼	*14.82*	*630-04-6*	*11/30/17 06:48*	*12/04/17 18:29*	*5*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*87*		*54 - 120*	*11/30/17 06:48*	*12/04/17 18:29*	*5*
2-Fluorobiphenyl	*85*		*60 - 120*	*11/30/17 06:48*	*12/04/17 18:29*	*5*
2-Fluorophenol	*77*		*52 - 120*	*11/30/17 06:48*	*12/04/17 18:29*	*5*
Nitrobenzene-d5	*73*		*53 - 120*	*11/30/17 06:48*	*12/04/17 18:29*	*5*
Phenol-d5	*89*		*54 - 120*	*11/30/17 06:48*	*12/04/17 18:29*	*5*
p-Terphenyl-d14	*91*		*65 - 121*	*11/30/17 06:48*	*12/04/17 18:29*	*5*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		11	2.1	ug/Kg	☼	12/01/17 09:11	12/02/17 17:48	5
4,4'-DDE	6.7	J	11	2.2	ug/Kg	☼	12/01/17 09:11	12/02/17 17:48	5
4,4'-DDT	12		11	2.5	ug/Kg	☼	12/01/17 09:11	12/02/17 17:48	5
Aldrin	ND		11	2.6	ug/Kg	☼	12/01/17 09:11	12/02/17 17:48	5
alpha-BHC	ND		11	1.9	ug/Kg	☼	12/01/17 09:11	12/02/17 17:48	5
alpha-Chlordane	ND		11	5.3	ug/Kg	☼	12/01/17 09:11	12/02/17 17:48	5
beta-BHC	ND		11	1.9	ug/Kg	☼	12/01/17 09:11	12/02/17 17:48	5
delta-BHC	ND		11	2.0	ug/Kg	☼	12/01/17 09:11	12/02/17 17:48	5
Dieldrin	ND		11	2.6	ug/Kg	☼	12/01/17 09:11	12/02/17 17:48	5
Endosulfan I	ND		11	2.1	ug/Kg	☼	12/01/17 09:11	12/02/17 17:48	5
Endosulfan II	ND		11	1.9	ug/Kg	☼	12/01/17 09:11	12/02/17 17:48	5
Endosulfan sulfate	ND		11	2.0	ug/Kg	☼	12/01/17 09:11	12/02/17 17:48	5
Endrin	ND		11	2.1	ug/Kg	☼	12/01/17 09:11	12/02/17 17:48	5
Endrin aldehyde	ND		11	2.7	ug/Kg	☼	12/01/17 09:11	12/02/17 17:48	5
Endrin ketone	ND		11	2.6	ug/Kg	☼	12/01/17 09:11	12/02/17 17:48	5
gamma-BHC (Lindane)	3.8	J	11	2.0	ug/Kg	☼	12/01/17 09:11	12/02/17 17:48	5
gamma-Chlordane	ND		11	3.4	ug/Kg	☼	12/01/17 09:11	12/02/17 17:48	5

Client Sample ID: BLIND DUP #1
Date Collected: 11/28/17 12:00
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-16
Matrix: Solid
Percent Solids: 76.1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor	ND		11	2.3	ug/Kg	☼	12/01/17 09:11	12/02/17 17:48	5
Heptachlor epoxide	ND		11	2.8	ug/Kg	☼	12/01/17 09:11	12/02/17 17:48	5
Methoxychlor	ND		11	2.2	ug/Kg	☼	12/01/17 09:11	12/02/17 17:48	5
Toxaphene	ND		110	62	ug/Kg	☼	12/01/17 09:11	12/02/17 17:48	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*132*	*X*	*45 - 120*	*12/01/17 09:11*	*12/02/17 17:48*	*5*
DCB Decachlorobiphenyl	*388*	*X*	*45 - 120*	*12/01/17 09:11*	*12/02/17 17:48*	*5*
Tetrachloro-m-xylene	*99*		*30 - 124*	*12/01/17 09:11*	*12/02/17 17:48*	*5*
Tetrachloro-m-xylene	*104*		*30 - 124*	*12/01/17 09:11*	*12/02/17 17:48*	*5*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.26	0.051	mg/Kg	☼	11/30/17 11:28	12/01/17 17:08	1
PCB-1221	ND		0.26	0.051	mg/Kg	☼	11/30/17 11:28	12/01/17 17:08	1
PCB-1232	ND		0.26	0.051	mg/Kg	☼	11/30/17 11:28	12/01/17 17:08	1
PCB-1242	ND		0.26	0.051	mg/Kg	☼	11/30/17 11:28	12/01/17 17:08	1
PCB-1248	ND		0.26	0.051	mg/Kg	☼	11/30/17 11:28	12/01/17 17:08	1
PCB-1254	ND		0.26	0.12	mg/Kg	☼	11/30/17 11:28	12/01/17 17:08	1
PCB-1260	ND		0.26	0.12	mg/Kg	☼	11/30/17 11:28	12/01/17 17:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*102*		*60 - 154*	*11/30/17 11:28*	*12/01/17 17:08*	*1*
Tetrachloro-m-xylene	*92*		*60 - 154*	*11/30/17 11:28*	*12/01/17 17:08*	*1*
DCB Decachlorobiphenyl	*80*		*65 - 174*	*11/30/17 11:28*	*12/01/17 17:08*	*1*
DCB Decachlorobiphenyl	*80*		*65 - 174*	*11/30/17 11:28*	*12/01/17 17:08*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		21	6.8	ug/Kg	☼	11/30/17 14:30	12/04/17 23:22	1
Silvex (2,4,5-TP)	ND		21	7.7	ug/Kg	☼	11/30/17 14:30	12/04/17 23:22	1
2,4-D	ND		21	13	ug/Kg	☼	11/30/17 14:30	12/04/17 23:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*117*		*28 - 129*	*11/30/17 14:30*	*12/04/17 23:22*	*1*
2,4-Dichlorophenylacetic acid	*129*		*28 - 129*	*11/30/17 14:30*	*12/04/17 23:22*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**12900**		14.5	6.4	mg/Kg	☼	12/01/17 07:37	12/06/17 01:58	1
Antimony	ND		21.7	0.58	mg/Kg	☼	12/01/17 07:37	12/06/17 01:58	1
Arsenic	**5.6**		2.9	0.58	mg/Kg	☼	12/01/17 07:37	12/06/17 01:58	1
Barium	**80.3**		0.72	0.16	mg/Kg	☼	12/01/17 07:37	12/06/17 01:58	1
Beryllium	**0.52**		0.29	0.041	mg/Kg	☼	12/01/17 07:37	12/06/17 01:58	1
Cadmium	**0.42**		0.29	0.043	mg/Kg	☼	12/01/17 07:37	12/06/17 01:58	1
Calcium	**8810**	**B**	72.3	4.8	mg/Kg	☼	12/01/17 07:37	12/06/17 01:58	1
Chromium	**18.1**		0.72	0.29	mg/Kg	☼	12/01/17 07:37	12/06/17 01:58	1
Cobalt	**6.7**		0.72	0.072	mg/Kg	☼	12/01/17 07:37	12/06/17 01:58	1
Copper	**18.4**		1.4	0.30	mg/Kg	☼	12/01/17 07:37	12/06/17 01:58	1
Iron	**16400**		14.5	5.1	mg/Kg	☼	12/01/17 07:37	12/06/17 01:58	1
Lead	**44.8**		1.4	0.35	mg/Kg	☼	12/01/17 07:37	12/06/17 01:58	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: BLIND DUP #1
Date Collected: 11/28/17 12:00
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-16
Matrix: Solid
Percent Solids: 76.1

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	4260		28.9	1.3	mg/Kg	☼	12/01/17 07:37	12/06/17 01:58	1
Manganese	546		0.29	0.046	mg/Kg	☼	12/01/17 07:37	12/06/17 01:58	1
Nickel	18.1		7.2	0.33	mg/Kg	☼	12/01/17 07:37	12/06/17 01:58	1
Potassium	2140		43.4	28.9	mg/Kg	☼	12/01/17 07:37	12/06/17 01:58	1
Selenium	0.94	J	5.8	0.58	mg/Kg	☼	12/01/17 07:37	12/06/17 01:58	1
Silver	ND		0.87	0.29	mg/Kg	☼	12/01/17 07:37	12/06/17 01:58	1
Sodium	94.7	J	203	18.8	mg/Kg	☼	12/01/17 07:37	12/06/17 01:58	1
Thallium	ND		8.7	0.43	mg/Kg	☼	12/01/17 07:37	12/06/17 01:58	1
Vanadium	26.3		0.72	0.16	mg/Kg	☼	12/01/17 07:37	12/06/17 01:58	1
Zinc	86.6		2.9	0.93	mg/Kg	☼	12/01/17 07:37	12/06/17 01:58	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.080		0.026	0.011	mg/Kg	☼	12/06/17 15:35	12/06/17 18:18	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: TP-1 (4-6)
Date Collected: 11/28/17 09:23
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-17
Matrix: Solid
Percent Solids: 81.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		4100	1100	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
2,4,6-Trichlorophenol	ND		4100	820	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
2,4-Dichlorophenol	ND		4100	430	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
2,4-Dimethylphenol	ND		4100	990	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
2,4-Dinitrophenol	ND		40000	19000	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
2,4-Dinitrotoluene	ND		4100	850	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
2,6-Dinitrotoluene	ND		4100	480	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
2-Chloronaphthalene	ND		4100	680	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
2-Chlorophenol	ND		4100	750	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
2-Methylnaphthalene	ND		4100	820	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
2-Methylphenol	ND		4100	480	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
2-Nitroaniline	ND		8000	600	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
2-Nitrophenol	ND		4100	1200	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
3,3'-Dichlorobenzidine	ND		8000	4800	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
3-Nitroaniline	ND		8000	1100	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
4,6-Dinitro-2-methylphenol	ND		8000	4100	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
4-Bromophenyl phenyl ether	ND		4100	580	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
4-Chloro-3-methylphenol	ND		4100	1000	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
4-Chloroaniline	ND		4100	1000	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
4-Chlorophenyl phenyl ether	ND		4100	510	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
4-Methylphenol	ND		8000	480	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
4-Nitroaniline	ND		8000	2100	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
4-Nitrophenol	ND		8000	2900	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Acenaphthene	ND		4100	600	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Acenaphthylene	ND		4100	530	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Acetophenone	ND		4100	560	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Anthracene	ND		4100	1000	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Atrazine	ND		4100	1400	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Benzaldehyde	ND		4100	3300	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Benzo[a]anthracene	**470**	**J**	4100	410	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Benzo[a]pyrene	ND		4100	600	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Benzo[b]fluoranthene	ND		4100	650	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Benzo[g,h,i]perylene	ND		4100	430	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Benzo[k]fluoranthene	ND		4100	530	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Biphenyl	ND		4100	600	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
bis (2-chloroisopropyl) ether	ND		4100	820	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Bis(2-chloroethoxy)methane	ND		4100	870	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Bis(2-chloroethyl)ether	ND		4100	530	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Bis(2-ethylhexyl) phthalate	ND		4100	1400	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Butyl benzyl phthalate	ND		4100	680	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Caprolactam	ND		4100	1200	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Carbazole	ND		4100	480	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Chrysene	ND		4100	920	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Dibenz(a,h)anthracene	ND		4100	720	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Dibenzofuran	ND		4100	480	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Diethyl phthalate	ND		4100	530	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Dimethyl phthalate	ND		4100	480	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Di-n-butyl phthalate	ND		4100	700	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Di-n-octyl phthalate	ND		4100	480	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20

Client Sample ID: TP-1 (4-6)
Date Collected: 11/28/17 09:23
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-17
Matrix: Solid
Percent Solids: 81.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	810	J	4100	430	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Fluorene	ND		4100	480	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Hexachlorobenzene	ND		4100	560	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Hexachlorobutadiene	ND		4100	600	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Hexachlorocyclopentadiene	ND		4100	560	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Hexachloroethane	ND		4100	530	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Indeno[1,2,3-cd]pyrene	ND		4100	510	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Isophorone	ND		4100	870	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Naphthalene	ND		4100	530	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Nitrobenzene	ND		4100	460	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
N-Nitrosodi-n-propylamine	ND		4100	700	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
N-Nitrosodiphenylamine	ND		4100	3300	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Pentachlorophenol	ND		8000	4100	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Phenanthrene	ND		4100	600	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Phenol	ND		4100	630	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20
Pyrene	660	J	4100	480	ug/Kg	☼	11/30/17 06:48	12/04/17 18:55	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*173*	*X*	*54 - 120*	*11/30/17 06:48*	*12/04/17 18:55*	*20*
2-Fluorobiphenyl	*79*		*60 - 120*	*11/30/17 06:48*	*12/04/17 18:55*	*20*
2-Fluorophenol	*69*		*52 - 120*	*11/30/17 06:48*	*12/04/17 18:55*	*20*
Nitrobenzene-d5	*78*		*53 - 120*	*11/30/17 06:48*	*12/04/17 18:55*	*20*
Phenol-d5	*78*		*54 - 120*	*11/30/17 06:48*	*12/04/17 18:55*	*20*
p-Terphenyl-d14	*82*		*65 - 121*	*11/30/17 06:48*	*12/04/17 18:55*	*20*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		41	7.9	ug/Kg	☼	12/01/17 09:11	12/02/17 18:07	20
4,4'-DDE	ND		41	8.5	ug/Kg	☼	12/01/17 09:11	12/02/17 18:07	20
4,4'-DDT	14	J	41	9.5	ug/Kg	☼	12/01/17 09:11	12/02/17 18:07	20
Aldrin	ND		41	10	ug/Kg	☼	12/01/17 09:11	12/02/17 18:07	20
alpha-BHC	ND		41	7.3	ug/Kg	☼	12/01/17 09:11	12/02/17 18:07	20
alpha-Chlordane	ND		41	20	ug/Kg	☼	12/01/17 09:11	12/02/17 18:07	20
beta-BHC	ND		41	7.3	ug/Kg	☼	12/01/17 09:11	12/02/17 18:07	20
delta-BHC	ND		41	7.5	ug/Kg	☼	12/01/17 09:11	12/02/17 18:07	20
Dieldrin	ND		41	9.7	ug/Kg	☼	12/01/17 09:11	12/02/17 18:07	20
Endosulfan I	ND		41	7.8	ug/Kg	☼	12/01/17 09:11	12/02/17 18:07	20
Endosulfan II	ND		41	7.3	ug/Kg	☼	12/01/17 09:11	12/02/17 18:07	20
Endosulfan sulfate	ND		41	7.6	ug/Kg	☼	12/01/17 09:11	12/02/17 18:07	20
Endrin	ND		41	8.0	ug/Kg	☼	12/01/17 09:11	12/02/17 18:07	20
Endrin aldehyde	ND		41	10	ug/Kg	☼	12/01/17 09:11	12/02/17 18:07	20
Endrin ketone	ND		41	10	ug/Kg	☼	12/01/17 09:11	12/02/17 18:07	20
gamma-BHC (Lindane)	11	J	41	7.4	ug/Kg	☼	12/01/17 09:11	12/02/17 18:07	20
gamma-Chlordane	ND		41	13	ug/Kg	☼	12/01/17 09:11	12/02/17 18:07	20
Heptachlor	ND		41	8.8	ug/Kg	☼	12/01/17 09:11	12/02/17 18:07	20
Heptachlor epoxide	ND		41	10	ug/Kg	☼	12/01/17 09:11	12/02/17 18:07	20
Methoxychlor	ND		41	8.3	ug/Kg	☼	12/01/17 09:11	12/02/17 18:07	20
Toxaphene	ND		410	240	ug/Kg	☼	12/01/17 09:11	12/02/17 18:07	20

Client Sample ID: TP-1 (4-6)
Date Collected: 11/28/17 09:23
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-17
Matrix: Solid
Percent Solids: 81.1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*283*	*X*	*45 - 120*	*12/01/17 09:11*	*12/02/17 18:07*	*20*
DCB Decachlorobiphenyl	*453*	*X*	*45 - 120*	*12/01/17 09:11*	*12/02/17 18:07*	*20*
Tetrachloro-m-xylene	*121*		*30 - 124*	*12/01/17 09:11*	*12/02/17 18:07*	*20*
Tetrachloro-m-xylene	*179*	*X*	*30 - 124*	*12/01/17 09:11*	*12/02/17 18:07*	*20*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.28	0.055	mg/Kg	☼	11/30/17 11:28	12/01/17 17:24	1
PCB-1221	ND		0.28	0.055	mg/Kg	☼	11/30/17 11:28	12/01/17 17:24	1
PCB-1232	ND		0.28	0.055	mg/Kg	☼	11/30/17 11:28	12/01/17 17:24	1
PCB-1242	ND		0.28	0.055	mg/Kg	☼	11/30/17 11:28	12/01/17 17:24	1
PCB-1248	ND		0.28	0.055	mg/Kg	☼	11/30/17 11:28	12/01/17 17:24	1
PCB-1254	ND		0.28	0.13	mg/Kg	☼	11/30/17 11:28	12/01/17 17:24	1
PCB-1260	ND		0.28	0.13	mg/Kg	☼	11/30/17 11:28	12/01/17 17:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*101*		*60 - 154*	*11/30/17 11:28*	*12/01/17 17:24*	*1*
Tetrachloro-m-xylene	*91*		*60 - 154*	*11/30/17 11:28*	*12/01/17 17:24*	*1*
DCB Decachlorobiphenyl	*80*		*65 - 174*	*11/30/17 11:28*	*12/01/17 17:24*	*1*
DCB Decachlorobiphenyl	*79*		*65 - 174*	*11/30/17 11:28*	*12/01/17 17:24*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		20	6.5	ug/Kg	☼	11/30/17 14:30	12/04/17 23:52	1
Silvex (2,4,5-TP)	ND		20	7.3	ug/Kg	☼	11/30/17 14:30	12/04/17 23:52	1
2,4-D	ND		20	13	ug/Kg	☼	11/30/17 14:30	12/04/17 23:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*137*	*X*	*28 - 129*	*11/30/17 14:30*	*12/04/17 23:52*	*1*
2,4-Dichlorophenylacetic acid	*157*	*X*	*28 - 129*	*11/30/17 14:30*	*12/04/17 23:52*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**12300**		11.8	5.2	mg/Kg	☼	12/01/17 07:37	12/06/17 02:01	1
Antimony	ND		17.7	0.47	mg/Kg	☼	12/01/17 07:37	12/06/17 02:01	1
Arsenic	**5.0**		2.4	0.47	mg/Kg	☼	12/01/17 07:37	12/06/17 02:01	1
Barium	**94.5**		0.59	0.13	mg/Kg	☼	12/01/17 07:37	12/06/17 02:01	1
Beryllium	**0.58**		0.24	0.033	mg/Kg	☼	12/01/17 07:37	12/06/17 02:01	1
Cadmium	**0.40**		0.24	0.035	mg/Kg	☼	12/01/17 07:37	12/06/17 02:01	1
Calcium	**19300**	**B**	59.0	3.9	mg/Kg	☼	12/01/17 07:37	12/06/17 02:01	1
Chromium	**15.7**		0.59	0.24	mg/Kg	☼	12/01/17 07:37	12/06/17 02:01	1
Cobalt	**5.5**		0.59	0.059	mg/Kg	☼	12/01/17 07:37	12/06/17 02:01	1
Copper	**42.2**		1.2	0.25	mg/Kg	☼	12/01/17 07:37	12/06/17 02:01	1
Iron	**14700**		11.8	4.1	mg/Kg	☼	12/01/17 07:37	12/06/17 02:01	1
Lead	**153**		1.2	0.28	mg/Kg	☼	12/01/17 07:37	12/06/17 02:01	1
Magnesium	**6700**		23.6	1.1	mg/Kg	☼	12/01/17 07:37	12/06/17 02:01	1
Manganese	**589**		0.24	0.038	mg/Kg	☼	12/01/17 07:37	12/06/17 02:01	1
Nickel	**13.5**		5.9	0.27	mg/Kg	☼	12/01/17 07:37	12/06/17 02:01	1
Potassium	**1640**		35.4	23.6	mg/Kg	☼	12/01/17 07:37	12/06/17 02:01	1
Selenium	**0.89**	**J**	4.7	0.47	mg/Kg	☼	12/01/17 07:37	12/06/17 02:01	1
Silver	ND		0.71	0.24	mg/Kg	☼	12/01/17 07:37	12/06/17 02:01	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: TP-1 (4-6)
Date Collected: 11/28/17 09:23
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-17
Matrix: Solid
Percent Solids: 81.1

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	230		165	15.3	mg/Kg	☼	12/01/17 07:37	12/06/17 02:01	1
Thallium	ND		7.1	0.35	mg/Kg	☼	12/01/17 07:37	12/06/17 02:01	1
Vanadium	25.0		0.59	0.13	mg/Kg	☼	12/01/17 07:37	12/06/17 02:01	1
Zinc	172		2.4	0.75	mg/Kg	☼	12/01/17 07:37	12/06/17 02:01	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.19		0.023	0.0095	mg/Kg	☼	12/06/17 15:35	12/06/17 18:20	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: TP-2 (6-8)
Date Collected: 11/28/17 09:56
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-18
Matrix: Solid
Percent Solids: 82.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		200	55	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
2,4,6-Trichlorophenol	ND		200	40	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
2,4-Dichlorophenol	ND		200	21	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
2,4-Dimethylphenol	ND		200	49	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
2,4-Dinitrophenol	ND		2000	930	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
2,4-Dinitrotoluene	ND		200	42	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
2,6-Dinitrotoluene	ND		200	24	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
2-Chloronaphthalene	ND		200	33	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
2-Chlorophenol	ND		200	37	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
2-Methylnaphthalene	ND		200	40	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
2-Methylphenol	ND		200	24	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
2-Nitroaniline	ND		390	30	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
2-Nitrophenol	ND		200	57	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
3,3'-Dichlorobenzidine	ND		390	240	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
3-Nitroaniline	ND		390	56	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
4,6-Dinitro-2-methylphenol	ND		390	200	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
4-Bromophenyl phenyl ether	ND		200	29	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
4-Chloro-3-methylphenol	ND		200	50	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
4-Chloroaniline	ND		200	50	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
4-Chlorophenyl phenyl ether	ND		200	25	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
4-Methylphenol	ND		390	24	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
4-Nitroaniline	ND		390	110	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
4-Nitrophenol	ND		390	140	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Acenaphthene	**38**	**J**	200	30	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Acenaphthylene	ND		200	26	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Acetophenone	ND		200	27	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Anthracene	**71**	**J**	200	50	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Atrazine	ND		200	70	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Benzaldehyde	ND		200	160	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Benzo[a]anthracene	**230**		200	20	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Benzo[a]pyrene	**220**		200	30	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Benzo[b]fluoranthene	**320**		200	32	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Benzo[g,h,i]perylene	**170**	**J**	200	21	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Benzo[k]fluoranthene	**120**	**J**	200	26	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Biphenyl	ND		200	30	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
bis (2-chloroisopropyl) ether	ND		200	40	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Bis(2-chloroethoxy)methane	ND		200	43	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Bis(2-chloroethyl)ether	ND		200	26	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Bis(2-ethylhexyl) phthalate	ND		200	69	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Butyl benzyl phthalate	ND		200	33	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Caprolactam	ND		200	61	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Carbazole	**43**	**J**	200	24	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Chrysene	**270**		200	45	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Dibenz(a,h)anthracene	ND		200	36	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Dibenzofuran	ND		200	24	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Diethyl phthalate	ND		200	26	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Dimethyl phthalate	ND		200	24	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Di-n-butyl phthalate	ND		200	34	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Di-n-octyl phthalate	ND		200	24	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1

Client Sample ID: TP-2 (6-8)
Date Collected: 11/28/17 09:56
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-18
Matrix: Solid
Percent Solids: 82.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	590		200	21	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Fluorene	30	J	200	24	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Hexachlorobenzene	ND		200	27	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Hexachlorobutadiene	ND		200	30	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Hexachlorocyclopentadiene	ND		200	27	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Hexachloroethane	ND		200	26	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Indeno[1,2,3-cd]pyrene	150	J	200	25	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Isophorone	ND		200	43	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Naphthalene	ND		200	26	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Nitrobenzene	ND		200	23	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
N-Nitrosodi-n-propylamine	ND		200	34	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
N-Nitrosodiphenylamine	ND		200	160	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Pentachlorophenol	ND		390	200	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Phenanthrene	390		200	30	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Phenol	ND		200	31	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1
Pyrene	480		200	24	ug/Kg	☼	11/30/17 06:48	12/04/17 19:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*69*		*54 - 120*	*11/30/17 06:48*	*12/04/17 19:21*	*1*
2-Fluorobiphenyl	*78*		*60 - 120*	*11/30/17 06:48*	*12/04/17 19:21*	*1*
2-Fluorophenol	*76*		*52 - 120*	*11/30/17 06:48*	*12/04/17 19:21*	*1*
Nitrobenzene-d5	*76*		*53 - 120*	*11/30/17 06:48*	*12/04/17 19:21*	*1*
Phenol-d5	*84*		*54 - 120*	*11/30/17 06:48*	*12/04/17 19:21*	*1*
p-Terphenyl-d14	*85*		*65 - 121*	*11/30/17 06:48*	*12/04/17 19:21*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	7610		11.8	5.2	mg/Kg	☼	12/01/17 07:37	12/06/17 02:05	1
Antimony	ND		17.6	0.47	mg/Kg	☼	12/01/17 07:37	12/06/17 02:05	1
Arsenic	3.1		2.4	0.47	mg/Kg	☼	12/01/17 07:37	12/06/17 02:05	1
Barium	31.2		0.59	0.13	mg/Kg	☼	12/01/17 07:37	12/06/17 02:05	1
Beryllium	0.37		0.24	0.033	mg/Kg	☼	12/01/17 07:37	12/06/17 02:05	1
Cadmium	0.20	J	0.24	0.035	mg/Kg	☼	12/01/17 07:37	12/06/17 02:05	1
Calcium	9460	B	58.8	3.9	mg/Kg	☼	12/01/17 07:37	12/06/17 02:05	1
Chromium	15.8		0.59	0.24	mg/Kg	☼	12/01/17 07:37	12/06/17 02:05	1
Cobalt	3.5		0.59	0.059	mg/Kg	☼	12/01/17 07:37	12/06/17 02:05	1
Copper	8.2		1.2	0.25	mg/Kg	☼	12/01/17 07:37	12/06/17 02:05	1
Iron	8530		11.8	4.1	mg/Kg	☼	12/01/17 07:37	12/06/17 02:05	1
Lead	12.2		1.2	0.28	mg/Kg	☼	12/01/17 07:37	12/06/17 02:05	1
Magnesium	1660		23.5	1.1	mg/Kg	☼	12/01/17 07:37	12/06/17 02:05	1
Manganese	309		0.24	0.038	mg/Kg	☼	12/01/17 07:37	12/06/17 02:05	1
Nickel	13.2		5.9	0.27	mg/Kg	☼	12/01/17 07:37	12/06/17 02:05	1
Potassium	1350		35.3	23.5	mg/Kg	☼	12/01/17 07:37	12/06/17 02:05	1
Selenium	0.53	J	4.7	0.47	mg/Kg	☼	12/01/17 07:37	12/06/17 02:05	1
Silver	ND		0.71	0.24	mg/Kg	☼	12/01/17 07:37	12/06/17 02:05	1
Sodium	169		165	15.3	mg/Kg	☼	12/01/17 07:37	12/06/17 02:05	1
Thallium	ND		7.1	0.35	mg/Kg	☼	12/01/17 07:37	12/06/17 02:05	1
Vanadium	16.4		0.59	0.13	mg/Kg	☼	12/01/17 07:37	12/06/17 02:05	1
Zinc	30.3		2.4	0.75	mg/Kg	☼	12/01/17 07:37	12/06/17 02:05	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: TP-2 (6-8)
Date Collected: 11/28/17 09:56
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-18
Matrix: Solid
Percent Solids: 82.1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.068		0.023	0.0092	mg/Kg	☼	12/06/17 15:35	12/06/17 18:21	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: TP-3 (10-14.5)
Date Collected: 11/28/17 10:45
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-19
Matrix: Solid
Percent Solids: 85.5

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.8	0.42	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
1,1,2,2-Tetrachloroethane	ND		5.8	0.94	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.8	1.3	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
1,1,2-Trichloroethane	ND		5.8	0.76	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
1,1-Dichloroethane	ND		5.8	0.71	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
1,1-Dichloroethene	ND		5.8	0.71	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
1,2,4-Trichlorobenzene	ND		5.8	0.35	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
1,2,4-Trimethylbenzene	ND		5.8	1.1	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
1,2-Dibromo-3-Chloropropane	ND		5.8	2.9	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
1,2-Dibromoethane	ND		5.8	0.75	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
1,2-Dichlorobenzene	ND		5.8	0.46	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
1,2-Dichloroethane	ND		5.8	0.29	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
1,2-Dichloropropane	ND		5.8	2.9	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
1,3,5-Trimethylbenzene	ND		5.8	0.38	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
1,3-Dichlorobenzene	ND		5.8	0.30	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
1,4-Dichlorobenzene	ND		5.8	0.82	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
2-Butanone (MEK)	ND		29	2.1	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
2-Hexanone	ND		29	2.9	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
4-Isopropyltoluene	ND		5.8	0.47	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
4-Methyl-2-pentanone (MIBK)	ND		29	1.9	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
Acetone	**10**	**J**	29	4.9	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
Benzene	ND		5.8	0.29	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
Bromodichloromethane	ND		5.8	0.78	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
Bromoform	ND		5.8	2.9	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
Bromomethane	ND		5.8	0.52	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
Carbon disulfide	ND		5.8	2.9	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
Carbon tetrachloride	ND		5.8	0.56	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
Chlorobenzene	ND		5.8	0.77	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
Chloroethane	ND		5.8	1.3	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
Chloroform	ND		5.8	0.36	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
Chloromethane	ND		5.8	0.35	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
cis-1,2-Dichloroethene	ND		5.8	0.75	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
cis-1,3-Dichloropropene	ND		5.8	0.84	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
Cyclohexane	ND		5.8	0.82	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
Dibromochloromethane	ND		5.8	0.75	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
Dichlorodifluoromethane	ND		5.8	0.48	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
Ethylbenzene	ND		5.8	0.40	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
Isopropylbenzene	ND		5.8	0.88	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
m,p-Xylene	ND		12	0.98	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
Methyl acetate	ND		29	3.5	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
Methyl tert-butyl ether	ND		5.8	0.57	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
Methylcyclohexane	ND		5.8	0.89	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
Methylene Chloride	ND		5.8	2.7	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
n-Butylbenzene	ND		5.8	0.51	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
N-Propylbenzene	ND		5.8	0.47	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
o-Xylene	ND		5.8	0.76	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
sec-Butylbenzene	ND		5.8	0.51	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
Styrene	ND		5.8	0.29	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
tert-Butylbenzene	ND		5.8	0.61	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1

Client Sample ID: TP-3 (10-14.5)
Date Collected: 11/28/17 10:45
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-19
Matrix: Solid
Percent Solids: 85.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		5.8	0.78	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
Toluene	ND		5.8	0.44	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
trans-1,2-Dichloroethene	ND		5.8	0.60	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
trans-1,3-Dichloropropene	ND		5.8	2.6	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
Trichloroethene	ND		5.8	1.3	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
Trichlorofluoromethane	ND		5.8	0.55	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
Vinyl chloride	ND		5.8	0.71	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1
Xylenes, Total	ND		12	0.98	ug/Kg	☼	11/29/17 14:28	12/01/17 17:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*64 - 126*	*11/29/17 14:28*	*12/01/17 17:13*	*1*
4-Bromofluorobenzene (Surr)	*83*		*72 - 126*	*11/29/17 14:28*	*12/01/17 17:13*	*1*
Dibromofluoromethane (Surr)	*92*		*60 - 140*	*11/29/17 14:28*	*12/01/17 17:13*	*1*
Toluene-d8 (Surr)	*88*		*71 - 125*	*11/29/17 14:28*	*12/01/17 17:13*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		4000	1100	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
2,4,6-Trichlorophenol	ND		4000	790	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
2,4-Dichlorophenol	ND		4000	420	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
2,4-Dimethylphenol	ND		4000	950	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
2,4-Dinitrophenol	ND		39000	18000	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
2,4-Dinitrotoluene	ND		4000	810	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
2,6-Dinitrotoluene	ND		4000	470	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
2-Chloronaphthalene	ND		4000	650	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
2-Chlorophenol	ND		4000	720	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
2-Methylnaphthalene	ND		4000	790	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
2-Methylphenol	ND		4000	470	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
2-Nitroaniline	ND		7700	580	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
2-Nitrophenol	ND		4000	1100	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
3,3'-Dichlorobenzidine	ND		7700	4700	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
3-Nitroaniline	ND		7700	1100	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
4,6-Dinitro-2-methylphenol	ND		7700	4000	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
4-Bromophenyl phenyl ether	ND		4000	560	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
4-Chloro-3-methylphenol	ND		4000	980	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
4-Chloroaniline	ND		4000	980	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
4-Chlorophenyl phenyl ether	ND		4000	490	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
4-Methylphenol	ND		7700	470	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
4-Nitroaniline	ND		7700	2100	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
4-Nitrophenol	ND		7700	2800	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Acenaphthene	ND		4000	580	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Acenaphthylene	ND		4000	510	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Acetophenone	ND		4000	540	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Anthracene	ND		4000	980	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Atrazine	ND		4000	1400	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Benzaldehyde	ND		4000	3100	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Benzo[a]anthracene	**1400**	**J**	4000	400	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Benzo[a]pyrene	**1500**	**J**	4000	580	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Benzo[b]fluoranthene	**1800**	**J**	4000	630	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Benzo[g,h,i]perylene	**1400**	**J**	4000	420	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: TP-3 (10-14.5)
Date Collected: 11/28/17 10:45
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-19
Matrix: Solid
Percent Solids: 85.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	1100	J	4000	510	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Biphenyl	ND		4000	580	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
bis (2-chloroisopropyl) ether	ND		4000	790	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Bis(2-chloroethoxy)methane	ND		4000	840	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Bis(2-chloroethyl)ether	ND		4000	510	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Bis(2-ethylhexyl) phthalate	ND		4000	1400	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Butyl benzyl phthalate	ND		4000	650	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Caprolactam	ND		4000	1200	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Carbazole	ND		4000	470	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Chrysene	1600	J	4000	880	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Dibenz(a,h)anthracene	ND		4000	700	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Dibenzofuran	ND		4000	470	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Diethyl phthalate	ND		4000	510	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Dimethyl phthalate	ND		4000	470	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Di-n-butyl phthalate	ND		4000	680	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Di-n-octyl phthalate	ND		4000	470	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Fluoranthene	2500	J	4000	420	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Fluorene	ND		4000	470	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Hexachlorobenzene	ND		4000	540	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Hexachlorobutadiene	ND		4000	580	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Hexachlorocyclopentadiene	ND		4000	540	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Hexachloroethane	ND		4000	510	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Indeno[1,2,3-cd]pyrene	1000	J	4000	490	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Isophorone	ND		4000	840	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Naphthalene	ND		4000	510	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Nitrobenzene	ND		4000	440	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
N-Nitrosodi-n-propylamine	ND		4000	680	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
N-Nitrosodiphenylamine	ND		4000	3200	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Pentachlorophenol	ND		7700	4000	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Phenanthrene	1300	J	4000	580	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Phenol	ND		4000	610	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20
Pyrene	2000	J	4000	470	ug/Kg	☼	11/30/17 06:48	12/04/17 19:47	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*169*	*X*	*54 - 120*	*11/30/17 06:48*	*12/04/17 19:47*	*20*
2-Fluorobiphenyl	*89*		*60 - 120*	*11/30/17 06:48*	*12/04/17 19:47*	*20*
2-Fluorophenol	*72*		*52 - 120*	*11/30/17 06:48*	*12/04/17 19:47*	*20*
Nitrobenzene-d5	*79*		*53 - 120*	*11/30/17 06:48*	*12/04/17 19:47*	*20*
Phenol-d5	*84*		*54 - 120*	*11/30/17 06:48*	*12/04/17 19:47*	*20*
p-Terphenyl-d14	*93*		*65 - 121*	*11/30/17 06:48*	*12/04/17 19:47*	*20*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	12900		12.4	5.5	mg/Kg	☼	12/01/17 07:37	12/05/17 20:45	1
Antimony	0.73	J	18.6	0.50	mg/Kg	☼	12/01/17 07:37	12/05/17 20:45	1
Arsenic	13.6		2.5	0.50	mg/Kg	☼	12/01/17 07:37	12/05/17 20:45	1
Barium	102		0.62	0.14	mg/Kg	☼	12/01/17 07:37	12/05/17 20:45	1
Beryllium	0.77		0.25	0.035	mg/Kg	☼	12/01/17 07:37	12/05/17 20:45	1
Cadmium	0.60		0.25	0.037	mg/Kg	☼	12/01/17 07:37	12/05/17 20:45	1
Calcium	22800	B	62.1	4.1	mg/Kg	☼	12/01/17 07:37	12/05/17 20:45	1

Client Sample ID: TP-3 (10-14.5)
Date Collected: 11/28/17 10:45
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-19
Matrix: Solid
Percent Solids: 85.5

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	27.6		0.62	0.25	mg/Kg	☼	12/01/17 07:37	12/05/17 20:45	1
Cobalt	29.1		0.62	0.062	mg/Kg	☼	12/01/17 07:37	12/05/17 20:45	1
Copper	54.8		1.2	0.26	mg/Kg	☼	12/01/17 07:37	12/05/17 20:45	1
Iron	28100	B	12.4	4.3	mg/Kg	☼	12/01/17 07:37	12/05/17 20:45	1
Lead	156		1.2	0.30	mg/Kg	☼	12/01/17 07:37	12/05/17 20:45	1
Magnesium	6350		24.8	1.2	mg/Kg	☼	12/01/17 07:37	12/05/17 20:45	1
Manganese	2120	B	0.25	0.040	mg/Kg	☼	12/01/17 07:37	12/05/17 20:45	1
Nickel	25.3		6.2	0.29	mg/Kg	☼	12/01/17 07:37	12/05/17 20:45	1
Potassium	1900		37.2	24.8	mg/Kg	☼	12/01/17 07:37	12/05/17 20:45	1
Selenium	1.8	J	5.0	0.50	mg/Kg	☼	12/01/17 07:37	12/05/17 20:45	1
Silver	ND		0.74	0.25	mg/Kg	☼	12/01/17 07:37	12/05/17 20:45	1
Sodium	483		174	16.1	mg/Kg	☼	12/01/17 07:37	12/05/17 20:45	1
Thallium	ND		7.4	0.37	mg/Kg	☼	12/01/17 07:37	12/05/17 20:45	1
Vanadium	48.0		0.62	0.14	mg/Kg	☼	12/01/17 07:37	12/05/17 20:45	1
Zinc	238		2.5	0.79	mg/Kg	☼	12/01/17 07:37	12/05/17 20:45	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.27		0.024	0.0098	mg/Kg	☼	12/06/17 15:35	12/06/17 18:23	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: TP-4 (1-3)
Date Collected: 11/28/17 11:38
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-20
Matrix: Solid
Percent Solids: 74.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		230	61	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
2,4,6-Trichlorophenol	ND		230	45	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
2,4-Dichlorophenol	ND		230	24	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
2,4-Dimethylphenol	ND		230	55	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
2,4-Dinitrophenol	ND		2200	1000	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
2,4-Dinitrotoluene	ND		230	47	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
2,6-Dinitrotoluene	ND		230	27	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
2-Chloronaphthalene	ND		230	37	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
2-Chlorophenol	ND		230	41	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
2-Methylnaphthalene	ND		230	45	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
2-Methylphenol	ND		230	27	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
2-Nitroaniline	ND		440	33	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
2-Nitrophenol	ND		230	64	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
3,3'-Dichlorobenzidine	ND		440	270	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
3-Nitroaniline	ND		440	63	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
4,6-Dinitro-2-methylphenol	ND		440	230	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
4-Bromophenyl phenyl ether	ND		230	32	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
4-Chloro-3-methylphenol	ND		230	56	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
4-Chloroaniline	ND		230	56	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
4-Chlorophenyl phenyl ether	ND		230	28	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
4-Methylphenol	ND		440	27	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
4-Nitroaniline	ND		440	120	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
4-Nitrophenol	ND		440	160	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Acenaphthene	ND		230	33	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Acenaphthylene	ND		230	29	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Acetophenone	ND		230	31	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Anthracene	ND		230	56	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Atrazine	ND		230	79	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Benzaldehyde	ND		230	180	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Benzo[a]anthracene	**130**	**J**	230	23	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Benzo[a]pyrene	**120**	**J**	230	33	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Benzo[b]fluoranthene	**150**	**J**	230	36	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Benzo[g,h,i]perylene	**92**	**J**	230	24	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Benzo[k]fluoranthene	**100**	**J**	230	29	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Biphenyl	ND		230	33	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
bis (2-chloroisopropyl) ether	ND		230	45	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Bis(2-chloroethoxy)methane	ND		230	48	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Bis(2-chloroethyl)ether	ND		230	29	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Bis(2-ethylhexyl) phthalate	ND		230	77	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Butyl benzyl phthalate	ND		230	37	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Caprolactam	ND		230	68	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Carbazole	ND		230	27	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Chrysene	**130**	**J**	230	51	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Dibenz(a,h)anthracene	ND		230	40	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Dibenzofuran	ND		230	27	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Diethyl phthalate	ND		230	29	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Dimethyl phthalate	ND		230	27	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Di-n-butyl phthalate	ND		230	39	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Di-n-octyl phthalate	ND		230	27	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: TP-4 (1-3)
Date Collected: 11/28/17 11:38
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-20
Matrix: Solid
Percent Solids: 74.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	280		230	24	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Fluorene	ND		230	27	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Hexachlorobenzene	ND		230	31	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Hexachlorobutadiene	ND		230	33	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Hexachlorocyclopentadiene	ND		230	31	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Hexachloroethane	ND		230	29	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Indeno[1,2,3-cd]pyrene	78	J	230	28	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Isophorone	ND		230	48	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Naphthalene	ND		230	29	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Nitrobenzene	ND		230	25	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
N-Nitrosodi-n-propylamine	ND		230	39	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
N-Nitrosodiphenylamine	ND		230	180	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Pentachlorophenol	ND		440	230	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Phenanthrene	160	J	230	33	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Phenol	ND		230	35	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1
Pyrene	220	J	230	27	ug/Kg	☼	11/30/17 06:48	12/04/17 20:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*69*		*54 - 120*	*11/30/17 06:48*	*12/04/17 20:13*	*1*
2-Fluorobiphenyl	*82*		*60 - 120*	*11/30/17 06:48*	*12/04/17 20:13*	*1*
2-Fluorophenol	*75*		*52 - 120*	*11/30/17 06:48*	*12/04/17 20:13*	*1*
Nitrobenzene-d5	*78*		*53 - 120*	*11/30/17 06:48*	*12/04/17 20:13*	*1*
Phenol-d5	*87*		*54 - 120*	*11/30/17 06:48*	*12/04/17 20:13*	*1*
p-Terphenyl-d14	*90*		*65 - 121*	*11/30/17 06:48*	*12/04/17 20:13*	*1*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.2	0.43	ug/Kg	☼	12/01/17 09:11	12/02/17 18:27	1
4,4'-DDE	0.84	J	2.2	0.46	ug/Kg	☼	12/01/17 09:11	12/02/17 18:27	1
4,4'-DDT	1.4	J	2.2	0.52	ug/Kg	☼	12/01/17 09:11	12/02/17 18:27	1
Aldrin	ND		2.2	0.54	ug/Kg	☼	12/01/17 09:11	12/02/17 18:27	1
alpha-BHC	0.61	J B	2.2	0.40	ug/Kg	☼	12/01/17 09:11	12/02/17 18:27	1
alpha-Chlordane	ND		2.2	1.1	ug/Kg	☼	12/01/17 09:11	12/02/17 18:27	1
beta-BHC	ND		2.2	0.40	ug/Kg	☼	12/01/17 09:11	12/02/17 18:27	1
delta-BHC	0.66	J B	2.2	0.41	ug/Kg	☼	12/01/17 09:11	12/02/17 18:27	1
Dieldrin	ND		2.2	0.53	ug/Kg	☼	12/01/17 09:11	12/02/17 18:27	1
Endosulfan I	ND		2.2	0.42	ug/Kg	☼	12/01/17 09:11	12/02/17 18:27	1
Endosulfan II	ND		2.2	0.40	ug/Kg	☼	12/01/17 09:11	12/02/17 18:27	1
Endosulfan sulfate	ND		2.2	0.41	ug/Kg	☼	12/01/17 09:11	12/02/17 18:27	1
Endrin	ND		2.2	0.44	ug/Kg	☼	12/01/17 09:11	12/02/17 18:27	1
Endrin aldehyde	ND		2.2	0.57	ug/Kg	☼	12/01/17 09:11	12/02/17 18:27	1
Endrin ketone	ND		2.2	0.54	ug/Kg	☼	12/01/17 09:11	12/02/17 18:27	1
gamma-BHC (Lindane)	ND		2.2	0.41	ug/Kg	☼	12/01/17 09:11	12/02/17 18:27	1
gamma-Chlordane	ND		2.2	0.70	ug/Kg	☼	12/01/17 09:11	12/02/17 18:27	1
Heptachlor	ND		2.2	0.48	ug/Kg	☼	12/01/17 09:11	12/02/17 18:27	1
Heptachlor epoxide	ND		2.2	0.57	ug/Kg	☼	12/01/17 09:11	12/02/17 18:27	1
Methoxychlor	ND		2.2	0.45	ug/Kg	☼	12/01/17 09:11	12/02/17 18:27	1
Toxaphene	ND		22	13	ug/Kg	☼	12/01/17 09:11	12/02/17 18:27	1

Client Sample ID: TP-4 (1-3)

Date Collected: 11/28/17 11:38
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-20

Matrix: Solid
Percent Solids: 74.1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	147	X	45 - 120	12/01/17 09:11	12/02/17 18:27	1
DCB Decachlorobiphenyl	180	X	45 - 120	12/01/17 09:11	12/02/17 18:27	1
Tetrachloro-m-xylene	71		30 - 124	12/01/17 09:11	12/02/17 18:27	1
Tetrachloro-m-xylene	87		30 - 124	12/01/17 09:11	12/02/17 18:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.31	0.061	mg/Kg	☼	11/30/17 11:28	12/01/17 17:40	1
PCB-1221	ND		0.31	0.061	mg/Kg	☼	11/30/17 11:28	12/01/17 17:40	1
PCB-1232	ND		0.31	0.061	mg/Kg	☼	11/30/17 11:28	12/01/17 17:40	1
PCB-1242	ND		0.31	0.061	mg/Kg	☼	11/30/17 11:28	12/01/17 17:40	1
PCB-1248	ND		0.31	0.061	mg/Kg	☼	11/30/17 11:28	12/01/17 17:40	1
PCB-1254	ND		0.31	0.15	mg/Kg	☼	11/30/17 11:28	12/01/17 17:40	1
PCB-1260	ND		0.31	0.15	mg/Kg	☼	11/30/17 11:28	12/01/17 17:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	122		60 - 154	11/30/17 11:28	12/01/17 17:40	1
Tetrachloro-m-xylene	105		60 - 154	11/30/17 11:28	12/01/17 17:40	1
DCB Decachlorobiphenyl	105		65 - 174	11/30/17 11:28	12/01/17 17:40	1
DCB Decachlorobiphenyl	104		65 - 174	11/30/17 11:28	12/01/17 17:40	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		23	7.2	ug/Kg	☼	11/30/17 14:30	12/05/17 00:21	1
Silvex (2,4,5-TP)	ND		23	8.1	ug/Kg	☼	11/30/17 14:30	12/05/17 00:21	1
2,4-D	ND		23	14	ug/Kg	☼	11/30/17 14:30	12/05/17 00:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	112		28 - 129	11/30/17 14:30	12/05/17 00:21	1
2,4-Dichlorophenylacetic acid	118		28 - 129	11/30/17 14:30	12/05/17 00:21	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	5370		13.2	5.8	mg/Kg	☼	12/01/17 07:37	12/05/17 20:49	1
Antimony	0.54	J	19.8	0.53	mg/Kg	☼	12/01/17 07:37	12/05/17 20:49	1
Arsenic	9.5		2.6	0.53	mg/Kg	☼	12/01/17 07:37	12/05/17 20:49	1
Barium	76.2		0.66	0.15	mg/Kg	☼	12/01/17 07:37	12/05/17 20:49	1
Beryllium	0.66		0.26	0.037	mg/Kg	☼	12/01/17 07:37	12/05/17 20:49	1
Cadmium	0.21	J	0.26	0.040	mg/Kg	☼	12/01/17 07:37	12/05/17 20:49	1
Calcium	3120	B	66.1	4.4	mg/Kg	☼	12/01/17 07:37	12/05/17 20:49	1
Chromium	10.6		0.66	0.26	mg/Kg	☼	12/01/17 07:37	12/05/17 20:49	1
Cobalt	6.6		0.66	0.066	mg/Kg	☼	12/01/17 07:37	12/05/17 20:49	1
Copper	28.9		1.3	0.28	mg/Kg	☼	12/01/17 07:37	12/05/17 20:49	1
Iron	8030	B	13.2	4.6	mg/Kg	☼	12/01/17 07:37	12/05/17 20:49	1
Lead	91.7		1.3	0.32	mg/Kg	☼	12/01/17 07:37	12/05/17 20:49	1
Magnesium	583		26.4	1.2	mg/Kg	☼	12/01/17 07:37	12/05/17 20:49	1
Manganese	85.5	B	0.26	0.042	mg/Kg	☼	12/01/17 07:37	12/05/17 20:49	1
Nickel	17.5		6.6	0.30	mg/Kg	☼	12/01/17 07:37	12/05/17 20:49	1
Potassium	465		39.7	26.4	mg/Kg	☼	12/01/17 07:37	12/05/17 20:49	1
Selenium	0.67	J	5.3	0.53	mg/Kg	☼	12/01/17 07:37	12/05/17 20:49	1
Silver	ND		0.79	0.26	mg/Kg	☼	12/01/17 07:37	12/05/17 20:49	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: TP-4 (1-3)
Date Collected: 11/28/17 11:38
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-20
Matrix: Solid
Percent Solids: 74.1

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	215		185	17.2	mg/Kg	☼	12/01/17 07:37	12/05/17 20:49	1
Thallium	ND		7.9	0.40	mg/Kg	☼	12/01/17 07:37	12/05/17 20:49	1
Vanadium	24.6		0.66	0.15	mg/Kg	☼	12/01/17 07:37	12/05/17 20:49	1
Zinc	85.6		2.6	0.85	mg/Kg	☼	12/01/17 07:37	12/05/17 20:49	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.33		0.026	0.011	mg/Kg	☼	12/06/17 15:35	12/06/17 18:24	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: TP-5 (6-8)
Date Collected: 11/28/17 14:27
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-21
Matrix: Solid
Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		4000	1100	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
2,4,6-Trichlorophenol	ND		4000	800	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
2,4-Dichlorophenol	ND		4000	420	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
2,4-Dimethylphenol	ND		4000	960	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
2,4-Dinitrophenol	ND		39000	18000	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
2,4-Dinitrotoluene	ND		4000	820	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
2,6-Dinitrotoluene	ND		4000	470	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
2-Chloronaphthalene	ND		4000	660	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
2-Chlorophenol	ND		4000	730	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
2-Methylnaphthalene	ND		4000	800	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
2-Methylphenol	ND		4000	470	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
2-Nitroaniline	ND		7800	590	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
2-Nitrophenol	ND		4000	1100	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
3,3'-Dichlorobenzidine	ND		7800	4700	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
3-Nitroaniline	ND		7800	1100	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
4,6-Dinitro-2-methylphenol	ND		7800	4000	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
4-Bromophenyl phenyl ether	ND		4000	560	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
4-Chloro-3-methylphenol	ND		4000	990	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
4-Chloroaniline	ND		4000	990	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
4-Chlorophenyl phenyl ether	ND		4000	490	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
4-Methylphenol	ND		7800	470	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
4-Nitroaniline	ND		7800	2100	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
4-Nitrophenol	ND		7800	2800	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Acenaphthene	ND		4000	590	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Acenaphthylene	ND		4000	520	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Acetophenone	ND		4000	540	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Anthracene	ND		4000	990	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Atrazine	ND		4000	1400	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Benzaldehyde	ND		4000	3200	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Benzo[a]anthracene	**3700**	**J**	4000	400	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Benzo[a]pyrene	**4400**		4000	590	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Benzo[b]fluoranthene	**6100**		4000	640	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Benzo[g,h,i]perylene	**3100**	**J**	4000	420	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Benzo[k]fluoranthene	**2000**	**J**	4000	520	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Biphenyl	ND		4000	590	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
bis (2-chloroisopropyl) ether	ND		4000	800	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Bis(2-chloroethoxy)methane	ND		4000	850	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Bis(2-chloroethyl)ether	ND		4000	520	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Bis(2-ethylhexyl) phthalate	ND		4000	1400	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Butyl benzyl phthalate	ND		4000	660	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Caprolactam	ND		4000	1200	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Carbazole	ND		4000	470	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Chrysene	**4200**		4000	890	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Dibenz(a,h)anthracene	ND		4000	710	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Dibenzofuran	ND		4000	470	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Diethyl phthalate	ND		4000	520	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Dimethyl phthalate	ND		4000	470	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Di-n-butyl phthalate	ND		4000	680	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Di-n-octyl phthalate	ND		4000	470	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20

Client Sample ID: TP-5 (6-8)
Date Collected: 11/28/17 14:27
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-21
Matrix: Solid
Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	7800		4000	420	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Fluorene	ND		4000	470	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Hexachlorobenzene	ND		4000	540	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Hexachlorobutadiene	ND		4000	590	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Hexachlorocyclopentadiene	ND		4000	540	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Hexachloroethane	ND		4000	520	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Indeno[1,2,3-cd]pyrene	2900	J	4000	490	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Isophorone	ND		4000	850	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Naphthalene	ND		4000	520	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Nitrobenzene	ND		4000	450	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
N-Nitrosodi-n-propylamine	ND		4000	680	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
N-Nitrosodiphenylamine	ND		4000	3200	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Pentachlorophenol	ND		7800	4000	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Phenanthrene	4100		4000	590	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Phenol	ND		4000	610	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20
Pyrene	6000		4000	470	ug/Kg	☼	11/30/17 14:24	12/01/17 16:09	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*130*	*X*	*54 - 120*	*11/30/17 14:24*	*12/01/17 16:09*	*20*
2-Fluorobiphenyl	*45*	*X*	*60 - 120*	*11/30/17 14:24*	*12/01/17 16:09*	*20*
2-Fluorophenol	*90*		*52 - 120*	*11/30/17 14:24*	*12/01/17 16:09*	*20*
Nitrobenzene-d5	*87*		*53 - 120*	*11/30/17 14:24*	*12/01/17 16:09*	*20*
Phenol-d5	*91*		*54 - 120*	*11/30/17 14:24*	*12/01/17 16:09*	*20*
p-Terphenyl-d14	*95*		*65 - 121*	*11/30/17 14:24*	*12/01/17 16:09*	*20*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	8200		11.2	4.9	mg/Kg	☼	12/01/17 07:37	12/05/17 20:52	1
Antimony	0.55	J	16.9	0.45	mg/Kg	☼	12/01/17 07:37	12/05/17 20:52	1
Arsenic	10.3		2.2	0.45	mg/Kg	☼	12/01/17 07:37	12/05/17 20:52	1
Barium	85.8		0.56	0.12	mg/Kg	☼	12/01/17 07:37	12/05/17 20:52	1
Beryllium	0.47		0.22	0.031	mg/Kg	☼	12/01/17 07:37	12/05/17 20:52	1
Cadmium	0.57		0.22	0.034	mg/Kg	☼	12/01/17 07:37	12/05/17 20:52	1
Calcium	35200	B	56.2	3.7	mg/Kg	☼	12/01/17 07:37	12/05/17 20:52	1
Chromium	33.5		0.56	0.22	mg/Kg	☼	12/01/17 07:37	12/05/17 20:52	1
Cobalt	5.9		0.56	0.056	mg/Kg	☼	12/01/17 07:37	12/05/17 20:52	1
Copper	68.1		1.1	0.24	mg/Kg	☼	12/01/17 07:37	12/05/17 20:52	1
Iron	17000	B	11.2	3.9	mg/Kg	☼	12/01/17 07:37	12/05/17 20:52	1
Lead	335		1.1	0.27	mg/Kg	☼	12/01/17 07:37	12/05/17 20:52	1
Magnesium	6570		22.5	1.0	mg/Kg	☼	12/01/17 07:37	12/05/17 20:52	1
Manganese	906	B	0.22	0.036	mg/Kg	☼	12/01/17 07:37	12/05/17 20:52	1
Nickel	17.5		5.6	0.26	mg/Kg	☼	12/01/17 07:37	12/05/17 20:52	1
Potassium	1530		33.7	22.5	mg/Kg	☼	12/01/17 07:37	12/05/17 20:52	1
Selenium	0.71	J	4.5	0.45	mg/Kg	☼	12/01/17 07:37	12/05/17 20:52	1
Silver	ND		0.67	0.22	mg/Kg	☼	12/01/17 07:37	12/05/17 20:52	1
Sodium	147	J	157	14.6	mg/Kg	☼	12/01/17 07:37	12/05/17 20:52	1
Thallium	ND		6.7	0.34	mg/Kg	☼	12/01/17 07:37	12/05/17 20:52	1
Vanadium	23.7		0.56	0.12	mg/Kg	☼	12/01/17 07:37	12/05/17 20:52	1
Zinc	174		2.2	0.72	mg/Kg	☼	12/01/17 07:37	12/05/17 20:52	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: TP-5 (6-8)
Date Collected: 11/28/17 14:27
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-21
Matrix: Solid
Percent Solids: 84.3

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.50		0.022	0.0088	mg/Kg	☼	12/06/17 15:35	12/06/17 19:07	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: TP-6 (10-11.5)
Date Collected: 11/28/17 12:45
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-22
Matrix: Solid
Percent Solids: 91.6

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.9	0.43	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
1,1,2,2-Tetrachloroethane	ND		5.9	0.95	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.9	1.3	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
1,1,2-Trichloroethane	ND		5.9	0.76	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
1,1-Dichloroethane	ND		5.9	0.72	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
1,1-Dichloroethene	ND		5.9	0.72	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
1,2,4-Trichlorobenzene	ND		5.9	0.36	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
1,2,4-Trimethylbenzene	ND		5.9	1.1	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
1,2-Dibromo-3-Chloropropane	ND		5.9	2.9	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
1,2-Dibromoethane	ND		5.9	0.75	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
1,2-Dichlorobenzene	ND		5.9	0.46	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
1,2-Dichloroethane	ND		5.9	0.29	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
1,2-Dichloropropane	ND		5.9	2.9	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
1,3,5-Trimethylbenzene	ND		5.9	0.38	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
1,3-Dichlorobenzene	ND		5.9	0.30	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
1,4-Dichlorobenzene	ND		5.9	0.82	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
2-Butanone (MEK)	ND		29	2.1	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
2-Hexanone	ND		29	2.9	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
4-Isopropyltoluene	ND		5.9	0.47	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
4-Methyl-2-pentanone (MIBK)	ND		29	1.9	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
Acetone	ND		29	4.9	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
Benzene	ND		5.9	0.29	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
Bromodichloromethane	ND		5.9	0.79	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
Bromoform	ND		5.9	2.9	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
Bromomethane	ND		5.9	0.53	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
Carbon disulfide	ND		5.9	2.9	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
Carbon tetrachloride	ND		5.9	0.57	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
Chlorobenzene	ND		5.9	0.78	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
Chloroethane	ND		5.9	1.3	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
Chloroform	ND		5.9	0.36	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
Chloromethane	ND		5.9	0.35	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
cis-1,2-Dichloroethene	ND		5.9	0.75	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
cis-1,3-Dichloropropene	ND		5.9	0.85	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
Cyclohexane	ND		5.9	0.82	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
Dibromochloromethane	ND		5.9	0.75	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
Dichlorodifluoromethane	ND		5.9	0.49	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
Ethylbenzene	ND		5.9	0.41	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
Isopropylbenzene	ND		5.9	0.89	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
m,p-Xylene	ND		12	0.99	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
Methyl acetate	ND		29	3.5	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
Methyl tert-butyl ether	ND		5.9	0.58	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
Methylcyclohexane	ND		5.9	0.89	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
Methylene Chloride	ND		5.9	2.7	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
n-Butylbenzene	ND		5.9	0.51	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
N-Propylbenzene	ND		5.9	0.47	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
o-Xylene	ND		5.9	0.77	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
sec-Butylbenzene	ND		5.9	0.51	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
Styrene	ND		5.9	0.29	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
tert-Butylbenzene	ND		5.9	0.61	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1

Client Sample ID: TP-6 (10-11.5)
Date Collected: 11/28/17 12:45
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-22
Matrix: Solid
Percent Solids: 91.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		5.9	0.79	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
Toluene	ND		5.9	0.44	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
trans-1,2-Dichloroethene	ND		5.9	0.61	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
trans-1,3-Dichloropropene	ND		5.9	2.6	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
Trichloroethene	ND		5.9	1.3	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
Trichlorofluoromethane	ND		5.9	0.56	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
Vinyl chloride	ND		5.9	0.72	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1
Xylenes, Total	ND		12	0.99	ug/Kg	☼	11/29/17 14:28	12/01/17 17:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*116*		*64 - 126*	*11/29/17 14:28*	*12/01/17 17:38*	*1*
4-Bromofluorobenzene (Surr)	*104*		*72 - 126*	*11/29/17 14:28*	*12/01/17 17:38*	*1*
Dibromofluoromethane (Surr)	*116*		*60 - 140*	*11/29/17 14:28*	*12/01/17 17:38*	*1*
Toluene-d8 (Surr)	*111*		*71 - 125*	*11/29/17 14:28*	*12/01/17 17:38*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		180	49	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
2,4,6-Trichlorophenol	ND		180	36	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
2,4-Dichlorophenol	ND		180	19	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
2,4-Dimethylphenol	ND		180	44	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
2,4-Dinitrophenol	ND		1800	840	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
2,4-Dinitrotoluene	ND		180	37	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
2,6-Dinitrotoluene	ND		180	21	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
2-Chloronaphthalene	ND		180	30	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
2-Chlorophenol	ND		180	33	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
2-Methylnaphthalene	ND		180	36	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
2-Methylphenol	ND		180	21	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
2-Nitroaniline	ND		350	27	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
2-Nitrophenol	ND		180	51	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
3,3'-Dichlorobenzidine	ND		350	210	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
3-Nitroaniline	ND		350	50	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
4,6-Dinitro-2-methylphenol	ND		350	180	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
4-Bromophenyl phenyl ether	ND		180	26	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
4-Chloro-3-methylphenol	ND		180	45	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
4-Chloroaniline	ND		180	45	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
4-Chlorophenyl phenyl ether	ND		180	22	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
4-Methylphenol	ND		350	21	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
4-Nitroaniline	ND		350	95	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
4-Nitrophenol	ND		350	130	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Acenaphthene	ND		180	27	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Acenaphthylene	ND		180	23	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Acetophenone	ND		180	25	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Anthracene	ND		180	45	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Atrazine	ND		180	63	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Benzaldehyde	ND		180	140	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Benzo[a]anthracene	ND		180	18	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Benzo[a]pyrene	ND		180	27	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Benzo[b]fluoranthene	**33**	**J**	180	29	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Benzo[g,h,i]perylene	ND		180	19	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1

Client Sample ID: TP-6 (10-11.5)
Date Collected: 11/28/17 12:45
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-22
Matrix: Solid
Percent Solids: 91.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	ND		180	23	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Biphenyl	ND		180	27	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
bis (2-chloroisopropyl) ether	ND		180	36	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Bis(2-chloroethoxy)methane	ND		180	38	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Bis(2-chloroethyl)ether	ND		180	23	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Bis(2-ethylhexyl) phthalate	ND		180	62	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Butyl benzyl phthalate	ND		180	30	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Caprolactam	ND		180	54	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Carbazole	ND		180	21	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Chrysene	ND		180	41	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Dibenz(a,h)anthracene	ND		180	32	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Dibenzofuran	ND		180	21	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Diethyl phthalate	ND		180	23	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Dimethyl phthalate	ND		180	21	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Di-n-butyl phthalate	ND		180	31	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Di-n-octyl phthalate	ND		180	21	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Fluoranthene	ND		180	19	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Fluorene	ND		180	21	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Hexachlorobenzene	ND		180	25	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Hexachlorobutadiene	ND		180	27	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Hexachlorocyclopentadiene	ND		180	25	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Hexachloroethane	ND		180	23	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Indeno[1,2,3-cd]pyrene	ND		180	22	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Isophorone	ND		180	38	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Naphthalene	ND		180	23	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Nitrobenzene	ND		180	20	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
N-Nitrosodi-n-propylamine	ND		180	31	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
N-Nitrosodiphenylamine	ND		180	150	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Pentachlorophenol	ND		350	180	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Phenanthrene	ND		180	27	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Phenol	ND		180	28	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1
Pyrene	ND		180	21	ug/Kg	☼	11/30/17 14:24	12/01/17 15:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*87*		*54 - 120*	*11/30/17 14:24*	*12/01/17 15:42*	*1*
2-Fluorobiphenyl	*85*		*60 - 120*	*11/30/17 14:24*	*12/01/17 15:42*	*1*
2-Fluorophenol	*77*		*52 - 120*	*11/30/17 14:24*	*12/01/17 15:42*	*1*
Nitrobenzene-d5	*83*		*53 - 120*	*11/30/17 14:24*	*12/01/17 15:42*	*1*
Phenol-d5	*83*		*54 - 120*	*11/30/17 14:24*	*12/01/17 15:42*	*1*
p-Terphenyl-d14	*97*		*65 - 121*	*11/30/17 14:24*	*12/01/17 15:42*	*1*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.8	0.35	ug/Kg	☼	12/01/17 09:11	12/02/17 18:46	1
4,4'-DDE	ND		1.8	0.38	ug/Kg	☼	12/01/17 09:11	12/02/17 18:46	1
4,4'-DDT	ND		1.8	0.42	ug/Kg	☼	12/01/17 09:11	12/02/17 18:46	1
Aldrin	ND		1.8	0.44	ug/Kg	☼	12/01/17 09:11	12/02/17 18:46	1
alpha-BHC	**0.62**	**J B**	1.8	0.33	ug/Kg	☼	12/01/17 09:11	12/02/17 18:46	1
alpha-Chlordane	ND		1.8	0.90	ug/Kg	☼	12/01/17 09:11	12/02/17 18:46	1
beta-BHC	ND		1.8	0.33	ug/Kg	☼	12/01/17 09:11	12/02/17 18:46	1

Client Sample ID: TP-6 (10-11.5)
Date Collected: 11/28/17 12:45
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-22
Matrix: Solid
Percent Solids: 91.6

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
delta-BHC	0.54	J B	1.8	0.34	ug/Kg	☼	12/01/17 09:11	12/02/17 18:46	1
Dieldrin	ND		1.8	0.43	ug/Kg	☼	12/01/17 09:11	12/02/17 18:46	1
Endosulfan I	ND		1.8	0.35	ug/Kg	☼	12/01/17 09:11	12/02/17 18:46	1
Endosulfan II	ND		1.8	0.33	ug/Kg	☼	12/01/17 09:11	12/02/17 18:46	1
Endosulfan sulfate	ND		1.8	0.34	ug/Kg	☼	12/01/17 09:11	12/02/17 18:46	1
Endrin	ND		1.8	0.36	ug/Kg	☼	12/01/17 09:11	12/02/17 18:46	1
Endrin aldehyde	ND		1.8	0.46	ug/Kg	☼	12/01/17 09:11	12/02/17 18:46	1
Endrin ketone	ND		1.8	0.44	ug/Kg	☼	12/01/17 09:11	12/02/17 18:46	1
gamma-BHC (Lindane)	0.63	J	1.8	0.33	ug/Kg	☼	12/01/17 09:11	12/02/17 18:46	1
gamma-Chlordane	ND		1.8	0.57	ug/Kg	☼	12/01/17 09:11	12/02/17 18:46	1
Heptachlor	ND		1.8	0.39	ug/Kg	☼	12/01/17 09:11	12/02/17 18:46	1
Heptachlor epoxide	ND		1.8	0.47	ug/Kg	☼	12/01/17 09:11	12/02/17 18:46	1
Methoxychlor	1.5	J	1.8	0.37	ug/Kg	☼	12/01/17 09:11	12/02/17 18:46	1
Toxaphene	ND		18	11	ug/Kg	☼	12/01/17 09:11	12/02/17 18:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*154*	*X*	*45 - 120*	*12/01/17 09:11*	*12/02/17 18:46*	*1*
DCB Decachlorobiphenyl	*146*	*X*	*45 - 120*	*12/01/17 09:11*	*12/02/17 18:46*	*1*
Tetrachloro-m-xylene	*73*		*30 - 124*	*12/01/17 09:11*	*12/02/17 18:46*	*1*
Tetrachloro-m-xylene	*83*		*30 - 124*	*12/01/17 09:11*	*12/02/17 18:46*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.25	0.049	mg/Kg	☼	11/30/17 11:28	12/01/17 17:56	1
PCB-1221	ND		0.25	0.049	mg/Kg	☼	11/30/17 11:28	12/01/17 17:56	1
PCB-1232	ND		0.25	0.049	mg/Kg	☼	11/30/17 11:28	12/01/17 17:56	1
PCB-1242	ND		0.25	0.049	mg/Kg	☼	11/30/17 11:28	12/01/17 17:56	1
PCB-1248	ND		0.25	0.049	mg/Kg	☼	11/30/17 11:28	12/01/17 17:56	1
PCB-1254	ND		0.25	0.12	mg/Kg	☼	11/30/17 11:28	12/01/17 17:56	1
PCB-1260	ND		0.25	0.12	mg/Kg	☼	11/30/17 11:28	12/01/17 17:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*129*		*60 - 154*	*11/30/17 11:28*	*12/01/17 17:56*	*1*
Tetrachloro-m-xylene	*119*		*60 - 154*	*11/30/17 11:28*	*12/01/17 17:56*	*1*
DCB Decachlorobiphenyl	*109*		*65 - 174*	*11/30/17 11:28*	*12/01/17 17:56*	*1*
DCB Decachlorobiphenyl	*108*		*65 - 174*	*11/30/17 11:28*	*12/01/17 17:56*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		18	5.8	ug/Kg	☼	11/30/17 14:30	12/05/17 00:51	1
Silvex (2,4,5-TP)	ND		18	6.5	ug/Kg	☼	11/30/17 14:30	12/05/17 00:51	1
2,4-D	ND		18	11	ug/Kg	☼	11/30/17 14:30	12/05/17 00:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*100*		*28 - 129*	*11/30/17 14:30*	*12/05/17 00:51*	*1*
2,4-Dichlorophenylacetic acid	*130*	*X*	*28 - 129*	*11/30/17 14:30*	*12/05/17 00:51*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	3480	F1	11.0	4.8	mg/Kg	☼	12/01/17 07:37	12/05/17 20:56	1
Antimony	0.55	J	16.4	0.44	mg/Kg	☼	12/01/17 07:37	12/05/17 20:56	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: TP-6 (10-11.5)
Date Collected: 11/28/17 12:45
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-22
Matrix: Solid
Percent Solids: 91.6

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.0		2.2	0.44	mg/Kg	☼	12/01/17 07:37	12/05/17 20:56	1
Barium	17.0		0.55	0.12	mg/Kg	☼	12/01/17 07:37	12/05/17 20:56	1
Beryllium	0.17	J	0.22	0.031	mg/Kg	☼	12/01/17 07:37	12/05/17 20:56	1
Cadmium	0.050	J	0.22	0.033	mg/Kg	☼	12/01/17 07:37	12/05/17 20:56	1
Calcium	2450	F2 B F1	54.8	3.6	mg/Kg	☼	12/01/17 07:37	12/05/17 20:56	1
Chromium	8.1		0.55	0.22	mg/Kg	☼	12/01/17 07:37	12/05/17 20:56	1
Cobalt	1.8		0.55	0.055	mg/Kg	☼	12/01/17 07:37	12/05/17 20:56	1
Copper	6.0		1.1	0.23	mg/Kg	☼	12/01/17 07:37	12/05/17 20:56	1
Iron	7060	F1 B	11.0	3.8	mg/Kg	☼	12/01/17 07:37	12/05/17 20:56	1
Lead	16.0		1.1	0.26	mg/Kg	☼	12/01/17 07:37	12/05/17 20:56	1
Magnesium	1160	F2 F1	21.9	1.0	mg/Kg	☼	12/01/17 07:37	12/05/17 20:56	1
Manganese	189	B	0.22	0.035	mg/Kg	☼	12/01/17 07:37	12/05/17 20:56	1
Nickel	4.6	J	5.5	0.25	mg/Kg	☼	12/01/17 07:37	12/05/17 20:56	1
Potassium	543		32.9	21.9	mg/Kg	☼	12/01/17 07:37	12/05/17 20:56	1
Selenium	0.50	J	4.4	0.44	mg/Kg	☼	12/01/17 07:37	12/05/17 20:56	1
Silver	ND		0.66	0.22	mg/Kg	☼	12/01/17 07:37	12/05/17 20:56	1
Sodium	68.4	J	154	14.3	mg/Kg	☼	12/01/17 07:37	12/05/17 20:56	1
Thallium	ND		6.6	0.33	mg/Kg	☼	12/01/17 07:37	12/05/17 20:56	1
Vanadium	9.8		0.55	0.12	mg/Kg	☼	12/01/17 07:37	12/05/17 20:56	1
Zinc	22.9		2.2	0.70	mg/Kg	☼	12/01/17 07:37	12/05/17 20:56	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.021	0.0085	mg/Kg	☼	12/06/17 15:35	12/06/17 19:08	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: TP-7 (8-10)
Date Collected: 11/28/17 13:38
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-23
Matrix: Solid
Percent Solids: 91.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		1800	490	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
2,4,6-Trichlorophenol	ND		1800	360	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
2,4-Dichlorophenol	ND		1800	190	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
2,4-Dimethylphenol	ND		1800	440	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
2,4-Dinitrophenol	ND		18000	8300	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
2,4-Dinitrotoluene	ND		1800	370	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
2,6-Dinitrotoluene	ND		1800	210	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
2-Chloronaphthalene	ND		1800	300	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
2-Chlorophenol	ND		1800	330	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
2-Methylnaphthalene	ND		1800	360	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
2-Methylphenol	ND		1800	210	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
2-Nitroaniline	ND		3500	270	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
2-Nitrophenol	ND		1800	510	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
3,3'-Dichlorobenzidine	ND		3500	2100	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
3-Nitroaniline	ND		3500	500	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
4,6-Dinitro-2-methylphenol	ND		3500	1800	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
4-Bromophenyl phenyl ether	ND		1800	260	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
4-Chloro-3-methylphenol	ND		1800	450	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
4-Chloroaniline	ND		1800	450	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
4-Chlorophenyl phenyl ether	ND		1800	220	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
4-Methylphenol	ND		3500	210	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
4-Nitroaniline	ND		3500	950	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
4-Nitrophenol	ND		3500	1300	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Acenaphthene	**540**	**J**	1800	270	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Acenaphthylene	ND		1800	230	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Acetophenone	ND		1800	240	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Anthracene	**1400**	**J**	1800	450	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Atrazine	ND		1800	630	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Benzaldehyde	ND		1800	1400	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Benzo[a]anthracene	**2500**		1800	180	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Benzo[a]pyrene	**2300**		1800	270	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Benzo[b]fluoranthene	**3000**		1800	290	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Benzo[g,h,i]perylene	**1200**	**J**	1800	190	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Benzo[k]fluoranthene	**1100**	**J**	1800	230	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Biphenyl	ND		1800	270	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
bis (2-chloroisopropyl) ether	ND		1800	360	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Bis(2-chloroethoxy)methane	ND		1800	380	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Bis(2-chloroethyl)ether	ND		1800	230	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Bis(2-ethylhexyl) phthalate	ND		1800	620	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Butyl benzyl phthalate	ND		1800	300	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Caprolactam	ND		1800	540	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Carbazole	**650**	**J**	1800	210	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Chrysene	**2300**		1800	400	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Dibenz(a,h)anthracene	ND		1800	320	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Dibenzofuran	**370**	**J**	1800	210	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Diethyl phthalate	ND		1800	230	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Dimethyl phthalate	ND		1800	210	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Di-n-butyl phthalate	ND		1800	310	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Di-n-octyl phthalate	ND		1800	210	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: TP-7 (8-10)
Date Collected: 11/28/17 13:38
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-23
Matrix: Solid
Percent Solids: 91.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	5900		1800	190	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Fluorene	640	J	1800	210	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Hexachlorobenzene	ND		1800	240	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Hexachlorobutadiene	ND		1800	270	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Hexachlorocyclopentadiene	ND		1800	240	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Hexachloroethane	ND		1800	230	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Indeno[1,2,3-cd]pyrene	1300	J	1800	220	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Isophorone	ND		1800	380	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Naphthalene	ND		1800	230	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Nitrobenzene	ND		1800	200	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
N-Nitrosodi-n-propylamine	ND		1800	310	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
N-Nitrosodiphenylamine	ND		1800	1500	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Pentachlorophenol	ND		3500	1800	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Phenanthrene	5000		1800	270	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Phenol	ND		1800	280	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10
Pyrene	4300		1800	210	ug/Kg	☼	11/30/17 14:24	12/01/17 16:35	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*108*		*54 - 120*	*11/30/17 14:24*	*12/01/17 16:35*	*10*
2-Fluorobiphenyl	*64*		*60 - 120*	*11/30/17 14:24*	*12/01/17 16:35*	*10*
2-Fluorophenol	*73*		*52 - 120*	*11/30/17 14:24*	*12/01/17 16:35*	*10*
Nitrobenzene-d5	*85*		*53 - 120*	*11/30/17 14:24*	*12/01/17 16:35*	*10*
Phenol-d5	*80*		*54 - 120*	*11/30/17 14:24*	*12/01/17 16:35*	*10*
p-Terphenyl-d14	*100*		*65 - 121*	*11/30/17 14:24*	*12/01/17 16:35*	*10*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	7720		10.8	4.7	mg/Kg	☼	12/01/17 07:37	12/05/17 21:14	1
Antimony	ND		16.1	0.43	mg/Kg	☼	12/01/17 07:37	12/05/17 21:14	1
Arsenic	4.6		2.2	0.43	mg/Kg	☼	12/01/17 07:37	12/05/17 21:14	1
Barium	59.6		0.54	0.12	mg/Kg	☼	12/01/17 07:37	12/05/17 21:14	1
Beryllium	0.33		0.22	0.030	mg/Kg	☼	12/01/17 07:37	12/05/17 21:14	1
Cadmium	0.33		0.22	0.032	mg/Kg	☼	12/01/17 07:37	12/05/17 21:14	1
Calcium	20300	B	53.8	3.6	mg/Kg	☼	12/01/17 07:37	12/05/17 21:14	1
Chromium	12.9		0.54	0.22	mg/Kg	☼	12/01/17 07:37	12/05/17 21:14	1
Cobalt	3.3		0.54	0.054	mg/Kg	☼	12/01/17 07:37	12/05/17 21:14	1
Copper	19.0		1.1	0.23	mg/Kg	☼	12/01/17 07:37	12/05/17 21:14	1
Iron	15500	B	10.8	3.8	mg/Kg	☼	12/01/17 07:37	12/05/17 21:14	1
Lead	41.2		1.1	0.26	mg/Kg	☼	12/01/17 07:37	12/05/17 21:14	1
Magnesium	3720		21.5	1.0	mg/Kg	☼	12/01/17 07:37	12/05/17 21:14	1
Manganese	541	B	0.22	0.034	mg/Kg	☼	12/01/17 07:37	12/05/17 21:14	1
Nickel	11.2		5.4	0.25	mg/Kg	☼	12/01/17 07:37	12/05/17 21:14	1
Potassium	1370		32.3	21.5	mg/Kg	☼	12/01/17 07:37	12/05/17 21:14	1
Selenium	ND		4.3	0.43	mg/Kg	☼	12/01/17 07:37	12/05/17 21:14	1
Silver	ND		0.65	0.22	mg/Kg	☼	12/01/17 07:37	12/05/17 21:14	1
Sodium	177		151	14.0	mg/Kg	☼	12/01/17 07:37	12/05/17 21:14	1
Thallium	ND		6.5	0.32	mg/Kg	☼	12/01/17 07:37	12/05/17 21:14	1
Vanadium	17.6		0.54	0.12	mg/Kg	☼	12/01/17 07:37	12/05/17 21:14	1
Zinc	68.9		2.2	0.69	mg/Kg	☼	12/01/17 07:37	12/05/17 21:14	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: TP-7 (8-10)
Date Collected: 11/28/17 13:38
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-23
Matrix: Solid
Percent Solids: 91.4

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.046		0.021	0.0086	mg/Kg	☼	12/06/17 15:35	12/06/17 19:16	1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(64-126)	(72-126)	(60-140)	(71-125)
480-128098-19	TP-3 (10-14.5)	95	83	92	88
480-128098-22	TP-6 (10-11.5)	116	104	116	111
LCS 480-389702/1-A	Lab Control Sample	93	86	93	90
LCSD 480-389702/2-A	Lab Control Sample Dup	118	109	122	113
MB 480-389702/3-A	Method Blank	106	96	106	100

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPH
Lab Sample ID	Client Sample ID	(54-120)	(60-120)	(52-120)	(53-120)	(54-120)	(65-121)
480-128098-1	SS-1	104	81	75	75	78	79
480-128098-2	SS-2	108	80	75	72	81	89
480-128098-3	SS-3	0 X	54 X	0 X	41 X	43 X	0 X
480-128098-4	SS-4	109	83	75	72	81	89
480-128098-5	SS-5	101	70	68	62	69	75
480-128098-6	SS-6	111	83	73	73	80	92
480-128098-7	SS-7	167 X	76	71	67	76	80
480-128098-7 MS	SS-7	178 X	85	72	73	80	88
480-128098-7 MSD	SS-7	178 X	77	64	71	69	82
480-128098-8	SS-8	109	87	77	81	86	91
480-128098-9	SS-9	163 X	84	76	76	76	94
480-128098-10	SS-10	110	81	78	74	83	86
480-128098-11	SS-11	166 X	83	77	82	87	88
480-128098-12	SS-12	88	88	84	82	96	97
480-128098-13	SS-13	163 X	90	77	71	85	100
480-128098-13 - DL	SS-13	0 X	77	0 X	0 X	0 X	0 X
480-128098-14	SS-14	177 X	88	76	80	85	94
480-128098-15	SS-15	88	89	83	85	91	94
480-128098-16	BLIND DUP #1	87	85	77	73	89	91
480-128098-17	TP-1 (4-6)	173 X	79	69	78	78	82
480-128098-18	TP-2 (6-8)	69	78	76	76	84	85
480-128098-19	TP-3 (10-14.5)	169 X	89	72	79	84	93
480-128098-20	TP-4 (1-3)	69	82	75	78	87	90
480-128098-21	TP-5 (6-8)	130 X	45 X	90	87	91	95
480-128098-22	TP-6 (10-11.5)	87	85	77	83	83	97
480-128098-22 MS	TP-6 (10-11.5)	94	85	80	84	83	94
480-128098-22 MSD	TP-6 (10-11.5)	96	84	76	78	82	91
480-128098-23	TP-7 (8-10)	108	64	73	85	80	100
LCS 480-389768/2-A	Lab Control Sample	81	90	83	86	92	98
LCS 480-389931/2-A	Lab Control Sample	93	84	77	82	86	92
MB 480-389768/1-A	Method Blank	66	88	81	83	88	99

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPH
Lab Sample ID	Client Sample ID	(54-120)	(60-120)	(52-120)	(53-120)	(54-120)	(65-121)
MB 480-389931/1-A	Method Blank	80	87	78	84	84	95

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPH = p-Terphenyl-d14

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCB1	DCB2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(45-120)	(45-120)	(30-124)	(30-124)
480-128098-2	SS-2	0 X	0 X	119	158 X
480-128098-7	SS-7	0 X	0 X	255 X	301 X
480-128098-7 MS	SS-7	0 X	0 X	0 X	0 X
480-128098-7 MSD	SS-7	0 X	0 X	0 X	0 X
480-128098-8	SS-8	0 X	0 X	118	117
480-128098-12	SS-12	139 X	203 X	107	101
480-128098-13	SS-13	528 X	265 X	142 X	168 X
480-128098-16	BLIND DUP #1	132 X	388 X	99	104
480-128098-17	TP-1 (4-6)	283 X	453 X	121	179 X
480-128098-20	TP-4 (1-3)	147 X	180 X	71	87
480-128098-22	TP-6 (10-11.5)	154 X	146 X	73	83
LCS 480-390026/2-A	Lab Control Sample	114	104	80	63
MB 480-390026/1-A	Method Blank	129 X	110	89	71

Surrogate Legend

DCB = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCB1	DCB2
Lab Sample ID	Client Sample ID	(60-154)	(60-154)	(65-174)	(65-174)
480-128098-2	SS-2	105	90	85	82
480-128098-7	SS-7	97	78	75	75
480-128098-7 MS	SS-7	110	97	85	86
480-128098-7 MSD	SS-7	109	96	85	92
480-128098-8	SS-8	86	75	70	72
480-128098-12	SS-12	92	84	74	75
480-128098-13	SS-13	84	82	75	93
480-128098-16	BLIND DUP #1	102	92	80	80
480-128098-17	TP-1 (4-6)	101	91	80	79
480-128098-20	TP-4 (1-3)	122	105	105	104

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCB1	DCB2
Lab Sample ID	Client Sample ID	(60-154)	(60-154)	(65-174)	(65-174)
480-128098-22	TP-6 (10-11.5)	129	119	109	108
LCS 480-389864/2-A	Lab Control Sample	139	119	110	110
MB 480-389864/1-A	Method Blank	101	89	86	82

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

Method: 8151A - Herbicides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCPA1	DCPA2
Lab Sample ID	Client Sample ID	(28-129)	(28-129)
480-128098-2	SS-2	78	114
480-128098-7	SS-7	111	143 X
480-128098-7 MS	SS-7	66	72
480-128098-7 MSD	SS-7	118	148 X
480-128098-8	SS-8	138 X	132 X
480-128098-12	SS-12	97	120
480-128098-13	SS-13	90	80
480-128098-16	BLIND DUP #1	117	129
480-128098-17	TP-1 (4-6)	137 X	157 X
480-128098-20	TP-4 (1-3)	112	118
480-128098-22	TP-6 (10-11.5)	100	130 X
LCS 480-389934/2-A	Lab Control Sample	81	112
MB 480-389934/1-A	Method Blank	120	144 X

Surrogate Legend

DCPA = 2,4-Dichlorophenylacetic acid

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-389702/3-A
Matrix: Solid
Analysis Batch: 390018

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389702

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
1,2,4-Trichlorobenzene	0.306	J	5.0	0.30	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
1,2,4-Trimethylbenzene	ND		5.0	0.96	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
1,3,5-Trimethylbenzene	ND		5.0	0.32	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
2-Hexanone	ND		25	2.5	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
4-Isopropyltoluene	ND		5.0	0.40	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
Acetone	ND		25	4.2	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
Benzene	ND		5.0	0.25	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
Bromoform	ND		5.0	2.5	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
Bromomethane	ND		5.0	0.45	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
Carbon disulfide	ND		5.0	2.5	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
Chlorobenzene	ND		5.0	0.66	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
Chloroethane	ND		5.0	1.1	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
Chloroform	ND		5.0	0.31	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
Chloromethane	ND		5.0	0.30	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
Cyclohexane	ND		5.0	0.70	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
Ethylbenzene	ND		5.0	0.35	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
m,p-Xylene	ND		10	0.84	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
Methyl acetate	ND		25	3.0	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
Methylene Chloride	ND		5.0	2.3	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
n-Butylbenzene	ND		5.0	0.44	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
N-Propylbenzene	ND		5.0	0.40	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
o-Xylene	ND		5.0	0.65	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
sec-Butylbenzene	ND		5.0	0.44	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
Styrene	ND		5.0	0.25	ug/Kg		11/29/17 14:28	12/01/17 15:30	1

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

Lab Sample ID: MB 480-389702/3-A
Matrix: Solid
Analysis Batch: 390018

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389702

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	ND		5.0	0.52	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
Tetrachloroethene	ND		5.0	0.67	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
Toluene	ND		5.0	0.38	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
Trichloroethene	ND		5.0	1.1	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
Vinyl chloride	ND		5.0	0.61	ug/Kg		11/29/17 14:28	12/01/17 15:30	1
Xylenes, Total	ND		10	0.84	ug/Kg		11/29/17 14:28	12/01/17 15:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*64 - 126*	*11/29/17 14:28*	*12/01/17 15:30*	*1*
4-Bromofluorobenzene (Surr)	*96*		*72 - 126*	*11/29/17 14:28*	*12/01/17 15:30*	*1*
Dibromofluoromethane (Surr)	*106*		*60 - 140*	*11/29/17 14:28*	*12/01/17 15:30*	*1*
Toluene-d8 (Surr)	*100*		*71 - 125*	*11/29/17 14:28*	*12/01/17 15:30*	*1*

Lab Sample ID: LCS 480-389702/1-A
Matrix: Solid
Analysis Batch: 390018

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389702

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	50.0	41.9		ug/Kg		84	77 - 121
1,1,2,2-Tetrachloroethane	50.0	49.0		ug/Kg		98	80 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	39.2		ug/Kg		78	60 - 140
1,1,2-Trichloroethane	50.0	46.1		ug/Kg		92	78 - 122
1,1-Dichloroethane	50.0	43.5		ug/Kg		87	73 - 126
1,1-Dichloroethene	50.0	40.4		ug/Kg		81	59 - 125
1,2,4-Trichlorobenzene	50.0	43.2		ug/Kg		86	64 - 120
1,2,4-Trimethylbenzene	50.0	44.9		ug/Kg		90	74 - 120
1,2-Dibromo-3-Chloropropane	50.0	50.7		ug/Kg		101	63 - 124
1,2-Dibromoethane	50.0	46.6		ug/Kg		93	78 - 120
1,2-Dichlorobenzene	50.0	44.4		ug/Kg		89	75 - 120
1,2-Dichloroethane	50.0	45.3		ug/Kg		91	77 - 122
1,2-Dichloropropane	50.0	43.9		ug/Kg		88	75 - 124
1,3,5-Trimethylbenzene	50.0	45.3		ug/Kg		91	74 - 120
1,3-Dichlorobenzene	50.0	44.1		ug/Kg		88	74 - 120
1,4-Dichlorobenzene	50.0	44.4		ug/Kg		89	73 - 120
2-Butanone (MEK)	250	245		ug/Kg		98	70 - 134
2-Hexanone	250	250		ug/Kg		100	59 - 130
4-Isopropyltoluene	50.0	44.7		ug/Kg		89	74 - 120
4-Methyl-2-pentanone (MIBK)	250	248		ug/Kg		99	65 - 133
Acetone	250	227		ug/Kg		91	61 - 137
Benzene	50.0	44.6		ug/Kg		89	79 - 127
Bromodichloromethane	50.0	46.1		ug/Kg		92	80 - 122
Bromoform	50.0	41.6		ug/Kg		83	68 - 126
Bromomethane	50.0	54.3		ug/Kg		109	37 - 149
Carbon disulfide	50.0	42.4		ug/Kg		85	64 - 131

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

Lab Sample ID: LCS 480-389702/1-A
Matrix: Solid
Analysis Batch: 390018

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389702

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbon tetrachloride	50.0	41.6		ug/Kg		83	75 - 135
Chlorobenzene	50.0	43.9		ug/Kg		88	76 - 124
Chloroethane	50.0	49.6		ug/Kg		99	69 - 135
Chloroform	50.0	45.0		ug/Kg		90	80 - 120
Chloromethane	50.0	47.7		ug/Kg		95	63 - 127
cis-1,2-Dichloroethene	50.0	44.5		ug/Kg		89	81 - 120
cis-1,3-Dichloropropene	50.0	44.3		ug/Kg		89	80 - 120
Cyclohexane	50.0	40.7		ug/Kg		81	65 - 120
Dibromochloromethane	50.0	48.6		ug/Kg		97	76 - 125
Dichlorodifluoromethane	50.0	47.2		ug/Kg		94	57 - 142
Ethylbenzene	50.0	44.6		ug/Kg		89	80 - 120
Isopropylbenzene	50.0	44.9		ug/Kg		90	72 - 120
m,p-Xylene	50.0	42.7		ug/Kg		85	70 - 130
Methyl acetate	100	98.2		ug/Kg		98	55 - 136
Methyl tert-butyl ether	50.0	46.4		ug/Kg		93	63 - 125
Methylcyclohexane	50.0	40.7		ug/Kg		81	60 - 140
Methylene Chloride	50.0	46.4		ug/Kg		93	61 - 127
Naphthalene	50.0	46.8		ug/Kg		94	38 - 137
n-Butylbenzene	50.0	44.9		ug/Kg		90	70 - 120
N-Propylbenzene	50.0	45.7		ug/Kg		91	70 - 130
o-Xylene	50.0	43.9		ug/Kg		88	70 - 130
sec-Butylbenzene	50.0	44.9		ug/Kg		90	74 - 120
Styrene	50.0	44.0		ug/Kg		88	80 - 120
tert-Butylbenzene	50.0	42.3		ug/Kg		85	73 - 120
Tetrachloroethene	50.0	41.3		ug/Kg		83	74 - 122
Toluene	50.0	43.5		ug/Kg		87	74 - 128
trans-1,2-Dichloroethene	50.0	44.3		ug/Kg		89	78 - 126
trans-1,3-Dichloropropene	50.0	44.1		ug/Kg		88	73 - 123
Trichloroethene	50.0	42.9		ug/Kg		86	77 - 129
Trichlorofluoromethane	50.0	46.1		ug/Kg		92	65 - 146
Vinyl chloride	50.0	46.9		ug/Kg		94	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*64 - 126*
4-Bromofluorobenzene (Surr)	*86*		*72 - 126*
Dibromofluoromethane (Surr)	*93*		*60 - 140*
Toluene-d8 (Surr)	*90*		*71 - 125*

Lab Sample ID: LCSD 480-389702/2-A
Matrix: Solid
Analysis Batch: 390018

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 389702

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	50.0	46.2		ug/Kg		92	77 - 121	10	20
1,1,2,2-Tetrachloroethane	50.0	53.4		ug/Kg		107	80 - 120	9	20
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	43.2		ug/Kg		86	60 - 140	10	20
1,1,2-Trichloroethane	50.0	50.3		ug/Kg		101	78 - 122	9	20

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

Lab Sample ID: LCSD 480-389702/2-A
Matrix: Solid
Analysis Batch: 390018

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 389702

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethane	50.0	48.8		ug/Kg		98	73 - 126	11	20
1,1-Dichloroethene	50.0	44.6		ug/Kg		89	59 - 125	10	20
1,2,4-Trichlorobenzene	50.0	46.8		ug/Kg		94	64 - 120	8	20
1,2,4-Trimethylbenzene	50.0	49.1		ug/Kg		98	74 - 120	9	20
1,2-Dibromo-3-Chloropropane	50.0	55.4		ug/Kg		111	63 - 124	9	20
1,2-Dibromoethane	50.0	51.5		ug/Kg		103	78 - 120	10	20
1,2-Dichlorobenzene	50.0	48.6		ug/Kg		97	75 - 120	9	20
1,2-Dichloroethane	50.0	50.3		ug/Kg		101	77 - 122	11	20
1,2-Dichloropropane	50.0	48.3		ug/Kg		97	75 - 124	10	20
1,3,5-Trimethylbenzene	50.0	48.9		ug/Kg		98	74 - 120	8	20
1,3-Dichlorobenzene	50.0	48.4		ug/Kg		97	74 - 120	9	20
1,4-Dichlorobenzene	50.0	48.0		ug/Kg		96	73 - 120	8	20
2-Butanone (MEK)	250	275		ug/Kg		110	70 - 134	11	20
2-Hexanone	250	274		ug/Kg		110	59 - 130	9	20
4-Isopropyltoluene	50.0	48.4		ug/Kg		97	74 - 120	8	20
4-Methyl-2-pentanone (MIBK)	250	272		ug/Kg		109	65 - 133	9	20
Acetone	250	249		ug/Kg		99	61 - 137	9	20
Benzene	50.0	49.6		ug/Kg		99	79 - 127	10	20
Bromodichloromethane	50.0	51.7		ug/Kg		103	80 - 122	11	20
Bromoform	50.0	46.0		ug/Kg		92	68 - 126	10	20
Bromomethane	50.0	60.0		ug/Kg		120	37 - 149	10	20
Carbon disulfide	50.0	46.7		ug/Kg		93	64 - 131	10	20
Carbon tetrachloride	50.0	44.9		ug/Kg		90	75 - 135	8	20
Chlorobenzene	50.0	48.5		ug/Kg		97	76 - 124	10	20
Chloroethane	50.0	54.2		ug/Kg		108	69 - 135	9	20
Chloroform	50.0	49.7		ug/Kg		99	80 - 120	10	20
Chloromethane	50.0	52.0		ug/Kg		104	63 - 127	9	20
cis-1,2-Dichloroethene	50.0	50.2		ug/Kg		100	81 - 120	12	20
cis-1,3-Dichloropropene	50.0	49.2		ug/Kg		98	80 - 120	10	20
Cyclohexane	50.0	43.9		ug/Kg		88	65 - 120	8	20
Dibromochloromethane	50.0	52.2		ug/Kg		104	76 - 125	7	20
Dichlorodifluoromethane	50.0	51.0		ug/Kg		102	57 - 142	8	20
Ethylbenzene	50.0	48.5		ug/Kg		97	80 - 120	8	20
Isopropylbenzene	50.0	48.8		ug/Kg		98	72 - 120	8	20
m,p-Xylene	50.0	46.5		ug/Kg		93	70 - 130	8	20
Methyl acetate	100	111		ug/Kg		111	55 - 136	12	20
Methyl tert-butyl ether	50.0	51.7		ug/Kg		103	63 - 125	11	20
Methylcyclohexane	50.0	44.8		ug/Kg		90	60 - 140	10	20
Methylene Chloride	50.0	51.9		ug/Kg		104	61 - 127	11	20
Naphthalene	50.0	51.3		ug/Kg		103	38 - 137	9	20
n-Butylbenzene	50.0	48.6		ug/Kg		97	70 - 120	8	20
N-Propylbenzene	50.0	49.6		ug/Kg		99	70 - 130	8	20
o-Xylene	50.0	48.2		ug/Kg		96	70 - 130	9	20
sec-Butylbenzene	50.0	48.1		ug/Kg		96	74 - 120	7	20
Styrene	50.0	48.3		ug/Kg		97	80 - 120	9	20
tert-Butylbenzene	50.0	45.5		ug/Kg		91	73 - 120	7	20
Tetrachloroethene	50.0	44.9		ug/Kg		90	74 - 122	8	20
Toluene	50.0	47.8		ug/Kg		96	74 - 128	9	20

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

Lab Sample ID: LCSD 480-389702/2-A
Matrix: Solid
Analysis Batch: 390018

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 389702

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
trans-1,2-Dichloroethene			50.0	49.1		ug/Kg		98	78 - 126	10	20
trans-1,3-Dichloropropene			50.0	48.8		ug/Kg		98	73 - 123	10	20
Trichloroethene			50.0	47.3		ug/Kg		95	77 - 129	10	20
Trichlorofluoromethane			50.0	49.7		ug/Kg		99	65 - 146	8	20
Vinyl chloride			50.0	52.1		ug/Kg		104	61 - 133	10	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*118*		*64 - 126*
4-Bromofluorobenzene (Surr)	*109*		*72 - 126*
Dibromofluoromethane (Surr)	*122*		*60 - 140*
Toluene-d8 (Surr)	*113*		*71 - 125*

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

Lab Sample ID: MB 480-389768/1-A
Matrix: Solid
Analysis Batch: 390093

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389768

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		170	45	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
2,4,6-Trichlorophenol	ND		170	33	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
2,4-Dichlorophenol	ND		170	18	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
2,4-Dimethylphenol	ND		170	40	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
2,4-Dinitrophenol	ND		1600	770	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
2,4-Dinitrotoluene	ND		170	34	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
2,6-Dinitrotoluene	ND		170	20	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
2-Chloronaphthalene	ND		170	28	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
2-Chlorophenol	ND		170	31	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
2-Methylnaphthalene	ND		170	33	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
2-Methylphenol	ND		170	20	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
2-Nitroaniline	ND		320	25	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
2-Nitrophenol	ND		170	47	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
3,3'-Dichlorobenzidine	ND		320	200	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
3-Nitroaniline	ND		320	46	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
4,6-Dinitro-2-methylphenol	ND		320	170	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
4-Bromophenyl phenyl ether	ND		170	24	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
4-Chloro-3-methylphenol	ND		170	41	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
4-Chloroaniline	ND		170	41	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
4-Chlorophenyl phenyl ether	ND		170	21	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
4-Methylphenol	ND		320	20	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
4-Nitroaniline	ND		320	88	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
4-Nitrophenol	ND		320	120	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Acenaphthene	ND		170	25	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Acenaphthylene	ND		170	22	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Acetophenone	ND		170	23	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Anthracene	ND		170	41	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Atrazine	ND		170	58	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Benzaldehyde	ND		170	130	ug/Kg		11/30/17 06:48	12/01/17 15:54	1

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

Lab Sample ID: MB 480-389768/1-A
Matrix: Solid
Analysis Batch: 390093

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389768

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		170	17	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Benzo[a]pyrene	ND		170	25	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Benzo[b]fluoranthene	ND		170	27	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Benzo[g,h,i]perylene	ND		170	18	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Benzo[k]fluoranthene	ND		170	22	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Biphenyl	ND		170	25	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
bis (2-chloroisopropyl) ether	ND		170	33	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Bis(2-chloroethoxy)methane	ND		170	35	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Bis(2-chloroethyl)ether	ND		170	22	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Bis(2-ethylhexyl) phthalate	ND		170	57	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Butyl benzyl phthalate	ND		170	28	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Caprolactam	ND		170	50	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Carbazole	ND		170	20	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Chrysene	ND		170	37	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Dibenz(a,h)anthracene	ND		170	30	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Dibenzofuran	ND		170	20	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Diethyl phthalate	ND		170	22	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Dimethyl phthalate	ND		170	20	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Di-n-butyl phthalate	ND		170	29	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Di-n-octyl phthalate	ND		170	20	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Fluoranthene	ND		170	18	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Fluorene	ND		170	20	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Hexachlorobenzene	ND		170	23	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Hexachlorobutadiene	ND		170	25	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Hexachlorocyclopentadiene	ND		170	23	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Hexachloroethane	ND		170	22	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Indeno[1,2,3-cd]pyrene	ND		170	21	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Isophorone	ND		170	35	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Naphthalene	ND		170	22	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Nitrobenzene	ND		170	19	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
N-Nitrosodi-n-propylamine	ND		170	29	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
N-Nitrosodiphenylamine	ND		170	140	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Pentachlorophenol	ND		320	170	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Phenanthrene	ND		170	25	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Phenol	ND		170	26	ug/Kg		11/30/17 06:48	12/01/17 15:54	1
Pyrene	ND		170	20	ug/Kg		11/30/17 06:48	12/01/17 15:54	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*1500*	*T J*	*ug/Kg*		*1.91*		*11/30/17 06:48*	*12/01/17 15:54*	*1*
Unknown	*2010*	*T J*	*ug/Kg*		*2.00*		*11/30/17 06:48*	*12/01/17 15:54*	*1*
Unknown	*298*	*T J*	*ug/Kg*		*3.48*		*11/30/17 06:48*	*12/01/17 15:54*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*66*		*54 - 120*	*11/30/17 06:48*	*12/01/17 15:54*	*1*
2-Fluorobiphenyl	*88*		*60 - 120*	*11/30/17 06:48*	*12/01/17 15:54*	*1*
2-Fluorophenol	*81*		*52 - 120*	*11/30/17 06:48*	*12/01/17 15:54*	*1*
Nitrobenzene-d5	*83*		*53 - 120*	*11/30/17 06:48*	*12/01/17 15:54*	*1*

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

Lab Sample ID: MB 480-389768/1-A
Matrix: Solid
Analysis Batch: 390093

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389768

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5	88		54 - 120	11/30/17 06:48	12/01/17 15:54	1
p-Terphenyl-d14	99		65 - 121	11/30/17 06:48	12/01/17 15:54	1

Lab Sample ID: LCS 480-389768/2-A
Matrix: Solid
Analysis Batch: 390093

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389768

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-Trichlorophenol	1630	1430		ug/Kg		87	59 - 126
2,4,6-Trichlorophenol	1630	1390		ug/Kg		85	59 - 123
2,4-Dichlorophenol	1630	1380		ug/Kg		85	61 - 120
2,4-Dimethylphenol	1630	1400		ug/Kg		86	59 - 120
2,4-Dinitrophenol	3260	2300		ug/Kg		70	41 - 146
2,4-Dinitrotoluene	1630	1440		ug/Kg		88	63 - 120
2,6-Dinitrotoluene	1630	1390		ug/Kg		85	66 - 120
2-Chloronaphthalene	1630	1450		ug/Kg		89	57 - 120
2-Chlorophenol	1630	1370		ug/Kg		84	53 - 120
2-Methylnaphthalene	1630	1380		ug/Kg		85	59 - 120
2-Methylphenol	1630	1480		ug/Kg		91	54 - 120
2-Nitroaniline	1630	1550		ug/Kg		95	61 - 120
2-Nitrophenol	1630	1260		ug/Kg		77	56 - 120
3,3'-Dichlorobenzidine	3260	2620		ug/Kg		80	54 - 120
3-Nitroaniline	1630	1350		ug/Kg		83	48 - 120
4,6-Dinitro-2-methylphenol	3260	2720		ug/Kg		83	49 - 122
4-Bromophenyl phenyl ether	1630	1460		ug/Kg		89	58 - 120
4-Chloro-3-methylphenol	1630	1430		ug/Kg		88	61 - 120
4-Chloroaniline	1630	1260		ug/Kg		77	38 - 120
4-Chlorophenyl phenyl ether	1630	1460		ug/Kg		89	63 - 124
4-Methylphenol	1630	1520		ug/Kg		93	55 - 120
4-Nitroaniline	1630	1480		ug/Kg		91	56 - 120
4-Nitrophenol	3260	2630		ug/Kg		81	43 - 147
Acenaphthene	1630	1480		ug/Kg		91	62 - 120
Acenaphthylene	1630	1470		ug/Kg		90	58 - 121
Acetophenone	1630	1420		ug/Kg		87	54 - 120
Anthracene	1630	1540		ug/Kg		95	62 - 120
Atrazine	3260	2900		ug/Kg		89	60 - 127
Benzaldehyde	3260	2070		ug/Kg		63	10 - 150
Benzo[a]anthracene	1630	1540		ug/Kg		94	65 - 120
Benzo[a]pyrene	1630	1550		ug/Kg		95	64 - 120
Benzo[b]fluoranthene	1630	1660		ug/Kg		102	64 - 120
Benzo[g,h,i]perylene	1630	1460		ug/Kg		89	45 - 145
Benzo[k]fluoranthene	1630	1600		ug/Kg		98	65 - 120
Biphenyl	1630	1470		ug/Kg		90	59 - 120
bis (2-chloroisopropyl) ether	1630	1820		ug/Kg		111	44 - 120
Bis(2-chloroethoxy)methane	1630	1490		ug/Kg		91	55 - 120
Bis(2-chloroethyl)ether	1630	1460		ug/Kg		90	45 - 120
Bis(2-ethylhexyl) phthalate	1630	1540		ug/Kg		94	61 - 133
Butyl benzyl phthalate	1630	1490		ug/Kg		91	61 - 129

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

Lab Sample ID: LCS 480-389768/2-A
Matrix: Solid
Analysis Batch: 390093

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389768

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Caprolactam	3260	3080		ug/Kg		94	47 - 120
Carbazole	1630	1610		ug/Kg		99	65 - 120
Chrysene	1630	1490		ug/Kg		91	64 - 120
Dibenz(a,h)anthracene	1630	1490		ug/Kg		91	54 - 132
Dibenzofuran	1630	1490		ug/Kg		91	63 - 120
Diethyl phthalate	1630	1440		ug/Kg		88	66 - 120
Dimethyl phthalate	1630	1460		ug/Kg		89	65 - 124
Di-n-butyl phthalate	1630	1480		ug/Kg		91	58 - 130
Di-n-octyl phthalate	1630	1420		ug/Kg		87	57 - 133
Fluoranthene	1630	1530		ug/Kg		94	62 - 120
Fluorene	1630	1550		ug/Kg		95	63 - 120
Hexachlorobenzene	1630	1360		ug/Kg		83	60 - 120
Hexachlorobutadiene	1630	1170		ug/Kg		71	45 - 120
Hexachlorocyclopentadiene	1630	1120		ug/Kg		68	47 - 120
Hexachloroethane	1630	1260		ug/Kg		77	41 - 120
Indeno[1,2,3-cd]pyrene	1630	1460		ug/Kg		90	56 - 134
Isophorone	1630	1440		ug/Kg		88	56 - 120
Naphthalene	1630	1380		ug/Kg		84	55 - 120
Nitrobenzene	1630	1400		ug/Kg		86	54 - 120
N-Nitrosodi-n-propylamine	1630	1560		ug/Kg		95	52 - 120
Pentachlorophenol	3260	2260		ug/Kg		69	51 - 120
Phenanthrene	1630	1540		ug/Kg		95	60 - 120
Phenol	1630	1470		ug/Kg		90	53 - 120
Pyrene	1630	1660		ug/Kg		102	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*81*		*54 - 120*
2-Fluorobiphenyl	*90*		*60 - 120*
2-Fluorophenol	*83*		*52 - 120*
Nitrobenzene-d5	*86*		*53 - 120*
Phenol-d5	*92*		*54 - 120*
p-Terphenyl-d14	*98*		*65 - 121*

Lab Sample ID: 480-128098-7 MS
Matrix: Solid
Analysis Batch: 390093

Client Sample ID: SS-7
Prep Type: Total/NA
Prep Batch: 389768

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-Trichlorophenol	ND		1940	2050	J	ug/Kg	☼	106	46 - 120
2,4,6-Trichlorophenol	ND		1940	1980	J	ug/Kg	☼	102	41 - 123
2,4-Dichlorophenol	ND		1940	1820	J	ug/Kg	☼	94	45 - 120
2,4-Dimethylphenol	ND		1940	1330	J	ug/Kg	☼	69	52 - 120
2,4-Dinitrophenol	ND		3880	ND		ug/Kg	☼	NC	41 - 146
2,4-Dinitrotoluene	ND		1940	2130	J	ug/Kg	☼	110	63 - 125
2,6-Dinitrotoluene	ND		1940	2150	J	ug/Kg	☼	111	66 - 120
2-Chloronaphthalene	ND		1940	1560	J	ug/Kg	☼	80	57 - 120
2-Chlorophenol	ND		1940	1350	J	ug/Kg	☼	70	43 - 120
2-Methylnaphthalene	ND		1940	1590	J	ug/Kg	☼	82	55 - 120

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

Lab Sample ID: 480-128098-7 MS
Matrix: Solid
Analysis Batch: 390093

Client Sample ID: SS-7
Prep Type: Total/NA
Prep Batch: 389768

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Methylphenol	ND		1940	1410	J	ug/Kg	☼	73	48 - 120
2-Nitroaniline	ND	F1	1940	2440	J F1	ug/Kg	☼	126	61 - 120
2-Nitrophenol	ND		1940	1870	J	ug/Kg	☼	96	37 - 120
3,3'-Dichlorobenzidine	ND		3880	ND		ug/Kg	☼	NC	37 - 126
3-Nitroaniline	ND		1940	2160	J	ug/Kg	☼	112	48 - 120
4,6-Dinitro-2-methylphenol	ND		3880	6720	J	ug/Kg	☼	NC	23 - 149
4-Bromophenyl phenyl ether	ND		1940	1450	J	ug/Kg	☼	75	58 - 120
4-Chloro-3-methylphenol	ND		1940	2120	J	ug/Kg	☼	109	49 - 125
4-Chloroaniline	ND	F1	1940	982	J	ug/Kg	☼	51	38 - 120
4-Chlorophenyl phenyl ether	ND		1940	1630	J	ug/Kg	☼	84	63 - 124
4-Methylphenol	ND		1940	1510	J	ug/Kg	☼	78	50 - 120
4-Nitroaniline	ND		1940	2440	J	ug/Kg	☼	NC	47 - 120
4-Nitrophenol	ND	F1	3880	6510	J F1	ug/Kg	☼	168	31 - 147
Acenaphthene	1600	J F1	1940	2600	J F1	ug/Kg	☼	53	60 - 120
Acenaphthylene	ND		1940	1420	J	ug/Kg	☼	73	58 - 121
Acetophenone	ND		1940	1390	J	ug/Kg	☼	71	47 - 120
Anthracene	3100	J F2 F1	1940	3730	J F1	ug/Kg	☼	31	62 - 120
Atrazine	ND		3880	2750	J	ug/Kg	☼	71	60 - 150
Benzaldehyde	ND	F1	3880	ND	F1	ug/Kg	☼	0	10 - 150
Benzo[a]anthracene	6900	F2 F1	1940	6510	F1	ug/Kg	☼	-21	65 - 120
Benzo[a]pyrene	6200	F2 F1	1940	6120	F1	ug/Kg	☼	-4	64 - 120
Benzo[b]fluoranthene	8100	F2	1940	8120	4	ug/Kg	☼	3	64 - 120
Benzo[g,h,i]perylene	3700	J F2 F1	1940	4290	F1	ug/Kg	☼	33	45 - 145
Benzo[k]fluoranthene	4400	F2 F1	1940	4710	F1	ug/Kg	☼	18	65 - 120
Biphenyl	ND		1940	1680	J	ug/Kg	☼	87	58 - 120
bis (2-chloroisopropyl) ether	ND		1940	1080	J	ug/Kg	☼	56	31 - 120
Bis(2-chloroethoxy)methane	ND		1940	1560	J	ug/Kg	☼	81	52 - 120
Bis(2-chloroethyl)ether	ND		1940	1580	J	ug/Kg	☼	82	45 - 120
Bis(2-ethylhexyl) phthalate	ND		1940	2070	J	ug/Kg	☼	107	61 - 133
Butyl benzyl phthalate	ND	F1	1940	2320	J	ug/Kg	☼	120	61 - 120
Caprolactam	ND		3880	3210	J	ug/Kg	☼	83	37 - 133
Carbazole	1500	J F1	1940	2580	J F1	ug/Kg	☼	57	59 - 120
Chrysene	6800	F2 F1	1940	6610	F1	ug/Kg	☼	-8	64 - 120
Dibenz(a,h)anthracene	1100	J F2	1940	2230	J	ug/Kg	☼	59	54 - 132
Dibenzofuran	730	J	1940	2070	J	ug/Kg	☼	69	62 - 120
Diethyl phthalate	ND		1940	1420	J	ug/Kg	☼	73	66 - 120
Dimethyl phthalate	ND		1940	1440	J	ug/Kg	☼	74	65 - 124
Di-n-butyl phthalate	ND		1940	1850	J	ug/Kg	☼	95	58 - 130
Di-n-octyl phthalate	ND		1940	1200	J	ug/Kg	☼	62	57 - 133
Fluoranthene	16000	F2	1940	13100	4	ug/Kg	☼	-138	62 - 120
Fluorene	1600	J F2 F1	1940	2430	J F1	ug/Kg	☼	45	63 - 120
Hexachlorobenzene	ND		1940	1400	J	ug/Kg	☼	72	60 - 120
Hexachlorobutadiene	ND		1940	1280	J	ug/Kg	☼	66	45 - 120
Hexachlorocyclopentadiene	ND		1940	2030	J	ug/Kg	☼	104	31 - 120
Hexachloroethane	ND		1940	742	J	ug/Kg	☼	38	21 - 120
Indeno[1,2,3-cd]pyrene	3200	J F2 F1	1940	3850	J F1	ug/Kg	☼	31	56 - 134
Isophorone	ND		1940	1420	J	ug/Kg	☼	73	56 - 120
Naphthalene	ND		1940	1790	J	ug/Kg	☼	92	46 - 120

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

Lab Sample ID: 480-128098-7 MS
Matrix: Solid
Analysis Batch: 390093

Client Sample ID: SS-7
Prep Type: Total/NA
Prep Batch: 389768

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrobenzene	ND		1940	1430	J	ug/Kg	☼	74	49 - 120
N-Nitrosodi-n-propylamine	ND		1940	1520	J	ug/Kg	☼	79	46 - 120
Pentachlorophenol	ND		3880	6400	J	ug/Kg	☼	NC	25 - 136
Phenanthrene	12000	F2	1940	9910	4	ug/Kg	☼	-129	60 - 122
Phenol	ND		1940	1450	J	ug/Kg	☼	75	50 - 120
Pyrene	13000		1940	11100	4	ug/Kg	☼	-102	61 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol	*178*	*X*	*54 - 120*
2-Fluorobiphenyl	*85*		*60 - 120*
2-Fluorophenol	*72*		*52 - 120*
Nitrobenzene-d5	*73*		*53 - 120*
Phenol-d5	*80*		*54 - 120*
p-Terphenyl-d14	*88*		*65 - 121*

Lab Sample ID: 480-128098-7 MSD
Matrix: Solid
Analysis Batch: 390093

Client Sample ID: SS-7
Prep Type: Total/NA
Prep Batch: 389768

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,5-Trichlorophenol	ND		1920	2050	J	ug/Kg	☼	107	46 - 120	0	18
2,4,6-Trichlorophenol	ND		1920	1820	J	ug/Kg	☼	95	41 - 123	9	19
2,4-Dichlorophenol	ND		1920	1780	J	ug/Kg	☼	93	45 - 120	2	19
2,4-Dimethylphenol	ND		1920	1190	J	ug/Kg	☼	62	52 - 120	11	42
2,4-Dinitrophenol	ND		3830	ND		ug/Kg	☼	NC	41 - 146	NC	22
2,4-Dinitrotoluene	ND		1920	2040	J	ug/Kg	☼	107	63 - 125	4	20
2,6-Dinitrotoluene	ND		1920	2120	J	ug/Kg	☼	110	66 - 120	1	15
2-Chloronaphthalene	ND		1920	1450	J	ug/Kg	☼	76	57 - 120	7	21
2-Chlorophenol	ND		1920	1290	J	ug/Kg	☼	67	43 - 120	5	25
2-Methylnaphthalene	ND		1920	1560	J	ug/Kg	☼	81	55 - 120	2	21
2-Methylphenol	ND		1920	1410	J	ug/Kg	☼	73	48 - 120	0	27
2-Nitroaniline	ND	F1	1920	2240	J	ug/Kg	☼	117	61 - 120	8	15
2-Nitrophenol	ND		1920	1720	J	ug/Kg	☼	90	37 - 120	8	18
3,3'-Dichlorobenzidine	ND		3830	ND		ug/Kg	☼	NC	37 - 126	NC	25
3-Nitroaniline	ND		1920	1970	J	ug/Kg	☼	103	48 - 120	9	19
4,6-Dinitro-2-methylphenol	ND		3830	6600	J	ug/Kg	☼	NC	23 - 149	2	15
4-Bromophenyl phenyl ether	ND		1920	1410	J	ug/Kg	☼	74	58 - 120	3	15
4-Chloro-3-methylphenol	ND		1920	1980	J	ug/Kg	☼	104	49 - 125	7	27
4-Chloroaniline	ND	F1	1920	ND	F1	ug/Kg	☼	0	38 - 120	NC	22
4-Chlorophenyl phenyl ether	ND		1920	1490	J	ug/Kg	☼	78	63 - 124	9	16
4-Methylphenol	ND		1920	1340	J	ug/Kg	☼	70	50 - 120	11	24
4-Nitroaniline	ND		1920	2260	J	ug/Kg	☼	NC	47 - 120	8	24
4-Nitrophenol	ND	F1	3830	6450	J F1	ug/Kg	☼	168	31 - 147	1	25
Acenaphthene	1600	J F1	1920	3060	J	ug/Kg	☼	78	60 - 120	16	35
Acenaphthylene	ND		1920	1410	J	ug/Kg	☼	74	58 - 121	1	18
Acetophenone	ND		1920	1340	J	ug/Kg	☼	70	47 - 120	4	20
Anthracene	3100	J F2 F1	1920	4440	F2	ug/Kg	☼	69	62 - 120	17	15
Atrazine	ND		3830	2520	J	ug/Kg	☼	66	60 - 150	9	20

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

Lab Sample ID: 480-128098-7 MSD
Matrix: Solid
Analysis Batch: 390093

Client Sample ID: SS-7
Prep Type: Total/NA
Prep Batch: 389768

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzaldehyde	ND	F1	3830	ND	F1	ug/Kg	☼	0	10 - 150	NC	20
Benzo[a]anthracene	6900	F2 F1	1920	8670	F2	ug/Kg	☼	91	65 - 120	28	15
Benzo[a]pyrene	6200	F2 F1	1920	7930	F2	ug/Kg	☼	91	64 - 120	26	15
Benzo[b]fluoranthene	8100	F2	1920	10200	4 F2	ug/Kg	☼	110	64 - 120	22	15
Benzo[g,h,i]perylene	3700	J F2 F1	1920	5610	F2	ug/Kg	☼	102	45 - 145	27	15
Benzo[k]fluoranthene	4400	F2 F1	1920	6210	F2	ug/Kg	☼	97	65 - 120	27	22
Biphenyl	ND		1920	1590	J	ug/Kg	☼	83	58 - 120	5	20
bis (2-chloroisopropyl) ether	ND		1920	891	J	ug/Kg	☼	47	31 - 120	19	24
Bis(2-chloroethoxy)methane	ND		1920	1400	J	ug/Kg	☼	73	52 - 120	11	17
Bis(2-chloroethyl)ether	ND		1920	1430	J	ug/Kg	☼	75	45 - 120	10	21
Bis(2-ethylhexyl) phthalate	ND		1920	2240	J	ug/Kg	☼	117	61 - 133	8	15
Butyl benzyl phthalate	ND	F1	1920	2330	J F1	ug/Kg	☼	122	61 - 120	0	16
Caprolactam	ND		3830	2860	J	ug/Kg	☼	75	37 - 133	11	20
Carbazole	1500	J F1	1920	2930	J	ug/Kg	☼	76	59 - 120	13	20
Chrysene	6800	F2 F1	1920	8550	F2	ug/Kg	☼	93	64 - 120	26	15
Dibenz(a,h)anthracene	1100	J F2	1920	2750	J F2	ug/Kg	☼	87	54 - 132	21	15
Dibenzofuran	730	J	1920	2220	J	ug/Kg	☼	78	62 - 120	7	15
Diethyl phthalate	ND		1920	1280	J	ug/Kg	☼	67	66 - 120	10	15
Dimethyl phthalate	ND		1920	1430	J	ug/Kg	☼	75	65 - 124	1	15
Di-n-butyl phthalate	ND		1920	1820	J	ug/Kg	☼	95	58 - 130	2	15
Di-n-octyl phthalate	ND		1920	1200	J	ug/Kg	☼	63	57 - 133	0	16
Fluoranthene	16000	F2	1920	17400	4 F2	ug/Kg	☼	85	62 - 120	28	15
Fluorene	1600	J F2 F1	1920	2900	J F2	ug/Kg	☼	70	63 - 120	18	15
Hexachlorobenzene	ND		1920	1290	J	ug/Kg	☼	68	60 - 120	8	15
Hexachlorobutadiene	ND		1920	1250	J	ug/Kg	☼	65	45 - 120	2	44
Hexachlorocyclopentadiene	ND		1920	1960	J	ug/Kg	☼	102	31 - 120	3	49
Hexachloroethane	ND		1920	679	J	ug/Kg	☼	35	21 - 120	9	46
Indeno[1,2,3-cd]pyrene	3200	J F2 F1	1920	5000	F2	ug/Kg	☼	92	56 - 134	26	15
Isophorone	ND		1920	1260	J	ug/Kg	☼	66	56 - 120	12	17
Naphthalene	ND		1920	1750	J	ug/Kg	☼	91	46 - 120	2	29
Nitrobenzene	ND		1920	1320	J	ug/Kg	☼	69	49 - 120	8	24
N-Nitrosodi-n-propylamine	ND		1920	1370	J	ug/Kg	☼	71	46 - 120	11	31
Pentachlorophenol	ND		3830	6300	J	ug/Kg	☼	NC	25 - 136	2	35
Phenanthrene	12000	F2	1920	13400	4 F2	ug/Kg	☼	54	60 - 122	30	15
Phenol	ND		1920	1260	J	ug/Kg	☼	66	50 - 120	14	35
Pyrene	13000		1920	14800	4	ug/Kg	☼	94	61 - 133	29	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*178*	*X*	*54 - 120*
2-Fluorobiphenyl	*77*		*60 - 120*
2-Fluorophenol	*64*		*52 - 120*
Nitrobenzene-d5	*71*		*53 - 120*
Phenol-d5	*69*		*54 - 120*
p-Terphenyl-d14	*82*		*65 - 121*

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

Lab Sample ID: MB 480-389931/1-A
Matrix: Solid
Analysis Batch: 390077

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389931

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		170	45	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
2,4,6-Trichlorophenol	ND		170	33	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
2,4-Dichlorophenol	ND		170	18	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
2,4-Dimethylphenol	ND		170	40	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
2,4-Dinitrophenol	ND		1600	770	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
2,4-Dinitrotoluene	ND		170	34	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
2,6-Dinitrotoluene	ND		170	20	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
2-Chloronaphthalene	ND		170	27	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
2-Chlorophenol	ND		170	30	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
2-Methylnaphthalene	ND		170	33	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
2-Methylphenol	ND		170	20	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
2-Nitroaniline	ND		320	24	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
2-Nitrophenol	ND		170	47	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
3,3'-Dichlorobenzidine	ND		320	200	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
3-Nitroaniline	ND		320	46	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
4,6-Dinitro-2-methylphenol	ND		320	170	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
4-Bromophenyl phenyl ether	ND		170	23	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
4-Chloro-3-methylphenol	ND		170	41	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
4-Chloroaniline	ND		170	41	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
4-Chlorophenyl phenyl ether	ND		170	21	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
4-Methylphenol	ND		320	20	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
4-Nitroaniline	ND		320	87	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
4-Nitrophenol	ND		320	120	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Acenaphthene	ND		170	24	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Acenaphthylene	ND		170	21	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Acetophenone	ND		170	22	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Anthracene	ND		170	41	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Atrazine	ND		170	58	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Benzaldehyde	ND		170	130	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Benzo[a]anthracene	ND		170	17	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Benzo[a]pyrene	ND		170	24	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Benzo[b]fluoranthene	ND		170	26	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Benzo[g,h,i]perylene	ND		170	18	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Benzo[k]fluoranthene	ND		170	21	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Biphenyl	ND		170	24	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
bis (2-chloroisopropyl) ether	ND		170	33	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Bis(2-chloroethoxy)methane	ND		170	35	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Bis(2-chloroethyl)ether	ND		170	21	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Bis(2-ethylhexyl) phthalate	ND		170	57	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Butyl benzyl phthalate	ND		170	27	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Caprolactam	ND		170	50	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Carbazole	ND		170	20	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Chrysene	ND		170	37	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Dibenz(a,h)anthracene	ND		170	29	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Dibenzofuran	ND		170	20	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Diethyl phthalate	ND		170	21	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Dimethyl phthalate	ND		170	20	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Di-n-butyl phthalate	ND		170	28	ug/Kg		11/30/17 14:24	12/01/17 13:57	1

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

Lab Sample ID: MB 480-389931/1-A
Matrix: Solid
Analysis Batch: 390077

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389931

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate	ND		170	20	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Fluoranthene	ND		170	18	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Fluorene	ND		170	20	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Hexachlorobenzene	ND		170	22	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Hexachlorobutadiene	ND		170	24	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Hexachlorocyclopentadiene	ND		170	22	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Hexachloroethane	ND		170	21	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Indeno[1,2,3-cd]pyrene	ND		170	21	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Isophorone	ND		170	35	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Naphthalene	ND		170	21	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Nitrobenzene	ND		170	19	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
N-Nitrosodi-n-propylamine	ND		170	28	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
N-Nitrosodiphenylamine	ND		170	130	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Pentachlorophenol	ND		320	170	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Phenanthrene	ND		170	24	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Phenol	ND		170	25	ug/Kg		11/30/17 14:24	12/01/17 13:57	1
Pyrene	ND		170	20	ug/Kg		11/30/17 14:24	12/01/17 13:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*80*		*54 - 120*	*11/30/17 14:24*	*12/01/17 13:57*	*1*
2-Fluorobiphenyl	*87*		*60 - 120*	*11/30/17 14:24*	*12/01/17 13:57*	*1*
2-Fluorophenol	*78*		*52 - 120*	*11/30/17 14:24*	*12/01/17 13:57*	*1*
Nitrobenzene-d5	*84*		*53 - 120*	*11/30/17 14:24*	*12/01/17 13:57*	*1*
Phenol-d5	*84*		*54 - 120*	*11/30/17 14:24*	*12/01/17 13:57*	*1*
p-Terphenyl-d14	*95*		*65 - 121*	*11/30/17 14:24*	*12/01/17 13:57*	*1*

Lab Sample ID: LCS 480-389931/2-A
Matrix: Solid
Analysis Batch: 390077

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389931

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-Trichlorophenol	1640	1390		ug/Kg		85	59 - 126
2,4,6-Trichlorophenol	1640	1390		ug/Kg		85	59 - 123
2,4-Dichlorophenol	1640	1340		ug/Kg		82	61 - 120
2,4-Dimethylphenol	1640	1380		ug/Kg		84	59 - 120
2,4-Dinitrophenol	3280	2610		ug/Kg		80	41 - 146
2,4-Dinitrotoluene	1640	1510		ug/Kg		92	63 - 120
2,6-Dinitrotoluene	1640	1440		ug/Kg		88	66 - 120
2-Chloronaphthalene	1640	1340		ug/Kg		82	57 - 120
2-Chlorophenol	1640	1300		ug/Kg		79	53 - 120
2-Methylnaphthalene	1640	1360		ug/Kg		83	59 - 120
2-Methylphenol	1640	1360		ug/Kg		83	54 - 120
2-Nitroaniline	1640	1400		ug/Kg		86	61 - 120
2-Nitrophenol	1640	1350		ug/Kg		83	56 - 120
3,3'-Dichlorobenzidine	3280	2620		ug/Kg		80	54 - 120
3-Nitroaniline	1640	1290		ug/Kg		79	48 - 120
4,6-Dinitro-2-methylphenol	3280	2810		ug/Kg		86	49 - 122
4-Bromophenyl phenyl ether	1640	1470		ug/Kg		90	58 - 120

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

Lab Sample ID: LCS 480-389931/2-A
Matrix: Solid
Analysis Batch: 390077

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389931

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chloro-3-methylphenol	1640	1430		ug/Kg		87	61 - 120
4-Chloroaniline	1640	1250		ug/Kg		77	38 - 120
4-Chlorophenyl phenyl ether	1640	1440		ug/Kg		88	63 - 124
4-Methylphenol	1640	1390		ug/Kg		85	55 - 120
4-Nitroaniline	1640	1470		ug/Kg		89	56 - 120
4-Nitrophenol	3280	2980		ug/Kg		91	43 - 147
Acenaphthene	1640	1370		ug/Kg		84	62 - 120
Acenaphthylene	1640	1360		ug/Kg		83	58 - 121
Acetophenone	1640	1300		ug/Kg		79	54 - 120
Anthracene	1640	1440		ug/Kg		88	62 - 120
Atrazine	3280	3290		ug/Kg		100	60 - 127
Benzaldehyde	3280	1790		ug/Kg		55	10 - 150
Benzo[a]anthracene	1640	1420		ug/Kg		87	65 - 120
Benzo[a]pyrene	1640	1470		ug/Kg		90	64 - 120
Benzo[b]fluoranthene	1640	1460		ug/Kg		89	64 - 120
Benzo[g,h,i]perylene	1640	1450		ug/Kg		88	45 - 145
Benzo[k]fluoranthene	1640	1440		ug/Kg		88	65 - 120
Biphenyl	1640	1330		ug/Kg		81	59 - 120
bis (2-chloroisopropyl) ether	1640	1230		ug/Kg		75	44 - 120
Bis(2-chloroethoxy)methane	1640	1300		ug/Kg		79	55 - 120
Bis(2-chloroethyl)ether	1640	1290		ug/Kg		79	45 - 120
Bis(2-ethylhexyl) phthalate	1640	1440		ug/Kg		88	61 - 133
Butyl benzyl phthalate	1640	1450		ug/Kg		89	61 - 129
Caprolactam	3280	2750		ug/Kg		84	47 - 120
Carbazole	1640	1430		ug/Kg		87	65 - 120
Chrysene	1640	1390		ug/Kg		85	64 - 120
Dibenz(a,h)anthracene	1640	1480		ug/Kg		90	54 - 132
Dibenzofuran	1640	1420		ug/Kg		87	63 - 120
Diethyl phthalate	1640	1460		ug/Kg		89	66 - 120
Dimethyl phthalate	1640	1440		ug/Kg		88	65 - 124
Di-n-butyl phthalate	1640	1500		ug/Kg		92	58 - 130
Di-n-octyl phthalate	1640	1410		ug/Kg		86	57 - 133
Fluoranthene	1640	1470		ug/Kg		89	62 - 120
Fluorene	1640	1440		ug/Kg		88	63 - 120
Hexachlorobenzene	1640	1430		ug/Kg		87	60 - 120
Hexachlorobutadiene	1640	1300		ug/Kg		80	45 - 120
Hexachlorocyclopentadiene	1640	1270		ug/Kg		78	47 - 120
Hexachloroethane	1640	1140		ug/Kg		70	41 - 120
Indeno[1,2,3-cd]pyrene	1640	1440		ug/Kg		88	56 - 134
Isophorone	1640	1340		ug/Kg		81	56 - 120
Naphthalene	1640	1270		ug/Kg		78	55 - 120
Nitrobenzene	1640	1250		ug/Kg		76	54 - 120
N-Nitrosodi-n-propylamine	1640	1390		ug/Kg		85	52 - 120
Pentachlorophenol	3280	2750		ug/Kg		84	51 - 120
Phenanthrene	1640	1390		ug/Kg		85	60 - 120
Phenol	1640	1320		ug/Kg		80	53 - 120
Pyrene	1640	1380		ug/Kg		84	61 - 133

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

Lab Sample ID: LCS 480-389931/2-A
Matrix: Solid
Analysis Batch: 390077

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389931

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*93*		*54 - 120*
2-Fluorobiphenyl	*84*		*60 - 120*
2-Fluorophenol	*77*		*52 - 120*
Nitrobenzene-d5	*82*		*53 - 120*
Phenol-d5	*86*		*54 - 120*
p-Terphenyl-d14	*92*		*65 - 121*

Lab Sample ID: 480-128098-22 MS
Matrix: Solid
Analysis Batch: 390077

Client Sample ID: TP-6 (10-11.5)
Prep Type: Total/NA
Prep Batch: 389931

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-Trichlorophenol	ND		1790	1510		ug/Kg	☼	84	46 - 120
2,4,6-Trichlorophenol	ND		1790	1510		ug/Kg	☼	84	41 - 123
2,4-Dichlorophenol	ND		1790	1430		ug/Kg	☼	80	45 - 120
2,4-Dimethylphenol	ND		1790	1320		ug/Kg	☼	74	52 - 120
2,4-Dinitrophenol	ND		3580	1780	J	ug/Kg	☼	50	41 - 146
2,4-Dinitrotoluene	ND		1790	1670		ug/Kg	☼	93	63 - 125
2,6-Dinitrotoluene	ND		1790	1560		ug/Kg	☼	87	66 - 120
2-Chloronaphthalene	ND		1790	1500		ug/Kg	☼	83	57 - 120
2-Chlorophenol	ND		1790	1390		ug/Kg	☼	78	43 - 120
2-Methylnaphthalene	ND		1790	1420		ug/Kg	☼	79	55 - 120
2-Methylphenol	ND		1790	1440		ug/Kg	☼	81	48 - 120
2-Nitroaniline	ND		1790	1530		ug/Kg	☼	85	61 - 120
2-Nitrophenol	ND		1790	1390		ug/Kg	☼	78	37 - 120
3,3'-Dichlorobenzidine	ND		3580	2620		ug/Kg	☼	73	37 - 126
3-Nitroaniline	ND		1790	1520		ug/Kg	☼	85	48 - 120
4,6-Dinitro-2-methylphenol	ND		3580	2840		ug/Kg	☼	79	23 - 149
4-Bromophenyl phenyl ether	ND		1790	1590		ug/Kg	☼	89	58 - 120
4-Chloro-3-methylphenol	ND		1790	1530		ug/Kg	☼	86	49 - 125
4-Chloroaniline	ND		1790	1250		ug/Kg	☼	70	38 - 120
4-Chlorophenyl phenyl ether	ND		1790	1610		ug/Kg	☼	90	63 - 124
4-Methylphenol	ND		1790	1480		ug/Kg	☼	83	50 - 120
4-Nitroaniline	ND		1790	1540		ug/Kg	☼	86	47 - 120
4-Nitrophenol	ND		3580	3190		ug/Kg	☼	89	31 - 147
Acenaphthene	ND		1790	1510		ug/Kg	☼	84	60 - 120
Acenaphthylene	ND		1790	1500		ug/Kg	☼	84	58 - 121
Acetophenone	ND		1790	1470		ug/Kg	☼	82	47 - 120
Anthracene	ND		1790	1570		ug/Kg	☼	87	62 - 120
Atrazine	ND		3580	3430		ug/Kg	☼	96	60 - 150
Benzaldehyde	ND		3580	1930		ug/Kg	☼	54	10 - 150
Benzo[a]anthracene	ND		1790	1570		ug/Kg	☼	87	65 - 120
Benzo[a]pyrene	ND		1790	1610		ug/Kg	☼	90	64 - 120
Benzo[b]fluoranthene	33	J	1790	1560		ug/Kg	☼	85	64 - 120
Benzo[g,h,i]perylene	ND		1790	1520		ug/Kg	☼	85	45 - 145
Benzo[k]fluoranthene	ND		1790	1560		ug/Kg	☼	87	65 - 120
Biphenyl	ND		1790	1470		ug/Kg	☼	82	58 - 120
bis (2-chloroisopropyl) ether	ND		1790	1340		ug/Kg	☼	75	31 - 120

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

Lab Sample ID: 480-128098-22 MS
Matrix: Solid
Analysis Batch: 390077

Client Sample ID: TP-6 (10-11.5)
Prep Type: Total/NA
Prep Batch: 389931

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-chloroethoxy)methane	ND		1790	1400		ug/Kg	☼	78	52 - 120
Bis(2-chloroethyl)ether	ND		1790	1440		ug/Kg	☼	80	45 - 120
Bis(2-ethylhexyl) phthalate	ND		1790	1550		ug/Kg	☼	87	61 - 133
Butyl benzyl phthalate	ND		1790	1580		ug/Kg	☼	88	61 - 120
Caprolactam	ND		3580	2850		ug/Kg	☼	80	37 - 133
Carbazole	ND		1790	1570		ug/Kg	☼	88	59 - 120
Chrysene	ND		1790	1540		ug/Kg	☼	86	64 - 120
Dibenz(a,h)anthracene	ND		1790	1600		ug/Kg	☼	89	54 - 132
Dibenzofuran	ND		1790	1580		ug/Kg	☼	88	62 - 120
Diethyl phthalate	ND		1790	1570		ug/Kg	☼	87	66 - 120
Dimethyl phthalate	ND		1790	1550		ug/Kg	☼	86	65 - 124
Di-n-butyl phthalate	ND		1790	1600		ug/Kg	☼	89	58 - 130
Di-n-octyl phthalate	ND		1790	1550		ug/Kg	☼	86	57 - 133
Fluoranthene	ND		1790	1630		ug/Kg	☼	91	62 - 120
Fluorene	ND		1790	1590		ug/Kg	☼	89	63 - 120
Hexachlorobenzene	ND		1790	1590		ug/Kg	☼	88	60 - 120
Hexachlorobutadiene	ND		1790	1330		ug/Kg	☼	74	45 - 120
Hexachlorocyclopentadiene	ND		1790	1400		ug/Kg	☼	78	31 - 120
Hexachloroethane	ND		1790	1250		ug/Kg	☼	70	21 - 120
Indeno[1,2,3-cd]pyrene	ND		1790	1540		ug/Kg	☼	86	56 - 134
Isophorone	ND		1790	1450		ug/Kg	☼	81	56 - 120
Naphthalene	ND		1790	1370		ug/Kg	☼	76	46 - 120
Nitrobenzene	ND		1790	1370		ug/Kg	☼	76	49 - 120
N-Nitrosodi-n-propylamine	ND		1790	1480		ug/Kg	☼	82	46 - 120
Pentachlorophenol	ND		3580	2610		ug/Kg	☼	73	25 - 136
Phenanthrene	ND		1790	1570		ug/Kg	☼	88	60 - 122
Phenol	ND		1790	1420		ug/Kg	☼	79	50 - 120
Pyrene	ND		1790	1560		ug/Kg	☼	87	61 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol	*94*		*54 - 120*
2-Fluorobiphenyl	*85*		*60 - 120*
2-Fluorophenol	*80*		*52 - 120*
Nitrobenzene-d5	*84*		*53 - 120*
Phenol-d5	*83*		*54 - 120*
p-Terphenyl-d14	*94*		*65 - 121*

Lab Sample ID: 480-128098-22 MSD
Matrix: Solid
Analysis Batch: 390077

Client Sample ID: TP-6 (10-11.5)
Prep Type: Total/NA
Prep Batch: 389931

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,5-Trichlorophenol	ND		1770	1480		ug/Kg	☼	84	46 - 120	2	18
2,4,6-Trichlorophenol	ND		1770	1420		ug/Kg	☼	80	41 - 123	6	19
2,4-Dichlorophenol	ND		1770	1390		ug/Kg	☼	78	45 - 120	3	19
2,4-Dimethylphenol	ND		1770	1260		ug/Kg	☼	71	52 - 120	5	42
2,4-Dinitrophenol	ND		3550	1900		ug/Kg	☼	54	41 - 146	6	22
2,4-Dinitrotoluene	ND		1770	1620		ug/Kg	☼	91	63 - 125	3	20

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

Lab Sample ID: 480-128098-22 MSD
Matrix: Solid
Analysis Batch: 390077

Client Sample ID: TP-6 (10-11.5)
Prep Type: Total/NA
Prep Batch: 389931

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,6-Dinitrotoluene	ND		1770	1530		ug/Kg	☼	86	66 - 120	2	15
2-Chloronaphthalene	ND		1770	1450		ug/Kg	☼	82	57 - 120	3	21
2-Chlorophenol	ND		1770	1330		ug/Kg	☼	75	43 - 120	5	25
2-Methylnaphthalene	ND		1770	1380		ug/Kg	☼	78	55 - 120	3	21
2-Methylphenol	ND		1770	1390		ug/Kg	☼	78	48 - 120	4	27
2-Nitroaniline	ND		1770	1470		ug/Kg	☼	83	61 - 120	4	15
2-Nitrophenol	ND		1770	1390		ug/Kg	☼	78	37 - 120	0	18
3,3'-Dichlorobenzidine	ND		3550	2510		ug/Kg	☼	71	37 - 126	4	25
3-Nitroaniline	ND		1770	1430		ug/Kg	☼	81	48 - 120	6	19
4,6-Dinitro-2-methylphenol	ND		3550	2870		ug/Kg	☼	81	23 - 149	1	15
4-Bromophenyl phenyl ether	ND		1770	1550		ug/Kg	☼	87	58 - 120	2	15
4-Chloro-3-methylphenol	ND		1770	1490		ug/Kg	☼	84	49 - 125	3	27
4-Chloroaniline	ND		1770	1210		ug/Kg	☼	68	38 - 120	3	22
4-Chlorophenyl phenyl ether	ND		1770	1550		ug/Kg	☼	88	63 - 124	3	16
4-Methylphenol	ND		1770	1440		ug/Kg	☼	81	50 - 120	3	24
4-Nitroaniline	ND		1770	1520		ug/Kg	☼	85	47 - 120	1	24
4-Nitrophenol	ND		3550	3140		ug/Kg	☼	88	31 - 147	2	25
Acenaphthene	ND		1770	1510		ug/Kg	☼	85	60 - 120	0	35
Acenaphthylene	ND		1770	1410		ug/Kg	☼	79	58 - 121	6	18
Acetophenone	ND		1770	1370		ug/Kg	☼	77	47 - 120	7	20
Anthracene	ND		1770	1560		ug/Kg	☼	88	62 - 120	0	15
Atrazine	ND		3550	3510		ug/Kg	☼	99	60 - 150	2	20
Benzaldehyde	ND		3550	1790		ug/Kg	☼	51	10 - 150	7	20
Benzo[a]anthracene	ND		1770	1530		ug/Kg	☼	86	65 - 120	2	15
Benzo[a]pyrene	ND		1770	1550		ug/Kg	☼	87	64 - 120	4	15
Benzo[b]fluoranthene	33	J	1770	1670		ug/Kg	☼	92	64 - 120	7	15
Benzo[g,h,i]perylene	ND		1770	1490		ug/Kg	☼	84	45 - 145	2	15
Benzo[k]fluoranthene	ND		1770	1460		ug/Kg	☼	82	65 - 120	7	22
Biphenyl	ND		1770	1430		ug/Kg	☼	81	58 - 120	3	20
bis (2-chloroisopropyl) ether	ND		1770	1280		ug/Kg	☼	72	31 - 120	4	24
Bis(2-chloroethoxy)methane	ND		1770	1360		ug/Kg	☼	77	52 - 120	3	17
Bis(2-chloroethyl)ether	ND		1770	1290		ug/Kg	☼	73	45 - 120	11	21
Bis(2-ethylhexyl) phthalate	ND		1770	1560		ug/Kg	☼	88	61 - 133	1	15
Butyl benzyl phthalate	ND		1770	1530		ug/Kg	☼	86	61 - 120	3	16
Caprolactam	ND		3550	2810		ug/Kg	☼	79	37 - 133	2	20
Carbazole	ND		1770	1590		ug/Kg	☼	90	59 - 120	1	20
Chrysene	ND		1770	1500		ug/Kg	☼	85	64 - 120	2	15
Dibenz(a,h)anthracene	ND		1770	1570		ug/Kg	☼	88	54 - 132	2	15
Dibenzofuran	ND		1770	1520		ug/Kg	☼	85	62 - 120	4	15
Diethyl phthalate	ND		1770	1560		ug/Kg	☼	88	66 - 120	1	15
Dimethyl phthalate	ND		1770	1560		ug/Kg	☼	88	65 - 124	1	15
Di-n-butyl phthalate	ND		1770	1640		ug/Kg	☼	92	58 - 130	2	15
Di-n-octyl phthalate	ND		1770	1530		ug/Kg	☼	86	57 - 133	1	16
Fluoranthene	ND		1770	1660		ug/Kg	☼	93	62 - 120	2	15
Fluorene	ND		1770	1570		ug/Kg	☼	88	63 - 120	1	15
Hexachlorobenzene	ND		1770	1540		ug/Kg	☼	87	60 - 120	3	15
Hexachlorobutadiene	ND		1770	1340		ug/Kg	☼	75	45 - 120	1	44
Hexachlorocyclopentadiene	ND		1770	1340		ug/Kg	☼	75	31 - 120	4	49

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

Lab Sample ID: 480-128098-22 MSD
Matrix: Solid
Analysis Batch: 390077

Client Sample ID: TP-6 (10-11.5)
Prep Type: Total/NA
Prep Batch: 389931

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hexachloroethane	ND		1770	1140		ug/Kg	☼	64	21 - 120	9	46
Indeno[1,2,3-cd]pyrene	ND		1770	1530		ug/Kg	☼	86	56 - 134	1	15
Isophorone	ND		1770	1380		ug/Kg	☼	78	56 - 120	5	17
Naphthalene	ND		1770	1310		ug/Kg	☼	74	46 - 120	4	29
Nitrobenzene	ND		1770	1300		ug/Kg	☼	73	49 - 120	5	24
N-Nitrosodi-n-propylamine	ND		1770	1380		ug/Kg	☼	78	46 - 120	7	31
Pentachlorophenol	ND		3550	2760		ug/Kg	☼	78	25 - 136	6	35
Phenanthrene	ND		1770	1580		ug/Kg	☼	89	60 - 122	1	15
Phenol	ND		1770	1390		ug/Kg	☼	78	50 - 120	2	35
Pyrene	ND		1770	1590		ug/Kg	☼	89	61 - 133	2	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*96*		*54 - 120*
2-Fluorobiphenyl	*84*		*60 - 120*
2-Fluorophenol	*76*		*52 - 120*
Nitrobenzene-d5	*78*		*53 - 120*
Phenol-d5	*82*		*54 - 120*
p-Terphenyl-d14	*91*		*65 - 121*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-390026/1-A
Matrix: Solid
Analysis Batch: 390176

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390026

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.6	0.32	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
4,4'-DDE	ND		1.6	0.34	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
4,4'-DDT	ND		1.6	0.38	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
Aldrin	ND		1.6	0.40	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
alpha-BHC	0.457	J	1.6	0.29	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
alpha-Chlordane	ND		1.6	0.81	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
beta-BHC	0.360	J	1.6	0.29	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
delta-BHC	0.504	J	1.6	0.30	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
Dieldrin	ND		1.6	0.39	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
Endosulfan I	ND		1.6	0.31	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
Endosulfan II	ND		1.6	0.29	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
Endosulfan sulfate	ND		1.6	0.30	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
Endrin	ND		1.6	0.32	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
Endrin aldehyde	ND		1.6	0.42	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
Endrin ketone	ND		1.6	0.40	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
gamma-BHC (Lindane)	ND		1.6	0.30	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
gamma-Chlordane	ND		1.6	0.52	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
Heptachlor	ND		1.6	0.35	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
Heptachlor epoxide	ND		1.6	0.42	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
Methoxychlor	ND		1.6	0.33	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
Toxaphene	ND		16	9.5	ug/Kg		12/01/17 09:11	12/02/17 14:52	1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 480-390026/1-A
Matrix: Solid
Analysis Batch: 390176

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390026

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	129	X	45 - 120	12/01/17 09:11	12/02/17 14:52	1
DCB Decachlorobiphenyl	110		45 - 120	12/01/17 09:11	12/02/17 14:52	1
Tetrachloro-m-xylene	89		30 - 124	12/01/17 09:11	12/02/17 14:52	1
Tetrachloro-m-xylene	71		30 - 124	12/01/17 09:11	12/02/17 14:52	1

Lab Sample ID: LCS 480-390026/2-A
Matrix: Solid
Analysis Batch: 390176

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390026

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	16.3	13.7		ug/Kg		84	56 - 120
4,4'-DDE	16.3	12.8		ug/Kg		79	44 - 120
4,4'-DDT	16.3	13.9		ug/Kg		85	38 - 120
Aldrin	16.3	11.6		ug/Kg		71	38 - 120
alpha-BHC	16.3	10.7		ug/Kg		66	39 - 120
alpha-Chlordane	16.3	12.8		ug/Kg		79	47 - 120
beta-BHC	16.3	11.3		ug/Kg		69	40 - 120
delta-BHC	16.3	11.9		ug/Kg		73	45 - 120
Dieldrin	16.3	13.8		ug/Kg		85	58 - 120
Endosulfan I	16.3	13.7		ug/Kg		84	49 - 120
Endosulfan II	16.3	13.7		ug/Kg		84	55 - 120
Endosulfan sulfate	16.3	13.0		ug/Kg		80	49 - 124
Endrin	16.3	13.6		ug/Kg		84	58 - 120
Endrin aldehyde	16.3	12.1		ug/Kg		74	37 - 121
Endrin ketone	16.3	14.0		ug/Kg		86	46 - 123
gamma-BHC (Lindane)	16.3	11.6		ug/Kg		71	50 - 120
gamma-Chlordane	16.3	12.7		ug/Kg		78	48 - 120
Heptachlor	16.3	12.9		ug/Kg		79	50 - 120
Heptachlor epoxide	16.3	13.0		ug/Kg		80	50 - 120
Methoxychlor	16.3	14.7		ug/Kg		90	58 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	114		45 - 120
DCB Decachlorobiphenyl	104		45 - 120
Tetrachloro-m-xylene	80		30 - 124
Tetrachloro-m-xylene	63		30 - 124

Lab Sample ID: 480-128098-7 MS
Matrix: Solid
Analysis Batch: 390176

Client Sample ID: SS-7
Prep Type: Total/NA
Prep Batch: 390026

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	ND	F1	19.1	36.2	J F1	ug/Kg	☼	189	37 - 126
4,4'-DDE	ND		19.1	ND		ug/Kg	☼	NC	34 - 120
4,4'-DDT	42	J	19.1	53.1	J	ug/Kg	☼	57	43 - 123
Aldrin	ND		19.1	29.9	J	ug/Kg	☼	NC	37 - 125
alpha-BHC	27	J B	19.1	36.2	J	ug/Kg	☼	50	39 - 120
alpha-Chlordane	ND		19.1	ND		ug/Kg	☼	NC	35 - 120

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 480-128098-7 MS
Matrix: Solid
Analysis Batch: 390176

Client Sample ID: SS-7
Prep Type: Total/NA
Prep Batch: 390026

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
beta-BHC	ND	F1	19.1	ND	F1	ug/Kg	☼	0	36 - 120
delta-BHC	ND	F1	19.1	39.7	J F1	ug/Kg	☼	208	34 - 120
Dieldrin	ND		19.1	ND		ug/Kg	☼	NC	45 - 120
Endosulfan I	ND	F1	19.1	ND	F1	ug/Kg	☼	0	39 - 120
Endosulfan II	ND	F1	19.1	ND	F1	ug/Kg	☼	0	34 - 126
Endosulfan sulfate	ND	F1	19.1	ND	F1	ug/Kg	☼	0	27 - 130
Endrin	ND	F1	19.1	27.4	J F1	ug/Kg	☼	144	47 - 121
Endrin aldehyde	ND		19.1	ND		ug/Kg	☼	NC	33 - 123
Endrin ketone	ND		19.1	45.4	J	ug/Kg	☼	67	43 - 126
gamma-BHC (Lindane)	37	J	19.1	50.0	J	ug/Kg	☼	67	50 - 120
gamma-Chlordane	ND		19.1	ND		ug/Kg	☼	NC	31 - 120
Heptachlor	ND		19.1	ND		ug/Kg	☼	NC	42 - 120
Heptachlor epoxide	ND		19.1	ND		ug/Kg	☼	NC	40 - 120
Methoxychlor	ND	F1	19.1	114	F1	ug/Kg	☼	597	44 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*0*	*X*	*45 - 120*
DCB Decachlorobiphenyl	*0*	*X*	*45 - 120*
Tetrachloro-m-xylene	*0*	*X*	*30 - 124*
Tetrachloro-m-xylene	*0*	*X*	*30 - 124*

Lab Sample ID: 480-128098-7 MSD
Matrix: Solid
Analysis Batch: 390176

Client Sample ID: SS-7
Prep Type: Total/NA
Prep Batch: 390026

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	ND	F1	19.3	ND	F1	ug/Kg	☼	0	37 - 126	NC	21
4,4'-DDE	ND		19.3	ND		ug/Kg	☼	NC	34 - 120	NC	18
4,4'-DDT	42	J	19.3	53.9	J	ug/Kg	☼	61	43 - 123	2	25
Aldrin	ND		19.3	30.3	J	ug/Kg	☼	NC	37 - 125	1	12
alpha-BHC	27	J B	19.3	36.8	J	ug/Kg	☼	52	39 - 120	2	15
alpha-Chlordane	ND		19.3	ND		ug/Kg	☼	NC	35 - 120	NC	23
beta-BHC	ND	F1	19.3	ND	F1	ug/Kg	☼	0	36 - 120	NC	19
delta-BHC	ND	F1	19.3	40.4	J F1	ug/Kg	☼	209	34 - 120	2	14
Dieldrin	ND		19.3	ND		ug/Kg	☼	NC	45 - 120	NC	12
Endosulfan I	ND	F1	19.3	ND	F1	ug/Kg	☼	0	39 - 120	NC	18
Endosulfan II	ND	F1	19.3	ND	F1	ug/Kg	☼	0	34 - 126	NC	26
Endosulfan sulfate	ND	F1	19.3	ND	F1	ug/Kg	☼	0	27 - 130	NC	35
Endrin	ND	F1	19.3	ND	F1	ug/Kg	☼	0	47 - 121	NC	20
Endrin aldehyde	ND		19.3	ND		ug/Kg	☼	NC	33 - 123	NC	47
Endrin ketone	ND		19.3	48.4	J	ug/Kg	☼	82	43 - 126	6	37
gamma-BHC (Lindane)	37	J	19.3	47.6	J	ug/Kg	☼	54	50 - 120	5	12
gamma-Chlordane	ND		19.3	ND		ug/Kg	☼	NC	31 - 120	NC	15
Heptachlor	ND		19.3	ND		ug/Kg	☼	NC	42 - 120	NC	22
Heptachlor epoxide	ND		19.3	ND		ug/Kg	☼	NC	40 - 120	NC	15
Methoxychlor	ND	F1	19.3	125		ug/Kg	☼	NC	44 - 150	10	24

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 480-128098-7 MSD
Matrix: Solid
Analysis Batch: 390176

Client Sample ID: SS-7
Prep Type: Total/NA
Prep Batch: 390026

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	0	X	45 - 120
DCB Decachlorobiphenyl	0	X	45 - 120
Tetrachloro-m-xylene	0	X	30 - 124
Tetrachloro-m-xylene	0	X	30 - 124

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

Lab Sample ID: MB 480-389864/1-A
Matrix: Solid
Analysis Batch: 390069

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389864

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.24	0.046	mg/Kg		11/30/17 11:28	12/01/17 13:09	1
PCB-1221	ND		0.24	0.046	mg/Kg		11/30/17 11:28	12/01/17 13:09	1
PCB-1232	ND		0.24	0.046	mg/Kg		11/30/17 11:28	12/01/17 13:09	1
PCB-1242	ND		0.24	0.046	mg/Kg		11/30/17 11:28	12/01/17 13:09	1
PCB-1248	ND		0.24	0.046	mg/Kg		11/30/17 11:28	12/01/17 13:09	1
PCB-1254	ND		0.24	0.11	mg/Kg		11/30/17 11:28	12/01/17 13:09	1
PCB-1260	ND		0.24	0.11	mg/Kg		11/30/17 11:28	12/01/17 13:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	101		60 - 154	11/30/17 11:28	12/01/17 13:09	1
Tetrachloro-m-xylene	89		60 - 154	11/30/17 11:28	12/01/17 13:09	1
DCB Decachlorobiphenyl	86		65 - 174	11/30/17 11:28	12/01/17 13:09	1
DCB Decachlorobiphenyl	82		65 - 174	11/30/17 11:28	12/01/17 13:09	1

Lab Sample ID: LCS 480-389864/2-A
Matrix: Solid
Analysis Batch: 390069

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389864

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016			2.45	3.29		mg/Kg		134	51 - 185		
PCB-1260			2.45	3.13		mg/Kg		128	61 - 184		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	139		60 - 154
Tetrachloro-m-xylene	119		60 - 154
DCB Decachlorobiphenyl	110		65 - 174
DCB Decachlorobiphenyl	110		65 - 174

Lab Sample ID: 480-128098-7 MS
Matrix: Solid
Analysis Batch: 390069

Client Sample ID: SS-7
Prep Type: Total/NA
Prep Batch: 389864

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016	ND		2.57	2.32		mg/Kg	☼	90	50 - 177		
PCB-1260	ND		2.57	2.11		mg/Kg	☼	82	33 - 200		

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

Lab Sample ID: 480-128098-7 MS
Matrix: Solid
Analysis Batch: 390069

Client Sample ID: SS-7
Prep Type: Total/NA
Prep Batch: 389864

Surrogate	MS %Recovery	MS Qualifier	Limits
Tetrachloro-m-xylene	*110*		*60 - 154*
Tetrachloro-m-xylene	*97*		*60 - 154*
DCB Decachlorobiphenyl	*85*		*65 - 174*
DCB Decachlorobiphenyl	*86*		*65 - 174*

Lab Sample ID: 480-128098-7 MSD
Matrix: Solid
Analysis Batch: 390069

Client Sample ID: SS-7
Prep Type: Total/NA
Prep Batch: 389864

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	ND		2.75	2.39		mg/Kg	☼	87	50 - 177	3	50
PCB-1260	ND		2.75	2.28		mg/Kg	☼	83	33 - 200	8	50

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Tetrachloro-m-xylene	*109*		*60 - 154*
Tetrachloro-m-xylene	*96*		*60 - 154*
DCB Decachlorobiphenyl	*85*		*65 - 174*
DCB Decachlorobiphenyl	*92*		*65 - 174*

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 480-389934/1-A
Matrix: Solid
Analysis Batch: 390371

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389934

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		17	5.3	ug/Kg		11/30/17 14:30	12/04/17 17:24	1
Silvex (2,4,5-TP)	ND		17	6.0	ug/Kg		11/30/17 14:30	12/04/17 17:24	1
2,4-D	ND		17	10	ug/Kg		11/30/17 14:30	12/04/17 17:24	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	*120*		*28 - 129*	*11/30/17 14:30*	*12/04/17 17:24*	*1*
2,4-Dichlorophenylacetic acid	*144*	*X*	*28 - 129*	*11/30/17 14:30*	*12/04/17 17:24*	*1*

Lab Sample ID: LCS 480-389934/2-A
Matrix: Solid
Analysis Batch: 390371

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389934

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-T	66.6	76.9		ug/Kg		116	41 - 120
Silvex (2,4,5-TP)	66.6	64.6		ug/Kg		97	39 - 125
2,4-D	66.6	65.3		ug/Kg		98	40 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4-Dichlorophenylacetic acid	*81*		*28 - 129*
2,4-Dichlorophenylacetic acid	*112*		*28 - 129*

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: 480-128098-7 MS
Matrix: Solid
Analysis Batch: 390371

Client Sample ID: SS-7
Prep Type: Total/NA
Prep Batch: 389934

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-T	ND		76.8	73.5		ug/Kg	☼	96	29 - 123
Silvex (2,4,5-TP)	ND		76.8	60.6		ug/Kg	☼	79	22 - 140
2,4-D	ND		76.8	64.6		ug/Kg	☼	84	32 - 115

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*66*		*28 - 129*
2,4-Dichlorophenylacetic acid	*72*		*28 - 129*

Lab Sample ID: 480-128098-7 MSD
Matrix: Solid
Analysis Batch: 390371

Client Sample ID: SS-7
Prep Type: Total/NA
Prep Batch: 389934

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,5-T	ND		77.2	77.9		ug/Kg	☼	101	29 - 123	6	50
Silvex (2,4,5-TP)	ND		77.2	63.5		ug/Kg	☼	82	22 - 140	5	50
2,4-D	ND		77.2	74.9		ug/Kg	☼	97	32 - 115	15	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*118*		*28 - 129*
2,4-Dichlorophenylacetic acid	*148*	*X*	*28 - 129*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-389910/1-A
Matrix: Solid
Analysis Batch: 390704

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389910

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		10.1	4.4	mg/Kg		12/01/17 07:37	12/06/17 00:20	1
Antimony	ND		15.1	0.40	mg/Kg		12/01/17 07:37	12/06/17 00:20	1
Arsenic	ND		2.0	0.40	mg/Kg		12/01/17 07:37	12/06/17 00:20	1
Barium	ND		0.50	0.11	mg/Kg		12/01/17 07:37	12/06/17 00:20	1
Beryllium	ND		0.20	0.028	mg/Kg		12/01/17 07:37	12/06/17 00:20	1
Cadmium	ND		0.20	0.030	mg/Kg		12/01/17 07:37	12/06/17 00:20	1
Calcium	6.79	J	50.3	3.3	mg/Kg		12/01/17 07:37	12/06/17 00:20	1
Chromium	ND		0.50	0.20	mg/Kg		12/01/17 07:37	12/06/17 00:20	1
Cobalt	ND		0.50	0.050	mg/Kg		12/01/17 07:37	12/06/17 00:20	1
Copper	ND		1.0	0.21	mg/Kg		12/01/17 07:37	12/06/17 00:20	1
Iron	ND		10.1	3.5	mg/Kg		12/01/17 07:37	12/06/17 00:20	1
Lead	ND		1.0	0.24	mg/Kg		12/01/17 07:37	12/06/17 00:20	1
Magnesium	ND		20.1	0.93	mg/Kg		12/01/17 07:37	12/06/17 00:20	1
Manganese	ND		0.20	0.032	mg/Kg		12/01/17 07:37	12/06/17 00:20	1
Nickel	ND		5.0	0.23	mg/Kg		12/01/17 07:37	12/06/17 00:20	1
Potassium	ND		30.2	20.1	mg/Kg		12/01/17 07:37	12/06/17 00:20	1
Selenium	ND		4.0	0.40	mg/Kg		12/01/17 07:37	12/06/17 00:20	1
Silver	ND		0.60	0.20	mg/Kg		12/01/17 07:37	12/06/17 00:20	1
Sodium	ND		141	13.1	mg/Kg		12/01/17 07:37	12/06/17 00:20	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 480-389910/1-A
Matrix: Solid
Analysis Batch: 390704

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389910

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	ND		6.0	0.30	mg/Kg		12/01/17 07:37	12/06/17 00:20	1
Vanadium	ND		0.50	0.11	mg/Kg		12/01/17 07:37	12/06/17 00:20	1
Zinc	ND		2.0	0.64	mg/Kg		12/01/17 07:37	12/06/17 00:20	1

Lab Sample ID: LCSSRM 480-389910/2-A
Matrix: Solid
Analysis Batch: 390704

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389910

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	8090	8795		mg/Kg		108.7	39.6 - 160.7
Antimony	99.3	60.27		mg/Kg		60.7	21.6 - 256.8
Arsenic	100	85.93		mg/Kg		85.9	69.6 - 131.0
Barium	217	183.4		mg/Kg		84.5	73.7 - 128.1
Beryllium	147	122.5		mg/Kg		83.3	75.5 - 125.9
Cadmium	83.7	69.30		mg/Kg		82.8	73.2 - 131.4
Calcium	6010	5110		mg/Kg		85.0	73.7 - 126.3
Chromium	107	95.51		mg/Kg		89.3	69.4 - 134.6
Cobalt	123	126.8		mg/Kg		103.1	74.3 - 130.1
Copper	166	147.7		mg/Kg		89.0	75.3 - 128.3
Iron	14600	14840		mg/Kg		101.6	36.1 - 163.7
Lead	88.4	92.30		mg/Kg		104.4	69.9 - 130.1
Magnesium	2930	2651		mg/Kg		90.5	65.9 - 134.5
Manganese	311	269.6		mg/Kg		86.7	74.9 - 125.4
Nickel	49.8	52.07		mg/Kg		104.6	69.1 - 135.1
Potassium	2620	2682		mg/Kg		102.4	61.1 - 138.9
Selenium	87.7	75.77		mg/Kg		86.4	64.1 - 135.7
Silver	41.4	34.45		mg/Kg		83.2	65.9 - 133.8
Sodium	252	243.4		mg/Kg		96.6	32.9 - 167.5
Thallium	58.1	61.41		mg/Kg		105.7	63.9 - 136.3
Vanadium	140	129.6		mg/Kg		92.6	69.9 - 129.3
Zinc	145	124.5		mg/Kg		85.8	67.7 - 132.4

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-128098-7 MS
Matrix: Solid
Analysis Batch: 390704

Client Sample ID: SS-7
Prep Type: Total/NA
Prep Batch: 389910

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	15600	F2	2410	20630	4	mg/Kg	☼	210	75 - 125
Antimony	0.76	J F1	48.2	26.88	F1	mg/Kg	☼	54	75 - 125
Arsenic	5.6		48.2	46.68		mg/Kg	☼	85	75 - 125
Barium	166	F2 F1	48.2	180.1	F1	mg/Kg	☼	29	75 - 125
Beryllium	1.1		48.2	40.10		mg/Kg	☼	81	75 - 125
Cadmium	0.56		48.2	41.97		mg/Kg	☼	86	75 - 125
Calcium	51400	F2 B	2410	64780	4	mg/Kg	☼	556	75 - 125
Chromium	21.8		48.2	64.91		mg/Kg	☼	89	75 - 125
Cobalt	6.0		48.2	54.04		mg/Kg	☼	100	75 - 125
Copper	49.2		48.2	107.6		mg/Kg	☼	121	75 - 125
Iron	17400		2410	19110	4	mg/Kg	☼	72	75 - 125
Lead	188	F2 F1	48.2	5438	F1	mg/Kg	☼	10891	75 - 125
Magnesium	10600		2410	14520	4	mg/Kg	☼	164	75 - 125
Manganese	930	F2	48.2	638.4	4	mg/Kg	☼	-605	75 - 125
Nickel	18.2		48.2	68.46		mg/Kg	☼	104	75 - 125
Potassium	3400	F1	2410	6458	F1	mg/Kg	☼	127	75 - 125
Selenium	0.57	J	48.2	42.34		mg/Kg	☼	87	75 - 125
Silver	ND		12.1	11.08		mg/Kg	☼	92	75 - 125
Sodium	322		2410	2545		mg/Kg	☼	92	75 - 125
Thallium	ND		48.2	47.37		mg/Kg	☼	98	75 - 125
Vanadium	28.7		48.2	72.92		mg/Kg	☼	92	75 - 125
Zinc	166	F1	48.2	192.6	F1	mg/Kg	☼	55	75 - 125

Lab Sample ID: 480-128098-7 MSD
Matrix: Solid
Analysis Batch: 390704

Client Sample ID: SS-7
Prep Type: Total/NA
Prep Batch: 389910

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	15600	F2	2410	14570	4 F2	mg/Kg	☼	-41	75 - 125	34	20
Antimony	0.76	J F1	48.2	31.29	F1	mg/Kg	☼	63	75 - 125	15	20
Arsenic	5.6		48.2	46.45		mg/Kg	☼	85	75 - 125	0	20
Barium	166	F2 F1	48.2	141.8	F2 F1	mg/Kg	☼	-51	75 - 125	24	20
Beryllium	1.1		48.2	40.26		mg/Kg	☼	81	75 - 125	0	20
Cadmium	0.56		48.2	41.97		mg/Kg	☼	86	75 - 125	0	20
Calcium	51400	F2 B	2410	47140	4 F2	mg/Kg	☼	-176	75 - 125	32	20
Chromium	21.8		48.2	66.17		mg/Kg	☼	92	75 - 125	2	20
Cobalt	6.0		48.2	50.39		mg/Kg	☼	92	75 - 125	7	20
Copper	49.2		48.2	87.65		mg/Kg	☼	80	75 - 125	20	20
Iron	17400		2410	16470	4	mg/Kg	☼	-38	75 - 125	15	20
Lead	188	F2 F1	48.2	161.1	F2 F1	mg/Kg	☼	-55	75 - 125	188	20
Magnesium	10600		2410	13800	4	mg/Kg	☼	134	75 - 125	5	20
Manganese	930	F2	48.2	456.2	4 F2	mg/Kg	☼	-984	75 - 125	33	20
Nickel	18.2		48.2	61.30		mg/Kg	☼	90	75 - 125	11	20
Potassium	3400	F1	2410	5588		mg/Kg	☼	91	75 - 125	14	20
Selenium	0.57	J	48.2	42.37		mg/Kg	☼	87	75 - 125	0	20
Silver	ND		12.0	11.02		mg/Kg	☼	92	75 - 125	0	20
Sodium	322		2410	2331		mg/Kg	☼	83	75 - 125	9	20
Thallium	ND		48.2	45.00		mg/Kg	☼	93	75 - 125	5	20

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-128098-7 MSD
Matrix: Solid
Analysis Batch: 390704

Client Sample ID: SS-7
Prep Type: Total/NA
Prep Batch: 389910

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vanadium	28.7		48.2	69.66		mg/Kg	☼	85	75 - 125	5	20
Zinc	166	F1	48.2	189.6	F1	mg/Kg	☼	49	75 - 125	2	20

Lab Sample ID: 480-128098-22 MS
Matrix: Solid
Analysis Batch: 390701

Client Sample ID: TP-6 (10-11.5)
Prep Type: Total/NA
Prep Batch: 389916

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	3480	F1	2280	6817	F1	mg/Kg	☼	147	75 - 125
Antimony	0.55	J	45.5	36.92		mg/Kg	☼	80	75 - 125
Arsenic	3.0		45.5	44.58		mg/Kg	☼	91	75 - 125
Barium	17.0		45.5	62.26		mg/Kg	☼	99	75 - 125
Beryllium	0.17	J	45.5	39.90		mg/Kg	☼	87	75 - 125
Cadmium	0.050	J	45.5	41.27		mg/Kg	☼	91	75 - 125
Calcium	2450	F2 B F1	2280	6843	F1	mg/Kg	☼	193	75 - 125
Chromium	8.1		45.5	50.15		mg/Kg	☼	92	75 - 125
Cobalt	1.8		45.5	44.77		mg/Kg	☼	94	75 - 125
Copper	6.0		45.5	49.12		mg/Kg	☼	95	75 - 125
Iron	7060	F1 B	2280	8657	F1	mg/Kg	☼	70	75 - 125
Lead	16.0		45.5	57.52		mg/Kg	☼	91	75 - 125
Magnesium	1160	F2 F1	2280	4459	F1	mg/Kg	☼	145	75 - 125
Manganese	189	B	45.5	199.0	4	mg/Kg	☼	22	75 - 125
Nickel	4.6	J	45.5	49.35		mg/Kg	☼	98	75 - 125
Potassium	543		2280	3174		mg/Kg	☼	116	75 - 125
Selenium	0.50	J	45.5	42.38		mg/Kg	☼	92	75 - 125
Silver	ND		11.4	10.66		mg/Kg	☼	94	75 - 125
Sodium	68.4	J	2280	2110		mg/Kg	☼	90	75 - 125
Thallium	ND		45.5	43.91		mg/Kg	☼	96	75 - 125
Vanadium	9.8		45.5	55.88		mg/Kg	☼	101	75 - 125
Zinc	22.9		45.5	62.32		mg/Kg	☼	87	75 - 125

Lab Sample ID: 480-128098-22 MSD
Matrix: Solid
Analysis Batch: 390701

Client Sample ID: TP-6 (10-11.5)
Prep Type: Total/NA
Prep Batch: 389916

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	3480	F1	1960	6830	F1	mg/Kg	☼	171	75 - 125	0	20
Antimony	0.55	J	39.2	31.36		mg/Kg	☼	78	75 - 125	16	20
Arsenic	3.0		39.2	40.16		mg/Kg	☼	95	75 - 125	10	20
Barium	17.0		39.2	59.64		mg/Kg	☼	109	75 - 125	4	20
Beryllium	0.17	J	39.2	35.46		mg/Kg	☼	90	75 - 125	12	20
Cadmium	0.050	J	39.2	36.47		mg/Kg	☼	93	75 - 125	12	20
Calcium	2450	F2 B F1	1960	4858	F4	mg/Kg	☼	122	75 - 125	34	20
Chromium	8.1		39.2	45.55		mg/Kg	☼	95	75 - 125	10	20
Cobalt	1.8		39.2	40.09		mg/Kg	☼	98	75 - 125	11	20
Copper	6.0		39.2	44.13		mg/Kg	☼	97	75 - 125	11	20
Iron	7060	F1 B	1960	8797		mg/Kg	☼	89	75 - 125	2	20
Lead	16.0		39.2	53.89		mg/Kg	☼	96	75 - 125	7	20
Magnesium	1160	F2 F1	1960	3353	F4	mg/Kg	☼	112	75 - 125	28	20

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-128098-22 MSD — **Client Sample ID: TP-6 (10-11.5)**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 390701 — **Prep Batch: 389916**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Manganese	189	B	39.2	186.6	4	mg/Kg	☼	-6	75 - 125	6	20
Nickel	4.6	J	39.2	44.57		mg/Kg	☼	102	75 - 125	10	20
Potassium	543		1960	2916		mg/Kg	☼	121	75 - 125	8	20
Selenium	0.50	J	39.2	37.65		mg/Kg	☼	95	75 - 125	12	20
Silver	ND		9.81	9.43		mg/Kg	☼	96	75 - 125	12	20
Sodium	68.4	J	1970	1900		mg/Kg	☼	93	75 - 125	10	20
Thallium	ND		39.2	38.77		mg/Kg	☼	99	75 - 125	12	20
Vanadium	9.8		39.2	50.62		mg/Kg	☼	104	75 - 125	10	20
Zinc	22.9		39.2	57.76		mg/Kg	☼	89	75 - 125	8	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-390756/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 390941 — **Prep Batch: 390756**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.018	0.0075	mg/Kg		12/06/17 15:35	12/06/17 17:31	1

Lab Sample ID: LCSSRM 480-390756/2-A ^10 — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 390941 — **Prep Batch: 390756**

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	12.6	12.10		mg/Kg		96.0	44.4 - 128.6

Lab Sample ID: 480-128098-7 MS — **Client Sample ID: SS-7**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 390941 — **Prep Batch: 390756**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.10		0.394	0.523		mg/Kg	☼	107	80 - 120

Lab Sample ID: 480-128098-7 MSD — **Client Sample ID: SS-7**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 390941 — **Prep Batch: 390756**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.10		0.369	0.504		mg/Kg	☼	109	80 - 120	4	20

Lab Sample ID: MB 480-390757/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 390941 — **Prep Batch: 390757**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.018	0.0074	mg/Kg		12/06/17 15:35	12/06/17 18:26	1

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: LCDSRM 480-390757/3-A ^10
Matrix: Solid
Analysis Batch: 390941

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 390757

Analyte			Spike Added	LCDSRM Result	LCDSRM Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury			12.6	11.75		mg/Kg		93.3	44.4 - 128.6	4	20

Lab Sample ID: LCSSRM 480-390757/2-A ^10
Matrix: Solid
Analysis Batch: 390941

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390757

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			12.6	12.25		mg/Kg		97.2	44.4 - 128.6		

Lab Sample ID: 480-128098-22 MS
Matrix: Solid
Analysis Batch: 390941

Client Sample ID: TP-6 (10-11.5)
Prep Type: Total/NA
Prep Batch: 390757

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	ND		0.345	0.331		mg/Kg	☼	96	80 - 120		

Lab Sample ID: 480-128098-22 MSD
Matrix: Solid
Analysis Batch: 390941

Client Sample ID: TP-6 (10-11.5)
Prep Type: Total/NA
Prep Batch: 390757

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.338	0.322		mg/Kg	☼	95	80 - 120	3	20

GC/MS VOA

Prep Batch: 389702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128098-19	TP-3 (10-14.5)	Total/NA	Solid	5035A_L	
480-128098-22	TP-6 (10-11.5)	Total/NA	Solid	5035A_L	
MB 480-389702/3-A	Method Blank	Total/NA	Solid	5035A_L	
LCS 480-389702/1-A	Lab Control Sample	Total/NA	Solid	5035A_L	
LCSD 480-389702/2-A	Lab Control Sample Dup	Total/NA	Solid	5035A_L	

Analysis Batch: 390018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128098-19	TP-3 (10-14.5)	Total/NA	Solid	8260C	389702
480-128098-22	TP-6 (10-11.5)	Total/NA	Solid	8260C	389702
MB 480-389702/3-A	Method Blank	Total/NA	Solid	8260C	389702
LCS 480-389702/1-A	Lab Control Sample	Total/NA	Solid	8260C	389702
LCSD 480-389702/2-A	Lab Control Sample Dup	Total/NA	Solid	8260C	389702

GC/MS Semi VOA

Prep Batch: 389768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128098-1	SS-1	Total/NA	Solid	3550C	
480-128098-2	SS-2	Total/NA	Solid	3550C	
480-128098-3	SS-3	Total/NA	Solid	3550C	
480-128098-4	SS-4	Total/NA	Solid	3550C	
480-128098-5	SS-5	Total/NA	Solid	3550C	
480-128098-6	SS-6	Total/NA	Solid	3550C	
480-128098-7	SS-7	Total/NA	Solid	3550C	
480-128098-8	SS-8	Total/NA	Solid	3550C	
480-128098-9	SS-9	Total/NA	Solid	3550C	
480-128098-10	SS-10	Total/NA	Solid	3550C	
480-128098-11	SS-11	Total/NA	Solid	3550C	
480-128098-12	SS-12	Total/NA	Solid	3550C	
480-128098-13	SS-13	Total/NA	Solid	3550C	
480-128098-13 - DL	SS-13	Total/NA	Solid	3550C	
480-128098-14	SS-14	Total/NA	Solid	3550C	
480-128098-15	SS-15	Total/NA	Solid	3550C	
480-128098-16	BLIND DUP #1	Total/NA	Solid	3550C	
480-128098-17	TP-1 (4-6)	Total/NA	Solid	3550C	
480-128098-18	TP-2 (6-8)	Total/NA	Solid	3550C	
480-128098-19	TP-3 (10-14.5)	Total/NA	Solid	3550C	
480-128098-20	TP-4 (1-3)	Total/NA	Solid	3550C	
MB 480-389768/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-389768/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-128098-7 MS	SS-7	Total/NA	Solid	3550C	
480-128098-7 MSD	SS-7	Total/NA	Solid	3550C	

Prep Batch: 389931

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128098-21	TP-5 (6-8)	Total/NA	Solid	3550C	
480-128098-22	TP-6 (10-11.5)	Total/NA	Solid	3550C	
480-128098-23	TP-7 (8-10)	Total/NA	Solid	3550C	
MB 480-389931/1-A	Method Blank	Total/NA	Solid	3550C	

GC/MS Semi VOA (Continued)

Prep Batch: 389931 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-389931/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-128098-22 MS	TP-6 (10-11.5)	Total/NA	Solid	3550C	
480-128098-22 MSD	TP-6 (10-11.5)	Total/NA	Solid	3550C	

Analysis Batch: 390077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128098-21	TP-5 (6-8)	Total/NA	Solid	8270D	389931
480-128098-22	TP-6 (10-11.5)	Total/NA	Solid	8270D	389931
480-128098-23	TP-7 (8-10)	Total/NA	Solid	8270D	389931
MB 480-389931/1-A	Method Blank	Total/NA	Solid	8270D	389931
LCS 480-389931/2-A	Lab Control Sample	Total/NA	Solid	8270D	389931
480-128098-22 MS	TP-6 (10-11.5)	Total/NA	Solid	8270D	389931
480-128098-22 MSD	TP-6 (10-11.5)	Total/NA	Solid	8270D	389931

Analysis Batch: 390093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128098-1	SS-1	Total/NA	Solid	8270D	389768
480-128098-2	SS-2	Total/NA	Solid	8270D	389768
480-128098-3	SS-3	Total/NA	Solid	8270D	389768
480-128098-4	SS-4	Total/NA	Solid	8270D	389768
480-128098-5	SS-5	Total/NA	Solid	8270D	389768
480-128098-6	SS-6	Total/NA	Solid	8270D	389768
480-128098-7	SS-7	Total/NA	Solid	8270D	389768
MB 480-389768/1-A	Method Blank	Total/NA	Solid	8270D	389768
LCS 480-389768/2-A	Lab Control Sample	Total/NA	Solid	8270D	389768
480-128098-7 MS	SS-7	Total/NA	Solid	8270D	389768
480-128098-7 MSD	SS-7	Total/NA	Solid	8270D	389768

Analysis Batch: 390352

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128098-8	SS-8	Total/NA	Solid	8270D	389768
480-128098-9	SS-9	Total/NA	Solid	8270D	389768
480-128098-10	SS-10	Total/NA	Solid	8270D	389768
480-128098-11	SS-11	Total/NA	Solid	8270D	389768
480-128098-12	SS-12	Total/NA	Solid	8270D	389768
480-128098-13	SS-13	Total/NA	Solid	8270D	389768
480-128098-14	SS-14	Total/NA	Solid	8270D	389768
480-128098-15	SS-15	Total/NA	Solid	8270D	389768
480-128098-16	BLIND DUP #1	Total/NA	Solid	8270D	389768
480-128098-17	TP-1 (4-6)	Total/NA	Solid	8270D	389768
480-128098-18	TP-2 (6-8)	Total/NA	Solid	8270D	389768
480-128098-19	TP-3 (10-14.5)	Total/NA	Solid	8270D	389768
480-128098-20	TP-4 (1-3)	Total/NA	Solid	8270D	389768

Analysis Batch: 390533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128098-13 - DL	SS-13	Total/NA	Solid	8270D	389768

GC Semi VOA

Prep Batch: 389864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128098-2	SS-2	Total/NA	Solid	3550C	
480-128098-7	SS-7	Total/NA	Solid	3550C	
480-128098-8	SS-8	Total/NA	Solid	3550C	
480-128098-12	SS-12	Total/NA	Solid	3550C	
480-128098-13	SS-13	Total/NA	Solid	3550C	
480-128098-16	BLIND DUP #1	Total/NA	Solid	3550C	
480-128098-17	TP-1 (4-6)	Total/NA	Solid	3550C	
480-128098-20	TP-4 (1-3)	Total/NA	Solid	3550C	
480-128098-22	TP-6 (10-11.5)	Total/NA	Solid	3550C	
MB 480-389864/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-389864/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-128098-7 MS	SS-7	Total/NA	Solid	3550C	
480-128098-7 MSD	SS-7	Total/NA	Solid	3550C	

Prep Batch: 389934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128098-2	SS-2	Total/NA	Solid	8151A	
480-128098-7	SS-7	Total/NA	Solid	8151A	
480-128098-8	SS-8	Total/NA	Solid	8151A	
480-128098-12	SS-12	Total/NA	Solid	8151A	
480-128098-13	SS-13	Total/NA	Solid	8151A	
480-128098-16	BLIND DUP #1	Total/NA	Solid	8151A	
480-128098-17	TP-1 (4-6)	Total/NA	Solid	8151A	
480-128098-20	TP-4 (1-3)	Total/NA	Solid	8151A	
480-128098-22	TP-6 (10-11.5)	Total/NA	Solid	8151A	
MB 480-389934/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 480-389934/2-A	Lab Control Sample	Total/NA	Solid	8151A	
480-128098-7 MS	SS-7	Total/NA	Solid	8151A	
480-128098-7 MSD	SS-7	Total/NA	Solid	8151A	

Prep Batch: 390026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128098-2	SS-2	Total/NA	Solid	3550C	
480-128098-7	SS-7	Total/NA	Solid	3550C	
480-128098-8	SS-8	Total/NA	Solid	3550C	
480-128098-12	SS-12	Total/NA	Solid	3550C	
480-128098-13	SS-13	Total/NA	Solid	3550C	
480-128098-16	BLIND DUP #1	Total/NA	Solid	3550C	
480-128098-17	TP-1 (4-6)	Total/NA	Solid	3550C	
480-128098-20	TP-4 (1-3)	Total/NA	Solid	3550C	
480-128098-22	TP-6 (10-11.5)	Total/NA	Solid	3550C	
MB 480-390026/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-390026/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-128098-7 MS	SS-7	Total/NA	Solid	3550C	
480-128098-7 MSD	SS-7	Total/NA	Solid	3550C	

Analysis Batch: 390069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128098-2	SS-2	Total/NA	Solid	8082A	389864
480-128098-7	SS-7	Total/NA	Solid	8082A	389864
480-128098-8	SS-8	Total/NA	Solid	8082A	389864

GC Semi VOA (Continued)

Analysis Batch: 390069 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128098-12	SS-12	Total/NA	Solid	8082A	389864
480-128098-13	SS-13	Total/NA	Solid	8082A	389864
480-128098-16	BLIND DUP #1	Total/NA	Solid	8082A	389864
480-128098-17	TP-1 (4-6)	Total/NA	Solid	8082A	389864
480-128098-20	TP-4 (1-3)	Total/NA	Solid	8082A	389864
480-128098-22	TP-6 (10-11.5)	Total/NA	Solid	8082A	389864
MB 480-389864/1-A	Method Blank	Total/NA	Solid	8082A	389864
LCS 480-389864/2-A	Lab Control Sample	Total/NA	Solid	8082A	389864
480-128098-7 MS	SS-7	Total/NA	Solid	8082A	389864
480-128098-7 MSD	SS-7	Total/NA	Solid	8082A	389864

Analysis Batch: 390176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128098-2	SS-2	Total/NA	Solid	8081B	390026
480-128098-7	SS-7	Total/NA	Solid	8081B	390026
480-128098-8	SS-8	Total/NA	Solid	8081B	390026
480-128098-12	SS-12	Total/NA	Solid	8081B	390026
480-128098-13	SS-13	Total/NA	Solid	8081B	390026
480-128098-16	BLIND DUP #1	Total/NA	Solid	8081B	390026
480-128098-17	TP-1 (4-6)	Total/NA	Solid	8081B	390026
480-128098-20	TP-4 (1-3)	Total/NA	Solid	8081B	390026
480-128098-22	TP-6 (10-11.5)	Total/NA	Solid	8081B	390026
MB 480-390026/1-A	Method Blank	Total/NA	Solid	8081B	390026
LCS 480-390026/2-A	Lab Control Sample	Total/NA	Solid	8081B	390026
480-128098-7 MS	SS-7	Total/NA	Solid	8081B	390026
480-128098-7 MSD	SS-7	Total/NA	Solid	8081B	390026

Analysis Batch: 390371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128098-2	SS-2	Total/NA	Solid	8151A	389934
480-128098-7	SS-7	Total/NA	Solid	8151A	389934
480-128098-8	SS-8	Total/NA	Solid	8151A	389934
480-128098-12	SS-12	Total/NA	Solid	8151A	389934
480-128098-13	SS-13	Total/NA	Solid	8151A	389934
480-128098-16	BLIND DUP #1	Total/NA	Solid	8151A	389934
480-128098-17	TP-1 (4-6)	Total/NA	Solid	8151A	389934
480-128098-20	TP-4 (1-3)	Total/NA	Solid	8151A	389934
480-128098-22	TP-6 (10-11.5)	Total/NA	Solid	8151A	389934
MB 480-389934/1-A	Method Blank	Total/NA	Solid	8151A	389934
LCS 480-389934/2-A	Lab Control Sample	Total/NA	Solid	8151A	389934
480-128098-7 MS	SS-7	Total/NA	Solid	8151A	389934
480-128098-7 MSD	SS-7	Total/NA	Solid	8151A	389934

Metals

Prep Batch: 389910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128098-1	SS-1	Total/NA	Solid	3050B	
480-128098-2	SS-2	Total/NA	Solid	3050B	
480-128098-3	SS-3	Total/NA	Solid	3050B	

Metals (Continued)

Prep Batch: 389910 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128098-4	SS-4	Total/NA	Solid	3050B	
480-128098-5	SS-5	Total/NA	Solid	3050B	
480-128098-6	SS-6	Total/NA	Solid	3050B	
480-128098-7	SS-7	Total/NA	Solid	3050B	
480-128098-8	SS-8	Total/NA	Solid	3050B	
480-128098-9	SS-9	Total/NA	Solid	3050B	
480-128098-10	SS-10	Total/NA	Solid	3050B	
480-128098-11	SS-11	Total/NA	Solid	3050B	
480-128098-12	SS-12	Total/NA	Solid	3050B	
480-128098-13	SS-13	Total/NA	Solid	3050B	
480-128098-14	SS-14	Total/NA	Solid	3050B	
480-128098-15	SS-15	Total/NA	Solid	3050B	
480-128098-16	BLIND DUP #1	Total/NA	Solid	3050B	
480-128098-17	TP-1 (4-6)	Total/NA	Solid	3050B	
480-128098-18	TP-2 (6-8)	Total/NA	Solid	3050B	
MB 480-389910/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 480-389910/2-A	Lab Control Sample	Total/NA	Solid	3050B	
480-128098-7 MS	SS-7	Total/NA	Solid	3050B	
480-128098-7 MSD	SS-7	Total/NA	Solid	3050B	

Prep Batch: 389916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128098-19	TP-3 (10-14.5)	Total/NA	Solid	3050B	
480-128098-20	TP-4 (1-3)	Total/NA	Solid	3050B	
480-128098-21	TP-5 (6-8)	Total/NA	Solid	3050B	
480-128098-22	TP-6 (10-11.5)	Total/NA	Solid	3050B	
480-128098-23	TP-7 (8-10)	Total/NA	Solid	3050B	
480-128098-22 MS	TP-6 (10-11.5)	Total/NA	Solid	3050B	
480-128098-22 MSD	TP-6 (10-11.5)	Total/NA	Solid	3050B	

Analysis Batch: 390701

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128098-19	TP-3 (10-14.5)	Total/NA	Solid	6010C	389916
480-128098-20	TP-4 (1-3)	Total/NA	Solid	6010C	389916
480-128098-21	TP-5 (6-8)	Total/NA	Solid	6010C	389916
480-128098-22	TP-6 (10-11.5)	Total/NA	Solid	6010C	389916
480-128098-23	TP-7 (8-10)	Total/NA	Solid	6010C	389916
480-128098-22 MS	TP-6 (10-11.5)	Total/NA	Solid	6010C	389916
480-128098-22 MSD	TP-6 (10-11.5)	Total/NA	Solid	6010C	389916

Analysis Batch: 390704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128098-1	SS-1	Total/NA	Solid	6010C	389910
480-128098-2	SS-2	Total/NA	Solid	6010C	389910
480-128098-3	SS-3	Total/NA	Solid	6010C	389910
480-128098-4	SS-4	Total/NA	Solid	6010C	389910
480-128098-5	SS-5	Total/NA	Solid	6010C	389910
480-128098-6	SS-6	Total/NA	Solid	6010C	389910
480-128098-7	SS-7	Total/NA	Solid	6010C	389910
480-128098-8	SS-8	Total/NA	Solid	6010C	389910
480-128098-9	SS-9	Total/NA	Solid	6010C	389910

Metals (Continued)

Analysis Batch: 390704 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128098-10	SS-10	Total/NA	Solid	6010C	389910
480-128098-11	SS-11	Total/NA	Solid	6010C	389910
480-128098-12	SS-12	Total/NA	Solid	6010C	389910
480-128098-13	SS-13	Total/NA	Solid	6010C	389910
480-128098-14	SS-14	Total/NA	Solid	6010C	389910
480-128098-15	SS-15	Total/NA	Solid	6010C	389910
480-128098-16	BLIND DUP #1	Total/NA	Solid	6010C	389910
480-128098-17	TP-1 (4-6)	Total/NA	Solid	6010C	389910
480-128098-18	TP-2 (6-8)	Total/NA	Solid	6010C	389910
MB 480-389910/1-A	Method Blank	Total/NA	Solid	6010C	389910
LCSSRM 480-389910/2-A	Lab Control Sample	Total/NA	Solid	6010C	389910
480-128098-7 MS	SS-7	Total/NA	Solid	6010C	389910
480-128098-7 MSD	SS-7	Total/NA	Solid	6010C	389910

Prep Batch: 390756

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128098-1	SS-1	Total/NA	Solid	7471B	
480-128098-2	SS-2	Total/NA	Solid	7471B	
480-128098-3	SS-3	Total/NA	Solid	7471B	
480-128098-4	SS-4	Total/NA	Solid	7471B	
480-128098-5	SS-5	Total/NA	Solid	7471B	
480-128098-6	SS-6	Total/NA	Solid	7471B	
480-128098-7	SS-7	Total/NA	Solid	7471B	
480-128098-8	SS-8	Total/NA	Solid	7471B	
480-128098-9	SS-9	Total/NA	Solid	7471B	
480-128098-10	SS-10	Total/NA	Solid	7471B	
480-128098-11	SS-11	Total/NA	Solid	7471B	
480-128098-12	SS-12	Total/NA	Solid	7471B	
480-128098-13	SS-13	Total/NA	Solid	7471B	
480-128098-14	SS-14	Total/NA	Solid	7471B	
480-128098-15	SS-15	Total/NA	Solid	7471B	
480-128098-16	BLIND DUP #1	Total/NA	Solid	7471B	
480-128098-17	TP-1 (4-6)	Total/NA	Solid	7471B	
480-128098-18	TP-2 (6-8)	Total/NA	Solid	7471B	
480-128098-19	TP-3 (10-14.5)	Total/NA	Solid	7471B	
480-128098-20	TP-4 (1-3)	Total/NA	Solid	7471B	
MB 480-390756/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 480-390756/2-A ^10	Lab Control Sample	Total/NA	Solid	7471B	
480-128098-7 MS	SS-7	Total/NA	Solid	7471B	
480-128098-7 MSD	SS-7	Total/NA	Solid	7471B	

Prep Batch: 390757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128098-21	TP-5 (6-8)	Total/NA	Solid	7471B	
480-128098-22	TP-6 (10-11.5)	Total/NA	Solid	7471B	
480-128098-23	TP-7 (8-10)	Total/NA	Solid	7471B	
MB 480-390757/1-A	Method Blank	Total/NA	Solid	7471B	
LCDSRM 480-390757/3-A ^10	Lab Control Sample Dup	Total/NA	Solid	7471B	
LCSSRM 480-390757/2-A ^10	Lab Control Sample	Total/NA	Solid	7471B	
480-128098-22 MS	TP-6 (10-11.5)	Total/NA	Solid	7471B	
480-128098-22 MSD	TP-6 (10-11.5)	Total/NA	Solid	7471B	

Analysis Batch: 390898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128098-1	SS-1	Total/NA	Solid	6010C	389910
480-128098-9	SS-9	Total/NA	Solid	6010C	389910

Analysis Batch: 390941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128098-1	SS-1	Total/NA	Solid	7471B	390756
480-128098-2	SS-2	Total/NA	Solid	7471B	390756
480-128098-3	SS-3	Total/NA	Solid	7471B	390756
480-128098-4	SS-4	Total/NA	Solid	7471B	390756
480-128098-5	SS-5	Total/NA	Solid	7471B	390756
480-128098-6	SS-6	Total/NA	Solid	7471B	390756
480-128098-7	SS-7	Total/NA	Solid	7471B	390756
480-128098-8	SS-8	Total/NA	Solid	7471B	390756
480-128098-9	SS-9	Total/NA	Solid	7471B	390756
480-128098-10	SS-10	Total/NA	Solid	7471B	390756
480-128098-11	SS-11	Total/NA	Solid	7471B	390756
480-128098-12	SS-12	Total/NA	Solid	7471B	390756
480-128098-13	SS-13	Total/NA	Solid	7471B	390756
480-128098-14	SS-14	Total/NA	Solid	7471B	390756
480-128098-15	SS-15	Total/NA	Solid	7471B	390756
480-128098-16	BLIND DUP #1	Total/NA	Solid	7471B	390756
480-128098-17	TP-1 (4-6)	Total/NA	Solid	7471B	390756
480-128098-18	TP-2 (6-8)	Total/NA	Solid	7471B	390756
480-128098-19	TP-3 (10-14.5)	Total/NA	Solid	7471B	390756
480-128098-20	TP-4 (1-3)	Total/NA	Solid	7471B	390756
480-128098-21	TP-5 (6-8)	Total/NA	Solid	7471B	390757
480-128098-22	TP-6 (10-11.5)	Total/NA	Solid	7471B	390757
480-128098-23	TP-7 (8-10)	Total/NA	Solid	7471B	390757
MB 480-390756/1-A	Method Blank	Total/NA	Solid	7471B	390756
MB 480-390757/1-A	Method Blank	Total/NA	Solid	7471B	390757
LCDSRM 480-390757/3-A ^10	Lab Control Sample Dup	Total/NA	Solid	7471B	390757
LCSSRM 480-390756/2-A ^10	Lab Control Sample	Total/NA	Solid	7471B	390756
LCSSRM 480-390757/2-A ^10	Lab Control Sample	Total/NA	Solid	7471B	390757
480-128098-7 MS	SS-7	Total/NA	Solid	7471B	390756
480-128098-7 MSD	SS-7	Total/NA	Solid	7471B	390756
480-128098-22 MS	TP-6 (10-11.5)	Total/NA	Solid	7471B	390757
480-128098-22 MSD	TP-6 (10-11.5)	Total/NA	Solid	7471B	390757

General Chemistry

Analysis Batch: 390380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128098-1	SS-1	Total/NA	Solid	Moisture	
480-128098-2	SS-2	Total/NA	Solid	Moisture	
480-128098-3	SS-3	Total/NA	Solid	Moisture	
480-128098-4	SS-4	Total/NA	Solid	Moisture	
480-128098-5	SS-5	Total/NA	Solid	Moisture	
480-128098-6	SS-6	Total/NA	Solid	Moisture	
480-128098-7	SS-7	Total/NA	Solid	Moisture	
480-128098-8	SS-8	Total/NA	Solid	Moisture	
480-128098-9	SS-9	Total/NA	Solid	Moisture	
480-128098-10	SS-10	Total/NA	Solid	Moisture	
480-128098-11	SS-11	Total/NA	Solid	Moisture	

General Chemistry (Continued)

Analysis Batch: 390380 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128098-12	SS-12	Total/NA	Solid	Moisture	
480-128098-13	SS-13	Total/NA	Solid	Moisture	
480-128098-14	SS-14	Total/NA	Solid	Moisture	
480-128098-15	SS-15	Total/NA	Solid	Moisture	
480-128098-16	BLIND DUP #1	Total/NA	Solid	Moisture	
480-128098-17	TP-1 (4-6)	Total/NA	Solid	Moisture	
480-128098-18	TP-2 (6-8)	Total/NA	Solid	Moisture	
480-128098-19	TP-3 (10-14.5)	Total/NA	Solid	Moisture	
480-128098-20	TP-4 (1-3)	Total/NA	Solid	Moisture	
480-128098-21	TP-5 (6-8)	Total/NA	Solid	Moisture	
480-128098-22	TP-6 (10-11.5)	Total/NA	Solid	Moisture	
480-128098-23	TP-7 (8-10)	Total/NA	Solid	Moisture	
480-128098-7 MS	SS-7	Total/NA	Solid	Moisture	
480-128098-7 MSD	SS-7	Total/NA	Solid	Moisture	
480-128098-22 MS	TP-6 (10-11.5)	Total/NA	Solid	Moisture	
480-128098-22 MSD	TP-6 (10-11.5)	Total/NA	Solid	Moisture	

Client Sample ID: SS-1

Lab Sample ID: 480-128098-1

Date Collected: 11/28/17 09:06

Matrix: Solid

Date Received: 11/29/17 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390380	12/04/17 17:06	MJH	TAL BUF

Client Sample ID: SS-1

Lab Sample ID: 480-128098-1

Date Collected: 11/28/17 09:06

Matrix: Solid

Date Received: 11/29/17 12:15

Percent Solids: 96.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			389768	11/30/17 06:48	CAM	TAL BUF
Total/NA	Analysis	8270D		10	390093	12/01/17 18:05	PJQ	TAL BUF
Total/NA	Prep	3050B			389910	12/01/17 07:37	EMB	TAL BUF
Total/NA	Analysis	6010C		5	390898	12/06/17 15:23	LMH	TAL BUF
Total/NA	Prep	3050B			389910	12/01/17 07:37	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390704	12/06/17 00:27	LMH	TAL BUF
Total/NA	Prep	7471B			390756	12/06/17 15:35	EMB	TAL BUF
Total/NA	Analysis	7471B		1	390941	12/06/17 17:35	BMB	TAL BUF

Client Sample ID: SS-2

Lab Sample ID: 480-128098-2

Date Collected: 11/28/17 09:38

Matrix: Solid

Date Received: 11/29/17 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390380	12/04/17 17:06	MJH	TAL BUF

Client Sample ID: SS-2

Lab Sample ID: 480-128098-2

Date Collected: 11/28/17 09:38

Matrix: Solid

Date Received: 11/29/17 12:15

Percent Solids: 82.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			389768	11/30/17 06:48	CAM	TAL BUF
Total/NA	Analysis	8270D		10	390093	12/01/17 18:31	PJQ	TAL BUF
Total/NA	Prep	3550C			390026	12/01/17 09:11	SMP	TAL BUF
Total/NA	Analysis	8081B		20	390176	12/02/17 16:30	JLS	TAL BUF
Total/NA	Prep	3550C			389864	11/30/17 11:28	RLT	TAL BUF
Total/NA	Analysis	8082A		1	390069	12/01/17 15:32	JMO	TAL BUF
Total/NA	Prep	8151A			389934	11/30/17 14:30	BEK	TAL BUF
Total/NA	Analysis	8151A		1	390371	12/04/17 20:23	JMO	TAL BUF
Total/NA	Prep	3050B			389910	12/01/17 07:37	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390704	12/06/17 00:31	LMH	TAL BUF
Total/NA	Prep	7471B			390756	12/06/17 15:35	EMB	TAL BUF
Total/NA	Analysis	7471B		1	390941	12/06/17 17:36	BMB	TAL BUF

Client Sample ID: SS-3 — **Lab Sample ID: 480-128098-3**
Date Collected: 11/28/17 09:28 — **Matrix: Solid**
Date Received: 11/29/17 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390380	12/04/17 17:06	MJH	TAL BUF

Client Sample ID: SS-3 — **Lab Sample ID: 480-128098-3**
Date Collected: 11/28/17 09:28 — **Matrix: Solid**
Date Received: 11/29/17 12:15 — **Percent Solids: 90.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			389768	11/30/17 06:48	CAM	TAL BUF
Total/NA	Analysis	8270D		50	390093	12/01/17 18:58	PJQ	TAL BUF
Total/NA	Prep	3050B			389910	12/01/17 07:37	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390704	12/06/17 00:35	LMH	TAL BUF
Total/NA	Prep	7471B			390756	12/06/17 15:35	EMB	TAL BUF
Total/NA	Analysis	7471B		1	390941	12/06/17 17:38	BMB	TAL BUF

Client Sample ID: SS-4 — **Lab Sample ID: 480-128098-4**
Date Collected: 11/28/17 09:55 — **Matrix: Solid**
Date Received: 11/29/17 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390380	12/04/17 17:06	MJH	TAL BUF

Client Sample ID: SS-4 — **Lab Sample ID: 480-128098-4**
Date Collected: 11/28/17 09:55 — **Matrix: Solid**
Date Received: 11/29/17 12:15 — **Percent Solids: 85.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			389768	11/30/17 06:48	CAM	TAL BUF
Total/NA	Analysis	8270D		10	390093	12/01/17 19:24	PJQ	TAL BUF
Total/NA	Prep	3050B			389910	12/01/17 07:37	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390704	12/06/17 00:38	LMH	TAL BUF
Total/NA	Prep	7471B			390756	12/06/17 15:35	EMB	TAL BUF
Total/NA	Analysis	7471B		1	390941	12/06/17 17:40	BMB	TAL BUF

Client Sample ID: SS-5 — **Lab Sample ID: 480-128098-5**
Date Collected: 11/28/17 10:12 — **Matrix: Solid**
Date Received: 11/29/17 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390380	12/04/17 17:06	MJH	TAL BUF

Client Sample ID: SS-5 — **Lab Sample ID: 480-128098-5**
Date Collected: 11/28/17 10:12 — **Matrix: Solid**
Date Received: 11/29/17 12:15 — **Percent Solids: 85.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			389768	11/30/17 06:48	CAM	TAL BUF
Total/NA	Analysis	8270D		10	390093	12/01/17 19:50	PJQ	TAL BUF
Total/NA	Prep	3050B			389910	12/01/17 07:37	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390704	12/06/17 00:42	LMH	TAL BUF
Total/NA	Prep	7471B			390756	12/06/17 15:35	EMB	TAL BUF
Total/NA	Analysis	7471B		1	390941	12/06/17 17:41	BMB	TAL BUF

Client Sample ID: SS-6 — **Lab Sample ID: 480-128098-6**
Date Collected: 11/28/17 12:38 — **Matrix: Solid**
Date Received: 11/29/17 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390380	12/04/17 17:06	MJH	TAL BUF

Client Sample ID: SS-6 — **Lab Sample ID: 480-128098-6**
Date Collected: 11/28/17 12:38 — **Matrix: Solid**
Date Received: 11/29/17 12:15 — **Percent Solids: 82.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			389768	11/30/17 06:48	CAM	TAL BUF
Total/NA	Analysis	8270D		10	390093	12/01/17 20:16	PJQ	TAL BUF
Total/NA	Prep	3050B			389910	12/01/17 07:37	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390704	12/06/17 00:45	LMH	TAL BUF
Total/NA	Prep	7471B			390756	12/06/17 15:35	EMB	TAL BUF
Total/NA	Analysis	7471B		1	390941	12/06/17 17:42	BMB	TAL BUF

Client Sample ID: SS-7 — **Lab Sample ID: 480-128098-7**
Date Collected: 11/28/17 10:32 — **Matrix: Solid**
Date Received: 11/29/17 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390380	12/04/17 17:06	MJH	TAL BUF

Client Sample ID: SS-7 — **Lab Sample ID: 480-128098-7**
Date Collected: 11/28/17 10:32 — **Matrix: Solid**
Date Received: 11/29/17 12:15 — **Percent Solids: 85.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			389768	11/30/17 06:48	CAM	TAL BUF
Total/NA	Analysis	8270D		20	390093	12/01/17 17:38	PJQ	TAL BUF
Total/NA	Prep	3550C			390026	12/01/17 09:11	SMP	TAL BUF
Total/NA	Analysis	8081B		50	390176	12/02/17 16:10	JLS	TAL BUF
Total/NA	Prep	3550C			389864	11/30/17 11:28	RLT	TAL BUF

Client Sample ID: SS-7

Lab Sample ID: 480-128098-7

Date Collected: 11/28/17 10:32
Matrix: Solid
Date Received: 11/29/17 12:15
Percent Solids: 85.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8082A		1	390069	12/01/17 15:16	JMO	TAL BUF
Total/NA	Prep	8151A			389934	11/30/17 14:30	BEK	TAL BUF
Total/NA	Analysis	8151A		1	390371	12/04/17 19:23	JMO	TAL BUF
Total/NA	Prep	3050B			389910	12/01/17 07:37	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390704	12/06/17 00:49	LMH	TAL BUF
Total/NA	Prep	7471B			390756	12/06/17 15:35	EMB	TAL BUF
Total/NA	Analysis	7471B		1	390941	12/06/17 17:44	BMB	TAL BUF

Client Sample ID: SS-8

Lab Sample ID: 480-128098-8

Date Collected: 11/28/17 12:46
Matrix: Solid
Date Received: 11/29/17 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390380	12/04/17 17:06	MJH	TAL BUF

Client Sample ID: SS-8

Lab Sample ID: 480-128098-8

Date Collected: 11/28/17 12:46
Matrix: Solid
Date Received: 11/29/17 12:15
Percent Solids: 68.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			389768	11/30/17 06:48	CAM	TAL BUF
Total/NA	Analysis	8270D		10	390352	12/04/17 14:58	PJQ	TAL BUF
Total/NA	Prep	3550C			390026	12/01/17 09:11	SMP	TAL BUF
Total/NA	Analysis	8081B		10	390176	12/02/17 16:49	JLS	TAL BUF
Total/NA	Prep	3550C			389864	11/30/17 11:28	RLT	TAL BUF
Total/NA	Analysis	8082A		1	390069	12/01/17 16:21	JMO	TAL BUF
Total/NA	Prep	8151A			389934	11/30/17 14:30	BEK	TAL BUF
Total/NA	Analysis	8151A		1	390371	12/04/17 20:53	JMO	TAL BUF
Total/NA	Prep	3050B			389910	12/01/17 07:37	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390704	12/06/17 01:18	LMH	TAL BUF
Total/NA	Prep	7471B			390756	12/06/17 15:35	EMB	TAL BUF
Total/NA	Analysis	7471B		1	390941	12/06/17 18:01	BMB	TAL BUF

Client Sample ID: SS-9

Lab Sample ID: 480-128098-9

Date Collected: 11/28/17 10:48
Matrix: Solid
Date Received: 11/29/17 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390380	12/04/17 17:06	MJH	TAL BUF

Client Sample ID: SS-9

Lab Sample ID: 480-128098-9

Date Collected: 11/28/17 10:48
Matrix: Solid
Date Received: 11/29/17 12:15
Percent Solids: 86.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			389768	11/30/17 06:48	CAM	TAL BUF
Total/NA	Analysis	8270D		20	390352	12/04/17 15:25	PJQ	TAL BUF
Total/NA	Prep	3050B			389910	12/01/17 07:37	EMB	TAL BUF
Total/NA	Analysis	6010C		5	390898	12/06/17 15:26	LMH	TAL BUF
Total/NA	Prep	3050B			389910	12/01/17 07:37	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390704	12/06/17 01:22	LMH	TAL BUF
Total/NA	Prep	7471B			390756	12/06/17 15:35	EMB	TAL BUF
Total/NA	Analysis	7471B		1	390941	12/06/17 18:03	BMB	TAL BUF

Client Sample ID: SS-10

Lab Sample ID: 480-128098-10

Date Collected: 11/28/17 10:58
Matrix: Solid
Date Received: 11/29/17 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390380	12/04/17 17:06	MJH	TAL BUF

Client Sample ID: SS-10

Lab Sample ID: 480-128098-10

Date Collected: 11/28/17 10:58
Matrix: Solid
Date Received: 11/29/17 12:15
Percent Solids: 70.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			389768	11/30/17 06:48	CAM	TAL BUF
Total/NA	Analysis	8270D		10	390352	12/04/17 15:50	PJQ	TAL BUF
Total/NA	Prep	3050B			389910	12/01/17 07:37	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390704	12/06/17 01:25	LMH	TAL BUF
Total/NA	Prep	7471B			390756	12/06/17 15:35	EMB	TAL BUF
Total/NA	Analysis	7471B		1	390941	12/06/17 18:05	BMB	TAL BUF

Client Sample ID: SS-11

Lab Sample ID: 480-128098-11

Date Collected: 11/28/17 12:19
Matrix: Solid
Date Received: 11/29/17 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390380	12/04/17 17:06	MJH	TAL BUF

Client Sample ID: SS-11

Lab Sample ID: 480-128098-11

Date Collected: 11/28/17 12:19
Matrix: Solid
Date Received: 11/29/17 12:15
Percent Solids: 86.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			389768	11/30/17 06:48	CAM	TAL BUF
Total/NA	Analysis	8270D		20	390352	12/04/17 16:17	PJQ	TAL BUF
Total/NA	Prep	3050B			389910	12/01/17 07:37	EMB	TAL BUF

Client Sample ID: SS-11

Lab Sample ID: 480-128098-11

Date Collected: 11/28/17 12:19
Matrix: Solid
Date Received: 11/29/17 12:15
Percent Solids: 86.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6010C		1	390704	12/06/17 01:29	LMH	TAL BUF
Total/NA	Prep	7471B			390756	12/06/17 15:35	EMB	TAL BUF
Total/NA	Analysis	7471B		1	390941	12/06/17 18:06	BMB	TAL BUF

Client Sample ID: SS-12

Lab Sample ID: 480-128098-12

Date Collected: 11/28/17 11:06
Matrix: Solid
Date Received: 11/29/17 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390380	12/04/17 17:06	MJH	TAL BUF

Client Sample ID: SS-12

Lab Sample ID: 480-128098-12

Date Collected: 11/28/17 11:06
Matrix: Solid
Date Received: 11/29/17 12:15
Percent Solids: 74.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			389768	11/30/17 06:48	CAM	TAL BUF
Total/NA	Analysis	8270D		5	390352	12/04/17 16:43	PJQ	TAL BUF
Total/NA	Prep	3550C			390026	12/01/17 09:11	SMP	TAL BUF
Total/NA	Analysis	8081B		5	390176	12/02/17 17:09	JLS	TAL BUF
Total/NA	Prep	3550C			389864	11/30/17 11:28	RLT	TAL BUF
Total/NA	Analysis	8082A		1	390069	12/01/17 16:36	JMO	TAL BUF
Total/NA	Prep	8151A			389934	11/30/17 14:30	BEK	TAL BUF
Total/NA	Analysis	8151A		1	390371	12/04/17 21:22	JMO	TAL BUF
Total/NA	Prep	3050B			389910	12/01/17 07:37	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390704	12/06/17 01:33	LMH	TAL BUF
Total/NA	Prep	7471B			390756	12/06/17 15:35	EMB	TAL BUF
Total/NA	Analysis	7471B		1	390941	12/06/17 18:08	BMB	TAL BUF

Client Sample ID: SS-13

Lab Sample ID: 480-128098-13

Date Collected: 11/28/17 12:29
Matrix: Solid
Date Received: 11/29/17 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390380	12/04/17 17:06	MJH	TAL BUF

Client Sample ID: SS-13

Lab Sample ID: 480-128098-13

Date Collected: 11/28/17 12:29
Matrix: Solid
Date Received: 11/29/17 12:15
Percent Solids: 89.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			389768	11/30/17 06:48	CAM	TAL BUF
Total/NA	Analysis	8270D		20	390352	12/04/17 17:10	PJQ	TAL BUF

Lab Chronicle

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C	DL		389768	11/30/17 06:48	CAM	TAL BUF
Total/NA	Analysis	8270D	DL	100	390533	12/05/17 14:55	PJQ	TAL BUF
Total/NA	Prep	3550C			390026	12/01/17 09:11	SMP	TAL BUF
Total/NA	Analysis	8081B		20	390176	12/02/17 17:28	JLS	TAL BUF
Total/NA	Prep	3550C			389864	11/30/17 11:28	RLT	TAL BUF
Total/NA	Analysis	8082A		1	390069	12/01/17 16:52	JMO	TAL BUF
Total/NA	Prep	8151A			389934	11/30/17 14:30	BEK	TAL BUF
Total/NA	Analysis	8151A		1	390371	12/04/17 21:52	JMO	TAL BUF
Total/NA	Prep	3050B			389910	12/01/17 07:37	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390704	12/06/17 01:47	LMH	TAL BUF
Total/NA	Prep	7471B			390756	12/06/17 15:35	EMB	TAL BUF
Total/NA	Analysis	7471B		1	390941	12/06/17 18:11	BMB	TAL BUF

Client Sample ID: SS-14 — **Lab Sample ID: 480-128098-14**
Date Collected: 11/28/17 11:37 — **Matrix: Solid**
Date Received: 11/29/17 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390380	12/04/17 17:06	MJH	TAL BUF

Client Sample ID: SS-14 — **Lab Sample ID: 480-128098-14**
Date Collected: 11/28/17 11:37 — **Matrix: Solid**
Date Received: 11/29/17 12:15 — **Percent Solids: 78.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			389768	11/30/17 06:48	CAM	TAL BUF
Total/NA	Analysis	8270D		20	390352	12/04/17 17:36	PJQ	TAL BUF
Total/NA	Prep	3050B			389910	12/01/17 07:37	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390704	12/06/17 01:51	LMH	TAL BUF
Total/NA	Prep	7471B			390756	12/06/17 15:35	EMB	TAL BUF
Total/NA	Analysis	7471B		1	390941	12/06/17 18:12	BMB	TAL BUF

Client Sample ID: SS-15 — **Lab Sample ID: 480-128098-15**
Date Collected: 11/28/17 11:24 — **Matrix: Solid**
Date Received: 11/29/17 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390380	12/04/17 17:06	MJH	TAL BUF

Client Sample ID: SS-15 — **Lab Sample ID: 480-128098-15**
Date Collected: 11/28/17 11:24 — **Matrix: Solid**
Date Received: 11/29/17 12:15 — **Percent Solids: 69.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			389768	11/30/17 06:48	CAM	TAL BUF
Total/NA	Analysis	8270D		5	390352	12/04/17 18:03	PJQ	TAL BUF
Total/NA	Prep	3050B			389910	12/01/17 07:37	EMB	TAL BUF

Client Sample ID: SS-15

Lab Sample ID: 480-128098-15

Date Collected: 11/28/17 11:24
Matrix: Solid
Date Received: 11/29/17 12:15
Percent Solids: 69.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6010C		1	390704	12/06/17 01:54	LMH	TAL BUF
Total/NA	Prep	7471B			390756	12/06/17 15:35	EMB	TAL BUF
Total/NA	Analysis	7471B		1	390941	12/06/17 18:14	BMB	TAL BUF

Client Sample ID: BLIND DUP #1

Lab Sample ID: 480-128098-16

Date Collected: 11/28/17 12:00
Matrix: Solid
Date Received: 11/29/17 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390380	12/04/17 17:06	MJH	TAL BUF

Client Sample ID: BLIND DUP #1

Lab Sample ID: 480-128098-16

Date Collected: 11/28/17 12:00
Matrix: Solid
Date Received: 11/29/17 12:15
Percent Solids: 76.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			389768	11/30/17 06:48	CAM	TAL BUF
Total/NA	Analysis	8270D		5	390352	12/04/17 18:29	PJQ	TAL BUF
Total/NA	Prep	3550C			390026	12/01/17 09:11	SMP	TAL BUF
Total/NA	Analysis	8081B		5	390176	12/02/17 17:48	JLS	TAL BUF
Total/NA	Prep	3550C			389864	11/30/17 11:28	RLT	TAL BUF
Total/NA	Analysis	8082A		1	390069	12/01/17 17:08	JMO	TAL BUF
Total/NA	Prep	8151A			389934	11/30/17 14:30	BEK	TAL BUF
Total/NA	Analysis	8151A		1	390371	12/04/17 23:22	JMO	TAL BUF
Total/NA	Prep	3050B			389910	12/01/17 07:37	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390704	12/06/17 01:58	LMH	TAL BUF
Total/NA	Prep	7471B			390756	12/06/17 15:35	EMB	TAL BUF
Total/NA	Analysis	7471B		1	390941	12/06/17 18:18	BMB	TAL BUF

Client Sample ID: TP-1 (4-6)

Lab Sample ID: 480-128098-17

Date Collected: 11/28/17 09:23
Matrix: Solid
Date Received: 11/29/17 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390380	12/04/17 17:06	MJH	TAL BUF

Client Sample ID: TP-1 (4-6)

Lab Sample ID: 480-128098-17

Date Collected: 11/28/17 09:23
Matrix: Solid
Date Received: 11/29/17 12:15
Percent Solids: 81.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			389768	11/30/17 06:48	CAM	TAL BUF
Total/NA	Analysis	8270D		20	390352	12/04/17 18:55	PJQ	TAL BUF

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			390026	12/01/17 09:11	SMP	TAL BUF
Total/NA	Analysis	8081B		20	390176	12/02/17 18:07	JLS	TAL BUF
Total/NA	Prep	3550C			389864	11/30/17 11:28	RLT	TAL BUF
Total/NA	Analysis	8082A		1	390069	12/01/17 17:24	JMO	TAL BUF
Total/NA	Prep	8151A			389934	11/30/17 14:30	BEK	TAL BUF
Total/NA	Analysis	8151A		1	390371	12/04/17 23:52	JMO	TAL BUF
Total/NA	Prep	3050B			389910	12/01/17 07:37	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390704	12/06/17 02:01	LMH	TAL BUF
Total/NA	Prep	7471B			390756	12/06/17 15:35	EMB	TAL BUF
Total/NA	Analysis	7471B		1	390941	12/06/17 18:20	BMB	TAL BUF

Client Sample ID: TP-2 (6-8)

Lab Sample ID: 480-128098-18

Date Collected: 11/28/17 09:56

Matrix: Solid

Date Received: 11/29/17 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390380	12/04/17 17:06	MJH	TAL BUF

Client Sample ID: TP-2 (6-8)

Lab Sample ID: 480-128098-18

Date Collected: 11/28/17 09:56

Matrix: Solid

Date Received: 11/29/17 12:15

Percent Solids: 82.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			389768	11/30/17 06:48	CAM	TAL BUF
Total/NA	Analysis	8270D		1	390352	12/04/17 19:21	PJQ	TAL BUF
Total/NA	Prep	3050B			389910	12/01/17 07:37	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390704	12/06/17 02:05	LMH	TAL BUF
Total/NA	Prep	7471B			390756	12/06/17 15:35	EMB	TAL BUF
Total/NA	Analysis	7471B		1	390941	12/06/17 18:21	BMB	TAL BUF

Client Sample ID: TP-3 (10-14.5)

Lab Sample ID: 480-128098-19

Date Collected: 11/28/17 10:45

Matrix: Solid

Date Received: 11/29/17 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390380	12/04/17 17:06	MJH	TAL BUF

Client Sample ID: TP-3 (10-14.5)

Lab Sample ID: 480-128098-19

Date Collected: 11/28/17 10:45

Matrix: Solid

Date Received: 11/29/17 12:15

Percent Solids: 85.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_L			389702	11/29/17 14:28	AEM	TAL BUF
Total/NA	Analysis	8260C		1	390018	12/01/17 17:13	AEM	TAL BUF
Total/NA	Prep	3550C			389768	11/30/17 06:48	CAM	TAL BUF
Total/NA	Analysis	8270D		20	390352	12/04/17 19:47	PJQ	TAL BUF
Total/NA	Prep	3050B			389916	12/01/17 07:37	EMB	TAL BUF

Client Sample ID: TP-3 (10-14.5)

Lab Sample ID: 480-128098-19

Date Collected: 11/28/17 10:45
Matrix: Solid
Date Received: 11/29/17 12:15
Percent Solids: 85.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6010C		1	390701	12/05/17 20:45	LMH	TAL BUF
Total/NA	Prep	7471B			390756	12/06/17 15:35	EMB	TAL BUF
Total/NA	Analysis	7471B		1	390941	12/06/17 18:23	BMB	TAL BUF

Client Sample ID: TP-4 (1-3)

Lab Sample ID: 480-128098-20

Date Collected: 11/28/17 11:38
Matrix: Solid
Date Received: 11/29/17 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390380	12/04/17 17:06	MJH	TAL BUF

Client Sample ID: TP-4 (1-3)

Lab Sample ID: 480-128098-20

Date Collected: 11/28/17 11:38
Matrix: Solid
Date Received: 11/29/17 12:15
Percent Solids: 74.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			389768	11/30/17 06:48	CAM	TAL BUF
Total/NA	Analysis	8270D		1	390352	12/04/17 20:13	PJQ	TAL BUF
Total/NA	Prep	3550C			390026	12/01/17 09:11	SMP	TAL BUF
Total/NA	Analysis	8081B		1	390176	12/02/17 18:27	JLS	TAL BUF
Total/NA	Prep	3550C			389864	11/30/17 11:28	RLT	TAL BUF
Total/NA	Analysis	8082A		1	390069	12/01/17 17:40	JMO	TAL BUF
Total/NA	Prep	8151A			389934	11/30/17 14:30	BEK	TAL BUF
Total/NA	Analysis	8151A		1	390371	12/05/17 00:21	JMO	TAL BUF
Total/NA	Prep	3050B			389916	12/01/17 07:37	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390701	12/05/17 20:49	LMH	TAL BUF
Total/NA	Prep	7471B			390756	12/06/17 15:35	EMB	TAL BUF
Total/NA	Analysis	7471B		1	390941	12/06/17 18:24	BMB	TAL BUF

Client Sample ID: TP-5 (6-8)

Lab Sample ID: 480-128098-21

Date Collected: 11/28/17 14:27
Matrix: Solid
Date Received: 11/29/17 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390380	12/04/17 17:06	MJH	TAL BUF

Client Sample ID: TP-5 (6-8)

Lab Sample ID: 480-128098-21

Date Collected: 11/28/17 14:27
Matrix: Solid
Date Received: 11/29/17 12:15
Percent Solids: 84.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			389931	11/30/17 14:24	BEK	TAL BUF
Total/NA	Analysis	8270D		20	390077	12/01/17 16:09	DMR	TAL BUF

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			389916	12/01/17 07:37	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390701	12/05/17 20:52	LMH	TAL BUF
Total/NA	Prep	7471B			390757	12/06/17 15:35	EMB	TAL BUF
Total/NA	Analysis	7471B		1	390941	12/06/17 19:07	BMB	TAL BUF

Client Sample ID: TP-6 (10-11.5)

Lab Sample ID: 480-128098-22

Date Collected: 11/28/17 12:45

Matrix: Solid

Date Received: 11/29/17 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390380	12/04/17 17:06	MJH	TAL BUF

Client Sample ID: TP-6 (10-11.5)

Lab Sample ID: 480-128098-22

Date Collected: 11/28/17 12:45

Matrix: Solid

Date Received: 11/29/17 12:15

Percent Solids: 91.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_L			389702	11/29/17 14:28	AEM	TAL BUF
Total/NA	Analysis	8260C		1	390018	12/01/17 17:38	AEM	TAL BUF
Total/NA	Prep	3550C			389931	11/30/17 14:24	BEK	TAL BUF
Total/NA	Analysis	8270D		1	390077	12/01/17 15:42	DMR	TAL BUF
Total/NA	Prep	3550C			390026	12/01/17 09:11	SMP	TAL BUF
Total/NA	Analysis	8081B		1	390176	12/02/17 18:46	JLS	TAL BUF
Total/NA	Prep	3550C			389864	11/30/17 11:28	RLT	TAL BUF
Total/NA	Analysis	8082A		1	390069	12/01/17 17:56	JMO	TAL BUF
Total/NA	Prep	8151A			389934	11/30/17 14:30	BEK	TAL BUF
Total/NA	Analysis	8151A		1	390371	12/05/17 00:51	JMO	TAL BUF
Total/NA	Prep	3050B			389916	12/01/17 07:37	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390701	12/05/17 20:56	LMH	TAL BUF
Total/NA	Prep	7471B			390757	12/06/17 15:35	EMB	TAL BUF
Total/NA	Analysis	7471B		1	390941	12/06/17 19:08	BMB	TAL BUF

Client Sample ID: TP-7 (8-10)

Lab Sample ID: 480-128098-23

Date Collected: 11/28/17 13:38

Matrix: Solid

Date Received: 11/29/17 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390380	12/04/17 17:06	MJH	TAL BUF

Client Sample ID: TP-7 (8-10)

Lab Sample ID: 480-128098-23

Date Collected: 11/28/17 13:38

Matrix: Solid

Date Received: 11/29/17 12:15

Percent Solids: 91.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			389931	11/30/17 14:24	BEK	TAL BUF
Total/NA	Analysis	8270D		10	390077	12/01/17 16:35	DMR	TAL BUF
Total/NA	Prep	3050B			389916	12/01/17 07:37	EMB	TAL BUF

Lab Chronicle

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Client Sample ID: TP-7 (8-10)
Date Collected: 11/28/17 13:38
Date Received: 11/29/17 12:15

Lab Sample ID: 480-128098-23
Matrix: Solid
Percent Solids: 91.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6010C		1	390701	12/05/17 21:14	LMH	TAL BUF
Total/NA	Prep	7471B			390757	12/06/17 15:35	EMB	TAL BUF
Total/NA	Analysis	7471B		1	390941	12/06/17 19:16	BMB	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
8081B	Organochlorine Pesticides (GC)	SW846	TAL BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL BUF
8151A	Herbicides (GC)	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
7471B	Mercury (CVAA)	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-128098-1	SS-1	Solid	11/28/17 09:06	11/29/17 12:15
480-128098-2	SS-2	Solid	11/28/17 09:38	11/29/17 12:15
480-128098-3	SS-3	Solid	11/28/17 09:28	11/29/17 12:15
480-128098-4	SS-4	Solid	11/28/17 09:55	11/29/17 12:15
480-128098-5	SS-5	Solid	11/28/17 10:12	11/29/17 12:15
480-128098-6	SS-6	Solid	11/28/17 12:38	11/29/17 12:15
480-128098-7	SS-7	Solid	11/28/17 10:32	11/29/17 12:15
480-128098-8	SS-8	Solid	11/28/17 12:46	11/29/17 12:15
480-128098-9	SS-9	Solid	11/28/17 10:48	11/29/17 12:15
480-128098-10	SS-10	Solid	11/28/17 10:58	11/29/17 12:15
480-128098-11	SS-11	Solid	11/28/17 12:19	11/29/17 12:15
480-128098-12	SS-12	Solid	11/28/17 11:06	11/29/17 12:15
480-128098-13	SS-13	Solid	11/28/17 12:29	11/29/17 12:15
480-128098-14	SS-14	Solid	11/28/17 11:37	11/29/17 12:15
480-128098-15	SS-15	Solid	11/28/17 11:24	11/29/17 12:15
480-128098-16	BLIND DUP #1	Solid	11/28/17 12:00	11/29/17 12:15
480-128098-17	TP-1 (4-6)	Solid	11/28/17 09:23	11/29/17 12:15
480-128098-18	TP-2 (6-8)	Solid	11/28/17 09:56	11/29/17 12:15
480-128098-19	TP-3 (10-14.5)	Solid	11/28/17 10:45	11/29/17 12:15
480-128098-20	TP-4 (1-3)	Solid	11/28/17 11:38	11/29/17 12:15
480-128098-21	TP-5 (6-8)	Solid	11/28/17 14:27	11/29/17 12:15
480-128098-22	TP-6 (10-11.5)	Solid	11/28/17 12:45	11/29/17 12:15
480-128098-23	TP-7 (8-10)	Solid	11/28/17 13:38	11/29/17 12:15

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: CHAD SCHUSTER	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-105119-24832.8
Client Contact: Bryan Mayback	Phone: 856-0599	E-Mail: brian.fischer@testamericainc.com		Page: Page 8 of 8 1 of 3
Company: Benchmark Env. Eng. & Science, PLLC				Job #:
Address: 2558 Hamburg Turnpike	Due Date Requested:			
City: Lackawanna	TAT Requested (days):			
State, Zip: NY, 14218				
Phone: 716-856-0599(Tel)	PO #: B0421-017-001			
Email: bmayback@turnkeyllc.com	WO #:			
Project Name: 1827 Fillmore Avenue Site - Soil	Project #: 48017094			
Site: 1827 FILLMORE	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL
B - NaOH
C - Zn Ace
D - Nitric A
E - NaHS(
F - MeOH
G - Amchl
H - Ascorl
I - Ice
J - DI Wat
K - EDTA
L - EDA
M - Hexane
N - None
480-128098 COC
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010C, 7471B, 8270D	8081B, 8082A, 8151A	TCL +20 TICs 8270	TAL METALS	Total Number of containers	Special Instructions/Note:
		Preservation Code:					N	N				
SS-1	11/29/17	906		Solid					X	X	1	HOLD METALS FOR
SS-2		938		Solid			X	X			2	POSSIBLE TCLP ANALYSIS
SS-3		928		Solid			X				1	
SS-4		955					X				1	
SS-5		1012					X				1	
SS-6		1238					X				1	
SS-7 (MS/MSD)		1032						X	X	X	6	
SS-8		1246					X	X			2	
SS-9		1048					X				1	
SS-10		1058							X	X	2	
SS-11		1219					X				1	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) CAT B

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	CMS				11-29-17/1120	TAL
2		11-29-17/1215	TAL		11/29/17 1215	
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No..

Cooler Temperature(s)°C and Other Remarks: 2.9 #1

Ver: 08/04/2016

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: CARD SCHUSTER	Lab PM: Fischer, Brian J	Carrier Tracking No(s):
Client Contact: Bryan Mayback	Phone: 856-0599	E-Mail: brian.fischer@testamericainc.com	COC No: 480-105119-24832.1
Company: Benchmark Env. Eng. & Science, PLLC			Page: Page ~~1~~ of ~~8~~ 2 of 3
Address: 2558 Hamburg Turnpike	Due Date Requested:		Job #:
City: Lackawanna	TAT Requested (days):		
State, Zip: NY, 14218			
Phone: 716-856-0599(Tel)	PO #: B0421-017-001		
Email: bmayback@turnkeyllc.com	WO #:		
Project Name: 1827 Fillmore Avenue Site - Soil	Project #: 48017094		
Site: 1827 FILLMORE AVE	SSOW#:		

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010C, 7471B, 8270D	8081B, 8082A, 8151A	TCL +20 TICS 8270	TAL METALS	TCL+CP-51 VOC 8260	Total Number of containers	Special Instructions/Note:
				Preservation Code:			N	N					
SS-12	11/28/17	1106	grab	Solid				X	X	X		2	
SS-13		1229		Solid			X	X				2	
SS-14		1137		Solid			X					1	
SS-15		1124		Solid			X					1	
BLIND DUP #1		1200		Solid				X	X	X		2	Hold METALS for possible TCLP Analysis
TP-1 (4-6)	11/28/17	923		Solid			X	X				2	
TP-2 (6-8)		956		Solid			X					1	
TP-3 (10-14.5)		1045		Solid			X				X	4	
TP-4 (1-3)		1138		Solid			X	X				2	
TP-5 (6-8)		1427		Solid			X					1	
TP-6 (10-11.5)		1245		Solid			X	X			X	4	

BJF (Per Discussion w/ TB)

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) CAT B

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 11-29-17 / 1120	Company TAL
Relinquished by: [signature]	Date/Time: 11-29-17 / 1215	Company TAL	Received by: [signature]	Date/Time: 11/29/17 [illegible]	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

2.9 #1

12/8/2017

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information				
Client Contact: Bryan Mayback	Sampler: T. Behrendt	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-105119-24832.3
	Phone: (716) 818-8358	E-Mail: brian.fischer@testamericainc.com		Page: Page ~~3~~ of ~~8~~ 3 of 3
Company: Benchmark Env. Eng. & Science, PLLC				Job #:
Address: 2558 Hamburg Turnpike	Due Date Requested:			
City: Lackawanna	TAT Requested (days): STD			
State, Zip: NY, 14218				
Phone: 716-856-0599(Tel)	PO #: B0421-017-001			
Email: bmayback@turnkeyllc.com	WO #:			
Project Name: 1827 Fillmore Avenue Site - Soil	Project #: 48017094			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010C, 7471B, 8270D	8081B, 8082A, 8151A	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N		
TP-6 (MS/MSD)	11/28/75	1245	grab	Solid			X		3	Hold METALS for possible TCLP Analysis
TP-7 (8-10)	↓	1338	↓	Solid			X		1	
				Solid						
				Solid						
				Solid						
				Solid						
				Solid						
				Solid						
				Solid						
				Solid						
				Solid						

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) CAT B

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]			[signature]	11-29-17/1120	TAC
[signature]	11-29-17/1215	TAC	[signature]	11/29/17 1215	[signature]

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

2.9 #1

Ver: 08/04/2016

Login Sample Receipt Checklist

Client: Benchmark Env. Eng. & Science, PLLC

Job Number: 480-128098-1

Login Number: 128098

List Source: TestAmerica Buffalo

List Number: 1

Creator: Janish, Carl M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	No: COC not relinquished
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	False	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-128189-1
Client Project/Site: 1827 Fillmore Avenue Site

For:
Benchmark Env. Eng. & Science, PLLC
2558 Hamburg Turnpike
Suite 300
Lackawanna, New York 14218

Attn: Mr. Michael Lesakowski

Joseph V. Giacomazza

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LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
*	ISTD response or retention time outside acceptable limits
X	Surrogate is outside control limits

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-128189-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-128189-1

Comments
No additional comments.

Receipt
The samples were received on 11/30/2017 11:05 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.0º C.

GC/MS VOA
Method(s) 8260C: The laboratory control sample (LCS) for preparation batch 480-389952 and analytical batch 480-390688 recovered outside control limits for the following analytes: 1,1,2,2-Tetrachloroethane, 1,2-Dibromo-3-Chloropropane, Acetone, Chloromethane and Dibromochloromethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. The following samples are impacted: TP-10 (0-4) (480-128189-1), BLIND DUP #2 (480-128189-2) and TP-11 (5-8) (480-128189-6).

Method(s) 8260C: Surrogate recoveries for the laboratory control sample (LCS 480-389952/1-A) associated with the following samples were outside the upper control limits: TP-10 (0-4) (480-128189-1), BLIND DUP #2 (480-128189-2) and TP-11 (5-8) (480-128189-6). The samples did not contain any target analytes and re-analysis was not performed due to laboratory hold time limitations.

Method(s) 8260C: The matrix spike/matrix spike duplicate (MS/MSD) recoveries for preparation batch 480-389953 and analytical batch 480-390950 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits. No other volumes were available to reanalyze.

Method(s) 8260C: Internal standard and/or surrogate responses were outside of acceptance limits for the following samples: TP-8 (6-9) (480-128189-7[MS]) and TP-8 (6-9) (480-128189-7[MSD]). The samples were reanalyzed with inconsistent results due to suspected varying soil sample matrix. No further volume remains for reanalysis.

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

GC/MS Semi VOA
Method(s) 8270D: The following samples was diluted due to color and, viscosity: TP-10 (0-4) (480-128189-1), BLIND DUP #3 (480-128189-3), TP-14 (10-15) (480-128189-4), TP-15 (8-10) (480-128189-5), TP-11 (5-8) (480-128189-6), TP-8 (6-9) (480-128189-7), TP-12 (10-12) (480-128189-8), TP-9 (10-12) (480-128189-10), (480-128189-A-6-D MS) and (480-128189-A-6-E MSD). Elevated reporting limits (RL) are provided.

Method(s) 8270D: The following samples required a dilution due to the nature of the sample matrix: TP-10 (0-4) (480-128189-1) and TP-8 (6-9) (480-128189-7). 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.

Method(s) 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 480-390116 and analytical batch 480-390214 were below the method detection limit (MDL) for 2,4-Dinitrophenol. Percent recovery and RPD could not be calculated. The associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA
Method(s) 8081B: The following sample was diluted due to the abundance of target analytes: TP-10 (0-4) (480-128189-1). As such, surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method(s) 8081B: For method 8081, the recovery of the one surrogate in samples TP-11 (5-8) (480-128189-6) exceeds quality control limits due to the sample matrix. The recovery of the secondary surrogate is within quality control criteria; no corrective action is required.

Method(s) 8081B: The following sample was diluted to bring the concentration of target analytes within the calibration range: TP-11 (5-8)

Job ID: 480-128189-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

(480-128189-6). Elevated reporting limits (RLs) are provided.

Method(s) 8081B: All primary data for analytical batch 390176 is reported from the RTX-CLPII column.

Method(s) 8081B: The percent difference in a multi-component continuing calibration verification is assessed on the basis of the total amount, individual peak calculations are only listed for completeness.

Method(s) 8082A: The Continuing Calibration Verification (CCV 480-390293/32) previous to sample TP-11 (5-8) (480-128189-6) has the surrogate Tetrachloro-m-xylene within method recovery limits but decreased and outside %D limits. The sample Tetrachloro-m-xylene recoveries are well within limits, therefore the data has been reported.

Method(s) 8082A: All primary data for analytical batch 390293 is reported from the ZB-35 column.

Method(s) 8082A: The percent difference in a multi-component continuing calibration verification is assessed on the basis of the total amount, individual peak calculations are only listed for completeness.

Method(s) 8082A: The continuing calibration verification (CCV 480-390293/32) for PCB-1016 was decreased and slightly exceeded control criteria of 20%D, though the associated sample did not show any potential pattern. The data has been reported. The following sample is impacted: TP-11 (5-8) (480-128189-6).

Method(s) 8151A: The continuing calibration verifications (CCVs) associated with batch 480-390585 recovered above the upper control limit for several compounds. The sample associated with this CCV are non-detect for the affected analytes; therefore, the data have been reported. The following samples are impacted: TP-10 (0-4) (480-128189-1) and TP-11 (5-8) (480-128189-6).

Method(s) 8151A: Surrogate recovery for the CCVs associated with batch 480-350585 are elevated and outside the upper control limit: The surrogate recoveries for some of the associated batch 480-390029 are also elevated, though they do not contain any target analytes; therefore, re-analysis was not performed.

Method(s) 8151A: All primary data for analytical batch 390585 is reported from the RTX-CLPI column.

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

Metals

Method(s) 6010C: The Serial Dilution (480-128189-A-6-A SD) in batch 480-390073, exhibited a result outside the quality control limits for Total Manganese. However, the Post Digestion Spike was compliant so no corrective action was necessary

Method(s) 6010C: The % recovery of Post Spike, (480-128189-A-6-A PDS), in batch 480-390073 exhibited results outside the quality control limits for Total Iron. However, the Serial Dilution of this sample was compliant. Therefore, no corrective action was necessary.

Method(s) 6010C: The following sample was diluted due to the presence of Total Chromium which interferes with Arsenic, Antimony, and Zinc: TP-10 (0-4) (480-128189-1). Elevated reporting limits (RLs) are provided.

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

Organic Prep

Method(s) 3550C: The following samples required a Florisil clean-up, via EPA Method 3620C, to reduce matrix interferences: TP-10 (0-4) (480-128189-1) and TP-11 (5-8) (480-128189-6).

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

Detection Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128189-1

Client Sample ID: TP-10 (0-4) — Lab Sample ID: 480-128189-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	560	J	4300	550	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]anthracene	2600	J	4300	430	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]pyrene	2500	J	4300	630	ug/Kg	20	☼	8270D	Total/NA
Benzo[b]fluoranthene	3500	J	4300	680	ug/Kg	20	☼	8270D	Total/NA
Benzo[g,h,i]perylene	1700	J	4300	450	ug/Kg	20	☼	8270D	Total/NA
Benzo[k]fluoranthene	1600	J	4300	550	ug/Kg	20	☼	8270D	Total/NA
Chrysene	2900	J	4300	960	ug/Kg	20	☼	8270D	Total/NA
Fluoranthene	4900		4300	450	ug/Kg	20	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	1800	J	4300	530	ug/Kg	20	☼	8270D	Total/NA
Phenanthrene	2200	J	4300	630	ug/Kg	20	☼	8270D	Total/NA
Pyrene	4100	J	4300	500	ug/Kg	20	☼	8270D	Total/NA
alpha-BHC	12	J B	42	7.5	ug/Kg	20	☼	8081B	Total/NA
beta-BHC	8.9	J B	42	7.5	ug/Kg	20	☼	8081B	Total/NA
Methoxychlor	67		42	8.5	ug/Kg	20	☼	8081B	Total/NA
Aluminum	7590		12.1	5.3	mg/Kg	1	☼	6010C	Total/NA
Antimony	3.0	J	36.3	0.97	mg/Kg	2	☼	6010C	Total/NA
Arsenic	17.2		4.8	0.97	mg/Kg	2	☼	6010C	Total/NA
Barium	166		0.60	0.13	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.69		0.24	0.034	mg/Kg	1	☼	6010C	Total/NA
Cadmium	1.4		0.24	0.036	mg/Kg	1	☼	6010C	Total/NA
Calcium	20000	B	60.4	4.0	mg/Kg	1	☼	6010C	Total/NA
Chromium	1300		1.2	0.48	mg/Kg	2	☼	6010C	Total/NA
Cobalt	11.6		0.60	0.060	mg/Kg	1	☼	6010C	Total/NA
Copper	190		1.2	0.25	mg/Kg	1	☼	6010C	Total/NA
Iron	20500		12.1	4.2	mg/Kg	1	☼	6010C	Total/NA
Lead	344		1.2	0.29	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4310		24.2	1.1	mg/Kg	1	☼	6010C	Total/NA
Manganese	286	B	0.24	0.039	mg/Kg	1	☼	6010C	Total/NA
Nickel	189		6.0	0.28	mg/Kg	1	☼	6010C	Total/NA
Potassium	1140	B	36.3	24.2	mg/Kg	1	☼	6010C	Total/NA
Selenium	1.3	J	4.8	0.48	mg/Kg	1	☼	6010C	Total/NA
Silver	0.56	J	0.73	0.24	mg/Kg	1	☼	6010C	Total/NA
Sodium	249	B	169	15.7	mg/Kg	1	☼	6010C	Total/NA
Vanadium	28.1		0.60	0.13	mg/Kg	1	☼	6010C	Total/NA
Zinc	222		4.8	1.5	mg/Kg	2	☼	6010C	Total/NA
Mercury	0.17		0.024	0.0097	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: BLIND DUP #2 — Lab Sample ID: 480-128189-2

No Detections.

Client Sample ID: BLIND DUP #3 — Lab Sample ID: 480-128189-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	430	J	1900	250	ug/Kg	10	☼	8270D	Total/NA
Anthracene	520	J	1900	480	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]anthracene	1900		1900	190	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]pyrene	1900		1900	290	ug/Kg	10	☼	8270D	Total/NA
Benzo[b]fluoranthene	2400		1900	310	ug/Kg	10	☼	8270D	Total/NA
Benzo[g,h,i]perylene	1400	J	1900	210	ug/Kg	10	☼	8270D	Total/NA
Benzo[k]fluoranthene	1100	J	1900	250	ug/Kg	10	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: BLIND DUP #3 (Continued)

Lab Sample ID: 480-128189-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbazole	280	J	1900	230	ug/Kg	10	☼	8270D	Total/NA
Chrysene	1900		1900	440	ug/Kg	10	☼	8270D	Total/NA
Dibenz(a,h)anthracene	460	J	1900	340	ug/Kg	10	☼	8270D	Total/NA
Di-n-butyl phthalate	530	J	1900	330	ug/Kg	10	☼	8270D	Total/NA
Fluoranthene	3800		1900	210	ug/Kg	10	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	1300	J	1900	240	ug/Kg	10	☼	8270D	Total/NA
Phenanthrene	2000		1900	290	ug/Kg	10	☼	8270D	Total/NA
Pyrene	2900		1900	230	ug/Kg	10	☼	8270D	Total/NA
Aluminum	7400		10.7	4.7	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.71	J	16.0	0.43	mg/Kg	1	☼	6010C	Total/NA
Arsenic	15.1		2.1	0.43	mg/Kg	1	☼	6010C	Total/NA
Barium	167		0.53	0.12	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.63		0.21	0.030	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.87		0.21	0.032	mg/Kg	1	☼	6010C	Total/NA
Calcium	14200	B	53.4	3.5	mg/Kg	1	☼	6010C	Total/NA
Chromium	77.7		0.53	0.21	mg/Kg	1	☼	6010C	Total/NA
Cobalt	8.9		0.53	0.053	mg/Kg	1	☼	6010C	Total/NA
Copper	81.9		1.1	0.22	mg/Kg	1	☼	6010C	Total/NA
Iron	11200		10.7	3.7	mg/Kg	1	☼	6010C	Total/NA
Lead	335		1.1	0.26	mg/Kg	1	☼	6010C	Total/NA
Magnesium	2770		21.4	0.99	mg/Kg	1	☼	6010C	Total/NA
Manganese	196	B	0.21	0.034	mg/Kg	1	☼	6010C	Total/NA
Nickel	28.8		5.3	0.25	mg/Kg	1	☼	6010C	Total/NA
Potassium	1140	B	32.1	21.4	mg/Kg	1	☼	6010C	Total/NA
Sodium	194	B	150	13.9	mg/Kg	1	☼	6010C	Total/NA
Vanadium	24.2		0.53	0.12	mg/Kg	1	☼	6010C	Total/NA
Zinc	171		2.1	0.68	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.29		0.023	0.0092	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: TP-14 (10-15)

Lab Sample ID: 480-128189-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	290	J	980	98	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]pyrene	410	J	980	140	ug/Kg	5	☼	8270D	Total/NA
Benzo[b]fluoranthene	560	J	980	160	ug/Kg	5	☼	8270D	Total/NA
Benzo[g,h,i]perylene	280	J	980	100	ug/Kg	5	☼	8270D	Total/NA
Benzo[k]fluoranthene	190	J	980	130	ug/Kg	5	☼	8270D	Total/NA
Chrysene	330	J	980	220	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene	470	J	980	100	ug/Kg	5	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	330	J	980	120	ug/Kg	5	☼	8270D	Total/NA
Phenanthrene	250	J	980	140	ug/Kg	5	☼	8270D	Total/NA
Pyrene	400	J	980	120	ug/Kg	5	☼	8270D	Total/NA
Aluminum	7240		11.1	4.9	mg/Kg	1	☼	6010C	Total/NA
Antimony	1.0	J	16.6	0.44	mg/Kg	1	☼	6010C	Total/NA
Arsenic	4.5		2.2	0.44	mg/Kg	1	☼	6010C	Total/NA
Barium	69.8		0.55	0.12	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.39		0.22	0.031	mg/Kg	1	☼	6010C	Total/NA
Cadmium	4.1		0.22	0.033	mg/Kg	1	☼	6010C	Total/NA
Calcium	4180	B	55.3	3.7	mg/Kg	1	☼	6010C	Total/NA
Chromium	16.4		0.55	0.22	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TP-14 (10-15) (Continued) — Lab Sample ID: 480-128189-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	3.9		0.55	0.055	mg/Kg	1	☼	6010C	Total/NA
Copper	38.3		1.1	0.23	mg/Kg	1	☼	6010C	Total/NA
Iron	24100		11.1	3.9	mg/Kg	1	☼	6010C	Total/NA
Lead	113		1.1	0.27	mg/Kg	1	☼	6010C	Total/NA
Magnesium	1270		22.1	1.0	mg/Kg	1	☼	6010C	Total/NA
Manganese	775	B	0.22	0.035	mg/Kg	1	☼	6010C	Total/NA
Nickel	14.6		5.5	0.25	mg/Kg	1	☼	6010C	Total/NA
Potassium	1300	B	33.2	22.1	mg/Kg	1	☼	6010C	Total/NA
Sodium	155	B	155	14.4	mg/Kg	1	☼	6010C	Total/NA
Vanadium	15.3		0.55	0.12	mg/Kg	1	☼	6010C	Total/NA
Zinc	137		2.2	0.71	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.11		0.024	0.0096	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: TP-15 (8-10) — Lab Sample ID: 480-128189-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	160	J	920	92	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]pyrene	240	J	920	140	ug/Kg	5	☼	8270D	Total/NA
Benzo[b]fluoranthene	370	J	920	150	ug/Kg	5	☼	8270D	Total/NA
Benzo[g,h,i]perylene	140	J	920	98	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene	330	J	920	98	ug/Kg	5	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	200	J	920	110	ug/Kg	5	☼	8270D	Total/NA
Phenanthrene	230	J	920	140	ug/Kg	5	☼	8270D	Total/NA
Aluminum	4630		10.7	4.7	mg/Kg	1	☼	6010C	Total/NA
Arsenic	5.6		2.1	0.43	mg/Kg	1	☼	6010C	Total/NA
Barium	54.7		0.54	0.12	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.22		0.21	0.030	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.089	J	0.21	0.032	mg/Kg	1	☼	6010C	Total/NA
Calcium	5950	B	53.7	3.5	mg/Kg	1	☼	6010C	Total/NA
Chromium	13.3		0.54	0.21	mg/Kg	1	☼	6010C	Total/NA
Cobalt	3.6		0.54	0.054	mg/Kg	1	☼	6010C	Total/NA
Copper	42.4		1.1	0.23	mg/Kg	1	☼	6010C	Total/NA
Iron	22200		10.7	3.8	mg/Kg	1	☼	6010C	Total/NA
Lead	34.5		1.1	0.26	mg/Kg	1	☼	6010C	Total/NA
Magnesium	1140		21.5	1.0	mg/Kg	1	☼	6010C	Total/NA
Manganese	565	B	0.21	0.034	mg/Kg	1	☼	6010C	Total/NA
Nickel	8.5		5.4	0.25	mg/Kg	1	☼	6010C	Total/NA
Potassium	908	B	32.2	21.5	mg/Kg	1	☼	6010C	Total/NA
Sodium	92.8	J B	150	14.0	mg/Kg	1	☼	6010C	Total/NA
Vanadium	14.7		0.54	0.12	mg/Kg	1	☼	6010C	Total/NA
Zinc	97.1		2.1	0.69	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.042		0.020	0.0082	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: TP-11 (5-8) — Lab Sample ID: 480-128189-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	490	J	960	96	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]pyrene	560	J	960	140	ug/Kg	5	☼	8270D	Total/NA
Benzo[b]fluoranthene	770	J	960	150	ug/Kg	5	☼	8270D	Total/NA
Benzo[g,h,i]perylene	310	J	960	100	ug/Kg	5	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TP-11 (5-8) (Continued)

Lab Sample ID: 480-128189-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[k]fluoranthene	360	J	960	120	ug/Kg	5	☼	8270D	Total/NA
Chrysene	470	J	960	210	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene	930	J	960	100	ug/Kg	5	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	350	J	960	120	ug/Kg	5	☼	8270D	Total/NA
Phenanthrene	160	J	960	140	ug/Kg	5	☼	8270D	Total/NA
Pyrene	590	J	960	110	ug/Kg	5	☼	8270D	Total/NA
alpha-BHC	1.2	J B	3.8	0.68	ug/Kg	2	☼	8081B	Total/NA
beta-BHC	0.77	J B	3.8	0.68	ug/Kg	2	☼	8081B	Total/NA
Endosulfan sulfate	1.9	J	3.8	0.70	ug/Kg	2	☼	8081B	Total/NA
gamma-BHC (Lindane)	1.6	J	3.8	0.69	ug/Kg	2	☼	8081B	Total/NA
Methoxychlor	5.2		3.8	0.77	ug/Kg	2	☼	8081B	Total/NA
Aluminum	8190	F1	10.8	4.8	mg/Kg	1	☼	6010C	Total/NA
Arsenic	4.7		2.2	0.43	mg/Kg	1	☼	6010C	Total/NA
Barium	72.3	F1	0.54	0.12	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.33		0.22	0.030	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.16	J	0.22	0.032	mg/Kg	1	☼	6010C	Total/NA
Calcium	6000	B F1 F2	54.0	3.6	mg/Kg	1	☼	6010C	Total/NA
Chromium	11.8		0.54	0.22	mg/Kg	1	☼	6010C	Total/NA
Cobalt	3.5		0.54	0.054	mg/Kg	1	☼	6010C	Total/NA
Copper	29.0	F1	1.1	0.23	mg/Kg	1	☼	6010C	Total/NA
Iron	14600	F2	10.8	3.8	mg/Kg	1	☼	6010C	Total/NA
Lead	23.7		1.1	0.26	mg/Kg	1	☼	6010C	Total/NA
Magnesium	1770		21.6	1.0	mg/Kg	1	☼	6010C	Total/NA
Manganese	549	B	0.22	0.035	mg/Kg	1	☼	6010C	Total/NA
Nickel	9.6		5.4	0.25	mg/Kg	1	☼	6010C	Total/NA
Potassium	1400	B F1	32.4	21.6	mg/Kg	1	☼	6010C	Total/NA
Sodium	113	J B	151	14.0	mg/Kg	1	☼	6010C	Total/NA
Vanadium	18.9		0.54	0.12	mg/Kg	1	☼	6010C	Total/NA
Zinc	58.6		2.2	0.69	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.024		0.022	0.0090	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: TP-8 (6-9)

Lab Sample ID: 480-128189-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	13	J F2	42	7.0	ug/Kg	1	☼	8260C	Total/NA
4-Methylphenol	830	J	9900	600	ug/Kg	20	☼	8270D	Total/NA
Acenaphthylene	920	J	5100	660	ug/Kg	20	☼	8270D	Total/NA
Anthracene	2100	J	5100	1300	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]anthracene	4200	J	5100	510	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]pyrene	4200	J	5100	750	ug/Kg	20	☼	8270D	Total/NA
Benzo[b]fluoranthene	6100		5100	810	ug/Kg	20	☼	8270D	Total/NA
Benzo[g,h,i]perylene	2900	J	5100	540	ug/Kg	20	☼	8270D	Total/NA
Benzo[k]fluoranthene	2400	J	5100	660	ug/Kg	20	☼	8270D	Total/NA
Chrysene	6200		5100	1100	ug/Kg	20	☼	8270D	Total/NA
Dibenzofuran	660	J	5100	600	ug/Kg	20	☼	8270D	Total/NA
Fluoranthene	14000		5100	540	ug/Kg	20	☼	8270D	Total/NA
Fluorene	1700	J	5100	600	ug/Kg	20	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	2800	J	5100	630	ug/Kg	20	☼	8270D	Total/NA
Phenanthrene	6200		5100	750	ug/Kg	20	☼	8270D	Total/NA
Pyrene	11000		5100	600	ug/Kg	20	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TP-8 (6-9) (Continued)

Lab Sample ID: 480-128189-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	6760		15.8	7.0	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.68	J	23.7	0.63	mg/Kg	1	☼	6010C	Total/NA
Arsenic	14.8		3.2	0.63	mg/Kg	1	☼	6010C	Total/NA
Barium	155		0.79	0.17	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.68		0.32	0.044	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.35		0.32	0.047	mg/Kg	1	☼	6010C	Total/NA
Calcium	3470	B	79.0	5.2	mg/Kg	1	☼	6010C	Total/NA
Chromium	14.6		0.79	0.32	mg/Kg	1	☼	6010C	Total/NA
Cobalt	11.8		0.79	0.079	mg/Kg	1	☼	6010C	Total/NA
Copper	682		1.6	0.33	mg/Kg	1	☼	6010C	Total/NA
Iron	17800		15.8	5.5	mg/Kg	1	☼	6010C	Total/NA
Lead	442		1.6	0.38	mg/Kg	1	☼	6010C	Total/NA
Magnesium	521		31.6	1.5	mg/Kg	1	☼	6010C	Total/NA
Manganese	259	B	0.32	0.051	mg/Kg	1	☼	6010C	Total/NA
Nickel	22.0		7.9	0.36	mg/Kg	1	☼	6010C	Total/NA
Potassium	1230	B	47.4	31.6	mg/Kg	1	☼	6010C	Total/NA
Selenium	0.74	J	6.3	0.63	mg/Kg	1	☼	6010C	Total/NA
Sodium	299	B	221	20.5	mg/Kg	1	☼	6010C	Total/NA
Vanadium	48.4		0.79	0.17	mg/Kg	1	☼	6010C	Total/NA
Zinc	199		3.2	1.0	mg/Kg	1	☼	6010C	Total/NA
Mercury	3.0		0.29	0.12	mg/Kg	10	☼	7471B	Total/NA

Client Sample ID: TP-12 (10-12)

Lab Sample ID: 480-128189-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	530	J	1300	130	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]pyrene	510	J	1300	190	ug/Kg	5	☼	8270D	Total/NA
Benzo[b]fluoranthene	700	J	1300	200	ug/Kg	5	☼	8270D	Total/NA
Benzo[g,h,i]perylene	290	J	1300	140	ug/Kg	5	☼	8270D	Total/NA
Chrysene	470	J	1300	290	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene	1300		1300	140	ug/Kg	5	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	350	J	1300	160	ug/Kg	5	☼	8270D	Total/NA
Phenanthrene	1000	J	1300	190	ug/Kg	5	☼	8270D	Total/NA
Pyrene	970	J	1300	150	ug/Kg	5	☼	8270D	Total/NA
Aluminum	12000		16.4	7.2	mg/Kg	1	☼	6010C	Total/NA
Antimony	1.5	J	24.6	0.66	mg/Kg	1	☼	6010C	Total/NA
Arsenic	21.0		3.3	0.66	mg/Kg	1	☼	6010C	Total/NA
Barium	196		0.82	0.18	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.73		0.33	0.046	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.49		0.33	0.049	mg/Kg	1	☼	6010C	Total/NA
Calcium	3190	B	82.1	5.4	mg/Kg	1	☼	6010C	Total/NA
Chromium	20.1		0.82	0.33	mg/Kg	1	☼	6010C	Total/NA
Cobalt	15.5		0.82	0.082	mg/Kg	1	☼	6010C	Total/NA
Copper	53.1		1.6	0.34	mg/Kg	1	☼	6010C	Total/NA
Iron	26100		16.4	5.7	mg/Kg	1	☼	6010C	Total/NA
Lead	332		1.6	0.39	mg/Kg	1	☼	6010C	Total/NA
Magnesium	573		32.8	1.5	mg/Kg	1	☼	6010C	Total/NA
Manganese	186	B	0.33	0.053	mg/Kg	1	☼	6010C	Total/NA
Nickel	29.9		8.2	0.38	mg/Kg	1	☼	6010C	Total/NA
Potassium	3020	B	49.3	32.8	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TP-12 (10-12) (Continued)

Lab Sample ID: 480-128189-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	6.7		6.6	0.66	mg/Kg	1	☼	6010C	Total/NA
Sodium	566	B	230	21.4	mg/Kg	1	☼	6010C	Total/NA
Vanadium	62.0		0.82	0.18	mg/Kg	1	☼	6010C	Total/NA
Zinc	312		3.3	1.1	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.32		0.031	0.013	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: TP-9 (10-12)

Lab Sample ID: 480-128189-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4-Isopropyltoluene	58		7.2	0.58	ug/Kg	1	☼	8260C	Total/NA
Acetone	7.8	J	36	6.1	ug/Kg	1	☼	8260C	Total/NA
Methylene Chloride	3.4	J	7.2	3.3	ug/Kg	1	☼	8260C	Total/NA
Benzo[a]anthracene	600	J	1100	110	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]pyrene	610	J	1100	160	ug/Kg	5	☼	8270D	Total/NA
Benzo[b]fluoranthene	730	J	1100	170	ug/Kg	5	☼	8270D	Total/NA
Benzo[g,h,i]perylene	320	J	1100	110	ug/Kg	5	☼	8270D	Total/NA
Benzo[k]fluoranthene	250	J	1100	140	ug/Kg	5	☼	8270D	Total/NA
Chrysene	520	J	1100	240	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene	1200		1100	110	ug/Kg	5	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	370	J	1100	130	ug/Kg	5	☼	8270D	Total/NA
Phenanthrene	730	J	1100	160	ug/Kg	5	☼	8270D	Total/NA
Pyrene	1000	J	1100	130	ug/Kg	5	☼	8270D	Total/NA
Aluminum	5820		11.9	5.2	mg/Kg	1	☼	6010C	Total/NA
Arsenic	8.0		2.4	0.48	mg/Kg	1	☼	6010C	Total/NA
Barium	430		0.60	0.13	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.43		0.24	0.033	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.69		0.24	0.036	mg/Kg	1	☼	6010C	Total/NA
Calcium	16900	B	59.5	3.9	mg/Kg	1	☼	6010C	Total/NA
Chromium	18.7		0.60	0.24	mg/Kg	1	☼	6010C	Total/NA
Cobalt	4.4		0.60	0.060	mg/Kg	1	☼	6010C	Total/NA
Copper	29.2		1.2	0.25	mg/Kg	1	☼	6010C	Total/NA
Iron	11700		11.9	4.2	mg/Kg	1	☼	6010C	Total/NA
Lead	476		1.2	0.29	mg/Kg	1	☼	6010C	Total/NA
Magnesium	1830		23.8	1.1	mg/Kg	1	☼	6010C	Total/NA
Manganese	165	B	0.24	0.038	mg/Kg	1	☼	6010C	Total/NA
Nickel	15.3		6.0	0.27	mg/Kg	1	☼	6010C	Total/NA
Potassium	1480	B	35.7	23.8	mg/Kg	1	☼	6010C	Total/NA
Selenium	0.48	J	4.8	0.48	mg/Kg	1	☼	6010C	Total/NA
Sodium	189	B	167	15.5	mg/Kg	1	☼	6010C	Total/NA
Vanadium	18.4		0.60	0.13	mg/Kg	1	☼	6010C	Total/NA
Zinc	278		2.4	0.76	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.20		0.025	0.010	mg/Kg	1	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TP-10 (0-4)
Date Collected: 11/29/17 09:12
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128189-1
Matrix: Solid
Percent Solids: 78.8

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		7.3	0.53	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
1,1,2,2-Tetrachloroethane	ND	*	7.3	1.2	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		7.3	1.7	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
1,1,2-Trichloroethane	ND		7.3	0.95	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
1,1-Dichloroethane	ND		7.3	0.89	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
1,1-Dichloroethene	ND		7.3	0.89	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
1,2,4-Trichlorobenzene	ND		7.3	0.44	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
1,2,4-Trimethylbenzene	ND		7.3	1.4	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
1,2-Dibromo-3-Chloropropane	ND	*	7.3	3.6	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
1,2-Dibromoethane	ND		7.3	0.93	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
1,2-Dichlorobenzene	ND		7.3	0.57	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
1,2-Dichloroethane	ND		7.3	0.37	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
1,2-Dichloropropane	ND		7.3	3.6	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
1,3,5-Trimethylbenzene	ND		7.3	0.47	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
1,3-Dichlorobenzene	ND		7.3	0.37	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
1,4-Dichlorobenzene	ND		7.3	1.0	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
2-Butanone (MEK)	ND		36	2.7	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
2-Hexanone	ND		36	3.6	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
4-Isopropyltoluene	ND		7.3	0.58	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
4-Methyl-2-pentanone (MIBK)	ND		36	2.4	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
Acetone	ND	*	36	6.1	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
Benzene	ND		7.3	0.36	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
Bromodichloromethane	ND		7.3	0.98	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
Bromoform	ND		7.3	3.6	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
Bromomethane	ND		7.3	0.65	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
Carbon disulfide	ND		7.3	3.6	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
Carbon tetrachloride	ND		7.3	0.70	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
Chlorobenzene	ND		7.3	0.96	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
Chloroethane	ND		7.3	1.6	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
Chloroform	ND		7.3	0.45	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
Chloromethane	ND	*	7.3	0.44	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
cis-1,2-Dichloroethene	ND		7.3	0.93	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
cis-1,3-Dichloropropene	ND		7.3	1.0	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
Cyclohexane	ND		7.3	1.0	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
Dibromochloromethane	ND	*	7.3	0.93	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
Dichlorodifluoromethane	ND		7.3	0.60	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
Ethylbenzene	ND		7.3	0.50	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
Isopropylbenzene	ND		7.3	1.1	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
m,p-Xylene	ND		15	1.2	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
Methyl acetate	ND		36	4.4	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
Methyl tert-butyl ether	ND		7.3	0.71	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
Methylcyclohexane	ND		7.3	1.1	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
Methylene Chloride	ND		7.3	3.3	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
n-Butylbenzene	ND		7.3	0.63	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
N-Propylbenzene	ND		7.3	0.58	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
o-Xylene	ND		7.3	0.95	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
sec-Butylbenzene	ND		7.3	0.63	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
Styrene	ND		7.3	0.36	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
tert-Butylbenzene	ND		7.3	0.76	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1

Client Sample ID: TP-10 (0-4)
Date Collected: 11/29/17 09:12
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128189-1
Matrix: Solid
Percent Solids: 78.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		7.3	0.98	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
Toluene	ND		7.3	0.55	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
trans-1,2-Dichloroethene	ND		7.3	0.75	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
trans-1,3-Dichloropropene	ND		7.3	3.2	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
Trichloroethene	ND		7.3	1.6	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
Trichlorofluoromethane	ND		7.3	0.69	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
Vinyl chloride	ND		7.3	0.89	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1
Xylenes, Total	ND		15	1.2	ug/Kg	☼	11/30/17 16:20	12/06/17 17:03	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Methane, chlorodifluoro-	*12*	*T J N*	*ug/Kg*	☼	*1.84*	*75-45-6*	*11/30/17 16:20*	*12/06/17 17:03*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*64 - 126*	*11/30/17 16:20*	*12/06/17 17:03*	*1*
4-Bromofluorobenzene (Surr)	*93*		*72 - 126*	*11/30/17 16:20*	*12/06/17 17:03*	*1*
Dibromofluoromethane (Surr)	*105*		*60 - 140*	*11/30/17 16:20*	*12/06/17 17:03*	*1*
Toluene-d8 (Surr)	*99*		*71 - 125*	*11/30/17 16:20*	*12/06/17 17:03*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		4300	1200	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
2,4,6-Trichlorophenol	ND		4300	860	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
2,4-Dichlorophenol	ND		4300	450	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
2,4-Dimethylphenol	ND		4300	1000	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
2,4-Dinitrophenol	ND		42000	20000	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
2,4-Dinitrotoluene	ND		4300	880	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
2,6-Dinitrotoluene	ND		4300	500	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
2-Chloronaphthalene	ND		4300	700	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
2-Chlorophenol	ND		4300	780	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
2-Methylnaphthalene	ND		4300	860	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
2-Methylphenol	ND		4300	500	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
2-Nitroaniline	ND		8300	630	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
2-Nitrophenol	ND		4300	1200	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
3,3'-Dichlorobenzidine	ND		8300	5000	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
3-Nitroaniline	ND		8300	1200	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
4,6-Dinitro-2-methylphenol	ND		8300	4300	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
4-Bromophenyl phenyl ether	ND		4300	600	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
4-Chloro-3-methylphenol	ND		4300	1100	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
4-Chloroaniline	ND		4300	1100	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
4-Chlorophenyl phenyl ether	ND		4300	530	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
4-Methylphenol	ND		8300	500	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
4-Nitroaniline	ND		8300	2200	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
4-Nitrophenol	ND		8300	3000	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Acenaphthene	ND		4300	630	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Acenaphthylene	**560**	**J**	4300	550	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Acetophenone	ND		4300	580	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Anthracene	ND		4300	1100	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Atrazine	ND		4300	1500	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Benzaldehyde	ND		4300	3400	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Benzo[a]anthracene	**2600**	**J**	4300	430	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20

Client Sample ID: TP-10 (0-4)
Date Collected: 11/29/17 09:12
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128189-1
Matrix: Solid
Percent Solids: 78.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	2500	J	4300	630	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Benzo[b]fluoranthene	3500	J	4300	680	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Benzo[g,h,i]perylene	1700	J	4300	450	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Benzo[k]fluoranthene	1600	J	4300	550	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Biphenyl	ND		4300	630	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
bis (2-chloroisopropyl) ether	ND		4300	860	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Bis(2-chloroethoxy)methane	ND		4300	910	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Bis(2-chloroethyl)ether	ND		4300	550	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Bis(2-ethylhexyl) phthalate	ND		4300	1500	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Butyl benzyl phthalate	ND		4300	700	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Caprolactam	ND		4300	1300	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Carbazole	ND		4300	500	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Chrysene	2900	J	4300	960	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Dibenz(a,h)anthracene	ND		4300	750	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Dibenzofuran	ND		4300	500	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Diethyl phthalate	ND		4300	550	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Dimethyl phthalate	ND		4300	500	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Di-n-butyl phthalate	ND		4300	730	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Di-n-octyl phthalate	ND		4300	500	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Fluoranthene	4900		4300	450	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Fluorene	ND		4300	500	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Hexachlorobenzene	ND		4300	580	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Hexachlorobutadiene	ND		4300	630	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Hexachlorocyclopentadiene	ND		4300	580	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Hexachloroethane	ND		4300	550	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Indeno[1,2,3-cd]pyrene	1800	J	4300	530	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Isophorone	ND		4300	910	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Naphthalene	ND		4300	550	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Nitrobenzene	ND		4300	480	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
N-Nitrosodi-n-propylamine	ND		4300	730	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
N-Nitrosodiphenylamine	ND		4300	3500	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Pentachlorophenol	ND		8300	4300	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Phenanthrene	2200	J	4300	630	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Phenol	ND		4300	650	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20
Pyrene	4100	J	4300	500	ug/Kg	☼	12/01/17 14:15	12/03/17 19:31	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*0*	*X*	*54 - 120*	*12/01/17 14:15*	*12/03/17 19:31*	*20*
2-Fluorobiphenyl	*60*		*60 - 120*	*12/01/17 14:15*	*12/03/17 19:31*	*20*
2-Fluorophenol	*79*		*52 - 120*	*12/01/17 14:15*	*12/03/17 19:31*	*20*
Nitrobenzene-d5	*81*		*53 - 120*	*12/01/17 14:15*	*12/03/17 19:31*	*20*
Phenol-d5	*74*		*54 - 120*	*12/01/17 14:15*	*12/03/17 19:31*	*20*
p-Terphenyl-d14	*93*		*65 - 121*	*12/01/17 14:15*	*12/03/17 19:31*	*20*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		42	8.1	ug/Kg	☼	12/01/17 09:23	12/02/17 19:45	20
4,4'-DDE	ND		42	8.8	ug/Kg	☼	12/01/17 09:23	12/02/17 19:45	20
4,4'-DDT	ND		42	9.8	ug/Kg	☼	12/01/17 09:23	12/02/17 19:45	20
Aldrin	ND		42	10	ug/Kg	☼	12/01/17 09:23	12/02/17 19:45	20

Client Sample ID: TP-10 (0-4)
Date Collected: 11/29/17 09:12
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128189-1
Matrix: Solid
Percent Solids: 78.8

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
alpha-BHC	12	J B	42	7.5	ug/Kg	☼	12/01/17 09:23	12/02/17 19:45	20
alpha-Chlordane	ND		42	21	ug/Kg	☼	12/01/17 09:23	12/02/17 19:45	20
beta-BHC	8.9	J B	42	7.5	ug/Kg	☼	12/01/17 09:23	12/02/17 19:45	20
delta-BHC	ND		42	7.8	ug/Kg	☼	12/01/17 09:23	12/02/17 19:45	20
Dieldrin	ND		42	10	ug/Kg	☼	12/01/17 09:23	12/02/17 19:45	20
Endosulfan I	ND		42	8.0	ug/Kg	☼	12/01/17 09:23	12/02/17 19:45	20
Endosulfan II	ND		42	7.5	ug/Kg	☼	12/01/17 09:23	12/02/17 19:45	20
Endosulfan sulfate	ND		42	7.8	ug/Kg	☼	12/01/17 09:23	12/02/17 19:45	20
Endrin	ND		42	8.3	ug/Kg	☼	12/01/17 09:23	12/02/17 19:45	20
Endrin aldehyde	ND		42	11	ug/Kg	☼	12/01/17 09:23	12/02/17 19:45	20
Endrin ketone	ND		42	10	ug/Kg	☼	12/01/17 09:23	12/02/17 19:45	20
gamma-BHC (Lindane)	ND		42	7.7	ug/Kg	☼	12/01/17 09:23	12/02/17 19:45	20
gamma-Chlordane	ND		42	13	ug/Kg	☼	12/01/17 09:23	12/02/17 19:45	20
Heptachlor	ND		42	9.1	ug/Kg	☼	12/01/17 09:23	12/02/17 19:45	20
Heptachlor epoxide	ND		42	11	ug/Kg	☼	12/01/17 09:23	12/02/17 19:45	20
Methoxychlor	67		42	8.5	ug/Kg	☼	12/01/17 09:23	12/02/17 19:45	20
Toxaphene	ND		420	240	ug/Kg	☼	12/01/17 09:23	12/02/17 19:45	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*229*	*X*	*45 - 120*	*12/01/17 09:23*	*12/02/17 19:45*	*20*
DCB Decachlorobiphenyl	*608*	*X*	*45 - 120*	*12/01/17 09:23*	*12/02/17 19:45*	*20*
Tetrachloro-m-xylene	*170*	*X*	*30 - 124*	*12/01/17 09:23*	*12/02/17 19:45*	*20*
Tetrachloro-m-xylene	*166*	*X*	*30 - 124*	*12/01/17 09:23*	*12/02/17 19:45*	*20*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.30	0.058	mg/Kg	☼	12/02/17 07:35	12/04/17 14:17	1
PCB-1221	ND		0.30	0.058	mg/Kg	☼	12/02/17 07:35	12/04/17 14:17	1
PCB-1232	ND		0.30	0.058	mg/Kg	☼	12/02/17 07:35	12/04/17 14:17	1
PCB-1242	ND		0.30	0.058	mg/Kg	☼	12/02/17 07:35	12/04/17 14:17	1
PCB-1248	ND		0.30	0.058	mg/Kg	☼	12/02/17 07:35	12/04/17 14:17	1
PCB-1254	ND		0.30	0.14	mg/Kg	☼	12/02/17 07:35	12/04/17 14:17	1
PCB-1260	ND		0.30	0.14	mg/Kg	☼	12/02/17 07:35	12/04/17 14:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*88*		*60 - 154*	*12/02/17 07:35*	*12/04/17 14:17*	*1*
Tetrachloro-m-xylene	*92*		*60 - 154*	*12/02/17 07:35*	*12/04/17 14:17*	*1*
DCB Decachlorobiphenyl	*81*		*65 - 174*	*12/02/17 07:35*	*12/04/17 14:17*	*1*
DCB Decachlorobiphenyl	*90*		*65 - 174*	*12/02/17 07:35*	*12/04/17 14:17*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		21	6.7	ug/Kg	☼	12/01/17 09:29	12/05/17 17:42	1
Silvex (2,4,5-TP)	ND		21	7.6	ug/Kg	☼	12/01/17 09:29	12/05/17 17:42	1
2,4-D	ND		21	13	ug/Kg	☼	12/01/17 09:29	12/05/17 17:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*126*		*28 - 129*	*12/01/17 09:29*	*12/05/17 17:42*	*1*
2,4-Dichlorophenylacetic acid	*120*		*28 - 129*	*12/01/17 09:29*	*12/05/17 17:42*	*1*

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128189-1

Client Sample ID: TP-10 (0-4)
Date Collected: 11/29/17 09:12
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128189-1
Matrix: Solid
Percent Solids: 78.8

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	7590		12.1	5.3	mg/Kg	☼	12/01/17 15:49	12/06/17 05:05	1
Antimony	3.0	J	36.3	0.97	mg/Kg	☼	12/01/17 15:49	12/06/17 20:16	2
Arsenic	17.2		4.8	0.97	mg/Kg	☼	12/01/17 15:49	12/06/17 20:16	2
Barium	166		0.60	0.13	mg/Kg	☼	12/01/17 15:49	12/06/17 05:05	1
Beryllium	0.69		0.24	0.034	mg/Kg	☼	12/01/17 15:49	12/06/17 05:05	1
Cadmium	1.4		0.24	0.036	mg/Kg	☼	12/01/17 15:49	12/06/17 05:05	1
Calcium	20000	B	60.4	4.0	mg/Kg	☼	12/01/17 15:49	12/06/17 05:05	1
Chromium	1300		1.2	0.48	mg/Kg	☼	12/01/17 15:49	12/06/17 20:16	2
Cobalt	11.6		0.60	0.060	mg/Kg	☼	12/01/17 15:49	12/06/17 05:05	1
Copper	190		1.2	0.25	mg/Kg	☼	12/01/17 15:49	12/06/17 05:05	1
Iron	20500		12.1	4.2	mg/Kg	☼	12/01/17 15:49	12/06/17 05:05	1
Lead	344		1.2	0.29	mg/Kg	☼	12/01/17 15:49	12/06/17 05:05	1
Magnesium	4310		24.2	1.1	mg/Kg	☼	12/01/17 15:49	12/06/17 05:05	1
Manganese	286	B	0.24	0.039	mg/Kg	☼	12/01/17 15:49	12/06/17 05:05	1
Nickel	189		6.0	0.28	mg/Kg	☼	12/01/17 15:49	12/06/17 05:05	1
Potassium	1140	B	36.3	24.2	mg/Kg	☼	12/01/17 15:49	12/06/17 05:05	1
Selenium	1.3	J	4.8	0.48	mg/Kg	☼	12/01/17 15:49	12/06/17 05:05	1
Silver	0.56	J	0.73	0.24	mg/Kg	☼	12/01/17 15:49	12/06/17 05:05	1
Sodium	249	B	169	15.7	mg/Kg	☼	12/01/17 15:49	12/06/17 05:05	1
Thallium	ND		7.3	0.36	mg/Kg	☼	12/01/17 15:49	12/06/17 05:05	1
Vanadium	28.1		0.60	0.13	mg/Kg	☼	12/01/17 15:49	12/06/17 05:05	1
Zinc	222		4.8	1.5	mg/Kg	☼	12/01/17 15:49	12/06/17 20:16	2

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17		0.024	0.0097	mg/Kg	☼	12/06/17 11:40	12/06/17 15:10	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128189-1

Client Sample ID: BLIND DUP #2
Date Collected: 11/29/17 12:02
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128189-2
Matrix: Solid
Percent Solids: 78.8

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		7.2	0.52	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
1,1,2,2-Tetrachloroethane	ND	*	7.2	1.2	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		7.2	1.6	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
1,1,2-Trichloroethane	ND		7.2	0.94	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
1,1-Dichloroethane	ND		7.2	0.88	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
1,1-Dichloroethene	ND		7.2	0.88	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
1,2,4-Trichlorobenzene	ND		7.2	0.44	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
1,2,4-Trimethylbenzene	ND		7.2	1.4	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
1,2-Dibromo-3-Chloropropane	ND	*	7.2	3.6	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
1,2-Dibromoethane	ND		7.2	0.93	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
1,2-Dichlorobenzene	ND		7.2	0.56	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
1,2-Dichloroethane	ND		7.2	0.36	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
1,2-Dichloropropane	ND		7.2	3.6	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
1,3,5-Trimethylbenzene	ND		7.2	0.46	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
1,3-Dichlorobenzene	ND		7.2	0.37	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
1,4-Dichlorobenzene	ND		7.2	1.0	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
2-Butanone (MEK)	ND		36	2.6	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
2-Hexanone	ND		36	3.6	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
4-Isopropyltoluene	ND		7.2	0.58	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
4-Methyl-2-pentanone (MIBK)	ND		36	2.4	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
Acetone	ND	*	36	6.1	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
Benzene	ND		7.2	0.35	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
Bromodichloromethane	ND		7.2	0.97	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
Bromoform	ND		7.2	3.6	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
Bromomethane	ND		7.2	0.65	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
Carbon disulfide	ND		7.2	3.6	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
Carbon tetrachloride	ND		7.2	0.70	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
Chlorobenzene	ND		7.2	0.95	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
Chloroethane	ND		7.2	1.6	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
Chloroform	ND		7.2	0.45	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
Chloromethane	ND	*	7.2	0.44	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
cis-1,2-Dichloroethene	ND		7.2	0.92	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
cis-1,3-Dichloropropene	ND		7.2	1.0	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
Cyclohexane	ND		7.2	1.0	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
Dibromochloromethane	ND	*	7.2	0.92	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
Dichlorodifluoromethane	ND		7.2	0.60	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
Ethylbenzene	ND		7.2	0.50	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
Isopropylbenzene	ND		7.2	1.1	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
m,p-Xylene	ND		14	1.2	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
Methyl acetate	ND		36	4.4	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
Methyl tert-butyl ether	ND		7.2	0.71	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
Methylcyclohexane	ND		7.2	1.1	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
Methylene Chloride	ND		7.2	3.3	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
n-Butylbenzene	ND		7.2	0.63	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
N-Propylbenzene	ND		7.2	0.58	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
o-Xylene	ND		7.2	0.94	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
sec-Butylbenzene	ND		7.2	0.63	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
Styrene	ND		7.2	0.36	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
tert-Butylbenzene	ND		7.2	0.75	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128189-1

Client Sample ID: BLIND DUP #2
Date Collected: 11/29/17 12:02
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128189-2
Matrix: Solid
Percent Solids: 78.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		7.2	0.97	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
Toluene	ND		7.2	0.55	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
trans-1,2-Dichloroethene	ND		7.2	0.74	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
trans-1,3-Dichloropropene	ND		7.2	3.2	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
Trichloroethene	ND		7.2	1.6	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
Trichlorofluoromethane	ND		7.2	0.68	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
Vinyl chloride	ND		7.2	0.88	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1
Xylenes, Total	ND		14	1.2	ug/Kg	☼	11/30/17 16:20	12/06/17 17:29	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Methane, chlorodifluoro-	*8.9*	*T J N*	*ug/Kg*	☼	*1.83*	*75-45-6*	*11/30/17 16:20*	*12/06/17 17:29*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*64 - 126*	*11/30/17 16:20*	*12/06/17 17:29*	*1*
4-Bromofluorobenzene (Surr)	*85*		*72 - 126*	*11/30/17 16:20*	*12/06/17 17:29*	*1*
Dibromofluoromethane (Surr)	*103*		*60 - 140*	*11/30/17 16:20*	*12/06/17 17:29*	*1*
Toluene-d8 (Surr)	*105*		*71 - 125*	*11/30/17 16:20*	*12/06/17 17:29*	*1*

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128189-1

Client Sample ID: BLIND DUP #3
Date Collected: 11/29/17 12:00
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128189-3
Matrix: Solid
Percent Solids: 87.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		1900	530	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
2,4,6-Trichlorophenol	ND		1900	390	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
2,4-Dichlorophenol	ND		1900	210	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
2,4-Dimethylphenol	ND		1900	470	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
2,4-Dinitrophenol	ND		19000	9000	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
2,4-Dinitrotoluene	ND		1900	400	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
2,6-Dinitrotoluene	ND		1900	230	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
2-Chloronaphthalene	ND		1900	320	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
2-Chlorophenol	ND		1900	360	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
2-Methylnaphthalene	ND		1900	390	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
2-Methylphenol	ND		1900	230	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
2-Nitroaniline	ND		3800	290	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
2-Nitrophenol	ND		1900	550	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
3,3'-Dichlorobenzidine	ND		3800	2300	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
3-Nitroaniline	ND		3800	540	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
4,6-Dinitro-2-methylphenol	ND		3800	1900	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
4-Bromophenyl phenyl ether	ND		1900	280	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
4-Chloro-3-methylphenol	ND		1900	480	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
4-Chloroaniline	ND		1900	480	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
4-Chlorophenyl phenyl ether	ND		1900	240	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
4-Methylphenol	ND		3800	230	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
4-Nitroaniline	ND		3800	1000	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
4-Nitrophenol	ND		3800	1400	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Acenaphthene	ND		1900	290	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Acenaphthylene	**430**	**J**	1900	250	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Acetophenone	ND		1900	260	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Anthracene	**520**	**J**	1900	480	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Atrazine	ND		1900	680	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Benzaldehyde	ND		1900	1500	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Benzo[a]anthracene	**1900**		1900	190	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Benzo[a]pyrene	**1900**		1900	290	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Benzo[b]fluoranthene	**2400**		1900	310	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Benzo[g,h,i]perylene	**1400**	**J**	1900	210	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Benzo[k]fluoranthene	**1100**	**J**	1900	250	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Biphenyl	ND		1900	290	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
bis (2-chloroisopropyl) ether	ND		1900	390	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Bis(2-chloroethoxy)methane	ND		1900	410	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Bis(2-chloroethyl)ether	ND		1900	250	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Bis(2-ethylhexyl) phthalate	ND		1900	660	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Butyl benzyl phthalate	ND		1900	320	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Caprolactam	ND		1900	580	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Carbazole	**280**	**J**	1900	230	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Chrysene	**1900**		1900	440	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Dibenz(a,h)anthracene	**460**	**J**	1900	340	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Dibenzofuran	ND		1900	230	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Diethyl phthalate	ND		1900	250	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Dimethyl phthalate	ND		1900	230	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Di-n-butyl phthalate	**530**	**J**	1900	330	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Di-n-octyl phthalate	ND		1900	230	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128189-1

Client Sample ID: BLIND DUP #3
Date Collected: 11/29/17 12:00
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128189-3
Matrix: Solid
Percent Solids: 87.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	3800		1900	210	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Fluorene	ND		1900	230	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Hexachlorobenzene	ND		1900	260	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Hexachlorobutadiene	ND		1900	290	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Hexachlorocyclopentadiene	ND		1900	260	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Hexachloroethane	ND		1900	250	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Indeno[1,2,3-cd]pyrene	1300	J	1900	240	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Isophorone	ND		1900	410	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Naphthalene	ND		1900	250	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Nitrobenzene	ND		1900	220	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
N-Nitrosodi-n-propylamine	ND		1900	330	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
N-Nitrosodiphenylamine	ND		1900	1600	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Pentachlorophenol	ND		3800	1900	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Phenanthrene	2000		1900	290	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Phenol	ND		1900	300	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10
Pyrene	2900		1900	230	ug/Kg	☼	12/01/17 14:15	12/03/17 19:58	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*97*		*54 - 120*	*12/01/17 14:15*	*12/03/17 19:58*	*10*
2-Fluorobiphenyl	*65*		*60 - 120*	*12/01/17 14:15*	*12/03/17 19:58*	*10*
2-Fluorophenol	*78*		*52 - 120*	*12/01/17 14:15*	*12/03/17 19:58*	*10*
Nitrobenzene-d5	*88*		*53 - 120*	*12/01/17 14:15*	*12/03/17 19:58*	*10*
Phenol-d5	*87*		*54 - 120*	*12/01/17 14:15*	*12/03/17 19:58*	*10*
p-Terphenyl-d14	*97*		*65 - 121*	*12/01/17 14:15*	*12/03/17 19:58*	*10*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	7400		10.7	4.7	mg/Kg	☼	12/01/17 15:49	12/06/17 05:08	1
Antimony	0.71	J	16.0	0.43	mg/Kg	☼	12/01/17 15:49	12/06/17 05:08	1
Arsenic	15.1		2.1	0.43	mg/Kg	☼	12/01/17 15:49	12/06/17 19:26	1
Barium	167		0.53	0.12	mg/Kg	☼	12/01/17 15:49	12/06/17 05:08	1
Beryllium	0.63		0.21	0.030	mg/Kg	☼	12/01/17 15:49	12/06/17 05:08	1
Cadmium	0.87		0.21	0.032	mg/Kg	☼	12/01/17 15:49	12/06/17 05:08	1
Calcium	14200	B	53.4	3.5	mg/Kg	☼	12/01/17 15:49	12/06/17 05:08	1
Chromium	77.7		0.53	0.21	mg/Kg	☼	12/01/17 15:49	12/06/17 05:08	1
Cobalt	8.9		0.53	0.053	mg/Kg	☼	12/01/17 15:49	12/06/17 05:08	1
Copper	81.9		1.1	0.22	mg/Kg	☼	12/01/17 15:49	12/06/17 05:08	1
Iron	11200		10.7	3.7	mg/Kg	☼	12/01/17 15:49	12/06/17 05:08	1
Lead	335		1.1	0.26	mg/Kg	☼	12/01/17 15:49	12/06/17 05:08	1
Magnesium	2770		21.4	0.99	mg/Kg	☼	12/01/17 15:49	12/06/17 05:08	1
Manganese	196	B	0.21	0.034	mg/Kg	☼	12/01/17 15:49	12/06/17 05:08	1
Nickel	28.8		5.3	0.25	mg/Kg	☼	12/01/17 15:49	12/06/17 05:08	1
Potassium	1140	B	32.1	21.4	mg/Kg	☼	12/01/17 15:49	12/06/17 05:08	1
Selenium	ND		4.3	0.43	mg/Kg	☼	12/01/17 15:49	12/06/17 05:08	1
Silver	ND		0.64	0.21	mg/Kg	☼	12/01/17 15:49	12/06/17 05:08	1
Sodium	194	B	150	13.9	mg/Kg	☼	12/01/17 15:49	12/06/17 05:08	1
Thallium	ND		6.4	0.32	mg/Kg	☼	12/01/17 15:49	12/06/17 05:08	1
Vanadium	24.2		0.53	0.12	mg/Kg	☼	12/01/17 15:49	12/06/17 05:08	1
Zinc	171		2.1	0.68	mg/Kg	☼	12/01/17 15:49	12/06/17 05:08	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128189-1

Client Sample ID: BLIND DUP #3
Date Collected: 11/29/17 12:00
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128189-3
Matrix: Solid
Percent Solids: 87.0

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.29		0.023	0.0092	mg/Kg	☼	12/06/17 11:40	12/06/17 15:11	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128189-1

Client Sample ID: TP-14 (10-15)
Date Collected: 11/29/17 10:30
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128189-4
Matrix: Solid
Percent Solids: 85.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		980	270	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
2,4,6-Trichlorophenol	ND		980	200	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
2,4-Dichlorophenol	ND		980	100	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
2,4-Dimethylphenol	ND		980	240	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
2,4-Dinitrophenol	ND		9600	4500	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
2,4-Dinitrotoluene	ND		980	200	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
2,6-Dinitrotoluene	ND		980	120	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
2-Chloronaphthalene	ND		980	160	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
2-Chlorophenol	ND		980	180	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
2-Methylnaphthalene	ND		980	200	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
2-Methylphenol	ND		980	120	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
2-Nitroaniline	ND		1900	140	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
2-Nitrophenol	ND		980	280	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
3,3'-Dichlorobenzidine	ND		1900	1200	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
3-Nitroaniline	ND		1900	270	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
4,6-Dinitro-2-methylphenol	ND		1900	980	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
4-Bromophenyl phenyl ether	ND		980	140	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
4-Chloro-3-methylphenol	ND		980	240	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
4-Chloroaniline	ND		980	240	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
4-Chlorophenyl phenyl ether	ND		980	120	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
4-Methylphenol	ND		1900	120	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
4-Nitroaniline	ND		1900	510	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
4-Nitrophenol	ND		1900	690	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Acenaphthene	ND		980	140	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Acenaphthylene	ND		980	130	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Acetophenone	ND		980	130	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Anthracene	ND		980	240	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Atrazine	ND		980	340	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Benzaldehyde	ND		980	780	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Benzo[a]anthracene	**290**	**J**	980	98	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Benzo[a]pyrene	**410**	**J**	980	140	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Benzo[b]fluoranthene	**560**	**J**	980	160	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Benzo[g,h,i]perylene	**280**	**J**	980	100	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Benzo[k]fluoranthene	**190**	**J**	980	130	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Biphenyl	ND		980	140	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
bis (2-chloroisopropyl) ether	ND		980	200	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Bis(2-chloroethoxy)methane	ND		980	210	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Bis(2-chloroethyl)ether	ND		980	130	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Bis(2-ethylhexyl) phthalate	ND		980	330	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Butyl benzyl phthalate	ND		980	160	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Caprolactam	ND		980	290	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Carbazole	ND		980	120	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Chrysene	**330**	**J**	980	220	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Dibenz(a,h)anthracene	ND		980	170	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Dibenzofuran	ND		980	120	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Diethyl phthalate	ND		980	130	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Dimethyl phthalate	ND		980	120	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Di-n-butyl phthalate	ND		980	170	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Di-n-octyl phthalate	ND		980	120	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5

Client Sample ID: TP-14 (10-15)
Date Collected: 11/29/17 10:30
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128189-4
Matrix: Solid
Percent Solids: 85.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	470	J	980	100	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Fluorene	ND		980	120	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Hexachlorobenzene	ND		980	130	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Hexachlorobutadiene	ND		980	140	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Hexachlorocyclopentadiene	ND		980	130	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Hexachloroethane	ND		980	130	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Indeno[1,2,3-cd]pyrene	330	J	980	120	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Isophorone	ND		980	210	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Naphthalene	ND		980	130	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Nitrobenzene	ND		980	110	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
N-Nitrosodi-n-propylamine	ND		980	170	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
N-Nitrosodiphenylamine	ND		980	800	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Pentachlorophenol	ND		1900	980	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Phenanthrene	250	J	980	140	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Phenol	ND		980	150	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5
Pyrene	400	J	980	120	ug/Kg	☼	12/01/17 14:15	12/03/17 20:24	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*92*		*54 - 120*	*12/01/17 14:15*	*12/03/17 20:24*	*5*
2-Fluorobiphenyl	*88*		*60 - 120*	*12/01/17 14:15*	*12/03/17 20:24*	*5*
2-Fluorophenol	*92*		*52 - 120*	*12/01/17 14:15*	*12/03/17 20:24*	*5*
Nitrobenzene-d5	*93*		*53 - 120*	*12/01/17 14:15*	*12/03/17 20:24*	*5*
Phenol-d5	*94*		*54 - 120*	*12/01/17 14:15*	*12/03/17 20:24*	*5*
p-Terphenyl-d14	*103*		*65 - 121*	*12/01/17 14:15*	*12/03/17 20:24*	*5*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	7240		11.1	4.9	mg/Kg	☼	12/01/17 15:49	12/06/17 05:12	1
Antimony	1.0	J	16.6	0.44	mg/Kg	☼	12/01/17 15:49	12/06/17 05:12	1
Arsenic	4.5		2.2	0.44	mg/Kg	☼	12/01/17 15:49	12/06/17 19:30	1
Barium	69.8		0.55	0.12	mg/Kg	☼	12/01/17 15:49	12/06/17 05:12	1
Beryllium	0.39		0.22	0.031	mg/Kg	☼	12/01/17 15:49	12/06/17 05:12	1
Cadmium	4.1		0.22	0.033	mg/Kg	☼	12/01/17 15:49	12/06/17 05:12	1
Calcium	4180	B	55.3	3.7	mg/Kg	☼	12/01/17 15:49	12/06/17 05:12	1
Chromium	16.4		0.55	0.22	mg/Kg	☼	12/01/17 15:49	12/06/17 05:12	1
Cobalt	3.9		0.55	0.055	mg/Kg	☼	12/01/17 15:49	12/06/17 05:12	1
Copper	38.3		1.1	0.23	mg/Kg	☼	12/01/17 15:49	12/06/17 05:12	1
Iron	24100		11.1	3.9	mg/Kg	☼	12/01/17 15:49	12/06/17 05:12	1
Lead	113		1.1	0.27	mg/Kg	☼	12/01/17 15:49	12/06/17 05:12	1
Magnesium	1270		22.1	1.0	mg/Kg	☼	12/01/17 15:49	12/06/17 05:12	1
Manganese	775	B	0.22	0.035	mg/Kg	☼	12/01/17 15:49	12/06/17 05:12	1
Nickel	14.6		5.5	0.25	mg/Kg	☼	12/01/17 15:49	12/06/17 05:12	1
Potassium	1300	B	33.2	22.1	mg/Kg	☼	12/01/17 15:49	12/06/17 05:12	1
Selenium	ND		4.4	0.44	mg/Kg	☼	12/01/17 15:49	12/06/17 05:12	1
Silver	ND		0.66	0.22	mg/Kg	☼	12/01/17 15:49	12/06/17 05:12	1
Sodium	155	B	155	14.4	mg/Kg	☼	12/01/17 15:49	12/06/17 05:12	1
Thallium	ND		6.6	0.33	mg/Kg	☼	12/01/17 15:49	12/06/17 05:12	1
Vanadium	15.3		0.55	0.12	mg/Kg	☼	12/01/17 15:49	12/06/17 05:12	1
Zinc	137		2.2	0.71	mg/Kg	☼	12/01/17 15:49	12/06/17 05:12	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128189-1

Client Sample ID: TP-14 (10-15)
Date Collected: 11/29/17 10:30
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128189-4
Matrix: Solid
Percent Solids: 85.7

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.11		0.024	0.0096	mg/Kg	☼	12/06/17 11:40	12/06/17 15:13	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128189-1

Client Sample ID: TP-15 (8-10)
Date Collected: 11/29/17 11:04
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128189-5
Matrix: Solid
Percent Solids: 90.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		920	250	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
2,4,6-Trichlorophenol	ND		920	180	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
2,4-Dichlorophenol	ND		920	98	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
2,4-Dimethylphenol	ND		920	220	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
2,4-Dinitrophenol	ND		9000	4300	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
2,4-Dinitrotoluene	ND		920	190	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
2,6-Dinitrotoluene	ND		920	110	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
2-Chloronaphthalene	ND		920	150	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
2-Chlorophenol	ND		920	170	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
2-Methylnaphthalene	ND		920	180	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
2-Methylphenol	ND		920	110	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
2-Nitroaniline	ND		1800	140	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
2-Nitrophenol	ND		920	260	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
3,3'-Dichlorobenzidine	ND		1800	1100	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
3-Nitroaniline	ND		1800	250	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
4,6-Dinitro-2-methylphenol	ND		1800	920	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
4-Bromophenyl phenyl ether	ND		920	130	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
4-Chloro-3-methylphenol	ND		920	230	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
4-Chloroaniline	ND		920	230	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
4-Chlorophenyl phenyl ether	ND		920	110	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
4-Methylphenol	ND		1800	110	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
4-Nitroaniline	ND		1800	480	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
4-Nitrophenol	ND		1800	650	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Acenaphthene	ND		920	140	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Acenaphthylene	ND		920	120	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Acetophenone	ND		920	120	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Anthracene	ND		920	230	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Atrazine	ND		920	320	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Benzaldehyde	ND		920	730	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Benzo[a]anthracene	**160**	**J**	920	92	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Benzo[a]pyrene	**240**	**J**	920	140	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Benzo[b]fluoranthene	**370**	**J**	920	150	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Benzo[g,h,i]perylene	**140**	**J**	920	98	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Benzo[k]fluoranthene	ND		920	120	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Biphenyl	ND		920	140	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
bis (2-chloroisopropyl) ether	ND		920	180	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Bis(2-chloroethoxy)methane	ND		920	200	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Bis(2-chloroethyl)ether	ND		920	120	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Bis(2-ethylhexyl) phthalate	ND		920	310	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Butyl benzyl phthalate	ND		920	150	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Caprolactam	ND		920	280	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Carbazole	ND		920	110	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Chrysene	ND		920	210	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Dibenz(a,h)anthracene	ND		920	160	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Dibenzofuran	ND		920	110	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Diethyl phthalate	ND		920	120	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Dimethyl phthalate	ND		920	110	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Di-n-butyl phthalate	ND		920	160	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Di-n-octyl phthalate	ND		920	110	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5

Client Sample ID: TP-15 (8-10)
Date Collected: 11/29/17 11:04
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128189-5
Matrix: Solid
Percent Solids: 90.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	330	J	920	98	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Fluorene	ND		920	110	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Hexachlorobenzene	ND		920	120	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Hexachlorobutadiene	ND		920	140	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Hexachlorocyclopentadiene	ND		920	120	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Hexachloroethane	ND		920	120	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Indeno[1,2,3-cd]pyrene	200	J	920	110	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Isophorone	ND		920	200	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Naphthalene	ND		920	120	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Nitrobenzene	ND		920	100	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
N-Nitrosodi-n-propylamine	ND		920	160	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
N-Nitrosodiphenylamine	ND		920	750	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Pentachlorophenol	ND		1800	920	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Phenanthrene	230	J	920	140	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Phenol	ND		920	140	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5
Pyrene	ND		920	110	ug/Kg	☼	12/01/17 14:15	12/03/17 20:51	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*87*		*54 - 120*	*12/01/17 14:15*	*12/03/17 20:51*	*5*
2-Fluorobiphenyl	*92*		*60 - 120*	*12/01/17 14:15*	*12/03/17 20:51*	*5*
2-Fluorophenol	*82*		*52 - 120*	*12/01/17 14:15*	*12/03/17 20:51*	*5*
Nitrobenzene-d5	*93*		*53 - 120*	*12/01/17 14:15*	*12/03/17 20:51*	*5*
Phenol-d5	*92*		*54 - 120*	*12/01/17 14:15*	*12/03/17 20:51*	*5*
p-Terphenyl-d14	*100*		*65 - 121*	*12/01/17 14:15*	*12/03/17 20:51*	*5*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	4630		10.7	4.7	mg/Kg	☼	12/01/17 15:49	12/06/17 05:15	1
Antimony	ND		16.1	0.43	mg/Kg	☼	12/01/17 15:49	12/06/17 05:15	1
Arsenic	5.6		2.1	0.43	mg/Kg	☼	12/01/17 15:49	12/06/17 19:33	1
Barium	54.7		0.54	0.12	mg/Kg	☼	12/01/17 15:49	12/06/17 05:15	1
Beryllium	0.22		0.21	0.030	mg/Kg	☼	12/01/17 15:49	12/06/17 05:15	1
Cadmium	0.089	J	0.21	0.032	mg/Kg	☼	12/01/17 15:49	12/06/17 05:15	1
Calcium	5950	B	53.7	3.5	mg/Kg	☼	12/01/17 15:49	12/06/17 05:15	1
Chromium	13.3		0.54	0.21	mg/Kg	☼	12/01/17 15:49	12/06/17 05:15	1
Cobalt	3.6		0.54	0.054	mg/Kg	☼	12/01/17 15:49	12/06/17 05:15	1
Copper	42.4		1.1	0.23	mg/Kg	☼	12/01/17 15:49	12/06/17 05:15	1
Iron	22200		10.7	3.8	mg/Kg	☼	12/01/17 15:49	12/06/17 05:15	1
Lead	34.5		1.1	0.26	mg/Kg	☼	12/01/17 15:49	12/06/17 05:15	1
Magnesium	1140		21.5	1.0	mg/Kg	☼	12/01/17 15:49	12/06/17 05:15	1
Manganese	565	B	0.21	0.034	mg/Kg	☼	12/01/17 15:49	12/06/17 05:15	1
Nickel	8.5		5.4	0.25	mg/Kg	☼	12/01/17 15:49	12/06/17 05:15	1
Potassium	908	B	32.2	21.5	mg/Kg	☼	12/01/17 15:49	12/06/17 05:15	1
Selenium	ND		4.3	0.43	mg/Kg	☼	12/01/17 15:49	12/06/17 05:15	1
Silver	ND		0.64	0.21	mg/Kg	☼	12/01/17 15:49	12/06/17 05:15	1
Sodium	92.8	J B	150	14.0	mg/Kg	☼	12/01/17 15:49	12/06/17 05:15	1
Thallium	ND		6.4	0.32	mg/Kg	☼	12/01/17 15:49	12/06/17 05:15	1
Vanadium	14.7		0.54	0.12	mg/Kg	☼	12/01/17 15:49	12/06/17 05:15	1
Zinc	97.1		2.1	0.69	mg/Kg	☼	12/01/17 15:49	12/06/17 05:15	1

Client Sample Results

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128189-1

Client Sample ID: TP-15 (8-10)
Date Collected: 11/29/17 11:04
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128189-5
Matrix: Solid
Percent Solids: 90.6

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.042		0.020	0.0082	mg/Kg	☼	12/06/17 11:40	12/06/17 15:15	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128189-1

Client Sample ID: TP-11 (5-8)
Date Collected: 11/29/17 12:05
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128189-6
Matrix: Solid
Percent Solids: 86.8

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.2	0.38	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
1,1,2,2-Tetrachloroethane	ND	*	5.2	0.85	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.2	1.2	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
1,1,2-Trichloroethane	ND		5.2	0.68	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
1,1-Dichloroethane	ND		5.2	0.64	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
1,1-Dichloroethene	ND		5.2	0.64	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
1,2,4-Trichlorobenzene	ND		5.2	0.32	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
1,2,4-Trimethylbenzene	ND		5.2	1.0	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
1,2-Dibromo-3-Chloropropane	ND	*	5.2	2.6	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
1,2-Dibromoethane	ND		5.2	0.67	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
1,2-Dichlorobenzene	ND		5.2	0.41	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
1,2-Dichloroethane	ND		5.2	0.26	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
1,2-Dichloropropane	ND		5.2	2.6	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
1,3,5-Trimethylbenzene	ND		5.2	0.34	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
1,3-Dichlorobenzene	ND		5.2	0.27	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
1,4-Dichlorobenzene	ND		5.2	0.73	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
2-Butanone (MEK)	ND		26	1.9	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
2-Hexanone	ND		26	2.6	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
4-Isopropyltoluene	ND		5.2	0.42	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
4-Methyl-2-pentanone (MIBK)	ND		26	1.7	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
Acetone	ND	*	26	4.4	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
Benzene	ND		5.2	0.26	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
Bromodichloromethane	ND		5.2	0.70	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
Bromoform	ND		5.2	2.6	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
Bromomethane	ND		5.2	0.47	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
Carbon disulfide	ND		5.2	2.6	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
Carbon tetrachloride	ND		5.2	0.51	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
Chlorobenzene	ND		5.2	0.69	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
Chloroethane	ND		5.2	1.2	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
Chloroform	ND		5.2	0.32	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
Chloromethane	ND	*	5.2	0.32	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
cis-1,2-Dichloroethene	ND		5.2	0.67	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
cis-1,3-Dichloropropene	ND		5.2	0.75	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
Cyclohexane	ND		5.2	0.73	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
Dibromochloromethane	ND	*	5.2	0.67	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
Dichlorodifluoromethane	ND		5.2	0.43	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
Ethylbenzene	ND		5.2	0.36	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
Isopropylbenzene	ND		5.2	0.79	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
m,p-Xylene	ND		10	0.88	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
Methyl acetate	ND		26	3.2	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
Methyl tert-butyl ether	ND		5.2	0.51	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
Methylcyclohexane	ND		5.2	0.79	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
Methylene Chloride	ND		5.2	2.4	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
n-Butylbenzene	ND		5.2	0.45	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
N-Propylbenzene	ND		5.2	0.42	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
o-Xylene	ND		5.2	0.68	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
sec-Butylbenzene	ND		5.2	0.45	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
Styrene	ND		5.2	0.26	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
tert-Butylbenzene	ND		5.2	0.54	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1

Client Sample ID: TP-11 (5-8)
Date Collected: 11/29/17 12:05
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128189-6
Matrix: Solid
Percent Solids: 86.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		5.2	0.70	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
Toluene	ND		5.2	0.40	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
trans-1,2-Dichloroethene	ND		5.2	0.54	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
trans-1,3-Dichloropropene	ND		5.2	2.3	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
Trichloroethene	ND		5.2	1.1	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
Trichlorofluoromethane	ND		5.2	0.49	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
Vinyl chloride	ND		5.2	0.64	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1
Xylenes, Total	ND		10	0.88	ug/Kg	☼	11/30/17 16:20	12/06/17 17:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*64 - 126*	*11/30/17 16:20*	*12/06/17 17:55*	*1*
4-Bromofluorobenzene (Surr)	*93*		*72 - 126*	*11/30/17 16:20*	*12/06/17 17:55*	*1*
Dibromofluoromethane (Surr)	*104*		*60 - 140*	*11/30/17 16:20*	*12/06/17 17:55*	*1*
Toluene-d8 (Surr)	*101*		*71 - 125*	*11/30/17 16:20*	*12/06/17 17:55*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		960	260	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
2,4,6-Trichlorophenol	ND		960	190	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
2,4-Dichlorophenol	ND		960	100	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
2,4-Dimethylphenol	ND		960	230	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
2,4-Dinitrophenol	ND		9400	4400	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
2,4-Dinitrotoluene	ND		960	200	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
2,6-Dinitrotoluene	ND		960	110	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
2-Chloronaphthalene	ND		960	160	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
2-Chlorophenol	ND		960	180	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
2-Methylnaphthalene	ND		960	190	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
2-Methylphenol	ND		960	110	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
2-Nitroaniline	ND		1900	140	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
2-Nitrophenol	ND		960	270	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
3,3'-Dichlorobenzidine	ND		1900	1100	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
3-Nitroaniline	ND		1900	270	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
4,6-Dinitro-2-methylphenol	ND		1900	960	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
4-Bromophenyl phenyl ether	ND		960	140	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
4-Chloro-3-methylphenol	ND		960	240	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
4-Chloroaniline	ND		960	240	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
4-Chlorophenyl phenyl ether	ND		960	120	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
4-Methylphenol	ND		1900	110	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
4-Nitroaniline	ND		1900	500	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
4-Nitrophenol	ND		1900	670	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Acenaphthene	ND		960	140	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Acenaphthylene	ND		960	120	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Acetophenone	ND		960	130	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Anthracene	ND		960	240	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Atrazine	ND		960	330	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Benzaldehyde	ND		960	760	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Benzo[a]anthracene	**490**	**J**	960	96	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Benzo[a]pyrene	**560**	**J**	960	140	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Benzo[b]fluoranthene	**770**	**J**	960	150	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Benzo[g,h,i]perylene	**310**	**J**	960	100	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5

Client Sample ID: TP-11 (5-8)
Date Collected: 11/29/17 12:05
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128189-6
Matrix: Solid
Percent Solids: 86.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	360	J	960	120	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Biphenyl	ND		960	140	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
bis (2-chloroisopropyl) ether	ND		960	190	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Bis(2-chloroethoxy)methane	ND		960	200	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Bis(2-chloroethyl)ether	ND		960	120	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Bis(2-ethylhexyl) phthalate	ND		960	330	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Butyl benzyl phthalate	ND		960	160	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Caprolactam	ND		960	290	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Carbazole	ND		960	110	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Chrysene	470	J	960	210	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Dibenz(a,h)anthracene	ND		960	170	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Dibenzofuran	ND		960	110	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Diethyl phthalate	ND		960	120	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Dimethyl phthalate	ND		960	110	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Di-n-butyl phthalate	ND		960	160	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Di-n-octyl phthalate	ND		960	110	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Fluoranthene	930	J	960	100	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Fluorene	ND		960	110	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Hexachlorobenzene	ND		960	130	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Hexachlorobutadiene	ND		960	140	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Hexachlorocyclopentadiene	ND		960	130	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Hexachloroethane	ND		960	120	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Indeno[1,2,3-cd]pyrene	350	J	960	120	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Isophorone	ND		960	200	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Naphthalene	ND		960	120	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Nitrobenzene	ND		960	110	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
N-Nitrosodi-n-propylamine	ND		960	160	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
N-Nitrosodiphenylamine	ND		960	780	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Pentachlorophenol	ND		1900	960	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Phenanthrene	160	J	960	140	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Phenol	ND		960	150	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5
Pyrene	590	J	960	110	ug/Kg	☼	12/01/17 14:15	12/03/17 19:05	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*86*		*54 - 120*	*12/01/17 14:15*	*12/03/17 19:05*	*5*
2-Fluorobiphenyl	*88*		*60 - 120*	*12/01/17 14:15*	*12/03/17 19:05*	*5*
2-Fluorophenol	*86*		*52 - 120*	*12/01/17 14:15*	*12/03/17 19:05*	*5*
Nitrobenzene-d5	*87*		*53 - 120*	*12/01/17 14:15*	*12/03/17 19:05*	*5*
Phenol-d5	*88*		*54 - 120*	*12/01/17 14:15*	*12/03/17 19:05*	*5*
p-Terphenyl-d14	*102*		*65 - 121*	*12/01/17 14:15*	*12/03/17 19:05*	*5*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		3.8	0.73	ug/Kg	☼	12/01/17 09:23	12/02/17 20:05	2
4,4'-DDE	ND		3.8	0.79	ug/Kg	☼	12/01/17 09:23	12/02/17 20:05	2
4,4'-DDT	ND		3.8	0.88	ug/Kg	☼	12/01/17 09:23	12/02/17 20:05	2
Aldrin	ND		3.8	0.93	ug/Kg	☼	12/01/17 09:23	12/02/17 20:05	2
alpha-BHC	1.2	J B	3.8	0.68	ug/Kg	☼	12/01/17 09:23	12/02/17 20:05	2
alpha-Chlordane	ND		3.8	1.9	ug/Kg	☼	12/01/17 09:23	12/02/17 20:05	2
beta-BHC	0.77	J B	3.8	0.68	ug/Kg	☼	12/01/17 09:23	12/02/17 20:05	2

Client Sample ID: TP-11 (5-8)

Date Collected: 11/29/17 12:05
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128189-6

Matrix: Solid
Percent Solids: 86.8

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
delta-BHC	ND		3.8	0.70	ug/Kg	☼	12/01/17 09:23	12/02/17 20:05	2
Dieldrin	ND		3.8	0.90	ug/Kg	☼	12/01/17 09:23	12/02/17 20:05	2
Endosulfan I	ND		3.8	0.72	ug/Kg	☼	12/01/17 09:23	12/02/17 20:05	2
Endosulfan II	ND		3.8	0.68	ug/Kg	☼	12/01/17 09:23	12/02/17 20:05	2
Endosulfan sulfate	**1.9**	**J**	3.8	0.70	ug/Kg	☼	12/01/17 09:23	12/02/17 20:05	2
Endrin	ND		3.8	0.75	ug/Kg	☼	12/01/17 09:23	12/02/17 20:05	2
Endrin aldehyde	ND		3.8	0.96	ug/Kg	☼	12/01/17 09:23	12/02/17 20:05	2
Endrin ketone	ND		3.8	0.93	ug/Kg	☼	12/01/17 09:23	12/02/17 20:05	2
gamma-BHC (Lindane)	**1.6**	**J**	3.8	0.69	ug/Kg	☼	12/01/17 09:23	12/02/17 20:05	2
gamma-Chlordane	ND		3.8	1.2	ug/Kg	☼	12/01/17 09:23	12/02/17 20:05	2
Heptachlor	ND		3.8	0.82	ug/Kg	☼	12/01/17 09:23	12/02/17 20:05	2
Heptachlor epoxide	ND		3.8	0.97	ug/Kg	☼	12/01/17 09:23	12/02/17 20:05	2
Methoxychlor	**5.2**		3.8	0.77	ug/Kg	☼	12/01/17 09:23	12/02/17 20:05	2
Toxaphene	ND		38	22	ug/Kg	☼	12/01/17 09:23	12/02/17 20:05	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*122*	*X*	*45 - 120*	*12/01/17 09:23*	*12/02/17 20:05*	*2*
DCB Decachlorobiphenyl	*200*	*X*	*45 - 120*	*12/01/17 09:23*	*12/02/17 20:05*	*2*
Tetrachloro-m-xylene	*77*		*30 - 124*	*12/01/17 09:23*	*12/02/17 20:05*	*2*
Tetrachloro-m-xylene	*83*		*30 - 124*	*12/01/17 09:23*	*12/02/17 20:05*	*2*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.22	0.044	mg/Kg	☼	12/02/17 07:35	12/04/17 19:22	1
PCB-1221	ND		0.22	0.044	mg/Kg	☼	12/02/17 07:35	12/04/17 19:22	1
PCB-1232	ND		0.22	0.044	mg/Kg	☼	12/02/17 07:35	12/04/17 19:22	1
PCB-1242	ND		0.22	0.044	mg/Kg	☼	12/02/17 07:35	12/04/17 19:22	1
PCB-1248	ND		0.22	0.044	mg/Kg	☼	12/02/17 07:35	12/04/17 19:22	1
PCB-1254	ND		0.22	0.11	mg/Kg	☼	12/02/17 07:35	12/04/17 19:22	1
PCB-1260	ND		0.22	0.11	mg/Kg	☼	12/02/17 07:35	12/04/17 19:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*81*		*60 - 154*	*12/02/17 07:35*	*12/04/17 19:22*	*1*
Tetrachloro-m-xylene	*90*		*60 - 154*	*12/02/17 07:35*	*12/04/17 19:22*	*1*
DCB Decachlorobiphenyl	*65*		*65 - 174*	*12/02/17 07:35*	*12/04/17 19:22*	*1*
DCB Decachlorobiphenyl	*66*		*65 - 174*	*12/02/17 07:35*	*12/04/17 19:22*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		19	6.1	ug/Kg	☼	12/01/17 09:29	12/05/17 18:12	1
Silvex (2,4,5-TP)	ND		19	6.8	ug/Kg	☼	12/01/17 09:29	12/05/17 18:12	1
2,4-D	ND		19	12	ug/Kg	☼	12/01/17 09:29	12/05/17 18:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*123*		*28 - 129*	*12/01/17 09:29*	*12/05/17 18:12*	*1*
2,4-Dichlorophenylacetic acid	*106*		*28 - 129*	*12/01/17 09:29*	*12/05/17 18:12*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**8190**	**F1**	10.8	4.8	mg/Kg	☼	12/01/17 15:49	12/06/17 05:19	1
Antimony	ND	F1	16.2	0.43	mg/Kg	☼	12/01/17 15:49	12/06/17 05:19	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128189-1

Client Sample ID: TP-11 (5-8)
Date Collected: 11/29/17 12:05
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128189-6
Matrix: Solid
Percent Solids: 86.8

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.7		2.2	0.43	mg/Kg	☼	12/01/17 15:49	12/06/17 19:37	1
Barium	72.3	F1	0.54	0.12	mg/Kg	☼	12/01/17 15:49	12/06/17 05:19	1
Beryllium	0.33		0.22	0.030	mg/Kg	☼	12/01/17 15:49	12/06/17 05:19	1
Cadmium	0.16	J	0.22	0.032	mg/Kg	☼	12/01/17 15:49	12/06/17 05:19	1
Calcium	6000	B F1 F2	54.0	3.6	mg/Kg	☼	12/01/17 15:49	12/06/17 05:19	1
Chromium	11.8		0.54	0.22	mg/Kg	☼	12/01/17 15:49	12/06/17 05:19	1
Cobalt	3.5		0.54	0.054	mg/Kg	☼	12/01/17 15:49	12/06/17 05:19	1
Copper	29.0	F1	1.1	0.23	mg/Kg	☼	12/01/17 15:49	12/06/17 05:19	1
Iron	14600	F2	10.8	3.8	mg/Kg	☼	12/01/17 15:49	12/06/17 05:19	1
Lead	23.7		1.1	0.26	mg/Kg	☼	12/01/17 15:49	12/06/17 05:19	1
Magnesium	1770		21.6	1.0	mg/Kg	☼	12/01/17 15:49	12/06/17 05:19	1
Manganese	549	B	0.22	0.035	mg/Kg	☼	12/01/17 15:49	12/06/17 05:19	1
Nickel	9.6		5.4	0.25	mg/Kg	☼	12/01/17 15:49	12/06/17 05:19	1
Potassium	1400	B F1	32.4	21.6	mg/Kg	☼	12/01/17 15:49	12/06/17 05:19	1
Selenium	ND		4.3	0.43	mg/Kg	☼	12/01/17 15:49	12/06/17 05:19	1
Silver	ND		0.65	0.22	mg/Kg	☼	12/01/17 15:49	12/06/17 05:19	1
Sodium	113	J B	151	14.0	mg/Kg	☼	12/01/17 15:49	12/06/17 05:19	1
Thallium	ND		6.5	0.32	mg/Kg	☼	12/01/17 15:49	12/06/17 05:19	1
Vanadium	18.9		0.54	0.12	mg/Kg	☼	12/01/17 15:49	12/06/17 05:19	1
Zinc	58.6		2.2	0.69	mg/Kg	☼	12/01/17 15:49	12/06/17 05:19	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024		0.022	0.0090	mg/Kg	☼	12/06/17 11:40	12/06/17 15:20	1

Client Sample ID: TP-8 (6-9)
Date Collected: 11/29/17 13:03
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128189-7
Matrix: Solid
Percent Solids: 65.9

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	F1 F2	8.3	0.61	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
1,1,2,2-Tetrachloroethane	ND	F1 F2	8.3	1.4	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	F2	8.3	1.9	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
1,1,2-Trichloroethane	ND	F1 F2	8.3	1.1	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
1,1-Dichloroethane	ND	F1 F2	8.3	1.0	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
1,1-Dichloroethene	ND	F1 F2	8.3	1.0	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
1,2,4-Trichlorobenzene	ND	F1 F2	8.3	0.51	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
1,2,4-Trimethylbenzene	ND	F1 F2	8.3	1.6	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
1,2-Dibromo-3-Chloropropane	ND	F1 F2	8.3	4.2	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
1,2-Dibromoethane	ND	F1 F2	8.3	1.1	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
1,2-Dichlorobenzene	ND	F1 F2	8.3	0.65	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
1,2-Dichloroethane	ND	F1 F2	8.3	0.42	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
1,2-Dichloropropane	ND	F1 F2	8.3	4.2	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
1,3,5-Trimethylbenzene	ND	F1 F2	8.3	0.54	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
1,3-Dichlorobenzene	ND	F1 F2	8.3	0.43	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
1,4-Dichlorobenzene	ND	F1 F2	8.3	1.2	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
2-Butanone (MEK)	ND	F2	42	3.1	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
2-Hexanone	ND	F1 F2	42	4.2	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
4-Isopropyltoluene	ND	F1 F2	8.3	0.67	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
4-Methyl-2-pentanone (MIBK)	ND	F1 F2	42	2.7	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
Acetone	**13**	**J F2**	42	7.0	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
Benzene	ND	F1 F2	8.3	0.41	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
Bromodichloromethane	ND	F1 F2	8.3	1.1	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
Bromoform	ND	F1 F2	8.3	4.2	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
Bromomethane	ND	F1 F2	8.3	0.75	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
Carbon disulfide	ND	F1 F2	8.3	4.2	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
Carbon tetrachloride	ND	F1 F2	8.3	0.81	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
Chlorobenzene	ND	F1 F2	8.3	1.1	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
Chloroethane	ND	F1 F2	8.3	1.9	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
Chloroform	ND	F1 F2	8.3	0.52	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
Chloromethane	ND	F1 F2	8.3	0.50	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
cis-1,2-Dichloroethene	ND	F1 F2	8.3	1.1	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
cis-1,3-Dichloropropene	ND	F1 F2	8.3	1.2	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
Cyclohexane	ND	F1 F2	8.3	1.2	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
Dibromochloromethane	ND	F1 F2	8.3	1.1	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
Dichlorodifluoromethane	ND	F1 F2	8.3	0.69	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
Ethylbenzene	ND	F1 F2	8.3	0.58	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
Isopropylbenzene	ND	F1 F2	8.3	1.3	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
m,p-Xylene	ND	F1 F2	17	1.4	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
Methyl acetate	ND	F1 F2	42	5.0	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
Methyl tert-butyl ether	ND	F1 F2	8.3	0.82	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
Methylcyclohexane	ND	F1 F2	8.3	1.3	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
Methylene Chloride	ND	F1 F2	8.3	3.8	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
n-Butylbenzene	ND	F1 F2	8.3	0.73	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
N-Propylbenzene	ND	F1 F2	8.3	0.67	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
o-Xylene	ND	F1 F2	8.3	1.1	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
sec-Butylbenzene	ND	F1 F2	8.3	0.73	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
Styrene	ND	F1 F2	8.3	0.42	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
tert-Butylbenzene	ND	F1 F2	8.3	0.87	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1

Client Sample ID: TP-8 (6-9)
Date Collected: 11/29/17 13:03
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128189-7
Matrix: Solid
Percent Solids: 65.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND	F1 F2	8.3	1.1	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
Toluene	ND	F1 F2	8.3	0.63	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
trans-1,2-Dichloroethene	ND	F1 F2	8.3	0.86	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
trans-1,3-Dichloropropene	ND	F1 F2	8.3	3.7	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
Trichloroethene	ND	F1 F2	8.3	1.8	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
Trichlorofluoromethane	ND	F1 F2	8.3	0.79	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
Vinyl chloride	ND	F1 F2	8.3	1.0	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1
Xylenes, Total	ND	F1 F2	17	1.4	ug/Kg	☼	11/30/17 16:23	12/07/17 15:24	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼			*11/30/17 16:23*	*12/07/17 15:24*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*64 - 126*	*11/30/17 16:23*	*12/07/17 15:24*	*1*
4-Bromofluorobenzene (Surr)	*91*		*72 - 126*	*11/30/17 16:23*	*12/07/17 15:24*	*1*
Dibromofluoromethane (Surr)	*104*		*60 - 140*	*11/30/17 16:23*	*12/07/17 15:24*	*1*
Toluene-d8 (Surr)	*102*		*71 - 125*	*11/30/17 16:23*	*12/07/17 15:24*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5100	1400	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
2,4,6-Trichlorophenol	ND		5100	1000	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
2,4-Dichlorophenol	ND		5100	540	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
2,4-Dimethylphenol	ND		5100	1200	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
2,4-Dinitrophenol	ND		50000	24000	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
2,4-Dinitrotoluene	ND		5100	1000	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
2,6-Dinitrotoluene	ND		5100	600	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
2-Chloronaphthalene	ND		5100	840	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
2-Chlorophenol	ND		5100	930	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
2-Methylnaphthalene	ND		5100	1000	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
2-Methylphenol	ND		5100	600	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
2-Nitroaniline	ND		9900	750	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
2-Nitrophenol	ND		5100	1400	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
3,3'-Dichlorobenzidine	ND		9900	6000	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
3-Nitroaniline	ND		9900	1400	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
4,6-Dinitro-2-methylphenol	ND		9900	5100	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
4-Bromophenyl phenyl ether	ND		5100	720	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
4-Chloro-3-methylphenol	ND		5100	1300	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
4-Chloroaniline	ND		5100	1300	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
4-Chlorophenyl phenyl ether	ND		5100	630	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
4-Methylphenol	**830**	**J**	9900	600	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
4-Nitroaniline	ND		9900	2700	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
4-Nitrophenol	ND		9900	3600	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Acenaphthene	ND		5100	750	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Acenaphthylene	**920**	**J**	5100	660	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Acetophenone	ND		5100	690	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Anthracene	**2100**	**J**	5100	1300	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Atrazine	ND		5100	1800	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Benzaldehyde	ND		5100	4000	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Benzo[a]anthracene	**4200**	**J**	5100	510	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20

Client Sample ID: TP-8 (6-9)
Date Collected: 11/29/17 13:03
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128189-7
Matrix: Solid
Percent Solids: 65.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	4200	J	5100	750	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Benzo[b]fluoranthene	6100		5100	810	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Benzo[g,h,i]perylene	2900	J	5100	540	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Benzo[k]fluoranthene	2400	J	5100	660	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Biphenyl	ND		5100	750	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
bis (2-chloroisopropyl) ether	ND		5100	1000	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Bis(2-chloroethoxy)methane	ND		5100	1100	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Bis(2-chloroethyl)ether	ND		5100	660	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Bis(2-ethylhexyl) phthalate	ND		5100	1700	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Butyl benzyl phthalate	ND		5100	840	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Caprolactam	ND		5100	1500	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Carbazole	ND		5100	600	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Chrysene	6200		5100	1100	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Dibenz(a,h)anthracene	ND		5100	900	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Dibenzofuran	660	J	5100	600	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Diethyl phthalate	ND		5100	660	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Dimethyl phthalate	ND		5100	600	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Di-n-butyl phthalate	ND		5100	870	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Di-n-octyl phthalate	ND		5100	600	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Fluoranthene	14000		5100	540	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Fluorene	1700	J	5100	600	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Hexachlorobenzene	ND		5100	690	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Hexachlorobutadiene	ND		5100	750	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Hexachlorocyclopentadiene	ND		5100	690	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Hexachloroethane	ND		5100	660	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Indeno[1,2,3-cd]pyrene	2800	J	5100	630	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Isophorone	ND		5100	1100	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Naphthalene	ND		5100	660	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Nitrobenzene	ND		5100	570	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
N-Nitrosodi-n-propylamine	ND		5100	870	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
N-Nitrosodiphenylamine	ND		5100	4100	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Pentachlorophenol	ND		9900	5100	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Phenanthrene	6200		5100	750	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Phenol	ND		5100	780	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20
Pyrene	11000		5100	600	ug/Kg	☼	12/01/17 14:15	12/03/17 21:18	20

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*6400*	*T J*	*ug/Kg*	☼	*7.76*		*12/01/17 14:15*	*12/03/17 21:18*	*20*
Unknown	*4600*	*T J*	*ug/Kg*	☼	*8.31*		*12/01/17 14:15*	*12/03/17 21:18*	*20*
Unknown	*5000*	*T J*	*ug/Kg*	☼	*8.64*		*12/01/17 14:15*	*12/03/17 21:18*	*20*
Unknown	*10000*	*T J*	*ug/Kg*	☼	*9.01*		*12/01/17 14:15*	*12/03/17 21:18*	*20*
Unknown	*7600*	*T J*	*ug/Kg*	☼	*9.57*		*12/01/17 14:15*	*12/03/17 21:18*	*20*
Pentadecane, 2,6,10-trimethyl-	*7200*	*T J N*	*ug/Kg*	☼	*10.09*	*3892-00-0*	*12/01/17 14:15*	*12/03/17 21:18*	*20*
Unknown	*9200*	*T J*	*ug/Kg*	☼	*10.38*		*12/01/17 14:15*	*12/03/17 21:18*	*20*
Unknown	*5400*	*T J*	*ug/Kg*	☼	*10.86*		*12/01/17 14:15*	*12/03/17 21:18*	*20*
Unknown	*4400*	*T J*	*ug/Kg*	☼	*11.41*		*12/01/17 14:15*	*12/03/17 21:18*	*20*
Unknown	*4200*	*T J*	*ug/Kg*	☼	*11.48*		*12/01/17 14:15*	*12/03/17 21:18*	*20*
Phenanthrene, 2,5-dimethyl-	*8400*	*T J N*	*ug/Kg*	☼	*11.89*	*3674-66-6*	*12/01/17 14:15*	*12/03/17 21:18*	*20*
Unknown	*8900*	*T J*	*ug/Kg*	☼	*12.08*		*12/01/17 14:15*	*12/03/17 21:18*	*20*
Unknown	*16000*	*T J*	*ug/Kg*	☼	*14.90*		*12/01/17 14:15*	*12/03/17 21:18*	*20*

Client Sample ID: TP-8 (6-9)
Date Collected: 11/29/17 13:03
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128189-7
Matrix: Solid
Percent Solids: 65.9

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

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	24000	T J	ug/Kg	☼	15.99		12/01/17 14:15	12/03/17 21:18	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	139	X	54 - 120	12/01/17 14:15	12/03/17 21:18	20
2-Fluorobiphenyl	59	X	60 - 120	12/01/17 14:15	12/03/17 21:18	20
2-Fluorophenol	85		52 - 120	12/01/17 14:15	12/03/17 21:18	20
Nitrobenzene-d5	81		53 - 120	12/01/17 14:15	12/03/17 21:18	20
Phenol-d5	85		54 - 120	12/01/17 14:15	12/03/17 21:18	20
p-Terphenyl-d14	94		65 - 121	12/01/17 14:15	12/03/17 21:18	20

Method: 6010C - TAL Metals

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	6760		15.8	7.0	mg/Kg	☼	12/01/17 15:49	12/06/17 05:47	1
Antimony	0.68	J	23.7	0.63	mg/Kg	☼	12/01/17 15:49	12/06/17 05:47	1
Arsenic	14.8		3.2	0.63	mg/Kg	☼	12/01/17 15:49	12/06/17 20:06	1
Barium	155		0.79	0.17	mg/Kg	☼	12/01/17 15:49	12/06/17 05:47	1
Beryllium	0.68		0.32	0.044	mg/Kg	☼	12/01/17 15:49	12/06/17 05:47	1
Cadmium	0.35		0.32	0.047	mg/Kg	☼	12/01/17 15:49	12/06/17 05:47	1
Calcium	3470	B	79.0	5.2	mg/Kg	☼	12/01/17 15:49	12/06/17 05:47	1
Chromium	14.6		0.79	0.32	mg/Kg	☼	12/01/17 15:49	12/06/17 05:47	1
Cobalt	11.8		0.79	0.079	mg/Kg	☼	12/01/17 15:49	12/06/17 05:47	1
Copper	682		1.6	0.33	mg/Kg	☼	12/01/17 15:49	12/06/17 05:47	1
Iron	17800		15.8	5.5	mg/Kg	☼	12/01/17 15:49	12/06/17 05:47	1
Lead	442		1.6	0.38	mg/Kg	☼	12/01/17 15:49	12/06/17 05:47	1
Magnesium	521		31.6	1.5	mg/Kg	☼	12/01/17 15:49	12/06/17 05:47	1
Manganese	259	B	0.32	0.051	mg/Kg	☼	12/01/17 15:49	12/06/17 05:47	1
Nickel	22.0		7.9	0.36	mg/Kg	☼	12/01/17 15:49	12/06/17 05:47	1
Potassium	1230	B	47.4	31.6	mg/Kg	☼	12/01/17 15:49	12/06/17 05:47	1
Selenium	0.74	J	6.3	0.63	mg/Kg	☼	12/01/17 15:49	12/06/17 05:47	1
Silver	ND		0.95	0.32	mg/Kg	☼	12/01/17 15:49	12/06/17 05:47	1
Sodium	299	B	221	20.5	mg/Kg	☼	12/01/17 15:49	12/06/17 05:47	1
Thallium	ND		9.5	0.47	mg/Kg	☼	12/01/17 15:49	12/06/17 05:47	1
Vanadium	48.4		0.79	0.17	mg/Kg	☼	12/01/17 15:49	12/06/17 05:47	1
Zinc	199		3.2	1.0	mg/Kg	☼	12/01/17 15:49	12/06/17 05:47	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	3.0		0.29	0.12	mg/Kg	☼	12/06/17 11:40	12/06/17 15:38	10

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128189-1

Client Sample ID: TP-12 (10-12)
Date Collected: 11/29/17 14:00
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128189-8
Matrix: Solid
Percent Solids: 65.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		1300	350	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
2,4,6-Trichlorophenol	ND		1300	260	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
2,4-Dichlorophenol	ND		1300	140	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
2,4-Dimethylphenol	ND		1300	310	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
2,4-Dinitrophenol	ND		13000	5900	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
2,4-Dinitrotoluene	ND		1300	260	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
2,6-Dinitrotoluene	ND		1300	150	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
2-Chloronaphthalene	ND		1300	210	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
2-Chlorophenol	ND		1300	230	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
2-Methylnaphthalene	ND		1300	260	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
2-Methylphenol	ND		1300	150	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
2-Nitroaniline	ND		2500	190	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
2-Nitrophenol	ND		1300	360	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
3,3'-Dichlorobenzidine	ND		2500	1500	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
3-Nitroaniline	ND		2500	360	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
4,6-Dinitro-2-methylphenol	ND		2500	1300	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
4-Bromophenyl phenyl ether	ND		1300	180	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
4-Chloro-3-methylphenol	ND		1300	320	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
4-Chloroaniline	ND		1300	320	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
4-Chlorophenyl phenyl ether	ND		1300	160	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
4-Methylphenol	ND		2500	150	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
4-Nitroaniline	ND		2500	670	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
4-Nitrophenol	ND		2500	900	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Acenaphthene	ND		1300	190	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Acenaphthylene	ND		1300	170	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Acetophenone	ND		1300	170	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Anthracene	ND		1300	320	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Atrazine	ND		1300	450	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Benzaldehyde	ND		1300	1000	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Benzo[a]anthracene	**530**	**J**	1300	130	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Benzo[a]pyrene	**510**	**J**	1300	190	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Benzo[b]fluoranthene	**700**	**J**	1300	200	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Benzo[g,h,i]perylene	**290**	**J**	1300	140	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Benzo[k]fluoranthene	ND		1300	170	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Biphenyl	ND		1300	190	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
bis (2-chloroisopropyl) ether	ND		1300	260	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Bis(2-chloroethoxy)methane	ND		1300	270	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Bis(2-chloroethyl)ether	ND		1300	170	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Bis(2-ethylhexyl) phthalate	ND		1300	440	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Butyl benzyl phthalate	ND		1300	210	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Caprolactam	ND		1300	390	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Carbazole	ND		1300	150	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Chrysene	**470**	**J**	1300	290	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Dibenz(a,h)anthracene	ND		1300	230	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Dibenzofuran	ND		1300	150	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Diethyl phthalate	ND		1300	170	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Dimethyl phthalate	ND		1300	150	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Di-n-butyl phthalate	ND		1300	220	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Di-n-octyl phthalate	ND		1300	150	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128189-1

Client Sample ID: TP-12 (10-12)
Date Collected: 11/29/17 14:00
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128189-8
Matrix: Solid
Percent Solids: 65.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	1300		1300	140	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Fluorene	ND		1300	150	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Hexachlorobenzene	ND		1300	170	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Hexachlorobutadiene	ND		1300	190	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Hexachlorocyclopentadiene	ND		1300	170	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Hexachloroethane	ND		1300	170	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Indeno[1,2,3-cd]pyrene	350	J	1300	160	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Isophorone	ND		1300	270	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Naphthalene	ND		1300	170	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Nitrobenzene	ND		1300	140	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
N-Nitrosodi-n-propylamine	ND		1300	220	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
N-Nitrosodiphenylamine	ND		1300	1000	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Pentachlorophenol	ND		2500	1300	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Phenanthrene	1000	J	1300	190	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Phenol	ND		1300	200	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5
Pyrene	970	J	1300	150	ug/Kg	☼	12/01/17 14:15	12/03/17 21:45	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*94*		*54 - 120*	*12/01/17 14:15*	*12/03/17 21:45*	*5*
2-Fluorobiphenyl	*81*		*60 - 120*	*12/01/17 14:15*	*12/03/17 21:45*	*5*
2-Fluorophenol	*83*		*52 - 120*	*12/01/17 14:15*	*12/03/17 21:45*	*5*
Nitrobenzene-d5	*83*		*53 - 120*	*12/01/17 14:15*	*12/03/17 21:45*	*5*
Phenol-d5	*80*		*54 - 120*	*12/01/17 14:15*	*12/03/17 21:45*	*5*
p-Terphenyl-d14	*99*		*65 - 121*	*12/01/17 14:15*	*12/03/17 21:45*	*5*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	12000		16.4	7.2	mg/Kg	☼	12/01/17 15:49	12/06/17 05:51	1
Antimony	1.5	J	24.6	0.66	mg/Kg	☼	12/01/17 15:49	12/06/17 05:51	1
Arsenic	21.0		3.3	0.66	mg/Kg	☼	12/01/17 15:49	12/06/17 20:09	1
Barium	196		0.82	0.18	mg/Kg	☼	12/01/17 15:49	12/06/17 05:51	1
Beryllium	0.73		0.33	0.046	mg/Kg	☼	12/01/17 15:49	12/06/17 05:51	1
Cadmium	0.49		0.33	0.049	mg/Kg	☼	12/01/17 15:49	12/06/17 05:51	1
Calcium	3190	B	82.1	5.4	mg/Kg	☼	12/01/17 15:49	12/06/17 05:51	1
Chromium	20.1		0.82	0.33	mg/Kg	☼	12/01/17 15:49	12/06/17 05:51	1
Cobalt	15.5		0.82	0.082	mg/Kg	☼	12/01/17 15:49	12/06/17 05:51	1
Copper	53.1		1.6	0.34	mg/Kg	☼	12/01/17 15:49	12/06/17 05:51	1
Iron	26100		16.4	5.7	mg/Kg	☼	12/01/17 15:49	12/06/17 05:51	1
Lead	332		1.6	0.39	mg/Kg	☼	12/01/17 15:49	12/06/17 05:51	1
Magnesium	573		32.8	1.5	mg/Kg	☼	12/01/17 15:49	12/06/17 05:51	1
Manganese	186	B	0.33	0.053	mg/Kg	☼	12/01/17 15:49	12/06/17 05:51	1
Nickel	29.9		8.2	0.38	mg/Kg	☼	12/01/17 15:49	12/06/17 05:51	1
Potassium	3020	B	49.3	32.8	mg/Kg	☼	12/01/17 15:49	12/06/17 05:51	1
Selenium	6.7		6.6	0.66	mg/Kg	☼	12/01/17 15:49	12/06/17 05:51	1
Silver	ND		0.99	0.33	mg/Kg	☼	12/01/17 15:49	12/06/17 05:51	1
Sodium	566	B	230	21.4	mg/Kg	☼	12/01/17 15:49	12/06/17 05:51	1
Thallium	ND		9.9	0.49	mg/Kg	☼	12/01/17 15:49	12/06/17 05:51	1
Vanadium	62.0		0.82	0.18	mg/Kg	☼	12/01/17 15:49	12/06/17 05:51	1
Zinc	312		3.3	1.1	mg/Kg	☼	12/01/17 15:49	12/06/17 05:51	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128189-1

Client Sample ID: TP-12 (10-12)
Date Collected: 11/29/17 14:00
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128189-8
Matrix: Solid
Percent Solids: 65.7

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.32		0.031	0.013	mg/Kg	☼	12/06/17 11:40	12/06/17 15:23	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128189-1

Client Sample ID: TP-9 (10-12)
Date Collected: 11/29/17 14:49
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128189-10
Matrix: Solid
Percent Solids: 79.1

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		7.2	0.53	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
1,1,2,2-Tetrachloroethane	ND		7.2	1.2	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		7.2	1.6	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
1,1,2-Trichloroethane	ND		7.2	0.94	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
1,1-Dichloroethane	ND		7.2	0.88	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
1,1-Dichloroethene	ND		7.2	0.89	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
1,2,4-Trichlorobenzene	ND		7.2	0.44	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
1,2,4-Trimethylbenzene	ND		7.2	1.4	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
1,2-Dibromo-3-Chloropropane	ND		7.2	3.6	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
1,2-Dibromoethane	ND		7.2	0.93	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
1,2-Dichlorobenzene	ND		7.2	0.57	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
1,2-Dichloroethane	ND		7.2	0.36	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
1,2-Dichloropropane	ND		7.2	3.6	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
1,3,5-Trimethylbenzene	ND		7.2	0.47	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
1,3-Dichlorobenzene	ND		7.2	0.37	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
1,4-Dichlorobenzene	ND		7.2	1.0	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
2-Butanone (MEK)	ND		36	2.6	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
2-Hexanone	ND		36	3.6	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
4-Isopropyltoluene	**58**		7.2	0.58	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
4-Methyl-2-pentanone (MIBK)	ND		36	2.4	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
Acetone	**7.8**	**J**	36	6.1	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
Benzene	ND		7.2	0.35	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
Bromodichloromethane	ND		7.2	0.97	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
Bromoform	ND		7.2	3.6	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
Bromomethane	ND		7.2	0.65	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
Carbon disulfide	ND		7.2	3.6	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
Carbon tetrachloride	ND		7.2	0.70	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
Chlorobenzene	ND		7.2	0.96	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
Chloroethane	ND		7.2	1.6	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
Chloroform	ND		7.2	0.45	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
Chloromethane	ND		7.2	0.44	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
cis-1,2-Dichloroethene	ND		7.2	0.93	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
cis-1,3-Dichloropropene	ND		7.2	1.0	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
Cyclohexane	ND		7.2	1.0	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
Dibromochloromethane	ND		7.2	0.93	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
Dichlorodifluoromethane	ND		7.2	0.60	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
Ethylbenzene	ND		7.2	0.50	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
Isopropylbenzene	ND		7.2	1.1	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
m,p-Xylene	ND		14	1.2	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
Methyl acetate	ND		36	4.4	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
Methyl tert-butyl ether	ND		7.2	0.71	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
Methylcyclohexane	ND		7.2	1.1	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
Methylene Chloride	**3.4**	**J**	7.2	3.3	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
n-Butylbenzene	ND		7.2	0.63	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
N-Propylbenzene	ND		7.2	0.58	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
o-Xylene	ND		7.2	0.94	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
sec-Butylbenzene	ND		7.2	0.63	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
Styrene	ND		7.2	0.36	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
tert-Butylbenzene	ND		7.2	0.75	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1

Client Sample ID: TP-9 (10-12)
Date Collected: 11/29/17 14:49
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128189-10
Matrix: Solid
Percent Solids: 79.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		7.2	0.97	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
Toluene	ND		7.2	0.55	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
trans-1,2-Dichloroethene	ND		7.2	0.75	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
trans-1,3-Dichloropropene	ND		7.2	3.2	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
Trichloroethene	ND		7.2	1.6	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
Trichlorofluoromethane	ND		7.2	0.68	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
Vinyl chloride	ND		7.2	0.88	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1
Xylenes, Total	ND		14	1.2	ug/Kg	☼	11/30/17 16:23	12/07/17 15:49	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Methane, chlorodifluoro-	*15*	*T J N*	*ug/Kg*	☼	*1.83*	*75-45-6*	*11/30/17 16:23*	*12/07/17 15:49*	*1*
1S-.alpha.-Pinene	*240*	*T J N*	*ug/Kg*	☼	*8.96*	*7785-26-4*	*11/30/17 16:23*	*12/07/17 15:49*	*1*
Camphene	*9.6*	*T J N*	*ug/Kg*	☼	*9.28*	*79-92-5*	*11/30/17 16:23*	*12/07/17 15:49*	*1*
.beta.-Pinene	*100*	*T J N*	*ug/Kg*	☼	*9.67*	*127-91-3*	*11/30/17 16:23*	*12/07/17 15:49*	*1*
D-Limonene	*29*	*T J N*	*ug/Kg*	☼	*10.22*	*5989-27-5*	*11/30/17 16:23*	*12/07/17 15:49*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*64 - 126*	*11/30/17 16:23*	*12/07/17 15:49*	*1*
4-Bromofluorobenzene (Surr)	*88*		*72 - 126*	*11/30/17 16:23*	*12/07/17 15:49*	*1*
Dibromofluoromethane (Surr)	*105*		*60 - 140*	*11/30/17 16:23*	*12/07/17 15:49*	*1*
Toluene-d8 (Surr)	*103*		*71 - 125*	*11/30/17 16:23*	*12/07/17 15:49*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		1100	290	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
2,4,6-Trichlorophenol	ND		1100	210	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
2,4-Dichlorophenol	ND		1100	110	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
2,4-Dimethylphenol	ND		1100	260	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
2,4-Dinitrophenol	ND		10000	4900	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
2,4-Dinitrotoluene	ND		1100	220	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
2,6-Dinitrotoluene	ND		1100	130	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
2-Chloronaphthalene	ND		1100	180	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
2-Chlorophenol	ND		1100	200	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
2-Methylnaphthalene	ND		1100	210	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
2-Methylphenol	ND		1100	130	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
2-Nitroaniline	ND		2100	160	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
2-Nitrophenol	ND		1100	300	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
3,3'-Dichlorobenzidine	ND		2100	1300	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
3-Nitroaniline	ND		2100	300	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
4,6-Dinitro-2-methylphenol	ND		2100	1100	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
4-Bromophenyl phenyl ether	ND		1100	150	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
4-Chloro-3-methylphenol	ND		1100	270	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
4-Chloroaniline	ND		1100	270	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
4-Chlorophenyl phenyl ether	ND		1100	130	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
4-Methylphenol	ND		2100	130	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
4-Nitroaniline	ND		2100	560	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
4-Nitrophenol	ND		2100	750	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Acenaphthene	ND		1100	160	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Acenaphthylene	ND		1100	140	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Acetophenone	ND		1100	150	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5

Client Sample ID: TP-9 (10-12)
Date Collected: 11/29/17 14:49
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128189-10
Matrix: Solid
Percent Solids: 79.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		1100	270	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Atrazine	ND		1100	370	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Benzaldehyde	ND		1100	850	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Benzo[a]anthracene	**600**	**J**	1100	110	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Benzo[a]pyrene	**610**	**J**	1100	160	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Benzo[b]fluoranthene	**730**	**J**	1100	170	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Benzo[g,h,i]perylene	**320**	**J**	1100	110	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Benzo[k]fluoranthene	**250**	**J**	1100	140	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Biphenyl	ND		1100	160	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
bis (2-chloroisopropyl) ether	ND		1100	210	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Bis(2-chloroethoxy)methane	ND		1100	230	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Bis(2-chloroethyl)ether	ND		1100	140	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Bis(2-ethylhexyl) phthalate	ND		1100	370	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Butyl benzyl phthalate	ND		1100	180	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Caprolactam	ND		1100	320	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Carbazole	ND		1100	130	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Chrysene	**520**	**J**	1100	240	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Dibenz(a,h)anthracene	ND		1100	190	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Dibenzofuran	ND		1100	130	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Diethyl phthalate	ND		1100	140	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Dimethyl phthalate	ND		1100	130	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Di-n-butyl phthalate	ND		1100	180	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Di-n-octyl phthalate	ND		1100	130	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Fluoranthene	**1200**		1100	110	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Fluorene	ND		1100	130	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Hexachlorobenzene	ND		1100	150	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Hexachlorobutadiene	ND		1100	160	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Hexachlorocyclopentadiene	ND		1100	150	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Hexachloroethane	ND		1100	140	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Indeno[1,2,3-cd]pyrene	**370**	**J**	1100	130	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Isophorone	ND		1100	230	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Naphthalene	ND		1100	140	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Nitrobenzene	ND		1100	120	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
N-Nitrosodi-n-propylamine	ND		1100	180	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
N-Nitrosodiphenylamine	ND		1100	870	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Pentachlorophenol	ND		2100	1100	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Phenanthrene	**730**	**J**	1100	160	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Phenol	ND		1100	160	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5
Pyrene	**1000**	**J**	1100	130	ug/Kg	☼	12/01/17 14:15	12/03/17 22:11	5

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*870*	*T J*	*ug/Kg*	☼	*3.45*		*12/01/17 14:15*	*12/03/17 22:11*	*5*
1R-.alpha.-Pinene	*1200*	*T J N*	*ug/Kg*	☼	*4.78*	*7785-70-8*	*12/01/17 14:15*	*12/03/17 22:11*	*5*
Unknown	*2900*	*T J*	*ug/Kg*	☼	*12.11*		*12/01/17 14:15*	*12/03/17 22:11*	*5*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*99*		*54 - 120*	*12/01/17 14:15*	*12/03/17 22:11*	*5*
2-Fluorobiphenyl	*78*		*60 - 120*	*12/01/17 14:15*	*12/03/17 22:11*	*5*
2-Fluorophenol	*81*		*52 - 120*	*12/01/17 14:15*	*12/03/17 22:11*	*5*
Nitrobenzene-d5	*83*		*53 - 120*	*12/01/17 14:15*	*12/03/17 22:11*	*5*

Client Sample ID: TP-9 (10-12)
Date Collected: 11/29/17 14:49
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128189-10
Matrix: Solid
Percent Solids: 79.1

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Phenol-d5	*80*		*54 - 120*	*12/01/17 14:15*	*12/03/17 22:11*	*5*
p-Terphenyl-d14	*93*		*65 - 121*	*12/01/17 14:15*	*12/03/17 22:11*	*5*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	5820		11.9	5.2	mg/Kg	☼	12/01/17 15:49	12/06/17 05:54	1
Antimony	ND		17.9	0.48	mg/Kg	☼	12/01/17 15:49	12/06/17 05:54	1
Arsenic	8.0		2.4	0.48	mg/Kg	☼	12/01/17 15:49	12/06/17 20:13	1
Barium	430		0.60	0.13	mg/Kg	☼	12/01/17 15:49	12/06/17 05:54	1
Beryllium	0.43		0.24	0.033	mg/Kg	☼	12/01/17 15:49	12/06/17 05:54	1
Cadmium	0.69		0.24	0.036	mg/Kg	☼	12/01/17 15:49	12/06/17 05:54	1
Calcium	16900	B	59.5	3.9	mg/Kg	☼	12/01/17 15:49	12/06/17 05:54	1
Chromium	18.7		0.60	0.24	mg/Kg	☼	12/01/17 15:49	12/06/17 05:54	1
Cobalt	4.4		0.60	0.060	mg/Kg	☼	12/01/17 15:49	12/06/17 05:54	1
Copper	29.2		1.2	0.25	mg/Kg	☼	12/01/17 15:49	12/06/17 05:54	1
Iron	11700		11.9	4.2	mg/Kg	☼	12/01/17 15:49	12/06/17 05:54	1
Lead	476		1.2	0.29	mg/Kg	☼	12/01/17 15:49	12/06/17 05:54	1
Magnesium	1830		23.8	1.1	mg/Kg	☼	12/01/17 15:49	12/06/17 05:54	1
Manganese	165	B	0.24	0.038	mg/Kg	☼	12/01/17 15:49	12/06/17 05:54	1
Nickel	15.3		6.0	0.27	mg/Kg	☼	12/01/17 15:49	12/06/17 05:54	1
Potassium	1480	B	35.7	23.8	mg/Kg	☼	12/01/17 15:49	12/06/17 05:54	1
Selenium	0.48	J	4.8	0.48	mg/Kg	☼	12/01/17 15:49	12/06/17 05:54	1
Silver	ND		0.71	0.24	mg/Kg	☼	12/01/17 15:49	12/06/17 05:54	1
Sodium	189	B	167	15.5	mg/Kg	☼	12/01/17 15:49	12/06/17 05:54	1
Thallium	ND		7.1	0.36	mg/Kg	☼	12/01/17 15:49	12/06/17 05:54	1
Vanadium	18.4		0.60	0.13	mg/Kg	☼	12/01/17 15:49	12/06/17 05:54	1
Zinc	278		2.4	0.76	mg/Kg	☼	12/01/17 15:49	12/06/17 05:54	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20		0.025	0.010	mg/Kg	☼	12/06/17 11:40	12/06/17 15:25	1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	12DCE (64-126)	BFB (72-126)	DBFM (60-140)	TOL (71-125)
480-128189-1	TP-10 (0-4)	106	93	105	99
480-128189-2	BLIND DUP #2	102	85	103	105
480-128189-6	TP-11 (5-8)	106	93	104	101
480-128189-7	TP-8 (6-9)	107	91	104	102
480-128189-7 MS	TP-8 (6-9)	96 *	71 X *	106 *	120 *
480-128189-7 MSD	TP-8 (6-9)	94	74	105	117
480-128189-10	TP-9 (10-12)	104	88	105	103
LCS 480-389952/1-A	Lab Control Sample	136 X	128 X	138	133 X
LCS 480-389953/1-A	Lab Control Sample	101	95	104	99
MB 480-389952/2-A	Method Blank	104	93	102	100
MB 480-389953/2-A	Method Blank	102	95	102	100

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	TBP (54-120)	FBP (60-120)	2FP (52-120)	NBZ (53-120)	PHL (54-120)	TPH (65-121)
480-128189-1	TP-10 (0-4)	0 X	60	79	81	74	93
480-128189-3	BLIND DUP #3	97	65	78	88	87	97
480-128189-4	TP-14 (10-15)	92	88	92	93	94	103
480-128189-5	TP-15 (8-10)	87	92	82	93	92	100
480-128189-6	TP-11 (5-8)	86	88	86	87	88	102
480-128189-6 MS	TP-11 (5-8)	102	81	68	82	81	96
480-128189-6 MSD	TP-11 (5-8)	97	80	79	88	83	97
480-128189-7	TP-8 (6-9)	139 X	59 X	85	81	85	94
480-128189-8	TP-12 (10-12)	94	81	83	83	80	99
480-128189-10	TP-9 (10-12)	99	78	81	83	80	93
LCS 480-390116/2-A	Lab Control Sample	95	87	76	79	77	97
MB 480-390116/1-A	Method Blank	76	87	79	83	82	100

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPH = p-Terphenyl-d14

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCB1	DCB2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(45-120)	(45-120)	(30-124)	(30-124)
480-128189-1	TP-10 (0-4)	229 X	608 X	170 X	166 X
480-128189-6	TP-11 (5-8)	122 X	200 X	77	83
LCS 480-390026/2-A	Lab Control Sample	114	104	80	63
MB 480-390026/1-A	Method Blank	129 X	110	89	71

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCB1	DCB2
Lab Sample ID	Client Sample ID	(60-154)	(60-154)	(65-174)	(65-174)
480-128189-1	TP-10 (0-4)	88	92	81	90
480-128189-1 MS	TP-10 (0-4)	89	84	92	103
480-128189-1 MSD	TP-10 (0-4)	104	108	103	118
480-128189-6	TP-11 (5-8)	81	90	65	66
LCS 480-390171/2-A	Lab Control Sample	116	112	112	126
MB 480-390171/1-A	Method Blank	97	99	93	108

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

Method: 8151A - Herbicides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCPA1	DCPA2
Lab Sample ID	Client Sample ID	(28-129)	(28-129)
480-128189-1	TP-10 (0-4)	126	120
480-128189-6	TP-11 (5-8)	123	106
LCS 480-390029/2-A	Lab Control Sample	116	170 X
LCSD 480-390029/3-A	Lab Control Sample Dup	90	105
MB 480-390029/1-A	Method Blank	151 X	141 X

Surrogate Legend

DCPA = 2,4-Dichlorophenylacetic acid

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-389952/2-A
Matrix: Solid
Analysis Batch: 390688

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389952

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
1,2,4-Trimethylbenzene	ND		5.0	0.96	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
1,3,5-Trimethylbenzene	ND		5.0	0.32	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
2-Hexanone	ND		25	2.5	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
4-Isopropyltoluene	ND		5.0	0.40	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
Acetone	ND		25	4.2	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
Benzene	ND		5.0	0.25	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
Bromoform	ND		5.0	2.5	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
Bromomethane	ND		5.0	0.45	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
Carbon disulfide	ND		5.0	2.5	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
Chlorobenzene	ND		5.0	0.66	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
Chloroethane	ND		5.0	1.1	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
Chloroform	ND		5.0	0.31	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
Chloromethane	ND		5.0	0.30	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
Cyclohexane	ND		5.0	0.70	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
Ethylbenzene	ND		5.0	0.35	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
m,p-Xylene	ND		10	0.84	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
Methyl acetate	ND		25	3.0	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
Methylene Chloride	ND		5.0	2.3	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
n-Butylbenzene	ND		5.0	0.44	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
N-Propylbenzene	ND		5.0	0.40	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
o-Xylene	ND		5.0	0.65	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
sec-Butylbenzene	ND		5.0	0.44	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
Styrene	ND		5.0	0.25	ug/Kg		11/30/17 16:20	12/06/17 13:47	1

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

Lab Sample ID: MB 480-389952/2-A
Matrix: Solid
Analysis Batch: 390688

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389952

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	ND		5.0	0.52	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
Tetrachloroethene	ND		5.0	0.67	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
Toluene	ND		5.0	0.38	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
Trichloroethene	ND		5.0	1.1	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
Vinyl chloride	ND		5.0	0.61	ug/Kg		11/30/17 16:20	12/06/17 13:47	1
Xylenes, Total	ND		10	0.84	ug/Kg		11/30/17 16:20	12/06/17 13:47	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Chlorodifluoromethane	*4.78*	*J*	*ug/Kg*		*1.83*	*75-45-6*	*11/30/17 16:20*	*12/06/17 13:47*	*1*
Tentatively Identified Compound	*None*		*ug/Kg*				*11/30/17 16:20*	*12/06/17 13:47*	*1*

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*104*		*64 - 126*	*11/30/17 16:20*	*12/06/17 13:47*	*1*
4-Bromofluorobenzene (Surr)	*93*		*72 - 126*	*11/30/17 16:20*	*12/06/17 13:47*	*1*
Dibromofluoromethane (Surr)	*102*		*60 - 140*	*11/30/17 16:20*	*12/06/17 13:47*	*1*
Toluene-d8 (Surr)	*100*		*71 - 125*	*11/30/17 16:20*	*12/06/17 13:47*	*1*

Lab Sample ID: LCS 480-389952/1-A
Matrix: Solid
Analysis Batch: 390688

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389952

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	50.0	54.3		ug/Kg		109	77 - 121
1,1,2,2-Tetrachloroethane	50.0	62.5	*	ug/Kg		125	80 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	53.7		ug/Kg		107	60 - 140
1,1,2-Trichloroethane	50.0	57.8		ug/Kg		116	78 - 122
1,1-Dichloroethane	50.0	55.2		ug/Kg		110	73 - 126
1,1-Dichloroethene	50.0	55.6		ug/Kg		111	59 - 125
1,2,4-Trichlorobenzene	50.0	56.0		ug/Kg		112	64 - 120
1,2,4-Trimethylbenzene	50.0	58.1		ug/Kg		116	74 - 120
1,2-Dibromo-3-Chloropropane	50.0	66.9	*	ug/Kg		134	63 - 124
1,2-Dibromoethane	50.0	59.8		ug/Kg		120	78 - 120
1,2-Dichlorobenzene	50.0	57.1		ug/Kg		114	75 - 120
1,2-Dichloroethane	50.0	56.5		ug/Kg		113	77 - 122
1,2-Dichloropropane	50.0	54.3		ug/Kg		109	75 - 124
1,3,5-Trimethylbenzene	50.0	58.2		ug/Kg		116	74 - 120
1,3-Dichlorobenzene	50.0	57.2		ug/Kg		114	74 - 120
1,4-Dichlorobenzene	50.0	57.1		ug/Kg		114	73 - 120
2-Butanone (MEK)	250	325		ug/Kg		130	70 - 134
2-Hexanone	250	321		ug/Kg		128	59 - 130
4-Isopropyltoluene	50.0	58.2		ug/Kg		116	74 - 120
4-Methyl-2-pentanone (MIBK)	250	308		ug/Kg		123	65 - 133
Acetone	250	355	*	ug/Kg		142	61 - 137
Benzene	50.0	56.6		ug/Kg		113	79 - 127

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

Lab Sample ID: LCS 480-389952/1-A
Matrix: Solid
Analysis Batch: 390688

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389952

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromodichloromethane	50.0	59.7		ug/Kg		119	80 - 122
Bromoform	50.0	56.1		ug/Kg		112	68 - 126
Bromomethane	50.0	68.9		ug/Kg		138	37 - 149
Carbon disulfide	50.0	54.7		ug/Kg		109	64 - 131
Carbon tetrachloride	50.0	56.4		ug/Kg		113	75 - 135
Chlorobenzene	50.0	56.0		ug/Kg		112	76 - 124
Chloroethane	50.0	65.9		ug/Kg		132	69 - 135
Chloroform	50.0	56.6		ug/Kg		113	80 - 120
Chloromethane	50.0	64.0	*	ug/Kg		128	63 - 127
cis-1,2-Dichloroethene	50.0	57.3		ug/Kg		115	81 - 120
cis-1,3-Dichloropropene	50.0	58.0		ug/Kg		116	80 - 120
Cyclohexane	50.0	53.7		ug/Kg		107	65 - 120
Dibromochloromethane	50.0	64.0	*	ug/Kg		128	76 - 125
Dichlorodifluoromethane	50.0	70.8		ug/Kg		142	57 - 142
Ethylbenzene	50.0	56.4		ug/Kg		113	80 - 120
Isopropylbenzene	50.0	57.9		ug/Kg		116	72 - 120
m,p-Xylene	50.0	54.8		ug/Kg		110	70 - 130
Methyl acetate	100	123		ug/Kg		123	55 - 136
Methyl tert-butyl ether	50.0	57.9		ug/Kg		116	63 - 125
Methylcyclohexane	50.0	53.9		ug/Kg		108	60 - 140
Methylene Chloride	50.0	58.6		ug/Kg		117	61 - 127
Naphthalene	50.0	60.6		ug/Kg		121	38 - 137
n-Butylbenzene	50.0	57.9		ug/Kg		116	70 - 120
N-Propylbenzene	50.0	58.2		ug/Kg		116	70 - 130
o-Xylene	50.0	55.6		ug/Kg		111	70 - 130
sec-Butylbenzene	50.0	57.8		ug/Kg		116	74 - 120
Styrene	50.0	56.4		ug/Kg		113	80 - 120
tert-Butylbenzene	50.0	54.7		ug/Kg		109	73 - 120
Tetrachloroethene	50.0	53.9		ug/Kg		108	74 - 122
Toluene	50.0	55.2		ug/Kg		110	74 - 128
trans-1,2-Dichloroethene	50.0	56.6		ug/Kg		113	78 - 126
trans-1,3-Dichloropropene	50.0	56.6		ug/Kg		113	73 - 123
Trichloroethene	50.0	55.4		ug/Kg		111	77 - 129
Trichlorofluoromethane	50.0	60.5		ug/Kg		121	65 - 146
Vinyl chloride	50.0	65.9		ug/Kg		132	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*136*	*X*	*64 - 126*
4-Bromofluorobenzene (Surr)	*128*	*X*	*72 - 126*
Dibromofluoromethane (Surr)	*138*		*60 - 140*
Toluene-d8 (Surr)	*133*	*X*	*71 - 125*

Lab Sample ID: MB 480-389953/2-A
Matrix: Solid
Analysis Batch: 390950

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389953

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg		11/30/17 16:23	12/07/17 14:45	1

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

Lab Sample ID: MB 480-389953/2-A
Matrix: Solid
Analysis Batch: 390950

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389953

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
1,2,4-Trimethylbenzene	ND		5.0	0.96	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
1,3,5-Trimethylbenzene	ND		5.0	0.32	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
2-Hexanone	ND		25	2.5	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
4-Isopropyltoluene	ND		5.0	0.40	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
Acetone	ND		25	4.2	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
Benzene	ND		5.0	0.25	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
Bromoform	ND		5.0	2.5	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
Bromomethane	ND		5.0	0.45	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
Carbon disulfide	ND		5.0	2.5	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
Chlorobenzene	ND		5.0	0.66	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
Chloroethane	ND		5.0	1.1	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
Chloroform	ND		5.0	0.31	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
Chloromethane	ND		5.0	0.30	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
Cyclohexane	ND		5.0	0.70	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
Ethylbenzene	ND		5.0	0.35	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
m,p-Xylene	ND		10	0.84	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
Methyl acetate	ND		25	3.0	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
Methylene Chloride	ND		5.0	2.3	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
n-Butylbenzene	ND		5.0	0.44	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
N-Propylbenzene	ND		5.0	0.40	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
o-Xylene	ND		5.0	0.65	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
sec-Butylbenzene	ND		5.0	0.44	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
Styrene	ND		5.0	0.25	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
tert-Butylbenzene	ND		5.0	0.52	ug/Kg		11/30/17 16:23	12/07/17 14:45	1

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

Lab Sample ID: MB 480-389953/2-A
Matrix: Solid
Analysis Batch: 390950

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389953

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		5.0	0.67	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
Toluene	ND		5.0	0.38	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
Trichloroethene	ND		5.0	1.1	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
Vinyl chloride	ND		5.0	0.61	ug/Kg		11/30/17 16:23	12/07/17 14:45	1
Xylenes, Total	ND		10	0.84	ug/Kg		11/30/17 16:23	12/07/17 14:45	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorodifluoromethane	*2.83*	*J*	*ug/Kg*		*1.84*	*75-45-6*	*11/30/17 16:23*	*12/07/17 14:45*	*1*
Tentatively Identified Compound	*None*		*ug/Kg*				*11/30/17 16:23*	*12/07/17 14:45*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*64 - 126*	*11/30/17 16:23*	*12/07/17 14:45*	*1*
4-Bromofluorobenzene (Surr)	*95*		*72 - 126*	*11/30/17 16:23*	*12/07/17 14:45*	*1*
Dibromofluoromethane (Surr)	*102*		*60 - 140*	*11/30/17 16:23*	*12/07/17 14:45*	*1*
Toluene-d8 (Surr)	*100*		*71 - 125*	*11/30/17 16:23*	*12/07/17 14:45*	*1*

Lab Sample ID: LCS 480-389953/1-A
Matrix: Solid
Analysis Batch: 390950

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389953

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	50.0	38.9		ug/Kg		78	77 - 121
1,1,2,2-Tetrachloroethane	50.0	48.3		ug/Kg		97	80 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	35.4		ug/Kg		71	60 - 140
1,1,2-Trichloroethane	50.0	45.5		ug/Kg		91	78 - 122
1,1-Dichloroethane	50.0	41.7		ug/Kg		83	73 - 126
1,1-Dichloroethene	50.0	38.2		ug/Kg		76	59 - 125
1,2,4-Trichlorobenzene	50.0	43.5		ug/Kg		87	64 - 120
1,2,4-Trimethylbenzene	50.0	43.5		ug/Kg		87	74 - 120
1,2-Dibromo-3-Chloropropane	50.0	50.8		ug/Kg		102	63 - 124
1,2-Dibromoethane	50.0	47.1		ug/Kg		94	78 - 120
1,2-Dichlorobenzene	50.0	44.3		ug/Kg		89	75 - 120
1,2-Dichloroethane	50.0	44.8		ug/Kg		90	77 - 122
1,2-Dichloropropane	50.0	42.5		ug/Kg		85	75 - 124
1,3,5-Trimethylbenzene	50.0	42.6		ug/Kg		85	74 - 120
1,3-Dichlorobenzene	50.0	43.6		ug/Kg		87	74 - 120
1,4-Dichlorobenzene	50.0	43.6		ug/Kg		87	73 - 120
2-Butanone (MEK)	250	243		ug/Kg		97	70 - 134
2-Hexanone	250	244		ug/Kg		98	59 - 130
4-Isopropyltoluene	50.0	41.8		ug/Kg		84	74 - 120
4-Methyl-2-pentanone (MIBK)	250	231		ug/Kg		93	65 - 133
Acetone	250	266		ug/Kg		106	61 - 137
Benzene	50.0	42.5		ug/Kg		85	79 - 127
Bromodichloromethane	50.0	47.1		ug/Kg		94	80 - 122

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

Lab Sample ID: LCS 480-389953/1-A
Matrix: Solid
Analysis Batch: 390950

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389953

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromoform	50.0	44.8		ug/Kg		90	68 - 126
Bromomethane	50.0	50.7		ug/Kg		101	37 - 149
Carbon disulfide	50.0	39.0		ug/Kg		78	64 - 131
Carbon tetrachloride	50.0	39.6		ug/Kg		79	75 - 135
Chlorobenzene	50.0	42.8		ug/Kg		86	76 - 124
Chloroethane	50.0	45.8		ug/Kg		92	69 - 135
Chloroform	50.0	43.5		ug/Kg		87	80 - 120
Chloromethane	50.0	43.3		ug/Kg		87	63 - 127
cis-1,2-Dichloroethene	50.0	44.0		ug/Kg		88	81 - 120
cis-1,3-Dichloropropene	50.0	45.1		ug/Kg		90	80 - 120
Cyclohexane	50.0	35.0		ug/Kg		70	65 - 120
Dibromochloromethane	50.0	51.1		ug/Kg		102	76 - 125
Dichlorodifluoromethane	50.0	41.0		ug/Kg		82	57 - 142
Ethylbenzene	50.0	41.7		ug/Kg		83	80 - 120
Isopropylbenzene	50.0	41.5		ug/Kg		83	72 - 120
m,p-Xylene	50.0	40.2		ug/Kg		80	70 - 130
Methyl acetate	100	94.9		ug/Kg		95	55 - 136
Methyl tert-butyl ether	50.0	45.8		ug/Kg		92	63 - 125
Methylcyclohexane	50.0	35.3		ug/Kg		71	60 - 140
Methylene Chloride	50.0	47.1		ug/Kg		94	61 - 127
Naphthalene	50.0	47.1		ug/Kg		94	38 - 137
n-Butylbenzene	50.0	41.1		ug/Kg		82	70 - 120
N-Propylbenzene	50.0	41.8		ug/Kg		84	70 - 130
o-Xylene	50.0	42.1		ug/Kg		84	70 - 130
sec-Butylbenzene	50.0	40.5		ug/Kg		81	74 - 120
Styrene	50.0	43.0		ug/Kg		86	80 - 120
tert-Butylbenzene	50.0	39.5		ug/Kg		79	73 - 120
Tetrachloroethene	50.0	37.9		ug/Kg		76	74 - 122
Toluene	50.0	41.2		ug/Kg		82	74 - 128
trans-1,2-Dichloroethene	50.0	41.7		ug/Kg		83	78 - 126
trans-1,3-Dichloropropene	50.0	44.8		ug/Kg		90	73 - 123
Trichloroethene	50.0	40.4		ug/Kg		81	77 - 129
Trichlorofluoromethane	50.0	38.4		ug/Kg		77	65 - 146
Vinyl chloride	50.0	41.1		ug/Kg		82	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*64 - 126*
4-Bromofluorobenzene (Surr)	*95*		*72 - 126*
Dibromofluoromethane (Surr)	*104*		*60 - 140*
Toluene-d8 (Surr)	*99*		*71 - 125*

Lab Sample ID: 480-128189-7 MS
Matrix: Solid
Analysis Batch: 390950

Client Sample ID: TP-8 (6-9)
Prep Type: Total/NA
Prep Batch: 389953

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	ND	F1 F2	80.2	121	F1 *	ug/Kg	☼	150	77 - 121
1,1,2,2-Tetrachloroethane	ND	F1 F2	80.2	210	F1 *	ug/Kg	☼	262	80 - 120

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

Lab Sample ID: 480-128189-7 MS
Matrix: Solid
Analysis Batch: 390950

Client Sample ID: TP-8 (6-9)
Prep Type: Total/NA
Prep Batch: 389953

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	F2	80.2	111	*	ug/Kg	☼	139	60 - 140
1,1,2-Trichloroethane	ND	F1 F2	80.2	140	F1 *	ug/Kg	☼	175	78 - 122
1,1-Dichloroethane	ND	F1 F2	80.2	135	F1 *	ug/Kg	☼	169	73 - 126
1,1-Dichloroethene	ND	F1 F2	80.2	122	F1 *	ug/Kg	☼	152	59 - 125
1,2,4-Trichlorobenzene	ND	F1 F2	80.2	45.8	F1 *	ug/Kg	☼	57	64 - 120
1,2,4-Trimethylbenzene	ND	F1 F2	80.2	133	F1 *	ug/Kg	☼	166	74 - 120
1,2-Dibromo-3-Chloropropane	ND	F1 F2	80.2	116	F1 *	ug/Kg	☼	144	63 - 124
1,2-Dibromoethane	ND	F1 F2	80.2	112	F1 *	ug/Kg	☼	140	78 - 120
1,2-Dichlorobenzene	ND	F1 F2	80.2	101	F1 *	ug/Kg	☼	126	75 - 120
1,2-Dichloroethane	ND	F1 F2	80.2	108	F1 *	ug/Kg	☼	135	77 - 122
1,2-Dichloropropane	ND	F1 F2	80.2	120	F1 *	ug/Kg	☼	150	75 - 124
1,3,5-Trimethylbenzene	ND	F1 F2	80.2	142	F1 *	ug/Kg	☼	177	74 - 120
1,3-Dichlorobenzene	ND	F1 F2	80.2	113	F1 *	ug/Kg	☼	141	74 - 120
1,4-Dichlorobenzene	ND	F1 F2	80.2	109	F1 *	ug/Kg	☼	136	73 - 120
2-Butanone (MEK)	ND	F2	401	531	*	ug/Kg	☼	132	70 - 134
2-Hexanone	ND	F1 F2	401	700	F1 *	ug/Kg	☼	174	59 - 130
4-Isopropyltoluene	ND	F1 F2	80.2	123	F1 *	ug/Kg	☼	153	74 - 120
4-Methyl-2-pentanone (MIBK)	ND	F1 F2	401	766	F1 *	ug/Kg	☼	191	65 - 133
Acetone	13	J F2	401	526	*	ug/Kg	☼	128	61 - 137
Benzene	ND	F1 F2	80.2	126	F1 *	ug/Kg	☼	157	79 - 127
Bromodichloromethane	ND	F1 F2	80.2	114	F1 *	ug/Kg	☼	142	80 - 122
Bromoform	ND	F1 F2	80.2	78.2	*	ug/Kg	☼	97	68 - 126
Bromomethane	ND	F1 F2	80.2	131	F1 *	ug/Kg	☼	163	37 - 149
Carbon disulfide	ND	F1 F2	80.2	77.0	*	ug/Kg	☼	96	64 - 131
Carbon tetrachloride	ND	F1 F2	80.2	91.5	*	ug/Kg	☼	114	75 - 135
Chlorobenzene	ND	F1 F2	80.2	113	F1 *	ug/Kg	☼	141	76 - 124
Chloroethane	ND	F1 F2	80.2	148	F1 *	ug/Kg	☼	184	69 - 135
Chloroform	ND	F1 F2	80.2	132	F1 *	ug/Kg	☼	165	80 - 120
Chloromethane	ND	F1 F2	80.2	123	F1 *	ug/Kg	☼	153	63 - 127
cis-1,2-Dichloroethene	ND	F1 F2	80.2	108	F1 *	ug/Kg	☼	135	80 - 120
cis-1,3-Dichloropropene	ND	F1 F2	80.2	84.6	*	ug/Kg	☼	105	80 - 120
Cyclohexane	ND	F1 F2	80.2	82.5	*	ug/Kg	☼	103	65 - 120
Dibromochloromethane	ND	F1 F2	80.2	127	F1 *	ug/Kg	☼	159	76 - 125
Dichlorodifluoromethane	ND	F1 F2	80.2	156	F1 *	ug/Kg	☼	194	57 - 142
Ethylbenzene	ND	F1 F2	80.2	108	F1 *	ug/Kg	☼	135	80 - 120
Isopropylbenzene	ND	F1 F2	80.2	183	F1 *	ug/Kg	☼	228	72 - 120
m,p-Xylene	ND	F1 F2	80.2	98.0	*	ug/Kg	☼	122	70 - 130
Methyl acetate	ND	F1 F2	160	225	F1 *	ug/Kg	☼	140	55 - 136
Methyl tert-butyl ether	ND	F1 F2	80.2	136	F1 *	ug/Kg	☼	169	63 - 125
Methylcyclohexane	ND	F1 F2	80.2	62.3	*	ug/Kg	☼	78	60 - 140
Methylene Chloride	ND	F1 F2	80.2	122	F1 *	ug/Kg	☼	152	61 - 127
Naphthalene	ND	F1 F2	80.2	47.2	*	ug/Kg	☼	59	38 - 137
n-Butylbenzene	ND	F1 F2	80.2	105	F1 *	ug/Kg	☼	131	70 - 120
N-Propylbenzene	ND	F1 F2	80.2	162	F1 *	ug/Kg	☼	202	70 - 130
o-Xylene	ND	F1 F2	80.2	97.9	*	ug/Kg	☼	122	70 - 130
sec-Butylbenzene	ND	F1 F2	80.2	134	F1 *	ug/Kg	☼	167	74 - 120
Styrene	ND	F1 F2	80.2	94.9	*	ug/Kg	☼	118	80 - 120

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

Lab Sample ID: 480-128189-7 MS
Matrix: Solid
Analysis Batch: 390950

Client Sample ID: TP-8 (6-9)
Prep Type: Total/NA
Prep Batch: 389953

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
tert-Butylbenzene	ND	F1 F2	80.2	136	F1 *	ug/Kg	☼	169	73 - 120
Tetrachloroethene	ND	F1 F2	80.2	103	F1 *	ug/Kg	☼	128	74 - 122
Toluene	ND	F1 F2	80.2	141	F1 *	ug/Kg	☼	176	74 - 128
trans-1,2-Dichloroethene	ND	F1 F2	80.2	95.6	*	ug/Kg	☼	119	78 - 126
trans-1,3-Dichloropropene	ND	F1 F2	80.2	95.7	*	ug/Kg	☼	119	73 - 123
Trichloroethene	ND	F1 F2	80.2	98.9	*	ug/Kg	☼	123	77 - 129
Trichlorofluoromethane	ND	F1 F2	80.2	138	F1 *	ug/Kg	☼	172	65 - 146
Vinyl chloride	ND	F1 F2	80.2	122	F1 *	ug/Kg	☼	151	61 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*	*	*64 - 126*
4-Bromofluorobenzene (Surr)	*71*	*X *	*72 - 126*
Dibromofluoromethane (Surr)	*106*	*	*60 - 140*
Toluene-d8 (Surr)	*120*	*	*71 - 125*

Lab Sample ID: 480-128189-7 MSD
Matrix: Solid
Analysis Batch: 390950

Client Sample ID: TP-8 (6-9)
Prep Type: Total/NA
Prep Batch: 389953

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND	F1 F2	83.6	72.5	F2	ug/Kg	☼	87	77 - 121	50	30
1,1,2,2-Tetrachloroethane	ND	F1 F2	83.6	89.4	F2 *	ug/Kg	☼	107	80 - 120	81	30
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	F2	83.6	60.7	F2	ug/Kg	☼	73	60 - 140	59	30
1,1,2-Trichloroethane	ND	F1 F2	83.6	83.6	F2	ug/Kg	☼	100	78 - 122	51	30
1,1-Dichloroethane	ND	F1 F2	83.6	85.9	F2	ug/Kg	☼	103	73 - 126	45	30
1,1-Dichloroethene	ND	F1 F2	83.6	68.1	F2	ug/Kg	☼	81	59 - 125	56	30
1,2,4-Trichlorobenzene	ND	F1 F2	83.6	13.4	F1 F2 *	ug/Kg	☼	16	64 - 120	109	30
1,2,4-Trimethylbenzene	ND	F1 F2	83.6	45.1	F1 F2 *	ug/Kg	☼	54	74 - 120	99	30
1,2-Dibromo-3-Chloropropane	ND	F1 F2	83.6	49.3	F1 F2 *	ug/Kg	☼	59	63 - 124	80	30
1,2-Dibromoethane	ND	F1 F2	83.6	60.9	F1 F2	ug/Kg	☼	73	78 - 120	60	30
1,2-Dichlorobenzene	ND	F1 F2	83.6	37.0	F1 F2 *	ug/Kg	☼	44	75 - 120	93	30
1,2-Dichloroethane	ND	F1 F2	83.6	65.2	F2	ug/Kg	☼	78	77 - 122	50	30
1,2-Dichloropropane	ND	F1 F2	83.6	77.1	F2	ug/Kg	☼	92	75 - 124	44	30
1,3,5-Trimethylbenzene	ND	F1 F2	83.6	46.6	F1 F2 *	ug/Kg	☼	56	74 - 120	101	30
1,3-Dichlorobenzene	ND	F1 F2	83.6	39.6	F1 F2 *	ug/Kg	☼	47	74 - 120	96	30
1,4-Dichlorobenzene	ND	F1 F2	83.6	38.8	F1 F2 *	ug/Kg	☼	46	73 - 120	95	30
2-Butanone (MEK)	ND	F2	418	334	F2	ug/Kg	☼	80	70 - 134	46	30
2-Hexanone	ND	F1 F2	418	413	F2	ug/Kg	☼	99	59 - 130	51	30
4-Isopropyltoluene	ND	F1 F2	83.6	37.3	F1 F2 *	ug/Kg	☼	45	74 - 120	107	30
4-Methyl-2-pentanone (MIBK)	ND	F1 F2	418	464	F2	ug/Kg	☼	111	65 - 133	49	30
Acetone	13	J F2	418	340	F2	ug/Kg	☼	78	61 - 137	43	30
Benzene	ND	F1 F2	83.6	77.5	F2	ug/Kg	☼	93	79 - 127	48	30
Bromodichloromethane	ND	F1 F2	83.6	67.2	F2	ug/Kg	☼	80	80 - 122	52	30
Bromoform	ND	F1 F2	83.6	42.0	F1 F2	ug/Kg	☼	50	68 - 126	60	30
Bromomethane	ND	F1 F2	83.6	73.0	F2	ug/Kg	☼	87	37 - 149	57	30
Carbon disulfide	ND	F1 F2	83.6	39.3	F1 F2	ug/Kg	☼	47	64 - 131	65	30
Carbon tetrachloride	ND	F1 F2	83.6	43.3	F1 F2	ug/Kg	☼	52	75 - 135	72	30

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

Lab Sample ID: 480-128189-7 MSD
Matrix: Solid
Analysis Batch: 390950

Client Sample ID: TP-8 (6-9)
Prep Type: Total/NA
Prep Batch: 389953

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chlorobenzene	ND	F1 F2	83.6	57.0	F1 F2	ug/Kg	☼	68	76 - 124	66	30
Chloroethane	ND	F1 F2	83.6	87.3	F2	ug/Kg	☼	104	69 - 135	51	30
Chloroform	ND	F1 F2	83.6	82.6	F2	ug/Kg	☼	99	80 - 120	46	30
Chloromethane	ND	F1 F2	83.6	78.2	F2	ug/Kg	☼	94	63 - 127	44	30
cis-1,2-Dichloroethene	ND	F1 F2	83.6	59.7	F1 F2	ug/Kg	☼	71	80 - 120	58	30
cis-1,3-Dichloropropene	ND	F1 F2	83.6	42.8	F1 F2	ug/Kg	☼	51	80 - 120	66	30
Cyclohexane	ND	F1 F2	83.6	41.8	F1 F2	ug/Kg	☼	50	65 - 120	66	30
Dibromochloromethane	ND	F1 F2	83.6	67.4	F2	ug/Kg	☼	81	76 - 125	62	30
Dichlorodifluoromethane	ND	F1 F2	83.6	89.7	F2	ug/Kg	☼	107	57 - 142	54	30
Ethylbenzene	ND	F1 F2	83.6	53.7	F1 F2	ug/Kg	☼	64	80 - 120	68	30
Isopropylbenzene	ND	F1 F2	83.6	62.3	F2 *	ug/Kg	☼	75	72 - 120	98	30
m,p-Xylene	ND	F1 F2	83.6	47.5	F1 F2	ug/Kg	☼	57	70 - 130	69	30
Methyl acetate	ND	F1 F2	167	143	F2	ug/Kg	☼	85	55 - 136	45	30
Methyl tert-butyl ether	ND	F1 F2	83.6	90.0	F2	ug/Kg	☼	108	63 - 125	40	30
Methylcyclohexane	ND	F1 F2	83.6	31.6	F1 F2	ug/Kg	☼	38	60 - 140	65	30
Methylene Chloride	ND	F1 F2	83.6	72.0	F2	ug/Kg	☼	86	61 - 127	51	30
Naphthalene	ND	F1 F2	83.6	17.4	F1 F2 *	ug/Kg	☼	21	38 - 137	92	30
n-Butylbenzene	ND	F1 F2	83.6	31.1	F1 F2 *	ug/Kg	☼	37	70 - 120	109	30
N-Propylbenzene	ND	F1 F2	83.6	53.6	F1 F2 *	ug/Kg	☼	64	70 - 130	101	30
o-Xylene	ND	F1 F2	83.6	49.0	F1 F2	ug/Kg	☼	59	70 - 130	67	30
sec-Butylbenzene	ND	F1 F2	83.6	41.5	F1 F2 *	ug/Kg	☼	50	74 - 120	105	30
Styrene	ND	F1 F2	83.6	47.3	F1 F2	ug/Kg	☼	57	80 - 120	67	30
tert-Butylbenzene	ND	F1 F2	83.6	42.2	F1 F2 *	ug/Kg	☼	50	73 - 120	105	30
Tetrachloroethene	ND	F1 F2	83.6	48.4	F1 F2	ug/Kg	☼	58	74 - 122	72	30
Toluene	ND	F1 F2	83.6	75.4	F2	ug/Kg	☼	90	74 - 128	61	30
trans-1,2-Dichloroethene	ND	F1 F2	83.6	51.1	F1 F2	ug/Kg	☼	61	78 - 126	61	30
trans-1,3-Dichloropropene	ND	F1 F2	83.6	46.4	F1 F2	ug/Kg	☼	55	73 - 123	69	30
Trichloroethene	ND	F1 F2	83.6	53.4	F1 F2	ug/Kg	☼	64	77 - 129	60	30
Trichlorofluoromethane	ND	F1 F2	83.6	82.9	F2	ug/Kg	☼	99	65 - 146	50	30
Vinyl chloride	ND	F1 F2	83.6	67.6	F2	ug/Kg	☼	81	61 - 133	57	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*94*		*64 - 126*
4-Bromofluorobenzene (Surr)	*74*		*72 - 126*
Dibromofluoromethane (Surr)	*105*		*60 - 140*
Toluene-d8 (Surr)	*117*		*71 - 125*

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

Lab Sample ID: MB 480-390116/1-A
Matrix: Solid
Analysis Batch: 390214

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390116

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		170	46	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
2,4,6-Trichlorophenol	ND		170	34	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
2,4-Dichlorophenol	ND		170	18	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
2,4-Dimethylphenol	ND		170	41	ug/Kg		12/01/17 14:15	12/03/17 17:18	1

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

Lab Sample ID: MB 480-390116/1-A
Matrix: Solid
Analysis Batch: 390214

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390116

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	ND		1700	780	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
2,4-Dinitrotoluene	ND		170	35	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
2,6-Dinitrotoluene	ND		170	20	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
2-Chloronaphthalene	ND		170	28	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
2-Chlorophenol	ND		170	31	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
2-Methylnaphthalene	ND		170	34	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
2-Methylphenol	ND		170	20	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
2-Nitroaniline	ND		330	25	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
2-Nitrophenol	ND		170	48	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
3,3'-Dichlorobenzidine	ND		330	200	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
3-Nitroaniline	ND		330	47	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
4,6-Dinitro-2-methylphenol	ND		330	170	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
4-Bromophenyl phenyl ether	ND		170	24	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
4-Chloro-3-methylphenol	ND		170	42	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
4-Chloroaniline	ND		170	42	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
4-Chlorophenyl phenyl ether	ND		170	21	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
4-Methylphenol	ND		330	20	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
4-Nitroaniline	ND		330	88	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
4-Nitrophenol	ND		330	120	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Acenaphthene	ND		170	25	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Acenaphthylene	ND		170	22	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Acetophenone	ND		170	23	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Anthracene	ND		170	42	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Atrazine	ND		170	59	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Benzaldehyde	ND		170	130	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Benzo[a]anthracene	ND		170	17	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Benzo[a]pyrene	ND		170	25	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Benzo[b]fluoranthene	ND		170	27	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Benzo[g,h,i]perylene	ND		170	18	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Benzo[k]fluoranthene	ND		170	22	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Biphenyl	ND		170	25	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
bis (2-chloroisopropyl) ether	ND		170	34	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Bis(2-chloroethoxy)methane	ND		170	36	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Bis(2-chloroethyl)ether	ND		170	22	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Bis(2-ethylhexyl) phthalate	ND		170	58	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Butyl benzyl phthalate	ND		170	28	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Caprolactam	ND		170	51	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Carbazole	ND		170	20	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Chrysene	ND		170	38	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Dibenz(a,h)anthracene	ND		170	30	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Dibenzofuran	ND		170	20	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Diethyl phthalate	ND		170	22	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Dimethyl phthalate	ND		170	20	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Di-n-butyl phthalate	ND		170	29	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Di-n-octyl phthalate	ND		170	20	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Fluoranthene	ND		170	18	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Fluorene	ND		170	20	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Hexachlorobenzene	ND		170	23	ug/Kg		12/01/17 14:15	12/03/17 17:18	1

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

Lab Sample ID: MB 480-390116/1-A
Matrix: Solid
Analysis Batch: 390214

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390116

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		170	25	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Hexachlorocyclopentadiene	ND		170	23	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Hexachloroethane	ND		170	22	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Indeno[1,2,3-cd]pyrene	ND		170	21	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Isophorone	ND		170	36	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Naphthalene	ND		170	22	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Nitrobenzene	ND		170	19	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
N-Nitrosodi-n-propylamine	ND		170	29	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
N-Nitrosodiphenylamine	ND		170	140	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Pentachlorophenol	ND		330	170	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Phenanthrene	ND		170	25	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Phenol	ND		170	26	ug/Kg		12/01/17 14:15	12/03/17 17:18	1
Pyrene	ND		170	20	ug/Kg		12/01/17 14:15	12/03/17 17:18	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	228	T J	ug/Kg		1.92		12/01/17 14:15	12/03/17 17:18	1
Unknown	624	T J	ug/Kg		3.42		12/01/17 14:15	12/03/17 17:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	76		54 - 120	12/01/17 14:15	12/03/17 17:18	1
2-Fluorobiphenyl	87		60 - 120	12/01/17 14:15	12/03/17 17:18	1
2-Fluorophenol	79		52 - 120	12/01/17 14:15	12/03/17 17:18	1
Nitrobenzene-d5	83		53 - 120	12/01/17 14:15	12/03/17 17:18	1
Phenol-d5	82		54 - 120	12/01/17 14:15	12/03/17 17:18	1
p-Terphenyl-d14	100		65 - 121	12/01/17 14:15	12/03/17 17:18	1

Lab Sample ID: LCS 480-390116/2-A
Matrix: Solid
Analysis Batch: 390214

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390116

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-Trichlorophenol	1650	1430		ug/Kg		86	59 - 126
2,4,6-Trichlorophenol	1650	1450		ug/Kg		88	59 - 123
2,4-Dichlorophenol	1650	1230		ug/Kg		74	61 - 120
2,4-Dimethylphenol	1650	1310		ug/Kg		79	59 - 120
2,4-Dinitrophenol	3310	2430		ug/Kg		73	41 - 146
2,4-Dinitrotoluene	1650	1470		ug/Kg		89	63 - 120
2,6-Dinitrotoluene	1650	1430		ug/Kg		87	66 - 120
2-Chloronaphthalene	1650	1420		ug/Kg		86	57 - 120
2-Chlorophenol	1650	1200		ug/Kg		73	53 - 120
2-Methylnaphthalene	1650	1280		ug/Kg		77	59 - 120
2-Methylphenol	1650	1230		ug/Kg		75	54 - 120
2-Nitroaniline	1650	1410		ug/Kg		85	61 - 120
2-Nitrophenol	1650	1310		ug/Kg		79	56 - 120
3,3'-Dichlorobenzidine	3310	2540		ug/Kg		77	54 - 120
3-Nitroaniline	1650	1260		ug/Kg		76	48 - 120
4,6-Dinitro-2-methylphenol	3310	2990		ug/Kg		90	49 - 122

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

Lab Sample ID: LCS 480-390116/2-A
Matrix: Solid
Analysis Batch: 390214

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390116

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Bromophenyl phenyl ether	1650	1580		ug/Kg		96	58 - 120
4-Chloro-3-methylphenol	1650	1350		ug/Kg		82	61 - 120
4-Chloroaniline	1650	1060		ug/Kg		64	38 - 120
4-Chlorophenyl phenyl ether	1650	1470		ug/Kg		89	63 - 124
4-Methylphenol	1650	1300		ug/Kg		79	55 - 120
4-Nitroaniline	1650	1400		ug/Kg		85	56 - 120
4-Nitrophenol	3310	2890		ug/Kg		87	43 - 147
Acenaphthene	1650	1440		ug/Kg		87	62 - 120
Acenaphthylene	1650	1410		ug/Kg		85	58 - 121
Acetophenone	1650	1230		ug/Kg		74	54 - 120
Anthracene	1650	1530		ug/Kg		92	62 - 120
Atrazine	3310	3090		ug/Kg		93	60 - 127
Benzaldehyde	3310	1640		ug/Kg		50	10 - 150
Benzo[a]anthracene	1650	1490		ug/Kg		90	65 - 120
Benzo[a]pyrene	1650	1570		ug/Kg		95	64 - 120
Benzo[b]fluoranthene	1650	1650		ug/Kg		100	64 - 120
Benzo[g,h,i]perylene	1650	1520		ug/Kg		92	45 - 145
Benzo[k]fluoranthene	1650	1490		ug/Kg		90	65 - 120
Biphenyl	1650	1440		ug/Kg		87	59 - 120
bis (2-chloroisopropyl) ether	1650	1180		ug/Kg		71	44 - 120
Bis(2-chloroethoxy)methane	1650	1210		ug/Kg		73	55 - 120
Bis(2-chloroethyl)ether	1650	1190		ug/Kg		72	45 - 120
Bis(2-ethylhexyl) phthalate	1650	1420		ug/Kg		86	61 - 133
Butyl benzyl phthalate	1650	1470		ug/Kg		89	61 - 129
Caprolactam	3310	2480		ug/Kg		75	47 - 120
Carbazole	1650	1490		ug/Kg		90	65 - 120
Chrysene	1650	1470		ug/Kg		89	64 - 120
Dibenz(a,h)anthracene	1650	1570		ug/Kg		95	54 - 132
Dibenzofuran	1650	1450		ug/Kg		88	63 - 120
Diethyl phthalate	1650	1450		ug/Kg		88	66 - 120
Dimethyl phthalate	1650	1450		ug/Kg		88	65 - 124
Di-n-butyl phthalate	1650	1480		ug/Kg		90	58 - 130
Di-n-octyl phthalate	1650	1370		ug/Kg		83	57 - 133
Fluoranthene	1650	1500		ug/Kg		91	62 - 120
Fluorene	1650	1470		ug/Kg		89	63 - 120
Hexachlorobenzene	1650	1540		ug/Kg		93	60 - 120
Hexachlorobutadiene	1650	1230		ug/Kg		74	45 - 120
Hexachlorocyclopentadiene	1650	1340		ug/Kg		81	47 - 120
Hexachloroethane	1650	1140		ug/Kg		69	41 - 120
Indeno[1,2,3-cd]pyrene	1650	1540		ug/Kg		93	56 - 134
Isophorone	1650	1280		ug/Kg		78	56 - 120
Naphthalene	1650	1230		ug/Kg		74	55 - 120
Nitrobenzene	1650	1250		ug/Kg		75	54 - 120
N-Nitrosodi-n-propylamine	1650	1240		ug/Kg		75	52 - 120
Pentachlorophenol	3310	2420		ug/Kg		73	51 - 120
Phenanthrene	1650	1500		ug/Kg		91	60 - 120
Phenol	1650	1190		ug/Kg		72	53 - 120
Pyrene	1650	1540		ug/Kg		93	61 - 133

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

Lab Sample ID: LCS 480-390116/2-A
Matrix: Solid
Analysis Batch: 390214

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390116

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*95*		*54 - 120*
2-Fluorobiphenyl	*87*		*60 - 120*
2-Fluorophenol	*76*		*52 - 120*
Nitrobenzene-d5	*79*		*53 - 120*
Phenol-d5	*77*		*54 - 120*
p-Terphenyl-d14	*97*		*65 - 121*

Lab Sample ID: 480-128189-6 MS
Matrix: Solid
Analysis Batch: 390214

Client Sample ID: TP-11 (5-8)
Prep Type: Total/NA
Prep Batch: 390116

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-Trichlorophenol	ND		1910	1700		ug/Kg	☼	89	46 - 120
2,4,6-Trichlorophenol	ND		1910	1550		ug/Kg	☼	81	41 - 123
2,4-Dichlorophenol	ND		1910	1430		ug/Kg	☼	75	45 - 120
2,4-Dimethylphenol	ND		1910	1250		ug/Kg	☼	65	52 - 120
2,4-Dinitrophenol	ND		3810	ND		ug/Kg	☼	NC	41 - 146
2,4-Dinitrotoluene	ND		1910	1900		ug/Kg	☼	100	63 - 125
2,6-Dinitrotoluene	ND		1910	1780		ug/Kg	☼	94	66 - 120
2-Chloronaphthalene	ND		1910	1650		ug/Kg	☼	87	57 - 120
2-Chlorophenol	ND		1910	1390		ug/Kg	☼	73	43 - 120
2-Methylnaphthalene	ND		1910	1560		ug/Kg	☼	82	55 - 120
2-Methylphenol	ND		1910	1560		ug/Kg	☼	82	48 - 120
2-Nitroaniline	ND		1910	1710	J	ug/Kg	☼	90	61 - 120
2-Nitrophenol	ND		1910	1640		ug/Kg	☼	86	37 - 120
3,3'-Dichlorobenzidine	ND		3810	3050		ug/Kg	☼	80	37 - 126
3-Nitroaniline	ND		1910	1600	J	ug/Kg	☼	84	48 - 120
4,6-Dinitro-2-methylphenol	ND		3810	3160		ug/Kg	☼	83	23 - 149
4-Bromophenyl phenyl ether	ND		1910	1710		ug/Kg	☼	90	58 - 120
4-Chloro-3-methylphenol	ND		1910	1570		ug/Kg	☼	82	49 - 125
4-Chloroaniline	ND		1910	1100		ug/Kg	☼	58	38 - 120
4-Chlorophenyl phenyl ether	ND		1910	1730		ug/Kg	☼	91	63 - 124
4-Methylphenol	ND		1910	1510	J	ug/Kg	☼	79	50 - 120
4-Nitroaniline	ND		1910	1720	J	ug/Kg	☼	90	47 - 120
4-Nitrophenol	ND		3810	3390		ug/Kg	☼	89	31 - 147
Acenaphthene	ND		1910	1610		ug/Kg	☼	84	60 - 120
Acenaphthylene	ND		1910	1580		ug/Kg	☼	83	58 - 121
Acetophenone	ND		1910	1460		ug/Kg	☼	77	47 - 120
Anthracene	ND		1910	1770		ug/Kg	☼	93	62 - 120
Atrazine	ND		3810	3690		ug/Kg	☼	97	60 - 150
Benzaldehyde	ND		3810	1830		ug/Kg	☼	48	10 - 150
Benzo[a]anthracene	490	J	1910	1930		ug/Kg	☼	76	65 - 120
Benzo[a]pyrene	560	J	1910	2050		ug/Kg	☼	78	64 - 120
Benzo[b]fluoranthene	770	J	1910	2220		ug/Kg	☼	76	64 - 120
Benzo[g,h,i]perylene	310	J	1910	1770		ug/Kg	☼	77	45 - 145
Benzo[k]fluoranthene	360	J	1910	1820		ug/Kg	☼	77	65 - 120
Biphenyl	ND		1910	1650		ug/Kg	☼	87	58 - 120
bis (2-chloroisopropyl) ether	ND		1910	1250		ug/Kg	☼	66	31 - 120

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

Lab Sample ID: 480-128189-6 MS
Matrix: Solid
Analysis Batch: 390214

Client Sample ID: TP-11 (5-8)
Prep Type: Total/NA
Prep Batch: 390116

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-chloroethoxy)methane	ND		1910	1580		ug/Kg	☼	83	52 - 120
Bis(2-chloroethyl)ether	ND		1910	1370		ug/Kg	☼	72	45 - 120
Bis(2-ethylhexyl) phthalate	ND		1910	1820		ug/Kg	☼	96	61 - 133
Butyl benzyl phthalate	ND		1910	1910		ug/Kg	☼	100	61 - 120
Caprolactam	ND		3810	3210		ug/Kg	☼	84	37 - 133
Carbazole	ND		1910	1720		ug/Kg	☼	90	59 - 120
Chrysene	470	J	1910	2020		ug/Kg	☼	81	64 - 120
Dibenz(a,h)anthracene	ND		1910	1760		ug/Kg	☼	92	54 - 132
Dibenzofuran	ND		1910	1770		ug/Kg	☼	93	62 - 120
Diethyl phthalate	ND		1910	1660		ug/Kg	☼	87	66 - 120
Dimethyl phthalate	ND		1910	1680		ug/Kg	☼	88	65 - 124
Di-n-butyl phthalate	ND		1910	1750		ug/Kg	☼	92	58 - 130
Di-n-octyl phthalate	ND		1910	1860		ug/Kg	☼	97	57 - 133
Fluoranthene	930	J	1910	2210		ug/Kg	☼	67	62 - 120
Fluorene	ND		1910	1800		ug/Kg	☼	94	63 - 120
Hexachlorobenzene	ND		1910	1640		ug/Kg	☼	86	60 - 120
Hexachlorobutadiene	ND		1910	1450		ug/Kg	☼	76	45 - 120
Hexachlorocyclopentadiene	ND		1910	1470		ug/Kg	☼	77	31 - 120
Hexachloroethane	ND		1910	1260		ug/Kg	☼	66	21 - 120
Indeno[1,2,3-cd]pyrene	350	J	1910	1820		ug/Kg	☼	78	56 - 134
Isophorone	ND		1910	1540		ug/Kg	☼	81	56 - 120
Naphthalene	ND		1910	1570		ug/Kg	☼	82	46 - 120
Nitrobenzene	ND		1910	1390		ug/Kg	☼	73	49 - 120
N-Nitrosodi-n-propylamine	ND		1910	1470		ug/Kg	☼	77	46 - 120
Pentachlorophenol	ND		3810	1800	J	ug/Kg	☼	47	25 - 136
Phenanthrene	160	J	1910	1940		ug/Kg	☼	93	60 - 122
Phenol	ND		1910	1450		ug/Kg	☼	76	50 - 120
Pyrene	590	J	1910	2010		ug/Kg	☼	75	61 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol	*102*		*54 - 120*
2-Fluorobiphenyl	*81*		*60 - 120*
2-Fluorophenol	*68*		*52 - 120*
Nitrobenzene-d5	*82*		*53 - 120*
Phenol-d5	*81*		*54 - 120*
p-Terphenyl-d14	*96*		*65 - 121*

Lab Sample ID: 480-128189-6 MSD
Matrix: Solid
Analysis Batch: 390214

Client Sample ID: TP-11 (5-8)
Prep Type: Total/NA
Prep Batch: 390116

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,5-Trichlorophenol	ND		1900	1640		ug/Kg	☼	86	46 - 120	4	18
2,4,6-Trichlorophenol	ND		1900	1750		ug/Kg	☼	92	41 - 123	12	19
2,4-Dichlorophenol	ND		1900	1510		ug/Kg	☼	80	45 - 120	6	19
2,4-Dimethylphenol	ND		1900	1480		ug/Kg	☼	78	52 - 120	17	42
2,4-Dinitrophenol	ND		3800	ND		ug/Kg	☼	NC	41 - 146	NC	22
2,4-Dinitrotoluene	ND		1900	1750		ug/Kg	☼	92	63 - 125	8	20

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

Lab Sample ID: 480-128189-6 MSD
Matrix: Solid
Analysis Batch: 390214

Client Sample ID: TP-11 (5-8)
Prep Type: Total/NA
Prep Batch: 390116

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,6-Dinitrotoluene	ND		1900	1700		ug/Kg	☼	90	66 - 120	5	15
2-Chloronaphthalene	ND		1900	1680		ug/Kg	☼	88	57 - 120	2	21
2-Chlorophenol	ND		1900	1600		ug/Kg	☼	84	43 - 120	14	25
2-Methylnaphthalene	ND		1900	1660		ug/Kg	☼	87	55 - 120	6	21
2-Methylphenol	ND		1900	1470		ug/Kg	☼	77	48 - 120	6	27
2-Nitroaniline	ND		1900	1670	J	ug/Kg	☼	88	61 - 120	2	15
2-Nitrophenol	ND		1900	1690		ug/Kg	☼	89	37 - 120	3	18
3,3'-Dichlorobenzidine	ND		3800	3050		ug/Kg	☼	80	37 - 126	0	25
3-Nitroaniline	ND		1900	1630	J	ug/Kg	☼	86	48 - 120	2	19
4,6-Dinitro-2-methylphenol	ND		3800	3170		ug/Kg	☼	83	23 - 149	0	15
4-Bromophenyl phenyl ether	ND		1900	1680		ug/Kg	☼	88	58 - 120	2	15
4-Chloro-3-methylphenol	ND		1900	1590		ug/Kg	☼	83	49 - 125	1	27
4-Chloroaniline	ND		1900	1220		ug/Kg	☼	64	38 - 120	10	22
4-Chlorophenyl phenyl ether	ND		1900	1710		ug/Kg	☼	90	63 - 124	1	16
4-Methylphenol	ND		1900	1640	J	ug/Kg	☼	86	50 - 120	8	24
4-Nitroaniline	ND		1900	1680	J	ug/Kg	☼	89	47 - 120	2	24
4-Nitrophenol	ND		3800	3550		ug/Kg	☼	94	31 - 147	5	25
Acenaphthene	ND		1900	1730		ug/Kg	☼	91	60 - 120	7	35
Acenaphthylene	ND		1900	1710		ug/Kg	☼	90	58 - 121	8	18
Acetophenone	ND		1900	1470		ug/Kg	☼	77	47 - 120	1	20
Anthracene	ND		1900	1800		ug/Kg	☼	94	62 - 120	1	15
Atrazine	ND		3800	3710		ug/Kg	☼	98	60 - 150	1	20
Benzaldehyde	ND		3800	1900		ug/Kg	☼	50	10 - 150	4	20
Benzo[a]anthracene	490	J	1900	2200		ug/Kg	☼	90	65 - 120	13	15
Benzo[a]pyrene	560	J	1900	2250		ug/Kg	☼	89	64 - 120	9	15
Benzo[b]fluoranthene	770	J	1900	2160		ug/Kg	☼	73	64 - 120	3	15
Benzo[g,h,i]perylene	310	J	1900	1950		ug/Kg	☼	87	45 - 145	10	15
Benzo[k]fluoranthene	360	J	1900	2270		ug/Kg	☼	100	65 - 120	22	22
Biphenyl	ND		1900	1640		ug/Kg	☼	86	58 - 120	1	20
bis (2-chloroisopropyl) ether	ND		1900	1270		ug/Kg	☼	67	31 - 120	2	24
Bis(2-chloroethoxy)methane	ND		1900	1620		ug/Kg	☼	85	52 - 120	3	17
Bis(2-chloroethyl)ether	ND		1900	1450		ug/Kg	☼	76	45 - 120	6	21
Bis(2-ethylhexyl) phthalate	ND		1900	1930		ug/Kg	☼	102	61 - 133	6	15
Butyl benzyl phthalate	ND		1900	1970		ug/Kg	☼	103	61 - 120	3	16
Caprolactam	ND		3800	3310		ug/Kg	☼	87	37 - 133	3	20
Carbazole	ND		1900	1770		ug/Kg	☼	93	59 - 120	3	20
Chrysene	470	J	1900	2060		ug/Kg	☼	84	64 - 120	2	15
Dibenz(a,h)anthracene	ND		1900	1850		ug/Kg	☼	97	54 - 132	5	15
Dibenzofuran	ND		1900	1710		ug/Kg	☼	90	62 - 120	3	15
Diethyl phthalate	ND		1900	1670		ug/Kg	☼	88	66 - 120	1	15
Dimethyl phthalate	ND		1900	1740		ug/Kg	☼	92	65 - 124	4	15
Di-n-butyl phthalate	ND		1900	1900		ug/Kg	☼	100	58 - 130	8	15
Di-n-octyl phthalate	ND		1900	1940		ug/Kg	☼	102	57 - 133	4	16
Fluoranthene	930	J	1900	2520		ug/Kg	☼	84	62 - 120	13	15
Fluorene	ND		1900	1660		ug/Kg	☼	88	63 - 120	8	15
Hexachlorobenzene	ND		1900	1780		ug/Kg	☼	93	60 - 120	8	15
Hexachlorobutadiene	ND		1900	1490		ug/Kg	☼	78	45 - 120	3	44
Hexachlorocyclopentadiene	ND		1900	1430		ug/Kg	☼	75	31 - 120	3	49

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

Lab Sample ID: 480-128189-6 MSD
Matrix: Solid
Analysis Batch: 390214

Client Sample ID: TP-11 (5-8)
Prep Type: Total/NA
Prep Batch: 390116

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hexachloroethane	ND		1900	1360		ug/Kg	☼	72	21 - 120	8	46
Indeno[1,2,3-cd]pyrene	350	J	1900	1990		ug/Kg	☼	87	56 - 134	9	15
Isophorone	ND		1900	1610		ug/Kg	☼	85	56 - 120	4	17
Naphthalene	ND		1900	1550		ug/Kg	☼	82	46 - 120	1	29
Nitrobenzene	ND		1900	1540		ug/Kg	☼	81	49 - 120	10	24
N-Nitrosodi-n-propylamine	ND		1900	1470		ug/Kg	☼	77	46 - 120	0	31
Pentachlorophenol	ND		3800	1870	J	ug/Kg	☼	49	25 - 136	4	35
Phenanthrene	160	J	1900	1920		ug/Kg	☼	93	60 - 122	1	15
Phenol	ND		1900	1480		ug/Kg	☼	78	50 - 120	2	35
Pyrene	590	J	1900	2220		ug/Kg	☼	86	61 - 133	10	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*97*		*54 - 120*
2-Fluorobiphenyl	*80*		*60 - 120*
2-Fluorophenol	*79*		*52 - 120*
Nitrobenzene-d5	*88*		*53 - 120*
Phenol-d5	*83*		*54 - 120*
p-Terphenyl-d14	*97*		*65 - 121*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-390026/1-A
Matrix: Solid
Analysis Batch: 390176

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390026

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.6	0.32	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
4,4'-DDE	ND		1.6	0.34	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
4,4'-DDT	ND		1.6	0.38	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
Aldrin	ND		1.6	0.40	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
alpha-BHC	0.457	J	1.6	0.29	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
alpha-Chlordane	ND		1.6	0.81	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
beta-BHC	0.360	J	1.6	0.29	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
delta-BHC	0.504	J	1.6	0.30	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
Dieldrin	ND		1.6	0.39	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
Endosulfan I	ND		1.6	0.31	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
Endosulfan II	ND		1.6	0.29	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
Endosulfan sulfate	ND		1.6	0.30	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
Endrin	ND		1.6	0.32	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
Endrin aldehyde	ND		1.6	0.42	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
Endrin ketone	ND		1.6	0.40	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
gamma-BHC (Lindane)	ND		1.6	0.30	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
gamma-Chlordane	ND		1.6	0.52	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
Heptachlor	ND		1.6	0.35	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
Heptachlor epoxide	ND		1.6	0.42	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
Methoxychlor	ND		1.6	0.33	ug/Kg		12/01/17 09:11	12/02/17 14:52	1
Toxaphene	ND		16	9.5	ug/Kg		12/01/17 09:11	12/02/17 14:52	1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 480-390026/1-A
Matrix: Solid
Analysis Batch: 390176

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390026

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	129	X	45 - 120	12/01/17 09:11	12/02/17 14:52	1
DCB Decachlorobiphenyl	110		45 - 120	12/01/17 09:11	12/02/17 14:52	1
Tetrachloro-m-xylene	89		30 - 124	12/01/17 09:11	12/02/17 14:52	1
Tetrachloro-m-xylene	71		30 - 124	12/01/17 09:11	12/02/17 14:52	1

Lab Sample ID: LCS 480-390026/2-A
Matrix: Solid
Analysis Batch: 390176

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390026

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	16.3	13.7		ug/Kg		84	56 - 120
4,4'-DDE	16.3	12.8		ug/Kg		79	44 - 120
4,4'-DDT	16.3	13.9		ug/Kg		85	38 - 120
Aldrin	16.3	11.6		ug/Kg		71	38 - 120
alpha-BHC	16.3	10.7		ug/Kg		66	39 - 120
alpha-Chlordane	16.3	12.8		ug/Kg		79	47 - 120
beta-BHC	16.3	11.3		ug/Kg		69	40 - 120
delta-BHC	16.3	11.9		ug/Kg		73	45 - 120
Dieldrin	16.3	13.8		ug/Kg		85	58 - 120
Endosulfan I	16.3	13.7		ug/Kg		84	49 - 120
Endosulfan II	16.3	13.7		ug/Kg		84	55 - 120
Endosulfan sulfate	16.3	13.0		ug/Kg		80	49 - 124
Endrin	16.3	13.6		ug/Kg		84	58 - 120
Endrin aldehyde	16.3	12.1		ug/Kg		74	37 - 121
Endrin ketone	16.3	14.0		ug/Kg		86	46 - 123
gamma-BHC (Lindane)	16.3	11.6		ug/Kg		71	50 - 120
gamma-Chlordane	16.3	12.7		ug/Kg		78	48 - 120
Heptachlor	16.3	12.9		ug/Kg		79	50 - 120
Heptachlor epoxide	16.3	13.0		ug/Kg		80	50 - 120
Methoxychlor	16.3	14.7		ug/Kg		90	58 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	114		45 - 120
DCB Decachlorobiphenyl	104		45 - 120
Tetrachloro-m-xylene	80		30 - 124
Tetrachloro-m-xylene	63		30 - 124

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

Lab Sample ID: MB 480-390171/1-A
Matrix: Solid
Analysis Batch: 390293

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390171

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.18	0.034	mg/Kg		12/02/17 07:35	12/04/17 13:14	1
PCB-1221	ND		0.18	0.034	mg/Kg		12/02/17 07:35	12/04/17 13:14	1
PCB-1232	ND		0.18	0.034	mg/Kg		12/02/17 07:35	12/04/17 13:14	1

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

Lab Sample ID: MB 480-390171/1-A
Matrix: Solid
Analysis Batch: 390293

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390171

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1242	ND		0.18	0.034	mg/Kg		12/02/17 07:35	12/04/17 13:14	1
PCB-1248	ND		0.18	0.034	mg/Kg		12/02/17 07:35	12/04/17 13:14	1
PCB-1254	ND		0.18	0.082	mg/Kg		12/02/17 07:35	12/04/17 13:14	1
PCB-1260	ND		0.18	0.082	mg/Kg		12/02/17 07:35	12/04/17 13:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*97*		*60 - 154*	*12/02/17 07:35*	*12/04/17 13:14*	*1*
Tetrachloro-m-xylene	*99*		*60 - 154*	*12/02/17 07:35*	*12/04/17 13:14*	*1*
DCB Decachlorobiphenyl	*93*		*65 - 174*	*12/02/17 07:35*	*12/04/17 13:14*	*1*
DCB Decachlorobiphenyl	*108*		*65 - 174*	*12/02/17 07:35*	*12/04/17 13:14*	*1*

Lab Sample ID: LCS 480-390171/2-A
Matrix: Solid
Analysis Batch: 390293

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390171

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016			2.10	2.22		mg/Kg		106	51 - 185		
PCB-1260			2.10	2.31		mg/Kg		110	61 - 184		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*116*		*60 - 154*
Tetrachloro-m-xylene	*112*		*60 - 154*
DCB Decachlorobiphenyl	*112*		*65 - 174*
DCB Decachlorobiphenyl	*126*		*65 - 174*

Lab Sample ID: 480-128189-1 MS
Matrix: Solid
Analysis Batch: 390293

Client Sample ID: TP-10 (0-4)
Prep Type: Total/NA
Prep Batch: 390171

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016	ND		2.54	2.44		mg/Kg	☼	96	50 - 177		
PCB-1260	ND		2.54	2.49		mg/Kg	☼	98	33 - 200		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*89*		*60 - 154*
Tetrachloro-m-xylene	*84*		*60 - 154*
DCB Decachlorobiphenyl	*92*		*65 - 174*
DCB Decachlorobiphenyl	*103*		*65 - 174*

Lab Sample ID: 480-128189-1 MSD
Matrix: Solid
Analysis Batch: 390293

Client Sample ID: TP-10 (0-4)
Prep Type: Total/NA
Prep Batch: 390171

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	ND		2.63	2.83		mg/Kg	☼	108	50 - 177	15	50
PCB-1260	ND		2.63	2.80		mg/Kg	☼	106	33 - 200	12	50

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

Lab Sample ID: 480-128189-1 MSD
Matrix: Solid
Analysis Batch: 390293

Client Sample ID: TP-10 (0-4)
Prep Type: Total/NA
Prep Batch: 390171

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Tetrachloro-m-xylene	104		60 - 154
Tetrachloro-m-xylene	108		60 - 154
DCB Decachlorobiphenyl	103		65 - 174
DCB Decachlorobiphenyl	118		65 - 174

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 480-390029/1-A
Matrix: Solid
Analysis Batch: 390585

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390029

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		17	5.3	ug/Kg		12/01/17 09:29	12/05/17 16:13	1
Silvex (2,4,5-TP)	ND		17	6.0	ug/Kg		12/01/17 09:29	12/05/17 16:13	1
2,4-D	ND		17	10	ug/Kg		12/01/17 09:29	12/05/17 16:13	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	151	X	28 - 129	12/01/17 09:29	12/05/17 16:13	1
2,4-Dichlorophenylacetic acid	141	X	28 - 129	12/01/17 09:29	12/05/17 16:13	1

Lab Sample ID: LCS 480-390029/2-A
Matrix: Solid
Analysis Batch: 390585

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390029

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
2,4,5-T			64.7	71.4		ug/Kg		110	41 - 120		
Silvex (2,4,5-TP)			64.7	56.2		ug/Kg		87	39 - 125		
2,4-D			64.7	61.3		ug/Kg		95	40 - 120		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4-Dichlorophenylacetic acid	116		28 - 129
2,4-Dichlorophenylacetic acid	170	X	28 - 129

Lab Sample ID: LCSD 480-390029/3-A
Matrix: Solid
Analysis Batch: 390585

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 390029

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,5-T			66.4	75.4		ug/Kg		114	41 - 120	6	50
Silvex (2,4,5-TP)			66.4	60.1		ug/Kg		90	39 - 125	7	50
2,4-D			66.4	74.8		ug/Kg		113	40 - 120	20	50

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4-Dichlorophenylacetic acid	90		28 - 129
2,4-Dichlorophenylacetic acid	105		28 - 129

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-390073/1-A
Matrix: Solid
Analysis Batch: 390698

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390073

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		10.1	4.5	mg/Kg		12/01/17 15:49	12/06/17 04:16	1
Antimony	ND		15.2	0.41	mg/Kg		12/01/17 15:49	12/06/17 04:16	1
Barium	ND		0.51	0.11	mg/Kg		12/01/17 15:49	12/06/17 04:16	1
Beryllium	ND		0.20	0.028	mg/Kg		12/01/17 15:49	12/06/17 04:16	1
Cadmium	ND		0.20	0.030	mg/Kg		12/01/17 15:49	12/06/17 04:16	1
Calcium	6.02	J	50.7	3.3	mg/Kg		12/01/17 15:49	12/06/17 04:16	1
Chromium	ND		0.51	0.20	mg/Kg		12/01/17 15:49	12/06/17 04:16	1
Cobalt	ND		0.51	0.051	mg/Kg		12/01/17 15:49	12/06/17 04:16	1
Copper	ND		1.0	0.21	mg/Kg		12/01/17 15:49	12/06/17 04:16	1
Iron	ND		10.1	3.5	mg/Kg		12/01/17 15:49	12/06/17 04:16	1
Lead	ND		1.0	0.24	mg/Kg		12/01/17 15:49	12/06/17 04:16	1
Magnesium	ND		20.3	0.94	mg/Kg		12/01/17 15:49	12/06/17 04:16	1
Manganese	0.0953	J	0.20	0.032	mg/Kg		12/01/17 15:49	12/06/17 04:16	1
Nickel	ND		5.1	0.23	mg/Kg		12/01/17 15:49	12/06/17 04:16	1
Selenium	ND		4.1	0.41	mg/Kg		12/01/17 15:49	12/06/17 04:16	1
Silver	ND		0.61	0.20	mg/Kg		12/01/17 15:49	12/06/17 04:16	1
Sodium	19.53	J	142	13.2	mg/Kg		12/01/17 15:49	12/06/17 04:16	1
Thallium	ND		6.1	0.30	mg/Kg		12/01/17 15:49	12/06/17 04:16	1
Vanadium	ND		0.51	0.11	mg/Kg		12/01/17 15:49	12/06/17 04:16	1
Zinc	ND		2.0	0.65	mg/Kg		12/01/17 15:49	12/06/17 04:16	1

Lab Sample ID: MB 480-390073/1-A
Matrix: Solid
Analysis Batch: 390906

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390073

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.0	0.41	mg/Kg		12/01/17 15:49	12/06/17 18:33	1
Potassium	20.42	J	30.4	20.3	mg/Kg		12/01/17 15:49	12/06/17 18:33	1

Lab Sample ID: LCDSRM 480-390073/3-A
Matrix: Solid
Analysis Batch: 390698

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 390073

Analyte			Spike Added	LCDSRM Result	LCDSRM Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum			8090	8692		mg/Kg		107.4	39.6 - 160.7	1	20
Antimony			99.3	66.34		mg/Kg		66.8	21.6 - 256.8	3	20
Barium			217	186.9		mg/Kg		86.1	73.7 - 128.1	0	20
Beryllium			147	122.0		mg/Kg		83.0	75.5 - 125.9	2	20
Cadmium			83.7	67.92		mg/Kg		81.1	73.2 - 131.4	2	20
Calcium			6010	5014		mg/Kg		83.4	73.7 - 126.3	6	20
Chromium			107	91.06		mg/Kg		85.1	69.4 - 134.6	5	20
Cobalt			123	120.3		mg/Kg		97.8	74.3 - 130.1	3	20

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCDSRM 480-390073/3-A
Matrix: Solid
Analysis Batch: 390698

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 390073

Analyte	Spike Added	LCDSRM Result	LCDSRM Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper	166	140.4		mg/Kg		84.6	75.3 - 128.3	2	20
Iron	14600	14330		mg/Kg		98.2	36.1 - 163.7	5	20
Lead	88.4	83.49		mg/Kg		94.4	69.9 - 130.1	7	20
Magnesium	2930	2648		mg/Kg		90.4	65.9 - 134.5	1	20
Manganese	311	290.2		mg/Kg		93.3	74.9 - 125.4	6	20
Nickel	49.8	47.55		mg/Kg		95.5	69.1 - 135.1	4	20
Selenium	87.7	75.31		mg/Kg		85.9	64.1 - 135.7	1	20
Silver	41.4	33.28		mg/Kg		80.4	65.9 - 133.8	2	20
Sodium	252	265.5		mg/Kg		105.4	32.9 - 167.5	1	20
Thallium	58.1	57.14		mg/Kg		98.3	63.9 - 136.3	1	20
Vanadium	140	123.5		mg/Kg		88.2	69.9 - 129.3	5	20
Zinc	145	122.6		mg/Kg		84.5	67.7 - 132.4	4	20

Lab Sample ID: LCDSRM 480-390073/3-A
Matrix: Solid
Analysis Batch: 390906

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 390073

Analyte	Spike Added	LCDSRM Result	LCDSRM Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	100	89.32		mg/Kg		89.3	69.6 - 131.0	1	20
Potassium	2620	2766		mg/Kg		105.6	61.1 - 138.9	0	20

Lab Sample ID: LCSSRM 480-390073/2-A
Matrix: Solid
Analysis Batch: 390698

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390073

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	8090	8774		mg/Kg		108.5	39.6 - 160.7
Antimony	99.3	68.49		mg/Kg		69.0	21.6 - 256.8
Barium	217	186.1		mg/Kg		85.8	73.7 - 128.1
Beryllium	147	124.1		mg/Kg		84.4	75.5 - 125.9
Cadmium	83.7	69.39		mg/Kg		82.9	73.2 - 131.4
Calcium	6010	5346		mg/Kg		89.0	73.7 - 126.3
Chromium	107	95.83		mg/Kg		89.6	69.4 - 134.6

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 480-390073/2-A
Matrix: Solid
Analysis Batch: 390698

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390073

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	123	123.8		mg/Kg		100.7	74.3 - 130.1
Copper	166	143.7		mg/Kg		86.6	75.3 - 128.3
Iron	14600	15060		mg/Kg		103.2	36.1 - 163.7
Lead	88.4	89.76		mg/Kg		101.5	69.9 - 130.1
Magnesium	2930	2663		mg/Kg		90.9	65.9 - 134.5
Manganese	311	272.3		mg/Kg		87.6	74.9 - 125.4
Nickel	49.8	49.45		mg/Kg		99.3	69.1 - 135.1
Selenium	87.7	75.77		mg/Kg		86.4	64.1 - 135.7
Silver	41.4	33.88		mg/Kg		81.8	65.9 - 133.8
Sodium	252	267.6		mg/Kg		106.2	32.9 - 167.5
Thallium	58.1	57.84		mg/Kg		99.6	63.9 - 136.3
Vanadium	140	129.7		mg/Kg		92.6	69.9 - 129.3
Zinc	145	127.6		mg/Kg		88.0	67.7 - 132.4

Lab Sample ID: LCSSRM 480-390073/2-A
Matrix: Solid
Analysis Batch: 390906

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390073

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	100	90.03		mg/Kg		90.0	69.6 - 131.0
Potassium	2620	2759		mg/Kg		105.3	61.1 - 138.9

Lab Sample ID: 480-128189-6 MS
Matrix: Solid
Analysis Batch: 390698

Client Sample ID: TP-11 (5-8)
Prep Type: Total/NA
Prep Batch: 390073

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	8190	F1	2300	11800	F1	mg/Kg	☼	157	75 - 125
Antimony	ND	F1	46.1	32.54	F1	mg/Kg	☼	71	75 - 125
Barium	72.3	F1	46.1	137.4	F1	mg/Kg	☼	141	75 - 125
Beryllium	0.33		46.1	41.09		mg/Kg	☼	88	75 - 125
Cadmium	0.16	J	46.1	40.50		mg/Kg	☼	88	75 - 125
Calcium	6000	B F1 F2	2300	10260	F1	mg/Kg	☼	185	75 - 125
Chromium	11.8		46.1	56.31		mg/Kg	☼	97	75 - 125
Cobalt	3.5		46.1	46.32		mg/Kg	☼	93	75 - 125
Copper	29.0	F1	46.1	59.74	F1	mg/Kg	☼	67	75 - 125
Iron	14600	F2	2300	21350	4	mg/Kg	☼	292	75 - 125

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-128189-6 MS
Matrix: Solid
Analysis Batch: 390698

Client Sample ID: TP-11 (5-8)
Prep Type: Total/NA
Prep Batch: 390073

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	23.7		46.1	62.73		mg/Kg	☼	85	75 - 125
Magnesium	1770		2300	3705		mg/Kg	☼	84	75 - 125
Manganese	549	B	46.1	771.1	4	mg/Kg	☼	481	75 - 125
Nickel	9.6		46.1	50.56		mg/Kg	☼	89	75 - 125
Potassium	1400	B F1	2310	4445	F1	mg/Kg	☼	132	75 - 125
Selenium	ND		46.1	40.89		mg/Kg	☼	89	75 - 125
Silver	ND		11.5	10.71		mg/Kg	☼	93	75 - 125
Sodium	113	J B	2310	2366		mg/Kg	☼	98	75 - 125
Thallium	ND		46.1	40.60		mg/Kg	☼	88	75 - 125
Vanadium	18.9		46.1	67.70		mg/Kg	☼	106	75 - 125
Zinc	58.6		46.1	97.87		mg/Kg	☼	85	75 - 125

Lab Sample ID: 480-128189-6 MS
Matrix: Solid
Analysis Batch: 390906

Client Sample ID: TP-11 (5-8)
Prep Type: Total/NA
Prep Batch: 390073

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	4.7		46.1	50.54		mg/Kg	☼	99	75 - 125

Lab Sample ID: 480-128189-6 MSD
Matrix: Solid
Analysis Batch: 390698

Client Sample ID: TP-11 (5-8)
Prep Type: Total/NA
Prep Batch: 390073

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	8190	F1	2220	13290	F1	mg/Kg	☼	229	75 - 125	12	20
Antimony	ND	F1	44.4	30.63	F1	mg/Kg	☼	69	75 - 125	6	20
Barium	72.3	F1	44.4	144.9	F1	mg/Kg	☼	163	75 - 125	5	20
Beryllium	0.33		44.4	39.35		mg/Kg	☼	88	75 - 125	4	20
Cadmium	0.16	J	44.4	39.09		mg/Kg	☼	88	75 - 125	4	20
Calcium	6000	B F1 F2	2220	17020	F1 F2	mg/Kg	☼	496	75 - 125	50	20
Chromium	11.8		44.4	57.33		mg/Kg	☼	103	75 - 125	2	20
Cobalt	3.5		44.4	46.28		mg/Kg	☼	96	75 - 125	0	20
Copper	29.0	F1	44.4	62.26		mg/Kg	☼	75	75 - 125	4	20
Iron	14600	F2	2220	29950	4 F2	mg/Kg	☼	690	75 - 125	34	20
Lead	23.7		44.4	62.63		mg/Kg	☼	87	75 - 125	0	20
Magnesium	1770		2220	3988		mg/Kg	☼	100	75 - 125	7	20
Manganese	549	B	44.4	931.5	4	mg/Kg	☼	859	75 - 125	19	20
Nickel	9.6		44.4	51.79		mg/Kg	☼	95	75 - 125	2	20
Potassium	1400	B F1	2220	4573	F1	mg/Kg	☼	143	75 - 125	3	20
Selenium	ND		44.4	38.93		mg/Kg	☼	88	75 - 125	5	20
Silver	ND		11.1	10.43		mg/Kg	☼	94	75 - 125	3	20
Sodium	113	J B	2230	2370		mg/Kg	☼	101	75 - 125	0	20
Thallium	ND		44.4	38.71		mg/Kg	☼	87	75 - 125	5	20
Vanadium	18.9		44.4	67.69		mg/Kg	☼	110	75 - 125	0	20
Zinc	58.6		44.4	93.66		mg/Kg	☼	79	75 - 125	4	20

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-128189-6 MSD
Matrix: Solid
Analysis Batch: 390906

Client Sample ID: TP-11 (5-8)
Prep Type: Total/NA
Prep Batch: 390073

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	4.7		44.4	49.64		mg/Kg	☼	101	75 - 125	2	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-390617/1-A
Matrix: Solid
Analysis Batch: 390813

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390617

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.019	0.0078	mg/Kg		12/06/17 11:40	12/06/17 14:40	1

Lab Sample ID: LCDSRM 480-390617/3-A ^10
Matrix: Solid
Analysis Batch: 390813

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 390617

Analyte	Spike Added	LCDSRM Result	LCDSRM Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	12.6	11.77		mg/Kg		93.4	44.4 - 128.6	1	20

Lab Sample ID: LCSSRM 480-390617/2-A ^10
Matrix: Solid
Analysis Batch: 390813

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390617

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	12.6	11.94		mg/Kg		94.7	44.4 - 128.6

GC/MS VOA

Prep Batch: 389952

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128189-1	TP-10 (0-4)	Total/NA	Solid	5035A_L	
480-128189-2	BLIND DUP #2	Total/NA	Solid	5035A_L	
480-128189-6	TP-11 (5-8)	Total/NA	Solid	5035A_L	
MB 480-389952/2-A	Method Blank	Total/NA	Solid	5035A_L	
LCS 480-389952/1-A	Lab Control Sample	Total/NA	Solid	5035A_L	

Prep Batch: 389953

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128189-7	TP-8 (6-9)	Total/NA	Solid	5035A_L	
480-128189-10	TP-9 (10-12)	Total/NA	Solid	5035A_L	
MB 480-389953/2-A	Method Blank	Total/NA	Solid	5035A_L	
LCS 480-389953/1-A	Lab Control Sample	Total/NA	Solid	5035A_L	
480-128189-7 MS	TP-8 (6-9)	Total/NA	Solid	5035A_L	
480-128189-7 MSD	TP-8 (6-9)	Total/NA	Solid	5035A_L	

Analysis Batch: 390688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128189-1	TP-10 (0-4)	Total/NA	Solid	8260C	389952
480-128189-2	BLIND DUP #2	Total/NA	Solid	8260C	389952
480-128189-6	TP-11 (5-8)	Total/NA	Solid	8260C	389952
MB 480-389952/2-A	Method Blank	Total/NA	Solid	8260C	389952
LCS 480-389952/1-A	Lab Control Sample	Total/NA	Solid	8260C	389952

Analysis Batch: 390950

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128189-7	TP-8 (6-9)	Total/NA	Solid	8260C	389953
480-128189-10	TP-9 (10-12)	Total/NA	Solid	8260C	389953
MB 480-389953/2-A	Method Blank	Total/NA	Solid	8260C	389953
LCS 480-389953/1-A	Lab Control Sample	Total/NA	Solid	8260C	389953
480-128189-7 MS	TP-8 (6-9)	Total/NA	Solid	8260C	389953
480-128189-7 MSD	TP-8 (6-9)	Total/NA	Solid	8260C	389953

GC/MS Semi VOA

Prep Batch: 390116

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128189-1	TP-10 (0-4)	Total/NA	Solid	3550C	
480-128189-3	BLIND DUP #3	Total/NA	Solid	3550C	
480-128189-4	TP-14 (10-15)	Total/NA	Solid	3550C	
480-128189-5	TP-15 (8-10)	Total/NA	Solid	3550C	
480-128189-6	TP-11 (5-8)	Total/NA	Solid	3550C	
480-128189-7	TP-8 (6-9)	Total/NA	Solid	3550C	
480-128189-8	TP-12 (10-12)	Total/NA	Solid	3550C	
480-128189-10	TP-9 (10-12)	Total/NA	Solid	3550C	
MB 480-390116/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-390116/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-128189-6 MS	TP-11 (5-8)	Total/NA	Solid	3550C	
480-128189-6 MSD	TP-11 (5-8)	Total/NA	Solid	3550C	

GC/MS Semi VOA (Continued)

Analysis Batch: 390214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128189-1	TP-10 (0-4)	Total/NA	Solid	8270D	390116
480-128189-3	BLIND DUP #3	Total/NA	Solid	8270D	390116
480-128189-4	TP-14 (10-15)	Total/NA	Solid	8270D	390116
480-128189-5	TP-15 (8-10)	Total/NA	Solid	8270D	390116
480-128189-6	TP-11 (5-8)	Total/NA	Solid	8270D	390116
480-128189-7	TP-8 (6-9)	Total/NA	Solid	8270D	390116
480-128189-8	TP-12 (10-12)	Total/NA	Solid	8270D	390116
480-128189-10	TP-9 (10-12)	Total/NA	Solid	8270D	390116
MB 480-390116/1-A	Method Blank	Total/NA	Solid	8270D	390116
LCS 480-390116/2-A	Lab Control Sample	Total/NA	Solid	8270D	390116
480-128189-6 MS	TP-11 (5-8)	Total/NA	Solid	8270D	390116
480-128189-6 MSD	TP-11 (5-8)	Total/NA	Solid	8270D	390116

GC Semi VOA

Prep Batch: 390026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128189-1	TP-10 (0-4)	Total/NA	Solid	3550C	
480-128189-6	TP-11 (5-8)	Total/NA	Solid	3550C	
MB 480-390026/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-390026/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Prep Batch: 390029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128189-1	TP-10 (0-4)	Total/NA	Solid	8151A	
480-128189-6	TP-11 (5-8)	Total/NA	Solid	8151A	
MB 480-390029/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 480-390029/2-A	Lab Control Sample	Total/NA	Solid	8151A	
LCSD 480-390029/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	

Prep Batch: 390171

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128189-1	TP-10 (0-4)	Total/NA	Solid	3550C	
480-128189-6	TP-11 (5-8)	Total/NA	Solid	3550C	
MB 480-390171/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-390171/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-128189-1 MS	TP-10 (0-4)	Total/NA	Solid	3550C	
480-128189-1 MSD	TP-10 (0-4)	Total/NA	Solid	3550C	

Analysis Batch: 390176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128189-1	TP-10 (0-4)	Total/NA	Solid	8081B	390026
480-128189-6	TP-11 (5-8)	Total/NA	Solid	8081B	390026
MB 480-390026/1-A	Method Blank	Total/NA	Solid	8081B	390026
LCS 480-390026/2-A	Lab Control Sample	Total/NA	Solid	8081B	390026

Analysis Batch: 390293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128189-1	TP-10 (0-4)	Total/NA	Solid	8082A	390171
480-128189-6	TP-11 (5-8)	Total/NA	Solid	8082A	390171

GC Semi VOA (Continued)

Analysis Batch: 390293 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-390171/1-A	Method Blank	Total/NA	Solid	8082A	390171
LCS 480-390171/2-A	Lab Control Sample	Total/NA	Solid	8082A	390171
480-128189-1 MS	TP-10 (0-4)	Total/NA	Solid	8082A	390171
480-128189-1 MSD	TP-10 (0-4)	Total/NA	Solid	8082A	390171

Analysis Batch: 390585

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128189-1	TP-10 (0-4)	Total/NA	Solid	8151A	390029
480-128189-6	TP-11 (5-8)	Total/NA	Solid	8151A	390029
MB 480-390029/1-A	Method Blank	Total/NA	Solid	8151A	390029
LCS 480-390029/2-A	Lab Control Sample	Total/NA	Solid	8151A	390029
LCSD 480-390029/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	390029

Metals

Prep Batch: 390073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128189-1	TP-10 (0-4)	Total/NA	Solid	3050B	
480-128189-3	BLIND DUP #3	Total/NA	Solid	3050B	
480-128189-4	TP-14 (10-15)	Total/NA	Solid	3050B	
480-128189-5	TP-15 (8-10)	Total/NA	Solid	3050B	
480-128189-6	TP-11 (5-8)	Total/NA	Solid	3050B	
480-128189-7	TP-8 (6-9)	Total/NA	Solid	3050B	
480-128189-8	TP-12 (10-12)	Total/NA	Solid	3050B	
480-128189-10	TP-9 (10-12)	Total/NA	Solid	3050B	
MB 480-390073/1-A	Method Blank	Total/NA	Solid	3050B	
LCDSRM 480-390073/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
LCSSRM 480-390073/2-A	Lab Control Sample	Total/NA	Solid	3050B	
480-128189-6 MS	TP-11 (5-8)	Total/NA	Solid	3050B	
480-128189-6 MSD	TP-11 (5-8)	Total/NA	Solid	3050B	

Prep Batch: 390617

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128189-1	TP-10 (0-4)	Total/NA	Solid	7471B	
480-128189-3	BLIND DUP #3	Total/NA	Solid	7471B	
480-128189-4	TP-14 (10-15)	Total/NA	Solid	7471B	
480-128189-5	TP-15 (8-10)	Total/NA	Solid	7471B	
480-128189-6	TP-11 (5-8)	Total/NA	Solid	7471B	
480-128189-7	TP-8 (6-9)	Total/NA	Solid	7471B	
480-128189-8	TP-12 (10-12)	Total/NA	Solid	7471B	
480-128189-10	TP-9 (10-12)	Total/NA	Solid	7471B	
MB 480-390617/1-A	Method Blank	Total/NA	Solid	7471B	
LCDSRM 480-390617/3-A ^10	Lab Control Sample Dup	Total/NA	Solid	7471B	
LCSSRM 480-390617/2-A ^10	Lab Control Sample	Total/NA	Solid	7471B	

Analysis Batch: 390698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128189-1	TP-10 (0-4)	Total/NA	Solid	6010C	390073
480-128189-3	BLIND DUP #3	Total/NA	Solid	6010C	390073
480-128189-4	TP-14 (10-15)	Total/NA	Solid	6010C	390073

Metals (Continued)

Analysis Batch: 390698 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128189-5	TP-15 (8-10)	Total/NA	Solid	6010C	390073
480-128189-6	TP-11 (5-8)	Total/NA	Solid	6010C	390073
480-128189-7	TP-8 (6-9)	Total/NA	Solid	6010C	390073
480-128189-8	TP-12 (10-12)	Total/NA	Solid	6010C	390073
480-128189-10	TP-9 (10-12)	Total/NA	Solid	6010C	390073
MB 480-390073/1-A	Method Blank	Total/NA	Solid	6010C	390073
LCDSRM 480-390073/3-A	Lab Control Sample Dup	Total/NA	Solid	6010C	390073
LCSSRM 480-390073/2-A	Lab Control Sample	Total/NA	Solid	6010C	390073
480-128189-6 MS	TP-11 (5-8)	Total/NA	Solid	6010C	390073
480-128189-6 MSD	TP-11 (5-8)	Total/NA	Solid	6010C	390073

Analysis Batch: 390813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128189-1	TP-10 (0-4)	Total/NA	Solid	7471B	390617
480-128189-3	BLIND DUP #3	Total/NA	Solid	7471B	390617
480-128189-4	TP-14 (10-15)	Total/NA	Solid	7471B	390617
480-128189-5	TP-15 (8-10)	Total/NA	Solid	7471B	390617
480-128189-6	TP-11 (5-8)	Total/NA	Solid	7471B	390617
480-128189-7	TP-8 (6-9)	Total/NA	Solid	7471B	390617
480-128189-8	TP-12 (10-12)	Total/NA	Solid	7471B	390617
480-128189-10	TP-9 (10-12)	Total/NA	Solid	7471B	390617
MB 480-390617/1-A	Method Blank	Total/NA	Solid	7471B	390617
LCDSRM 480-390617/3-A ^10	Lab Control Sample Dup	Total/NA	Solid	7471B	390617
LCSSRM 480-390617/2-A ^10	Lab Control Sample	Total/NA	Solid	7471B	390617

Analysis Batch: 390906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128189-1	TP-10 (0-4)	Total/NA	Solid	6010C	390073
480-128189-3	BLIND DUP #3	Total/NA	Solid	6010C	390073
480-128189-4	TP-14 (10-15)	Total/NA	Solid	6010C	390073
480-128189-5	TP-15 (8-10)	Total/NA	Solid	6010C	390073
480-128189-6	TP-11 (5-8)	Total/NA	Solid	6010C	390073
480-128189-7	TP-8 (6-9)	Total/NA	Solid	6010C	390073
480-128189-8	TP-12 (10-12)	Total/NA	Solid	6010C	390073
480-128189-10	TP-9 (10-12)	Total/NA	Solid	6010C	390073
MB 480-390073/1-A	Method Blank	Total/NA	Solid	6010C	390073
LCDSRM 480-390073/3-A	Lab Control Sample Dup	Total/NA	Solid	6010C	390073
LCSSRM 480-390073/2-A	Lab Control Sample	Total/NA	Solid	6010C	390073
480-128189-6 MS	TP-11 (5-8)	Total/NA	Solid	6010C	390073
480-128189-6 MSD	TP-11 (5-8)	Total/NA	Solid	6010C	390073

General Chemistry

Analysis Batch: 389975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128189-1	TP-10 (0-4)	Total/NA	Solid	Moisture	
480-128189-3	BLIND DUP #3	Total/NA	Solid	Moisture	
480-128189-4	TP-14 (10-15)	Total/NA	Solid	Moisture	
480-128189-5	TP-15 (8-10)	Total/NA	Solid	Moisture	
480-128189-6	TP-11 (5-8)	Total/NA	Solid	Moisture	

General Chemistry (Continued)

Analysis Batch: 389975 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128189-7	TP-8 (6-9)	Total/NA	Solid	Moisture	
480-128189-8	TP-12 (10-12)	Total/NA	Solid	Moisture	
480-128189-10	TP-9 (10-12)	Total/NA	Solid	Moisture	
480-128189-7 MS	TP-8 (6-9)	Total/NA	Solid	Moisture	
480-128189-7 MSD	TP-8 (6-9)	Total/NA	Solid	Moisture	

Analysis Batch: 390299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128189-2	BLIND DUP #2	Total/NA	Solid	Moisture	

Client Sample ID: TP-10 (0-4)

Lab Sample ID: 480-128189-1

Date Collected: 11/29/17 09:12

Matrix: Solid

Date Received: 11/30/17 11:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	389975	11/30/17 20:07	MDH	TAL BUF

Client Sample ID: TP-10 (0-4)

Lab Sample ID: 480-128189-1

Date Collected: 11/29/17 09:12

Matrix: Solid

Date Received: 11/30/17 11:05

Percent Solids: 78.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_L			389952	11/30/17 16:20	CDC	TAL BUF
Total/NA	Analysis	8260C		1	390688	12/06/17 17:03	CDC	TAL BUF
Total/NA	Prep	3550C			390116	12/01/17 14:15	BEK	TAL BUF
Total/NA	Analysis	8270D		20	390214	12/03/17 19:31	DMR	TAL BUF
Total/NA	Prep	3550C			390026	12/01/17 09:23	SMP	TAL BUF
Total/NA	Analysis	8081B		20	390176	12/02/17 19:45	JLS	TAL BUF
Total/NA	Prep	3550C			390171	12/02/17 07:35	SMP	TAL BUF
Total/NA	Analysis	8082A		1	390293	12/04/17 14:17	JMO	TAL BUF
Total/NA	Prep	8151A			390029	12/01/17 09:29	CAM	TAL BUF
Total/NA	Analysis	8151A		1	390585	12/05/17 17:42	JMO	TAL BUF
Total/NA	Prep	3050B			390073	12/01/17 15:49	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390698	12/06/17 05:05	LMH	TAL BUF
Total/NA	Prep	3050B			390073	12/01/17 15:49	EMB	TAL BUF
Total/NA	Analysis	6010C		2	390906	12/06/17 20:16	LMH	TAL BUF
Total/NA	Prep	7471B			390617	12/06/17 11:40	EMB	TAL BUF
Total/NA	Analysis	7471B		1	390813	12/06/17 15:10	BMB	TAL BUF

Client Sample ID: BLIND DUP #2

Lab Sample ID: 480-128189-2

Date Collected: 11/29/17 12:02

Matrix: Solid

Date Received: 11/30/17 11:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390299	12/04/17 10:49	CDC	TAL BUF

Client Sample ID: BLIND DUP #2

Lab Sample ID: 480-128189-2

Date Collected: 11/29/17 12:02

Matrix: Solid

Date Received: 11/30/17 11:05

Percent Solids: 78.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_L			389952	11/30/17 16:20	CDC	TAL BUF
Total/NA	Analysis	8260C		1	390688	12/06/17 17:29	CDC	TAL BUF

Client Sample ID: BLIND DUP #3 — **Lab Sample ID: 480-128189-3**
Date Collected: 11/29/17 12:00 — **Matrix: Solid**
Date Received: 11/30/17 11:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	389975	11/30/17 20:07	MDH	TAL BUF

Client Sample ID: BLIND DUP #3 — **Lab Sample ID: 480-128189-3**
Date Collected: 11/29/17 12:00 — **Matrix: Solid**
Date Received: 11/30/17 11:05 — **Percent Solids: 87.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			390116	12/01/17 14:15	BEK	TAL BUF
Total/NA	Analysis	8270D		10	390214	12/03/17 19:58	DMR	TAL BUF
Total/NA	Prep	3050B			390073	12/01/17 15:49	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390698	12/06/17 05:08	LMH	TAL BUF
Total/NA	Prep	3050B			390073	12/01/17 15:49	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390906	12/06/17 19:26	LMH	TAL BUF
Total/NA	Prep	7471B			390617	12/06/17 11:40	EMB	TAL BUF
Total/NA	Analysis	7471B		1	390813	12/06/17 15:11	BMB	TAL BUF

Client Sample ID: TP-14 (10-15) — **Lab Sample ID: 480-128189-4**
Date Collected: 11/29/17 10:30 — **Matrix: Solid**
Date Received: 11/30/17 11:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	389975	11/30/17 20:07	MDH	TAL BUF

Client Sample ID: TP-14 (10-15) — **Lab Sample ID: 480-128189-4**
Date Collected: 11/29/17 10:30 — **Matrix: Solid**
Date Received: 11/30/17 11:05 — **Percent Solids: 85.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			390116	12/01/17 14:15	BEK	TAL BUF
Total/NA	Analysis	8270D		5	390214	12/03/17 20:24	DMR	TAL BUF
Total/NA	Prep	3050B			390073	12/01/17 15:49	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390698	12/06/17 05:12	LMH	TAL BUF
Total/NA	Prep	3050B			390073	12/01/17 15:49	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390906	12/06/17 19:30	LMH	TAL BUF
Total/NA	Prep	7471B			390617	12/06/17 11:40	EMB	TAL BUF
Total/NA	Analysis	7471B		1	390813	12/06/17 15:13	BMB	TAL BUF

Client Sample ID: TP-15 (8-10) — **Lab Sample ID: 480-128189-5**
Date Collected: 11/29/17 11:04 — **Matrix: Solid**
Date Received: 11/30/17 11:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	389975	11/30/17 20:07	MDH	TAL BUF

Client Sample ID: TP-15 (8-10)

Lab Sample ID: 480-128189-5

Date Collected: 11/29/17 11:04

Matrix: Solid

Date Received: 11/30/17 11:05

Percent Solids: 90.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			390116	12/01/17 14:15	BEK	TAL BUF
Total/NA	Analysis	8270D		5	390214	12/03/17 20:51	DMR	TAL BUF
Total/NA	Prep	3050B			390073	12/01/17 15:49	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390698	12/06/17 05:15	LMH	TAL BUF
Total/NA	Prep	3050B			390073	12/01/17 15:49	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390906	12/06/17 19:33	LMH	TAL BUF
Total/NA	Prep	7471B			390617	12/06/17 11:40	EMB	TAL BUF
Total/NA	Analysis	7471B		1	390813	12/06/17 15:15	BMB	TAL BUF

Client Sample ID: TP-11 (5-8)

Lab Sample ID: 480-128189-6

Date Collected: 11/29/17 12:05

Matrix: Solid

Date Received: 11/30/17 11:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	389975	11/30/17 20:07	MDH	TAL BUF

Client Sample ID: TP-11 (5-8)

Lab Sample ID: 480-128189-6

Date Collected: 11/29/17 12:05

Matrix: Solid

Date Received: 11/30/17 11:05

Percent Solids: 86.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_L			389952	11/30/17 16:20	CDC	TAL BUF
Total/NA	Analysis	8260C		1	390688	12/06/17 17:55	CDC	TAL BUF
Total/NA	Prep	3550C			390116	12/01/17 14:15	BEK	TAL BUF
Total/NA	Analysis	8270D		5	390214	12/03/17 19:05	DMR	TAL BUF
Total/NA	Prep	3550C			390026	12/01/17 09:23	SMP	TAL BUF
Total/NA	Analysis	8081B		2	390176	12/02/17 20:05	JLS	TAL BUF
Total/NA	Prep	3550C			390171	12/02/17 07:35	SMP	TAL BUF
Total/NA	Analysis	8082A		1	390293	12/04/17 19:22	JMO	TAL BUF
Total/NA	Prep	8151A			390029	12/01/17 09:29	CAM	TAL BUF
Total/NA	Analysis	8151A		1	390585	12/05/17 18:12	JMO	TAL BUF
Total/NA	Prep	3050B			390073	12/01/17 15:49	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390698	12/06/17 05:19	LMH	TAL BUF
Total/NA	Prep	3050B			390073	12/01/17 15:49	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390906	12/06/17 19:37	LMH	TAL BUF
Total/NA	Prep	7471B			390617	12/06/17 11:40	EMB	TAL BUF
Total/NA	Analysis	7471B		1	390813	12/06/17 15:20	BMB	TAL BUF

Client Sample ID: TP-8 (6-9)

Lab Sample ID: 480-128189-7

Date Collected: 11/29/17 13:03

Matrix: Solid

Date Received: 11/30/17 11:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	389975	11/30/17 20:07	MDH	TAL BUF

Client Sample ID: TP-8 (6-9)

Lab Sample ID: 480-128189-7

Date Collected: 11/29/17 13:03

Matrix: Solid

Date Received: 11/30/17 11:05

Percent Solids: 65.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_L			389953	11/30/17 16:23	CDC	TAL BUF
Total/NA	Analysis	8260C		1	390950	12/07/17 15:24	AEM	TAL BUF
Total/NA	Prep	3550C			390116	12/01/17 14:15	BEK	TAL BUF
Total/NA	Analysis	8270D		20	390214	12/03/17 21:18	DMR	TAL BUF
Total/NA	Prep	3050B			390073	12/01/17 15:49	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390698	12/06/17 05:47	LMH	TAL BUF
Total/NA	Prep	3050B			390073	12/01/17 15:49	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390906	12/06/17 20:06	LMH	TAL BUF
Total/NA	Prep	7471B			390617	12/06/17 11:40	EMB	TAL BUF
Total/NA	Analysis	7471B		10	390813	12/06/17 15:38	BMB	TAL BUF

Client Sample ID: TP-12 (10-12)

Lab Sample ID: 480-128189-8

Date Collected: 11/29/17 14:00

Matrix: Solid

Date Received: 11/30/17 11:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	389975	11/30/17 20:07	MDH	TAL BUF

Client Sample ID: TP-12 (10-12)

Lab Sample ID: 480-128189-8

Date Collected: 11/29/17 14:00

Matrix: Solid

Date Received: 11/30/17 11:05

Percent Solids: 65.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			390116	12/01/17 14:15	BEK	TAL BUF
Total/NA	Analysis	8270D		5	390214	12/03/17 21:45	DMR	TAL BUF
Total/NA	Prep	3050B			390073	12/01/17 15:49	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390698	12/06/17 05:51	LMH	TAL BUF
Total/NA	Prep	3050B			390073	12/01/17 15:49	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390906	12/06/17 20:09	LMH	TAL BUF
Total/NA	Prep	7471B			390617	12/06/17 11:40	EMB	TAL BUF
Total/NA	Analysis	7471B		1	390813	12/06/17 15:23	BMB	TAL BUF

Lab Chronicle

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128189-1

Client Sample ID: TP-9 (10-12)

Lab Sample ID: 480-128189-10

Date Collected: 11/29/17 14:49

Matrix: Solid

Date Received: 11/30/17 11:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	389975	11/30/17 20:07	MDH	TAL BUF

Client Sample ID: TP-9 (10-12)

Lab Sample ID: 480-128189-10

Date Collected: 11/29/17 14:49

Matrix: Solid

Date Received: 11/30/17 11:05

Percent Solids: 79.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_L			389953	11/30/17 16:23	CDC	TAL BUF
Total/NA	Analysis	8260C		1	390950	12/07/17 15:49	AEM	TAL BUF
Total/NA	Prep	3550C			390116	12/01/17 14:15	BEK	TAL BUF
Total/NA	Analysis	8270D		5	390214	12/03/17 22:11	DMR	TAL BUF
Total/NA	Prep	3050B			390073	12/01/17 15:49	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390698	12/06/17 05:54	LMH	TAL BUF
Total/NA	Prep	3050B			390073	12/01/17 15:49	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390906	12/06/17 20:13	LMH	TAL BUF
Total/NA	Prep	7471B			390617	12/06/17 11:40	EMB	TAL BUF
Total/NA	Analysis	7471B		1	390813	12/06/17 15:25	BMB	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128189-1

Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128189-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
8081B	Organochlorine Pesticides (GC)	SW846	TAL BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL BUF
8151A	Herbicides (GC)	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
6010C	TAL Metals	SW846	TAL BUF
7471B	Mercury (CVAA)	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128189-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-128189-1	TP-10 (0-4)	Solid	11/29/17 09:12	11/30/17 11:05
480-128189-2	BLIND DUP #2	Solid	11/29/17 12:02	11/30/17 11:05
480-128189-3	BLIND DUP #3	Solid	11/29/17 12:00	11/30/17 11:05
480-128189-4	TP-14 (10-15)	Solid	11/29/17 10:30	11/30/17 11:05
480-128189-5	TP-15 (8-10)	Solid	11/29/17 11:04	11/30/17 11:05
480-128189-6	TP-11 (5-8)	Solid	11/29/17 12:05	11/30/17 11:05
480-128189-7	TP-8 (6-9)	Solid	11/29/17 13:03	11/30/17 11:05
480-128189-8	TP-12 (10-12)	Solid	11/29/17 14:00	11/30/17 11:05
480-128189-10	TP-9 (10-12)	Solid	11/29/17 14:49	11/30/17 11:05

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: TAB	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-105119-24832.2
Client Contact: Bryan Mayback	Phone: (716) 818-5355	E-Mail: brian.fischer@testamericainc.com		Page: Page 2 of 8
Company: Benchmark Env. Eng. & Science, PLLC				Job #:
Address: 2558 Hamburg Turnpike	Due Date Requested:			
City: Lackawanna	TAT Requested (days): STD			
State, Zip: NY, 14218				
Phone: 716-856-0599(Tel)	PO #: B0421-017-001			
Email: bmayback@turnkeyllc.com	WO #:			
Project Name: 1827 Fillmore Avenue Site - Soil	Project #: 48017094			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - Me, G - Ar, H - As, I - Ice, J - DI, K - ED, L - ED, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, cahydrate, ify)
Other: 480-128189 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010C, 7471B, 8270D	8081B, 8082A, 8151A	TCL+CP-51 VOC 5260+TICs	TCL+CP-51 VOC	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N				
TP-10 (6-4)	11/29/17	912	Grab	Solid			X	X	X			
Blind Dup #2		1202		Solid					X			
Blind Dup #3		1200		Solid			X					
TP-14 (10-15)		1030		Solid			X					
TP-15 (8-10)		1104		Solid			X					
TP-11 (5-8)		1205		Solid			X	X		X		
TP-8 (6-9)		1303		Solid			X					Analyze SVOC TICs
TP-8 (6-9)ms/msD		1303		Solid					X			USE Total Solids From TP-8(6-9)
TP-12 (10-12)		1400		Solid			X					
TP-9 (0-2)		1451		Solid						X		Hold
TP-9 (10-12)		1449		Solid			X		X			Analyze SVOC TICs

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) CAT B

Special Instructions/QC Requirements: Hold All metals samples for possible TCLP Analysis

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	11/30/17 855	Benchmark		11-30-17/0950	TAL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	11-30-17/1105	TAL		11/30/17 1105	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.0 #1

Ver: 08/04/2016

Login Sample Receipt Checklist

Client: Benchmark Env. Eng. & Science, PLLC

Job Number: 480-128189-1

Login Number: 128189

List Source: TestAmerica Buffalo

List Number: 1

Creator: Janish, Carl M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	BM
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-128303-1
Client Project/Site: 1827 Fillmore Avenue Site

For:
Benchmark Env. Eng. & Science, PLLC
2558 Hamburg Turnpike
Suite 300
Lackawanna, New York 14218

Attn: Mr. Michael Lesakowski

Joseph V. Giacomazza

Authorized for release by:
12/12/2017 10:31:00 AM
Joe Giacomazza, Project Management Assistant II
joe.giacomazza@testamericainc.com

Designee for

Brian Fischer, Manager of Project Management
(716)504-9835
brian.fischer@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits
E	Result exceeded calibration range.

GC Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD is outside acceptance limits.

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
F2	MS/MSD RPD exceeds control limits
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-128303-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-128303-1

Comments
No additional comments.

Receipt
The samples were received on 12/1/2017 4:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.6º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA
Method(s) 8270D: The following samples was diluted due to color and, viscosity: TP-20 (5-10) (480-128303-2) and TP-25 (0-2) (480-128303-3). Elevated reporting limits (RL) are provided.

Method(s) 8270D: The following sample required a dilution due to the nature of the sample matrix: TP-25 (0-2) (480-128303-3). 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.

Method(s) 8270D: The following sample was diluted to bring the concentration of target analytes within the calibration range: TP-25 (0-2) (480-128303-3). Elevated reporting limits (RLs) are provided.

Method(s) 8270D: The following sample required a dilution to bring the concentration of target analytes within the calibration range: TP-25 (0-2) (480-128303-3). 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.

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

GC Semi VOA
Method(s) 8081B: The surrogate recovery for the method blank (MB 480-390408/1-A) associated with preparation batch 480-390408 and analytical batch 480-390730 was outside the upper control limits. All associated samples were non-detect for all analytes, therefore the data has been reported. The following samples are impacted: TP-25 (0-2) (480-128303-3), TP-24 (10-15) (480-128303-4) and TP-29 (5-8) (480-128303-7).

Method(s) 8081B: The laboratory control sample (LCS) for preparation batch 480-390408 and analytical batch 480-390730 recovered outside control limits for the following analytes: 4,4'-DDT and Methoxychlor. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. The following samples are impacted: TP-25 (0-2) (480-128303-3), TP-24 (10-15) (480-128303-4) and TP-29 (5-8) (480-128303-7).

Method(s) 8081B: The following sample was diluted due to the nature of the sample matrix: TP-25 (0-2) (480-128303-3). As such, surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method(s) 8081B: For method 8081, the recovery of the one surrogate in samples TP-24 (10-15) (480-128303-4) exceeds quality control limits due to the sample matrix. The recovery of the secondary surrogate is within quality control criteria; no corrective action is required.

Method(s) 8081B: All primary data for analytical batch 390730 is reported from the RTX-CLPII column.

Method(s) 8082A: The following samples are associated with a continuing calibration verification (CCV 480-390770/4) that has recoveries for the surrogate Decachlorobiphenyl that are below acceptance limits: TP-25 (0-2) (480-128303-3), TP-24 (10-15) (480-128303-4) and TP-29 (5-8) (480-128303-7). These samples had no detections for any associated aroclor via pattern recognition. Therefore, the data has been reported.

Method(s) 8082A: Surrogate recovery for the following samples was outside control limits: TP-25 (0-2) (480-128303-3). Evidence of matrix

Job ID: 480-128303-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8082A: All primary data for analytical batch 390770 is reported from the ZB-5 column.

Method(s) 8082A: The percent difference in a multi-component continuing calibration verification is assessed on the basis of the total amount, individual peak calculations are only listed for completeness.

Method(s) 8151A: The continuing calibration verification (CCV) associated with batch 480-391186 recovered above the upper control limit for multiple analytes and the surrogate. The samples associated with this CCV are non-detect for the effected target analytes; therefore, the data have been reported; 480-128303-3, 480-128303-4 and 480-128303-7

The surrogate recoveries in the following samples is elevated on the RTX-CLP I column,though compliant on the RTX-CLP II column, verifying the extraction procedure in control: TP-24 (10-15) (480-128303-4) and TP-29 (5-8) (480-128303-7).

Method(s) 8151A: The laboratory control sample duplicate (LCSD) for preparation batch 480-390419 and analytical batch 480-391186 recovered above control limits for the following analytes: 2,4,5-T, 2,4-D and 2,4-Dichlorophenylacetic acid. The data has been qualified and reported.

Method(s) 8151A: Surrogate recovery for the following samples was outside control limits: TP-24 (10-15) (480-128303-4) and TP-29 (5-8) (480-128303-7). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8151A: All primary data for analytical batch 391186 is reported from the RTX-CLPI column.

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

Metals

Method(s) 6010C: The Serial Dilution (480-128303-A-1-A SD) in batch 480-390362, exhibited a result outside the quality control limits for Total Manganese. However, the Post Digestion Spike was compliant so no corrective action was necessary

Method(s) 6010C: The % recovery of Post Spike, (480-128303-A-1-A PDS), in batch 480-390362 exhibited results outside the quality control limits for Total Calcium and Iron. However, the Serial Dilution of this sample was compliant. Therefore, no corrective action was necessary

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

Organic Prep

Method(s) 3550C: The following samples required a Florisil clean-up, via EPA Method 3620C, to reduce matrix interferences: TP-25 (0-2) (480-128303-3) and TP-24 (10-15) (480-128303-4).

Method(s) 8151A: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-390419.

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

Detection Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128303-1

Client Sample ID: TP-19 (3-6) — Lab Sample ID: 480-128303-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	38	J	180	18	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	49	J	180	26	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	76	J	180	29	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	31	J	180	19	ug/Kg	1	☼	8270D	Total/NA
Chrysene	41	J	180	40	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	60	J	180	19	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	40	J	180	22	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	48	J	180	26	ug/Kg	1	☼	8270D	Total/NA
Pyrene	63	J	180	21	ug/Kg	1	☼	8270D	Total/NA
Aluminum	7780		11.2	4.9	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.46	J F1	16.8	0.45	mg/Kg	1	☼	6010C	Total/NA
Arsenic	3.5		2.2	0.45	mg/Kg	1	☼	6010C	Total/NA
Barium	70.1	F1	0.56	0.12	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.39		0.22	0.031	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.11	J	0.22	0.034	mg/Kg	1	☼	6010C	Total/NA
Calcium	16900	B F2	56.1	3.7	mg/Kg	1	☼	6010C	Total/NA
Chromium	12.9		0.56	0.22	mg/Kg	1	☼	6010C	Total/NA
Cobalt	2.5		0.56	0.056	mg/Kg	1	☼	6010C	Total/NA
Copper	16.5	F1 F2	1.1	0.24	mg/Kg	1	☼	6010C	Total/NA
Iron	11600	F2	11.2	3.9	mg/Kg	1	☼	6010C	Total/NA
Lead	19.1		1.1	0.27	mg/Kg	1	☼	6010C	Total/NA
Magnesium	1350		22.4	1.0	mg/Kg	1	☼	6010C	Total/NA
Manganese	1150	B F2	0.22	0.036	mg/Kg	1	☼	6010C	Total/NA
Nickel	6.8		5.6	0.26	mg/Kg	1	☼	6010C	Total/NA
Potassium	1210		33.6	22.4	mg/Kg	1	☼	6010C	Total/NA
Selenium	0.72	J	4.5	0.45	mg/Kg	1	☼	6010C	Total/NA
Sodium	195		157	14.6	mg/Kg	1	☼	6010C	Total/NA
Vanadium	20.2		0.56	0.12	mg/Kg	1	☼	6010C	Total/NA
Zinc	48.9	F1	2.2	0.72	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.018	J	0.022	0.0088	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: TP-20 (5-10) — Lab Sample ID: 480-128303-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	740	J	1900	270	ug/Kg	10	☼	8270D	Total/NA
Anthracene	1500	J	1900	460	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]anthracene	2400		1900	190	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]pyrene	2200		1900	270	ug/Kg	10	☼	8270D	Total/NA
Benzo[b]fluoranthene	2600		1900	300	ug/Kg	10	☼	8270D	Total/NA
Benzo[g,h,i]perylene	1200	J	1900	200	ug/Kg	10	☼	8270D	Total/NA
Benzo[k]fluoranthene	1300	J	1900	240	ug/Kg	10	☼	8270D	Total/NA
Carbazole	720	J	1900	220	ug/Kg	10	☼	8270D	Total/NA
Chrysene	2300		1900	420	ug/Kg	10	☼	8270D	Total/NA
Dibenzofuran	660	J	1900	220	ug/Kg	10	☼	8270D	Total/NA
Fluoranthene	6100		1900	200	ug/Kg	10	☼	8270D	Total/NA
Fluorene	870	J	1900	220	ug/Kg	10	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	1300	J	1900	230	ug/Kg	10	☼	8270D	Total/NA
Naphthalene	450	J	1900	240	ug/Kg	10	☼	8270D	Total/NA
Phenanthrene	6200		1900	270	ug/Kg	10	☼	8270D	Total/NA
Pyrene	4700		1900	220	ug/Kg	10	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TP-20 (5-10) (Continued)

Lab Sample ID: 480-128303-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	6800		10.8	4.8	mg/Kg	1	☼	6010C	Total/NA
Arsenic	5.5		2.2	0.43	mg/Kg	1	☼	6010C	Total/NA
Barium	329		0.54	0.12	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.32		0.22	0.030	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.52		0.22	0.032	mg/Kg	1	☼	6010C	Total/NA
Calcium	16400	B	54.1	3.6	mg/Kg	1	☼	6010C	Total/NA
Chromium	10.9		0.54	0.22	mg/Kg	1	☼	6010C	Total/NA
Cobalt	3.4		0.54	0.054	mg/Kg	1	☼	6010C	Total/NA
Copper	20.7		1.1	0.23	mg/Kg	1	☼	6010C	Total/NA
Iron	13300		10.8	3.8	mg/Kg	1	☼	6010C	Total/NA
Lead	19.7		1.1	0.26	mg/Kg	1	☼	6010C	Total/NA
Magnesium	1880		21.6	1.0	mg/Kg	1	☼	6010C	Total/NA
Manganese	545	B	0.22	0.035	mg/Kg	1	☼	6010C	Total/NA
Nickel	8.4		5.4	0.25	mg/Kg	1	☼	6010C	Total/NA
Potassium	1070		32.5	21.6	mg/Kg	1	☼	6010C	Total/NA
Sodium	139	J	151	14.1	mg/Kg	1	☼	6010C	Total/NA
Vanadium	16.5		0.54	0.12	mg/Kg	1	☼	6010C	Total/NA
Zinc	201		2.2	0.69	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.072		0.021	0.0084	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: TP-25 (0-2)

Lab Sample ID: 480-128303-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	6000		4600	930	ug/Kg	20	☼	8270D	Total/NA
Acenaphthene	29000		4600	680	ug/Kg	20	☼	8270D	Total/NA
Acenaphthylene	660	J	4600	600	ug/Kg	20	☼	8270D	Total/NA
Anthracene	57000		4600	1100	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]anthracene	65000		4600	460	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]pyrene	50000		4600	680	ug/Kg	20	☼	8270D	Total/NA
Benzo[b]fluoranthene	60000		4600	740	ug/Kg	20	☼	8270D	Total/NA
Benzo[g,h,i]perylene	26000		4600	490	ug/Kg	20	☼	8270D	Total/NA
Benzo[k]fluoranthene	32000		4600	600	ug/Kg	20	☼	8270D	Total/NA
Biphenyl	790	J	4600	680	ug/Kg	20	☼	8270D	Total/NA
Carbazole	25000		4600	550	ug/Kg	20	☼	8270D	Total/NA
Chrysene	56000		4600	1000	ug/Kg	20	☼	8270D	Total/NA
Dibenz(a,h)anthracene	9700		4600	820	ug/Kg	20	☼	8270D	Total/NA
Dibenzofuran	26000		4600	550	ug/Kg	20	☼	8270D	Total/NA
Fluoranthene	170000	E	4600	490	ug/Kg	20	☼	8270D	Total/NA
Fluorene	34000		4600	550	ug/Kg	20	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	27000		4600	570	ug/Kg	20	☼	8270D	Total/NA
Naphthalene	9200		4600	600	ug/Kg	20	☼	8270D	Total/NA
Phenanthrene	200000	E	4600	680	ug/Kg	20	☼	8270D	Total/NA
Pyrene	130000		4600	550	ug/Kg	20	☼	8270D	Total/NA
2-Methylnaphthalene - DL	5100	J	23000	4600	ug/Kg	100	☼	8270D	Total/NA
Acenaphthene - DL	26000		23000	3400	ug/Kg	100	☼	8270D	Total/NA
Anthracene - DL	51000		23000	5700	ug/Kg	100	☼	8270D	Total/NA
Benzo[a]anthracene - DL	57000		23000	2300	ug/Kg	100	☼	8270D	Total/NA
Benzo[a]pyrene - DL	45000		23000	3400	ug/Kg	100	☼	8270D	Total/NA
Benzo[b]fluoranthene - DL	57000		23000	3700	ug/Kg	100	☼	8270D	Total/NA
Benzo[g,h,i]perylene - DL	22000	J	23000	2500	ug/Kg	100	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TP-25 (0-2) (Continued)

Lab Sample ID: 480-128303-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[k]fluoranthene - DL	25000		23000	3000	ug/Kg	100	☼	8270D	Total/NA
Carbazole - DL	20000	J	23000	2700	ug/Kg	100	☼	8270D	Total/NA
Chrysene - DL	49000		23000	5200	ug/Kg	100	☼	8270D	Total/NA
Dibenzofuran - DL	23000		23000	2700	ug/Kg	100	☼	8270D	Total/NA
Fluoranthene - DL	160000		23000	2500	ug/Kg	100	☼	8270D	Total/NA
Fluorene - DL	30000		23000	2700	ug/Kg	100	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene - DL	25000		23000	2900	ug/Kg	100	☼	8270D	Total/NA
Naphthalene - DL	8500	J	23000	3000	ug/Kg	100	☼	8270D	Total/NA
Phenanthrene - DL	190000		23000	3400	ug/Kg	100	☼	8270D	Total/NA
Pyrene - DL	110000		23000	2700	ug/Kg	100	☼	8270D	Total/NA
4,4'-DDD	36	J	120	22	ug/Kg	50	☼	8081B	Total/NA
Aluminum	7060		15.0	6.6	mg/Kg	1	☼	6010C	Total/NA
Antimony	1.1	J	22.4	0.60	mg/Kg	1	☼	6010C	Total/NA
Arsenic	1.9	J	3.0	0.60	mg/Kg	1	☼	6010C	Total/NA
Barium	71.7		0.75	0.16	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.33		0.30	0.042	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.33		0.30	0.045	mg/Kg	1	☼	6010C	Total/NA
Calcium	120000	B	74.8	4.9	mg/Kg	1	☼	6010C	Total/NA
Chromium	11.7		0.75	0.30	mg/Kg	1	☼	6010C	Total/NA
Cobalt	2.9		0.75	0.075	mg/Kg	1	☼	6010C	Total/NA
Copper	14.7		1.5	0.31	mg/Kg	1	☼	6010C	Total/NA
Iron	8710		15.0	5.2	mg/Kg	1	☼	6010C	Total/NA
Lead	49.5		1.5	0.36	mg/Kg	1	☼	6010C	Total/NA
Magnesium	31400		29.9	1.4	mg/Kg	1	☼	6010C	Total/NA
Manganese	276	B	0.30	0.048	mg/Kg	1	☼	6010C	Total/NA
Nickel	8.0		7.5	0.34	mg/Kg	1	☼	6010C	Total/NA
Potassium	1700		44.9	29.9	mg/Kg	1	☼	6010C	Total/NA
Sodium	280		209	19.4	mg/Kg	1	☼	6010C	Total/NA
Vanadium	13.9		0.75	0.16	mg/Kg	1	☼	6010C	Total/NA
Zinc	133		3.0	0.96	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.11		0.027	0.011	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: TP-24 (10-15)

Lab Sample ID: 480-128303-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	150	J	190	37	ug/Kg	1	☼	8270D	Total/NA
Anthracene	51	J	190	46	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	180	J	190	19	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	250		190	27	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	430		190	30	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	310		190	20	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	140	J	190	24	ug/Kg	1	☼	8270D	Total/NA
Carbazole	36	J	190	22	ug/Kg	1	☼	8270D	Total/NA
Chrysene	260		190	42	ug/Kg	1	☼	8270D	Total/NA
Dibenzofuran	64	J	190	22	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	320		190	20	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	250		190	23	ug/Kg	1	☼	8270D	Total/NA
Naphthalene	120	J	190	24	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	340		190	27	ug/Kg	1	☼	8270D	Total/NA
Pyrene	320		190	22	ug/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TP-24 (10-15) (Continued)

Lab Sample ID: 480-128303-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDT	1.2	J *	1.9	0.43	ug/Kg	1	☼	8081B	Total/NA
Aluminum	11600		10.3	4.5	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.66	J	15.4	0.41	mg/Kg	1	☼	6010C	Total/NA
Arsenic	6.5		2.1	0.41	mg/Kg	1	☼	6010C	Total/NA
Barium	51.5		0.51	0.11	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.44		0.21	0.029	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.051	J	0.21	0.031	mg/Kg	1	☼	6010C	Total/NA
Calcium	14200	B	51.4	3.4	mg/Kg	1	☼	6010C	Total/NA
Chromium	15.7		0.51	0.21	mg/Kg	1	☼	6010C	Total/NA
Cobalt	4.4		0.51	0.051	mg/Kg	1	☼	6010C	Total/NA
Copper	19.0		1.0	0.22	mg/Kg	1	☼	6010C	Total/NA
Iron	23000		10.3	3.6	mg/Kg	1	☼	6010C	Total/NA
Lead	19.1		1.0	0.25	mg/Kg	1	☼	6010C	Total/NA
Magnesium	1970		20.6	0.95	mg/Kg	1	☼	6010C	Total/NA
Manganese	735	B	0.21	0.033	mg/Kg	1	☼	6010C	Total/NA
Nickel	16.8		5.1	0.24	mg/Kg	1	☼	6010C	Total/NA
Potassium	1530		30.8	20.6	mg/Kg	1	☼	6010C	Total/NA
Selenium	0.68	J	4.1	0.41	mg/Kg	1	☼	6010C	Total/NA
Sodium	157		144	13.4	mg/Kg	1	☼	6010C	Total/NA
Vanadium	21.3		0.51	0.11	mg/Kg	1	☼	6010C	Total/NA
Zinc	35.8		2.1	0.66	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.032		0.022	0.0089	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: TP-28 (2-4)

Lab Sample ID: 480-128303-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon disulfide	3.3	J	5.6	2.8	ug/Kg	1	☼	8260C	Total/NA
Dichlorodifluoromethane	0.60	J	5.6	0.47	ug/Kg	1	☼	8260C	Total/NA
Benzo[a]anthracene	94	J	180	18	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	140	J	180	27	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	250		180	29	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	180		180	19	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	85	J	180	24	ug/Kg	1	☼	8270D	Total/NA
Chrysene	130	J	180	41	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	150	J	180	19	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	150	J	180	23	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	85	J	180	27	ug/Kg	1	☼	8270D	Total/NA
Pyrene	140	J	180	22	ug/Kg	1	☼	8270D	Total/NA
Aluminum	11700		10.4	4.6	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.95	J	15.6	0.42	mg/Kg	1	☼	6010C	Total/NA
Arsenic	5.1		2.1	0.42	mg/Kg	1	☼	6010C	Total/NA
Barium	67.4		0.52	0.11	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.46		0.21	0.029	mg/Kg	1	☼	6010C	Total/NA
Calcium	15500	B	52.1	3.4	mg/Kg	1	☼	6010C	Total/NA
Chromium	18.3		0.52	0.21	mg/Kg	1	☼	6010C	Total/NA
Cobalt	4.9		0.52	0.052	mg/Kg	1	☼	6010C	Total/NA
Copper	43.8		1.0	0.22	mg/Kg	1	☼	6010C	Total/NA
Iron	43700		10.4	3.6	mg/Kg	1	☼	6010C	Total/NA
Lead	26.8		1.0	0.25	mg/Kg	1	☼	6010C	Total/NA
Magnesium	902		20.8	0.97	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TP-28 (2-4) (Continued) — Lab Sample ID: 480-128303-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	1690	B	0.21	0.033	mg/Kg	1	☼	6010C	Total/NA
Nickel	22.0		5.2	0.24	mg/Kg	1	☼	6010C	Total/NA
Potassium	1350		31.3	20.8	mg/Kg	1	☼	6010C	Total/NA
Selenium	1.2	J	4.2	0.42	mg/Kg	1	☼	6010C	Total/NA
Sodium	170		146	13.5	mg/Kg	1	☼	6010C	Total/NA
Vanadium	24.9		0.52	0.11	mg/Kg	1	☼	6010C	Total/NA
Zinc	64.2		2.1	0.67	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.10		0.021	0.0084	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: TP-26 (12-15) — Lab Sample ID: 480-128303-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	25	J	240	24	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	48	J	240	35	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	78	J	240	38	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	45	J	240	25	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	26	J	240	25	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	54	J	240	30	ug/Kg	1	☼	8270D	Total/NA
Aluminum	7830		12.9	5.7	mg/Kg	1	☼	6010C	Total/NA
Arsenic	8.0		2.6	0.51	mg/Kg	1	☼	6010C	Total/NA
Barium	64.9		0.64	0.14	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.77		0.26	0.036	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.077	J	0.26	0.039	mg/Kg	1	☼	6010C	Total/NA
Calcium	3050	B	64.3	4.2	mg/Kg	1	☼	6010C	Total/NA
Chromium	15.8		0.64	0.26	mg/Kg	1	☼	6010C	Total/NA
Cobalt	12.8		0.64	0.064	mg/Kg	1	☼	6010C	Total/NA
Copper	53.4		1.3	0.27	mg/Kg	1	☼	6010C	Total/NA
Iron	21500		12.9	4.5	mg/Kg	1	☼	6010C	Total/NA
Lead	105		1.3	0.31	mg/Kg	1	☼	6010C	Total/NA
Magnesium	518		25.7	1.2	mg/Kg	1	☼	6010C	Total/NA
Manganese	155	B	0.26	0.041	mg/Kg	1	☼	6010C	Total/NA
Nickel	25.4		6.4	0.30	mg/Kg	1	☼	6010C	Total/NA
Potassium	949		38.6	25.7	mg/Kg	1	☼	6010C	Total/NA
Sodium	274		180	16.7	mg/Kg	1	☼	6010C	Total/NA
Vanadium	26.5		0.64	0.14	mg/Kg	1	☼	6010C	Total/NA
Zinc	110		2.6	0.82	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.074		0.029	0.012	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: TP-29 (5-8) — Lab Sample ID: 480-128303-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	35	J	180	26	ug/Kg	1	☼	8270D	Total/NA
Aluminum	4250		9.9	4.4	mg/Kg	1	☼	6010C	Total/NA
Arsenic	2.8		2.0	0.40	mg/Kg	1	☼	6010C	Total/NA
Barium	18.2		0.49	0.11	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.17	J	0.20	0.028	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.038	J	0.20	0.030	mg/Kg	1	☼	6010C	Total/NA
Calcium	3490	B	49.4	3.3	mg/Kg	1	☼	6010C	Total/NA
Chromium	5.6		0.49	0.20	mg/Kg	1	☼	6010C	Total/NA
Cobalt	1.6		0.49	0.049	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TP-29 (5-8) (Continued) — Lab Sample ID: 480-128303-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	4.0		0.99	0.21	mg/Kg	1	☼	6010C	Total/NA
Iron	5850		9.9	3.5	mg/Kg	1	☼	6010C	Total/NA
Lead	4.7		0.99	0.24	mg/Kg	1	☼	6010C	Total/NA
Magnesium	1110		19.8	0.92	mg/Kg	1	☼	6010C	Total/NA
Manganese	85.6	B	0.20	0.032	mg/Kg	1	☼	6010C	Total/NA
Nickel	4.6	J	4.9	0.23	mg/Kg	1	☼	6010C	Total/NA
Potassium	802		29.7	19.8	mg/Kg	1	☼	6010C	Total/NA
Selenium	0.67	J	4.0	0.40	mg/Kg	1	☼	6010C	Total/NA
Sodium	91.1	J	138	12.9	mg/Kg	1	☼	6010C	Total/NA
Vanadium	9.0		0.49	0.11	mg/Kg	1	☼	6010C	Total/NA
Zinc	15.9		2.0	0.63	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: TP-30 (10-15) — Lab Sample ID: 480-128303-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	21	J	210	21	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	40	J	210	31	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	60	J	210	34	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	28	J	210	22	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	36	J	210	26	ug/Kg	1	☼	8270D	Total/NA
Pyrene	26	J	210	25	ug/Kg	1	☼	8270D	Total/NA
Aluminum	6160		11.6	5.1	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.55	J	17.4	0.46	mg/Kg	1	☼	6010C	Total/NA
Arsenic	12.1		2.3	0.46	mg/Kg	1	☼	6010C	Total/NA
Barium	67.4		0.58	0.13	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.59		0.23	0.032	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.63		0.23	0.035	mg/Kg	1	☼	6010C	Total/NA
Calcium	2170	B	57.9	3.8	mg/Kg	1	☼	6010C	Total/NA
Chromium	10.8		0.58	0.23	mg/Kg	1	☼	6010C	Total/NA
Cobalt	6.0		0.58	0.058	mg/Kg	1	☼	6010C	Total/NA
Copper	37.3		1.2	0.24	mg/Kg	1	☼	6010C	Total/NA
Iron	8410		11.6	4.1	mg/Kg	1	☼	6010C	Total/NA
Lead	47.3		1.2	0.28	mg/Kg	1	☼	6010C	Total/NA
Magnesium	261		23.2	1.1	mg/Kg	1	☼	6010C	Total/NA
Manganese	71.9	B	0.23	0.037	mg/Kg	1	☼	6010C	Total/NA
Nickel	17.1		5.8	0.27	mg/Kg	1	☼	6010C	Total/NA
Potassium	1040		34.7	23.2	mg/Kg	1	☼	6010C	Total/NA
Selenium	1.0	J	4.6	0.46	mg/Kg	1	☼	6010C	Total/NA
Sodium	556		162	15.1	mg/Kg	1	☼	6010C	Total/NA
Vanadium	35.6		0.58	0.13	mg/Kg	1	☼	6010C	Total/NA
Zinc	96.5		2.3	0.74	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.048		0.026	0.010	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: TP-24 (10-12) — Lab Sample ID: 480-128303-9

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: TP-19 (3-6)

Date Collected: 12/01/17 00:00
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-1

Matrix: Solid
Percent Solids: 93.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		180	49	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
2,4,6-Trichlorophenol	ND		180	36	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
2,4-Dichlorophenol	ND		180	19	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
2,4-Dimethylphenol	ND		180	43	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
2,4-Dinitrophenol	ND		1800	830	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
2,4-Dinitrotoluene	ND		180	37	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
2,6-Dinitrotoluene	ND		180	21	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
2-Chloronaphthalene	ND		180	30	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
2-Chlorophenol	ND		180	33	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
2-Methylnaphthalene	ND		180	36	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
2-Methylphenol	ND		180	21	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
2-Nitroaniline	ND		350	26	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
2-Nitrophenol	ND		180	51	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
3,3'-Dichlorobenzidine	ND		350	210	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
3-Nitroaniline	ND		350	50	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
4,6-Dinitro-2-methylphenol	ND		350	180	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
4-Bromophenyl phenyl ether	ND		180	25	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
4-Chloro-3-methylphenol	ND		180	44	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
4-Chloroaniline	ND		180	44	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
4-Chlorophenyl phenyl ether	ND		180	22	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
4-Methylphenol	ND		350	21	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
4-Nitroaniline	ND		350	94	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
4-Nitrophenol	ND		350	130	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Acenaphthene	ND		180	26	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Acenaphthylene	ND		180	23	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Acetophenone	ND		180	24	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Anthracene	ND		180	44	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Atrazine	ND		180	62	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Benzaldehyde	ND		180	140	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Benzo[a]anthracene	**38**	**J**	180	18	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Benzo[a]pyrene	**49**	**J**	180	26	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Benzo[b]fluoranthene	**76**	**J**	180	29	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Benzo[g,h,i]perylene	**31**	**J**	180	19	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Benzo[k]fluoranthene	ND		180	23	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Biphenyl	ND		180	26	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
bis (2-chloroisopropyl) ether	ND		180	36	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Bis(2-chloroethoxy)methane	ND		180	38	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Bis(2-chloroethyl)ether	ND		180	23	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Bis(2-ethylhexyl) phthalate	ND		180	61	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Butyl benzyl phthalate	ND		180	30	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Caprolactam	ND		180	54	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Carbazole	ND		180	21	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Chrysene	**41**	**J**	180	40	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Dibenz(a,h)anthracene	ND		180	32	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Dibenzofuran	ND		180	21	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Diethyl phthalate	ND		180	23	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Dimethyl phthalate	ND		180	21	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Di-n-butyl phthalate	ND		180	31	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Di-n-octyl phthalate	ND		180	21	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1

Client Sample ID: TP-19 (3-6)
Date Collected: 12/01/17 00:00
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-1
Matrix: Solid
Percent Solids: 93.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	60	J	180	19	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Fluorene	ND		180	21	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Hexachlorobenzene	ND		180	24	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Hexachlorobutadiene	ND		180	26	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Hexachlorocyclopentadiene	ND		180	24	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Hexachloroethane	ND		180	23	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Indeno[1,2,3-cd]pyrene	40	J	180	22	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Isophorone	ND		180	38	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Naphthalene	ND		180	23	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Nitrobenzene	ND		180	20	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
N-Nitrosodi-n-propylamine	ND		180	31	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
N-Nitrosodiphenylamine	ND		180	150	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Pentachlorophenol	ND		350	180	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Phenanthrene	48	J	180	26	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Phenol	ND		180	28	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1
Pyrene	63	J	180	21	ug/Kg	☼	12/04/17 14:26	12/05/17 15:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*69*		*54 - 120*	*12/04/17 14:26*	*12/05/17 15:11*	*1*
2-Fluorobiphenyl	*87*		*60 - 120*	*12/04/17 14:26*	*12/05/17 15:11*	*1*
2-Fluorophenol	*64*		*52 - 120*	*12/04/17 14:26*	*12/05/17 15:11*	*1*
Nitrobenzene-d5	*69*		*53 - 120*	*12/04/17 14:26*	*12/05/17 15:11*	*1*
Phenol-d5	*70*		*54 - 120*	*12/04/17 14:26*	*12/05/17 15:11*	*1*
p-Terphenyl-d14	*101*		*65 - 121*	*12/04/17 14:26*	*12/05/17 15:11*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	7780		11.2	4.9	mg/Kg	☼	12/05/17 15:17	12/05/17 21:35	1
Antimony	0.46	J F1	16.8	0.45	mg/Kg	☼	12/05/17 15:17	12/05/17 21:35	1
Arsenic	3.5		2.2	0.45	mg/Kg	☼	12/05/17 15:17	12/05/17 21:35	1
Barium	70.1	F1	0.56	0.12	mg/Kg	☼	12/05/17 15:17	12/05/17 21:35	1
Beryllium	0.39		0.22	0.031	mg/Kg	☼	12/05/17 15:17	12/05/17 21:35	1
Cadmium	0.11	J	0.22	0.034	mg/Kg	☼	12/05/17 15:17	12/05/17 21:35	1
Calcium	16900	B F2	56.1	3.7	mg/Kg	☼	12/05/17 15:17	12/05/17 21:35	1
Chromium	12.9		0.56	0.22	mg/Kg	☼	12/05/17 15:17	12/05/17 21:35	1
Cobalt	2.5		0.56	0.056	mg/Kg	☼	12/05/17 15:17	12/05/17 21:35	1
Copper	16.5	F1 F2	1.1	0.24	mg/Kg	☼	12/05/17 15:17	12/05/17 21:35	1
Iron	11600	F2	11.2	3.9	mg/Kg	☼	12/05/17 15:17	12/05/17 21:35	1
Lead	19.1		1.1	0.27	mg/Kg	☼	12/05/17 15:17	12/05/17 21:35	1
Magnesium	1350		22.4	1.0	mg/Kg	☼	12/05/17 15:17	12/05/17 21:35	1
Manganese	1150	B F2	0.22	0.036	mg/Kg	☼	12/05/17 15:17	12/05/17 21:35	1
Nickel	6.8		5.6	0.26	mg/Kg	☼	12/05/17 15:17	12/05/17 21:35	1
Potassium	1210		33.6	22.4	mg/Kg	☼	12/05/17 15:17	12/05/17 21:35	1
Selenium	0.72	J	4.5	0.45	mg/Kg	☼	12/05/17 15:17	12/05/17 21:35	1
Silver	ND		0.67	0.22	mg/Kg	☼	12/05/17 15:17	12/05/17 21:35	1
Sodium	195		157	14.6	mg/Kg	☼	12/05/17 15:17	12/05/17 21:35	1
Thallium	ND		6.7	0.34	mg/Kg	☼	12/05/17 15:17	12/05/17 21:35	1
Vanadium	20.2		0.56	0.12	mg/Kg	☼	12/05/17 15:17	12/05/17 21:35	1
Zinc	48.9	F1	2.2	0.72	mg/Kg	☼	12/05/17 15:17	12/05/17 21:35	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128303-1

Client Sample ID: TP-19 (3-6)
Date Collected: 12/01/17 00:00
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-1
Matrix: Solid
Percent Solids: 93.5

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.018	J	0.022	0.0088	mg/Kg	☼	12/07/17 15:00	12/07/17 16:42	1

Client Sample ID: TP-20 (5-10)

Date Collected: 12/01/17 10:30
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-2

Matrix: Solid
Percent Solids: 91.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		1900	500	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
2,4,6-Trichlorophenol	ND		1900	370	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
2,4-Dichlorophenol	ND		1900	200	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
2,4-Dimethylphenol	ND		1900	450	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
2,4-Dinitrophenol	ND		18000	8600	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
2,4-Dinitrotoluene	ND		1900	380	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
2,6-Dinitrotoluene	ND		1900	220	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
2-Chloronaphthalene	ND		1900	310	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
2-Chlorophenol	ND		1900	340	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
2-Methylnaphthalene	ND		1900	370	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
2-Methylphenol	ND		1900	220	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
2-Nitroaniline	ND		3600	270	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
2-Nitrophenol	ND		1900	520	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
3,3'-Dichlorobenzidine	ND		3600	2200	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
3-Nitroaniline	ND		3600	510	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
4,6-Dinitro-2-methylphenol	ND		3600	1900	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
4-Bromophenyl phenyl ether	ND		1900	260	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
4-Chloro-3-methylphenol	ND		1900	460	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
4-Chloroaniline	ND		1900	460	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
4-Chlorophenyl phenyl ether	ND		1900	230	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
4-Methylphenol	ND		3600	220	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
4-Nitroaniline	ND		3600	970	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
4-Nitrophenol	ND		3600	1300	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Acenaphthene	**740**	**J**	1900	270	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Acenaphthylene	ND		1900	240	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Acetophenone	ND		1900	250	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Anthracene	**1500**	**J**	1900	460	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Atrazine	ND		1900	650	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Benzaldehyde	ND		1900	1500	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Benzo[a]anthracene	**2400**		1900	190	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Benzo[a]pyrene	**2200**		1900	270	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Benzo[b]fluoranthene	**2600**		1900	300	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Benzo[g,h,i]perylene	**1200**	**J**	1900	200	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Benzo[k]fluoranthene	**1300**	**J**	1900	240	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Biphenyl	ND		1900	270	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
bis (2-chloroisopropyl) ether	ND		1900	370	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Bis(2-chloroethoxy)methane	ND		1900	390	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Bis(2-chloroethyl)ether	ND		1900	240	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Bis(2-ethylhexyl) phthalate	ND		1900	630	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Butyl benzyl phthalate	ND		1900	310	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Caprolactam	ND		1900	560	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Carbazole	**720**	**J**	1900	220	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Chrysene	**2300**		1900	420	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Dibenz(a,h)anthracene	ND		1900	330	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Dibenzofuran	**660**	**J**	1900	220	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Diethyl phthalate	ND		1900	240	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Dimethyl phthalate	ND		1900	220	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Di-n-butyl phthalate	ND		1900	320	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Di-n-octyl phthalate	ND		1900	220	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10

Client Sample ID: TP-20 (5-10)
Date Collected: 12/01/17 10:30
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-2
Matrix: Solid
Percent Solids: 91.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	6100		1900	200	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Fluorene	870	J	1900	220	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Hexachlorobenzene	ND		1900	250	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Hexachlorobutadiene	ND		1900	270	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Hexachlorocyclopentadiene	ND		1900	250	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Hexachloroethane	ND		1900	240	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Indeno[1,2,3-cd]pyrene	1300	J	1900	230	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Isophorone	ND		1900	390	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Naphthalene	450	J	1900	240	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Nitrobenzene	ND		1900	210	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
N-Nitrosodi-n-propylamine	ND		1900	320	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
N-Nitrosodiphenylamine	ND		1900	1500	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Pentachlorophenol	ND		3600	1900	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Phenanthrene	6200		1900	270	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Phenol	ND		1900	280	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10
Pyrene	4700		1900	220	ug/Kg	☼	12/04/17 14:26	12/05/17 15:38	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*94*		*54 - 120*	*12/04/17 14:26*	*12/05/17 15:38*	*10*
2-Fluorobiphenyl	*86*		*60 - 120*	*12/04/17 14:26*	*12/05/17 15:38*	*10*
2-Fluorophenol	*72*		*52 - 120*	*12/04/17 14:26*	*12/05/17 15:38*	*10*
Nitrobenzene-d5	*75*		*53 - 120*	*12/04/17 14:26*	*12/05/17 15:38*	*10*
Phenol-d5	*89*		*54 - 120*	*12/04/17 14:26*	*12/05/17 15:38*	*10*
p-Terphenyl-d14	*100*		*65 - 121*	*12/04/17 14:26*	*12/05/17 15:38*	*10*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	6800		10.8	4.8	mg/Kg	☼	12/05/17 15:17	12/05/17 21:53	1
Antimony	ND		16.2	0.43	mg/Kg	☼	12/05/17 15:17	12/05/17 21:53	1
Arsenic	5.5		2.2	0.43	mg/Kg	☼	12/05/17 15:17	12/05/17 21:53	1
Barium	329		0.54	0.12	mg/Kg	☼	12/05/17 15:17	12/05/17 21:53	1
Beryllium	0.32		0.22	0.030	mg/Kg	☼	12/05/17 15:17	12/05/17 21:53	1
Cadmium	0.52		0.22	0.032	mg/Kg	☼	12/05/17 15:17	12/05/17 21:53	1
Calcium	16400	B	54.1	3.6	mg/Kg	☼	12/05/17 15:17	12/05/17 21:53	1
Chromium	10.9		0.54	0.22	mg/Kg	☼	12/05/17 15:17	12/05/17 21:53	1
Cobalt	3.4		0.54	0.054	mg/Kg	☼	12/05/17 15:17	12/05/17 21:53	1
Copper	20.7		1.1	0.23	mg/Kg	☼	12/05/17 15:17	12/05/17 21:53	1
Iron	13300		10.8	3.8	mg/Kg	☼	12/05/17 15:17	12/05/17 21:53	1
Lead	19.7		1.1	0.26	mg/Kg	☼	12/05/17 15:17	12/05/17 21:53	1
Magnesium	1880		21.6	1.0	mg/Kg	☼	12/05/17 15:17	12/05/17 21:53	1
Manganese	545	B	0.22	0.035	mg/Kg	☼	12/05/17 15:17	12/05/17 21:53	1
Nickel	8.4		5.4	0.25	mg/Kg	☼	12/05/17 15:17	12/05/17 21:53	1
Potassium	1070		32.5	21.6	mg/Kg	☼	12/05/17 15:17	12/05/17 21:53	1
Selenium	ND		4.3	0.43	mg/Kg	☼	12/05/17 15:17	12/05/17 21:53	1
Silver	ND		0.65	0.22	mg/Kg	☼	12/05/17 15:17	12/05/17 21:53	1
Sodium	139	J	151	14.1	mg/Kg	☼	12/05/17 15:17	12/05/17 21:53	1
Thallium	ND		6.5	0.32	mg/Kg	☼	12/05/17 15:17	12/05/17 21:53	1
Vanadium	16.5		0.54	0.12	mg/Kg	☼	12/05/17 15:17	12/05/17 21:53	1
Zinc	201		2.2	0.69	mg/Kg	☼	12/05/17 15:17	12/05/17 21:53	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128303-1

Client Sample ID: TP-20 (5-10)
Date Collected: 12/01/17 10:30
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-2
Matrix: Solid
Percent Solids: 91.3

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.072		0.021	0.0084	mg/Kg	☼	12/07/17 15:00	12/07/17 16:48	1

Client Sample ID: TP-25 (0-2)
Date Collected: 12/01/17 09:40
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-3
Matrix: Solid
Percent Solids: 71.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		4600	1300	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
2,4,6-Trichlorophenol	ND		4600	930	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
2,4-Dichlorophenol	ND		4600	490	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
2,4-Dimethylphenol	ND		4600	1100	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
2,4-Dinitrophenol	ND		45000	21000	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
2,4-Dinitrotoluene	ND		4600	960	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
2,6-Dinitrotoluene	ND		4600	550	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
2-Chloronaphthalene	ND		4600	760	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
2-Chlorophenol	ND		4600	850	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
2-Methylnaphthalene	**6000**		4600	930	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
2-Methylphenol	ND		4600	550	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
2-Nitroaniline	ND		9000	680	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
2-Nitrophenol	ND		4600	1300	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
3,3'-Dichlorobenzidine	ND		9000	5500	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
3-Nitroaniline	ND		9000	1300	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
4,6-Dinitro-2-methylphenol	ND		9000	4600	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
4-Bromophenyl phenyl ether	ND		4600	660	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
4-Chloro-3-methylphenol	ND		4600	1100	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
4-Chloroaniline	ND		4600	1100	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
4-Chlorophenyl phenyl ether	ND		4600	570	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
4-Methylphenol	ND		9000	550	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
4-Nitroaniline	ND		9000	2400	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
4-Nitrophenol	ND		9000	3200	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Acenaphthene	**29000**		4600	680	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Acenaphthylene	**660**	**J**	4600	600	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Acetophenone	ND		4600	630	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Anthracene	**57000**		4600	1100	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Atrazine	ND		4600	1600	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Benzaldehyde	ND		4600	3700	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Benzo[a]anthracene	**65000**		4600	460	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Benzo[a]pyrene	**50000**		4600	680	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Benzo[b]fluoranthene	**60000**		4600	740	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Benzo[g,h,i]perylene	**26000**		4600	490	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Benzo[k]fluoranthene	**32000**		4600	600	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Biphenyl	**790**	**J**	4600	680	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
bis (2-chloroisopropyl) ether	ND		4600	930	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Bis(2-chloroethoxy)methane	ND		4600	980	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Bis(2-chloroethyl)ether	ND		4600	600	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Bis(2-ethylhexyl) phthalate	ND		4600	1600	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Butyl benzyl phthalate	ND		4600	760	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Caprolactam	ND		4600	1400	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Carbazole	**25000**		4600	550	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Chrysene	**56000**		4600	1000	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Dibenz(a,h)anthracene	**9700**		4600	820	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Dibenzofuran	**26000**		4600	550	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Diethyl phthalate	ND		4600	600	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Dimethyl phthalate	ND		4600	550	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Di-n-butyl phthalate	ND		4600	790	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Di-n-octyl phthalate	ND		4600	550	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20

Client Sample ID: TP-25 (0-2)
Date Collected: 12/01/17 09:40
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-3
Matrix: Solid
Percent Solids: 71.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	**170000**	**E**	4600	490	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Fluorene	**34000**		4600	550	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Hexachlorobenzene	ND		4600	630	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Hexachlorobutadiene	ND		4600	680	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Hexachlorocyclopentadiene	ND		4600	630	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Hexachloroethane	ND		4600	600	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Indeno[1,2,3-cd]pyrene	**27000**		4600	570	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Isophorone	ND		4600	980	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Naphthalene	**9200**		4600	600	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Nitrobenzene	ND		4600	520	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
N-Nitrosodi-n-propylamine	ND		4600	790	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
N-Nitrosodiphenylamine	ND		4600	3800	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Pentachlorophenol	ND		9000	4600	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Phenanthrene	**200000**	**E**	4600	680	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Phenol	ND		4600	710	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20
Pyrene	**130000**		4600	550	ug/Kg	☼	12/04/17 14:26	12/05/17 16:05	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*0*	*X*	*54 - 120*	*12/04/17 14:26*	*12/05/17 16:05*	*20*
2-Fluorobiphenyl	*58*	*X*	*60 - 120*	*12/04/17 14:26*	*12/05/17 16:05*	*20*
2-Fluorophenol	*72*		*52 - 120*	*12/04/17 14:26*	*12/05/17 16:05*	*20*
Nitrobenzene-d5	*62*		*53 - 120*	*12/04/17 14:26*	*12/05/17 16:05*	*20*
Phenol-d5	*78*		*54 - 120*	*12/04/17 14:26*	*12/05/17 16:05*	*20*
p-Terphenyl-d14	*99*		*65 - 121*	*12/04/17 14:26*	*12/05/17 16:05*	*20*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		23000	6300	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
2,4,6-Trichlorophenol	ND		23000	4600	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
2,4-Dichlorophenol	ND		23000	2500	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
2,4-Dimethylphenol	ND		23000	5600	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
2,4-Dinitrophenol	ND		230000	110000	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
2,4-Dinitrotoluene	ND		23000	4800	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
2,6-Dinitrotoluene	ND		23000	2700	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
2-Chloronaphthalene	ND		23000	3800	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
2-Chlorophenol	ND		23000	4200	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
2-Methylnaphthalene	**5100**	**J**	23000	4600	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
2-Methylphenol	ND		23000	2700	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
2-Nitroaniline	ND		45000	3400	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
2-Nitrophenol	ND		23000	6600	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
3,3'-Dichlorobenzidine	ND		45000	27000	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
3-Nitroaniline	ND		45000	6400	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
4,6-Dinitro-2-methylphenol	ND		45000	23000	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
4-Bromophenyl phenyl ether	ND		23000	3300	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
4-Chloro-3-methylphenol	ND		23000	5700	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
4-Chloroaniline	ND		23000	5700	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
4-Chlorophenyl phenyl ether	ND		23000	2900	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
4-Methylphenol	ND		45000	2700	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
4-Nitroaniline	ND		45000	12000	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
4-Nitrophenol	ND		45000	16000	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100

Client Sample ID: TP-25 (0-2)

Date Collected: 12/01/17 09:40
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-3

Matrix: Solid
Percent Solids: 71.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**26000**		23000	3400	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Acenaphthylene	ND		23000	3000	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Acetophenone	ND		23000	3100	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Anthracene	**51000**		23000	5700	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Atrazine	ND		23000	8100	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Benzaldehyde	ND		23000	18000	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Benzo[a]anthracene	**57000**		23000	2300	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Benzo[a]pyrene	**45000**		23000	3400	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Benzo[b]fluoranthene	**57000**		23000	3700	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Benzo[g,h,i]perylene	**22000**	J	23000	2500	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Benzo[k]fluoranthene	**25000**		23000	3000	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Biphenyl	ND		23000	3400	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
bis (2-chloroisopropyl) ether	ND		23000	4600	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Bis(2-chloroethoxy)methane	ND		23000	4900	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Bis(2-chloroethyl)ether	ND		23000	3000	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Bis(2-ethylhexyl) phthalate	ND		23000	7900	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Butyl benzyl phthalate	ND		23000	3800	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Caprolactam	ND		23000	7000	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Carbazole	**20000**	J	23000	2700	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Chrysene	**49000**		23000	5200	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Dibenz(a,h)anthracene	ND		23000	4100	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Dibenzofuran	**23000**		23000	2700	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Diethyl phthalate	ND		23000	3000	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Dimethyl phthalate	ND		23000	2700	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Di-n-butyl phthalate	ND		23000	4000	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Di-n-octyl phthalate	ND		23000	2700	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Fluoranthene	**160000**		23000	2500	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Fluorene	**30000**		23000	2700	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Hexachlorobenzene	ND		23000	3100	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Hexachlorobutadiene	ND		23000	3400	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Hexachlorocyclopentadiene	ND		23000	3100	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Hexachloroethane	ND		23000	3000	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Indeno[1,2,3-cd]pyrene	**25000**		23000	2900	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Isophorone	ND		23000	4900	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Naphthalene	**8500**	J	23000	3000	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Nitrobenzene	ND		23000	2600	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
N-Nitrosodi-n-propylamine	ND		23000	4000	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
N-Nitrosodiphenylamine	ND		23000	19000	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Pentachlorophenol	ND		45000	23000	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Phenanthrene	**190000**		23000	3400	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Phenol	ND		23000	3500	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100
Pyrene	**110000**		23000	2700	ug/Kg	☼	12/04/17 14:26	12/07/17 18:09	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*0*	*X*	*54 - 120*	*12/04/17 14:26*	*12/07/17 18:09*	*100*
2-Fluorobiphenyl	*0*	*X*	*60 - 120*	*12/04/17 14:26*	*12/07/17 18:09*	*100*
2-Fluorophenol	*0*	*X*	*52 - 120*	*12/04/17 14:26*	*12/07/17 18:09*	*100*
Nitrobenzene-d5	*0*	*X*	*53 - 120*	*12/04/17 14:26*	*12/07/17 18:09*	*100*
Phenol-d5	*0*	*X*	*54 - 120*	*12/04/17 14:26*	*12/07/17 18:09*	*100*
p-Terphenyl-d14	*0*	*X*	*65 - 121*	*12/04/17 14:26*	*12/07/17 18:09*	*100*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	36	J	120	22	ug/Kg	☼	12/05/17 07:17	12/06/17 17:37	50
4,4'-DDE	ND		120	24	ug/Kg	☼	12/05/17 07:17	12/06/17 17:37	50
4,4'-DDT	ND	*	120	27	ug/Kg	☼	12/05/17 07:17	12/06/17 17:37	50
Aldrin	ND		120	28	ug/Kg	☼	12/05/17 07:17	12/06/17 17:37	50
alpha-BHC	ND		120	21	ug/Kg	☼	12/05/17 07:17	12/06/17 17:37	50
alpha-Chlordane	ND		120	57	ug/Kg	☼	12/05/17 07:17	12/06/17 17:37	50
beta-BHC	ND		120	21	ug/Kg	☼	12/05/17 07:17	12/06/17 17:37	50
delta-BHC	ND		120	21	ug/Kg	☼	12/05/17 07:17	12/06/17 17:37	50
Dieldrin	ND		120	28	ug/Kg	☼	12/05/17 07:17	12/06/17 17:37	50
Endosulfan I	ND		120	22	ug/Kg	☼	12/05/17 07:17	12/06/17 17:37	50
Endosulfan II	ND		120	21	ug/Kg	☼	12/05/17 07:17	12/06/17 17:37	50
Endosulfan sulfate	ND		120	22	ug/Kg	☼	12/05/17 07:17	12/06/17 17:37	50
Endrin	ND		120	23	ug/Kg	☼	12/05/17 07:17	12/06/17 17:37	50
Endrin aldehyde	ND		120	29	ug/Kg	☼	12/05/17 07:17	12/06/17 17:37	50
Endrin ketone	ND		120	28	ug/Kg	☼	12/05/17 07:17	12/06/17 17:37	50
gamma-BHC (Lindane)	ND		120	21	ug/Kg	☼	12/05/17 07:17	12/06/17 17:37	50
gamma-Chlordane	ND		120	37	ug/Kg	☼	12/05/17 07:17	12/06/17 17:37	50
Heptachlor	ND		120	25	ug/Kg	☼	12/05/17 07:17	12/06/17 17:37	50
Heptachlor epoxide	ND		120	30	ug/Kg	☼	12/05/17 07:17	12/06/17 17:37	50
Methoxychlor	ND	*	120	24	ug/Kg	☼	12/05/17 07:17	12/06/17 17:37	50
Toxaphene	ND		1200	670	ug/Kg	☼	12/05/17 07:17	12/06/17 17:37	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*X*	*45 - 120*	*12/05/17 07:17*	*12/06/17 17:37*	*50*
DCB Decachlorobiphenyl	*0*	*X*	*45 - 120*	*12/05/17 07:17*	*12/06/17 17:37*	*50*
Tetrachloro-m-xylene	*0*	*X*	*30 - 124*	*12/05/17 07:17*	*12/06/17 17:37*	*50*
Tetrachloro-m-xylene	*0*	*X*	*30 - 124*	*12/05/17 07:17*	*12/06/17 17:37*	*50*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.28	0.056	mg/Kg	☼	12/06/17 07:41	12/06/17 18:53	1
PCB-1221	ND		0.28	0.056	mg/Kg	☼	12/06/17 07:41	12/06/17 18:53	1
PCB-1232	ND		0.28	0.056	mg/Kg	☼	12/06/17 07:41	12/06/17 18:53	1
PCB-1242	ND		0.28	0.056	mg/Kg	☼	12/06/17 07:41	12/06/17 18:53	1
PCB-1248	ND		0.28	0.056	mg/Kg	☼	12/06/17 07:41	12/06/17 18:53	1
PCB-1254	ND		0.28	0.13	mg/Kg	☼	12/06/17 07:41	12/06/17 18:53	1
PCB-1260	ND		0.28	0.13	mg/Kg	☼	12/06/17 07:41	12/06/17 18:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*70*		*60 - 154*	*12/06/17 07:41*	*12/06/17 18:53*	*1*
Tetrachloro-m-xylene	*73*		*60 - 154*	*12/06/17 07:41*	*12/06/17 18:53*	*1*
DCB Decachlorobiphenyl	*53*	*X*	*65 - 174*	*12/06/17 07:41*	*12/06/17 18:53*	*1*
DCB Decachlorobiphenyl	*64*	*X*	*65 - 174*	*12/06/17 07:41*	*12/06/17 18:53*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND	*	23	7.3	ug/Kg	☼	12/05/17 07:54	12/08/17 15:41	1
Silvex (2,4,5-TP)	ND		23	8.2	ug/Kg	☼	12/05/17 07:54	12/08/17 15:41	1
2,4-D	ND	*	23	14	ug/Kg	☼	12/05/17 07:54	12/08/17 15:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*109*		*28 - 129*	*12/05/17 07:54*	*12/08/17 15:41*	*1*
2,4-Dichlorophenylacetic acid	*98*		*28 - 129*	*12/05/17 07:54*	*12/08/17 15:41*	*1*

Client Sample ID: TP-25 (0-2)

Date Collected: 12/01/17 09:40
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-3

Matrix: Solid
Percent Solids: 71.8

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	7060		15.0	6.6	mg/Kg	☼	12/05/17 15:17	12/05/17 21:57	1
Antimony	1.1	J	22.4	0.60	mg/Kg	☼	12/05/17 15:17	12/05/17 21:57	1
Arsenic	1.9	J	3.0	0.60	mg/Kg	☼	12/05/17 15:17	12/05/17 21:57	1
Barium	71.7		0.75	0.16	mg/Kg	☼	12/05/17 15:17	12/05/17 21:57	1
Beryllium	0.33		0.30	0.042	mg/Kg	☼	12/05/17 15:17	12/05/17 21:57	1
Cadmium	0.33		0.30	0.045	mg/Kg	☼	12/05/17 15:17	12/05/17 21:57	1
Calcium	120000	B	74.8	4.9	mg/Kg	☼	12/05/17 15:17	12/05/17 21:57	1
Chromium	11.7		0.75	0.30	mg/Kg	☼	12/05/17 15:17	12/05/17 21:57	1
Cobalt	2.9		0.75	0.075	mg/Kg	☼	12/05/17 15:17	12/05/17 21:57	1
Copper	14.7		1.5	0.31	mg/Kg	☼	12/05/17 15:17	12/05/17 21:57	1
Iron	8710		15.0	5.2	mg/Kg	☼	12/05/17 15:17	12/05/17 21:57	1
Lead	49.5		1.5	0.36	mg/Kg	☼	12/05/17 15:17	12/05/17 21:57	1
Magnesium	31400		29.9	1.4	mg/Kg	☼	12/05/17 15:17	12/05/17 21:57	1
Manganese	276	B	0.30	0.048	mg/Kg	☼	12/05/17 15:17	12/05/17 21:57	1
Nickel	8.0		7.5	0.34	mg/Kg	☼	12/05/17 15:17	12/05/17 21:57	1
Potassium	1700		44.9	29.9	mg/Kg	☼	12/05/17 15:17	12/05/17 21:57	1
Selenium	ND		6.0	0.60	mg/Kg	☼	12/05/17 15:17	12/05/17 21:57	1
Silver	ND		0.90	0.30	mg/Kg	☼	12/05/17 15:17	12/05/17 21:57	1
Sodium	280		209	19.4	mg/Kg	☼	12/05/17 15:17	12/05/17 21:57	1
Thallium	ND		9.0	0.45	mg/Kg	☼	12/05/17 15:17	12/05/17 21:57	1
Vanadium	13.9		0.75	0.16	mg/Kg	☼	12/05/17 15:17	12/05/17 21:57	1
Zinc	133		3.0	0.96	mg/Kg	☼	12/05/17 15:17	12/05/17 21:57	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.11		0.027	0.011	mg/Kg	☼	12/07/17 15:00	12/07/17 16:49	1

Client Sample ID: TP-24 (10-15)
Date Collected: 12/01/17 11:30
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-4
Matrix: Solid
Percent Solids: 90.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		190	51	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
2,4,6-Trichlorophenol	ND		190	37	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
2,4-Dichlorophenol	ND		190	20	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
2,4-Dimethylphenol	ND		190	45	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
2,4-Dinitrophenol	ND		1800	860	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
2,4-Dinitrotoluene	ND		190	38	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
2,6-Dinitrotoluene	ND		190	22	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
2-Chloronaphthalene	ND		190	31	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
2-Chlorophenol	ND		190	34	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
2-Methylnaphthalene	**150**	**J**	190	37	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
2-Methylphenol	ND		190	22	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
2-Nitroaniline	ND		360	27	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
2-Nitrophenol	ND		190	53	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
3,3'-Dichlorobenzidine	ND		360	220	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
3-Nitroaniline	ND		360	52	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
4,6-Dinitro-2-methylphenol	ND		360	190	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
4-Bromophenyl phenyl ether	ND		190	26	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
4-Chloro-3-methylphenol	ND		190	46	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
4-Chloroaniline	ND		190	46	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
4-Chlorophenyl phenyl ether	ND		190	23	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
4-Methylphenol	ND		360	22	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
4-Nitroaniline	ND		360	98	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
4-Nitrophenol	ND		360	130	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Acenaphthene	ND		190	27	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Acenaphthylene	ND		190	24	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Acetophenone	ND		190	25	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Anthracene	**51**	**J**	190	46	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Atrazine	ND		190	65	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Benzaldehyde	ND		190	150	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Benzo[a]anthracene	**180**	**J**	190	19	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Benzo[a]pyrene	**250**		190	27	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Benzo[b]fluoranthene	**430**		190	30	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Benzo[g,h,i]perylene	**310**		190	20	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Benzo[k]fluoranthene	**140**	**J**	190	24	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Biphenyl	ND		190	27	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
bis (2-chloroisopropyl) ether	ND		190	37	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Bis(2-chloroethoxy)methane	ND		190	40	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Bis(2-chloroethyl)ether	ND		190	24	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Bis(2-ethylhexyl) phthalate	ND		190	64	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Butyl benzyl phthalate	ND		190	31	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Caprolactam	ND		190	56	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Carbazole	**36**	**J**	190	22	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Chrysene	**260**		190	42	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Dibenz(a,h)anthracene	ND		190	33	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Dibenzofuran	**64**	**J**	190	22	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Diethyl phthalate	ND		190	24	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Dimethyl phthalate	ND		190	22	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Di-n-butyl phthalate	ND		190	32	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Di-n-octyl phthalate	ND		190	22	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1

Client Sample ID: TP-24 (10-15)
Date Collected: 12/01/17 11:30
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-4
Matrix: Solid
Percent Solids: 90.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	**320**		190	20	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Fluorene	ND		190	22	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Hexachlorobenzene	ND		190	25	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Hexachlorobutadiene	ND		190	27	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Hexachlorocyclopentadiene	ND		190	25	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Hexachloroethane	ND		190	24	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Indeno[1,2,3-cd]pyrene	**250**		190	23	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Isophorone	ND		190	40	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Naphthalene	**120**	**J**	190	24	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Nitrobenzene	ND		190	21	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
N-Nitrosodi-n-propylamine	ND		190	32	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
N-Nitrosodiphenylamine	ND		190	150	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Pentachlorophenol	ND		360	190	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Phenanthrene	**340**		190	27	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Phenol	ND		190	29	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1
Pyrene	**320**		190	22	ug/Kg	☼	12/04/17 14:26	12/05/17 16:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*75*		*54 - 120*	*12/04/17 14:26*	*12/05/17 16:31*	*1*
2-Fluorobiphenyl	*85*		*60 - 120*	*12/04/17 14:26*	*12/05/17 16:31*	*1*
2-Fluorophenol	*60*		*52 - 120*	*12/04/17 14:26*	*12/05/17 16:31*	*1*
Nitrobenzene-d5	*66*		*53 - 120*	*12/04/17 14:26*	*12/05/17 16:31*	*1*
Phenol-d5	*63*		*54 - 120*	*12/04/17 14:26*	*12/05/17 16:31*	*1*
p-Terphenyl-d14	*96*		*65 - 121*	*12/04/17 14:26*	*12/05/17 16:31*	*1*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.9	0.36	ug/Kg	☼	12/05/17 07:17	12/06/17 17:57	1
4,4'-DDE	ND		1.9	0.39	ug/Kg	☼	12/05/17 07:17	12/06/17 17:57	1
4,4'-DDT	**1.2**	**J ***	1.9	0.43	ug/Kg	☼	12/05/17 07:17	12/06/17 17:57	1
Aldrin	ND		1.9	0.45	ug/Kg	☼	12/05/17 07:17	12/06/17 17:57	1
alpha-BHC	ND		1.9	0.33	ug/Kg	☼	12/05/17 07:17	12/06/17 17:57	1
alpha-Chlordane	ND		1.9	0.92	ug/Kg	☼	12/05/17 07:17	12/06/17 17:57	1
beta-BHC	ND		1.9	0.33	ug/Kg	☼	12/05/17 07:17	12/06/17 17:57	1
delta-BHC	ND		1.9	0.34	ug/Kg	☼	12/05/17 07:17	12/06/17 17:57	1
Dieldrin	ND		1.9	0.44	ug/Kg	☼	12/05/17 07:17	12/06/17 17:57	1
Endosulfan I	ND		1.9	0.35	ug/Kg	☼	12/05/17 07:17	12/06/17 17:57	1
Endosulfan II	ND		1.9	0.33	ug/Kg	☼	12/05/17 07:17	12/06/17 17:57	1
Endosulfan sulfate	ND		1.9	0.34	ug/Kg	☼	12/05/17 07:17	12/06/17 17:57	1
Endrin	ND		1.9	0.37	ug/Kg	☼	12/05/17 07:17	12/06/17 17:57	1
Endrin aldehyde	ND		1.9	0.47	ug/Kg	☼	12/05/17 07:17	12/06/17 17:57	1
Endrin ketone	ND		1.9	0.45	ug/Kg	☼	12/05/17 07:17	12/06/17 17:57	1
gamma-BHC (Lindane)	ND		1.9	0.34	ug/Kg	☼	12/05/17 07:17	12/06/17 17:57	1
gamma-Chlordane	ND		1.9	0.59	ug/Kg	☼	12/05/17 07:17	12/06/17 17:57	1
Heptachlor	ND		1.9	0.40	ug/Kg	☼	12/05/17 07:17	12/06/17 17:57	1
Heptachlor epoxide	ND		1.9	0.48	ug/Kg	☼	12/05/17 07:17	12/06/17 17:57	1
Methoxychlor	ND	*	1.9	0.38	ug/Kg	☼	12/05/17 07:17	12/06/17 17:57	1
Toxaphene	ND		19	11	ug/Kg	☼	12/05/17 07:17	12/06/17 17:57	1

Client Sample ID: TP-24 (10-15)

Date Collected: 12/01/17 11:30
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-4

Matrix: Solid
Percent Solids: 90.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*102*		*45 - 120*	*12/05/17 07:17*	*12/06/17 17:57*	*1*
DCB Decachlorobiphenyl	*177*	*X*	*45 - 120*	*12/05/17 07:17*	*12/06/17 17:57*	*1*
Tetrachloro-m-xylene	*92*		*30 - 124*	*12/05/17 07:17*	*12/06/17 17:57*	*1*
Tetrachloro-m-xylene	*77*		*30 - 124*	*12/05/17 07:17*	*12/06/17 17:57*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.26	0.051	mg/Kg	☼	12/06/17 07:41	12/06/17 15:41	1
PCB-1221	ND		0.26	0.051	mg/Kg	☼	12/06/17 07:41	12/06/17 15:41	1
PCB-1232	ND		0.26	0.051	mg/Kg	☼	12/06/17 07:41	12/06/17 15:41	1
PCB-1242	ND		0.26	0.051	mg/Kg	☼	12/06/17 07:41	12/06/17 15:41	1
PCB-1248	ND		0.26	0.051	mg/Kg	☼	12/06/17 07:41	12/06/17 15:41	1
PCB-1254	ND		0.26	0.12	mg/Kg	☼	12/06/17 07:41	12/06/17 15:41	1
PCB-1260	ND		0.26	0.12	mg/Kg	☼	12/06/17 07:41	12/06/17 15:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*111*		*60 - 154*	*12/06/17 07:41*	*12/06/17 15:41*	*1*
Tetrachloro-m-xylene	*100*		*60 - 154*	*12/06/17 07:41*	*12/06/17 15:41*	*1*
DCB Decachlorobiphenyl	*89*		*65 - 174*	*12/06/17 07:41*	*12/06/17 15:41*	*1*
DCB Decachlorobiphenyl	*92*		*65 - 174*	*12/06/17 07:41*	*12/06/17 15:41*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND	*	18	5.7	ug/Kg	☼	12/05/17 07:54	12/08/17 16:11	1
Silvex (2,4,5-TP)	ND		18	6.5	ug/Kg	☼	12/05/17 07:54	12/08/17 16:11	1
2,4-D	ND	*	18	11	ug/Kg	☼	12/05/17 07:54	12/08/17 16:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*165*	*X*	*28 - 129*	*12/05/17 07:54*	*12/08/17 16:11*	*1*
2,4-Dichlorophenylacetic acid	*105*		*28 - 129*	*12/05/17 07:54*	*12/08/17 16:11*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**11600**		10.3	4.5	mg/Kg	☼	12/05/17 15:17	12/05/17 22:11	1
Antimony	**0.66**	**J**	15.4	0.41	mg/Kg	☼	12/05/17 15:17	12/05/17 22:11	1
Arsenic	**6.5**		2.1	0.41	mg/Kg	☼	12/05/17 15:17	12/05/17 22:11	1
Barium	**51.5**		0.51	0.11	mg/Kg	☼	12/05/17 15:17	12/05/17 22:11	1
Beryllium	**0.44**		0.21	0.029	mg/Kg	☼	12/05/17 15:17	12/05/17 22:11	1
Cadmium	**0.051**	**J**	0.21	0.031	mg/Kg	☼	12/05/17 15:17	12/05/17 22:11	1
Calcium	**14200**	**B**	51.4	3.4	mg/Kg	☼	12/05/17 15:17	12/05/17 22:11	1
Chromium	**15.7**		0.51	0.21	mg/Kg	☼	12/05/17 15:17	12/05/17 22:11	1
Cobalt	**4.4**		0.51	0.051	mg/Kg	☼	12/05/17 15:17	12/05/17 22:11	1
Copper	**19.0**		1.0	0.22	mg/Kg	☼	12/05/17 15:17	12/05/17 22:11	1
Iron	**23000**		10.3	3.6	mg/Kg	☼	12/05/17 15:17	12/05/17 22:11	1
Lead	**19.1**		1.0	0.25	mg/Kg	☼	12/05/17 15:17	12/05/17 22:11	1
Magnesium	**1970**		20.6	0.95	mg/Kg	☼	12/05/17 15:17	12/05/17 22:11	1
Manganese	**735**	**B**	0.21	0.033	mg/Kg	☼	12/05/17 15:17	12/05/17 22:11	1
Nickel	**16.8**		5.1	0.24	mg/Kg	☼	12/05/17 15:17	12/05/17 22:11	1
Potassium	**1530**		30.8	20.6	mg/Kg	☼	12/05/17 15:17	12/05/17 22:11	1
Selenium	**0.68**	**J**	4.1	0.41	mg/Kg	☼	12/05/17 15:17	12/05/17 22:11	1
Silver	ND		0.62	0.21	mg/Kg	☼	12/05/17 15:17	12/05/17 22:11	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128303-1

Client Sample ID: TP-24 (10-15)
Date Collected: 12/01/17 11:30
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-4
Matrix: Solid
Percent Solids: 90.0

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	157		144	13.4	mg/Kg	☼	12/05/17 15:17	12/05/17 22:11	1
Thallium	ND		6.2	0.31	mg/Kg	☼	12/05/17 15:17	12/05/17 22:11	1
Vanadium	21.3		0.51	0.11	mg/Kg	☼	12/05/17 15:17	12/05/17 22:11	1
Zinc	35.8		2.1	0.66	mg/Kg	☼	12/05/17 15:17	12/05/17 22:11	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.032		0.022	0.0089	mg/Kg	☼	12/07/17 15:00	12/07/17 16:51	1

Client Sample ID: TP-28 (2-4)
Date Collected: 12/01/17 12:08
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-5
Matrix: Solid
Percent Solids: 92.3

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.6	0.41	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
1,1,2,2-Tetrachloroethane	ND		5.6	0.92	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.6	1.3	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
1,1,2-Trichloroethane	ND		5.6	0.73	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
1,1-Dichloroethane	ND		5.6	0.69	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
1,1-Dichloroethene	ND		5.6	0.69	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
1,2,4-Trichlorobenzene	ND		5.6	0.34	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
1,2,4-Trimethylbenzene	ND		5.6	1.1	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
1,2-Dibromo-3-Chloropropane	ND		5.6	2.8	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
1,2-Dibromoethane	ND		5.6	0.72	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
1,2-Dichlorobenzene	ND		5.6	0.44	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
1,2-Dichloroethane	ND		5.6	0.28	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
1,2-Dichloropropane	ND		5.6	2.8	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
1,3,5-Trimethylbenzene	ND		5.6	0.36	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
1,3-Dichlorobenzene	ND		5.6	0.29	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
1,4-Dichlorobenzene	ND		5.6	0.79	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
2-Butanone (MEK)	ND		28	2.1	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
2-Hexanone	ND		28	2.8	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
4-Isopropyltoluene	ND		5.6	0.45	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
4-Methyl-2-pentanone (MIBK)	ND		28	1.9	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
Acetone	ND		28	4.8	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
Benzene	ND		5.6	0.28	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
Bromodichloromethane	ND		5.6	0.76	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
Bromoform	ND		5.6	2.8	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
Bromomethane	ND		5.6	0.51	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
Carbon disulfide	**3.3**	**J**	5.6	2.8	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
Carbon tetrachloride	ND		5.6	0.55	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
Chlorobenzene	ND		5.6	0.75	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
Chloroethane	ND		5.6	1.3	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
Chloroform	ND		5.6	0.35	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
Chloromethane	ND		5.6	0.34	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
cis-1,2-Dichloroethene	ND		5.6	0.72	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
cis-1,3-Dichloropropene	ND		5.6	0.81	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
Cyclohexane	ND		5.6	0.79	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
Dibromochloromethane	ND		5.6	0.72	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
Dichlorodifluoromethane	**0.60**	**J**	5.6	0.47	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
Ethylbenzene	ND		5.6	0.39	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
Isopropylbenzene	ND		5.6	0.85	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
m,p-Xylene	ND		11	0.95	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
Methyl acetate	ND		28	3.4	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
Methyl tert-butyl ether	ND		5.6	0.55	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
Methylcyclohexane	ND		5.6	0.86	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
Methylene Chloride	ND		5.6	2.6	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
n-Butylbenzene	ND		5.6	0.49	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
N-Propylbenzene	ND		5.6	0.45	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
o-Xylene	ND		5.6	0.74	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
sec-Butylbenzene	ND		5.6	0.49	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
Styrene	ND		5.6	0.28	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
tert-Butylbenzene	ND		5.6	0.59	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1

Client Sample ID: TP-28 (2-4)

Date Collected: 12/01/17 12:08
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-5

Matrix: Solid
Percent Solids: 92.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		5.6	0.76	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
Toluene	ND		5.6	0.43	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
trans-1,2-Dichloroethene	ND		5.6	0.58	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
trans-1,3-Dichloropropene	ND		5.6	2.5	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
Trichloroethene	ND		5.6	1.2	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
Trichlorofluoromethane	ND		5.6	0.53	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
Vinyl chloride	ND		5.6	0.69	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1
Xylenes, Total	ND		11	0.95	ug/Kg	☼	12/01/17 16:38	12/08/17 15:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*64 - 126*	*12/01/17 16:38*	*12/08/17 15:17*	*1*
4-Bromofluorobenzene (Surr)	*83*		*72 - 126*	*12/01/17 16:38*	*12/08/17 15:17*	*1*
Dibromofluoromethane (Surr)	*103*		*60 - 140*	*12/01/17 16:38*	*12/08/17 15:17*	*1*
Toluene-d8 (Surr)	*109*		*71 - 125*	*12/01/17 16:38*	*12/08/17 15:17*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		180	50	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
2,4,6-Trichlorophenol	ND		180	37	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
2,4-Dichlorophenol	ND		180	19	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
2,4-Dimethylphenol	ND		180	44	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
2,4-Dinitrophenol	ND		1800	850	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
2,4-Dinitrotoluene	ND		180	38	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
2,6-Dinitrotoluene	ND		180	22	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
2-Chloronaphthalene	ND		180	30	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
2-Chlorophenol	ND		180	34	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
2-Methylnaphthalene	ND		180	37	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
2-Methylphenol	ND		180	22	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
2-Nitroaniline	ND		360	27	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
2-Nitrophenol	ND		180	52	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
3,3'-Dichlorobenzidine	ND		360	220	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
3-Nitroaniline	ND		360	51	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
4,6-Dinitro-2-methylphenol	ND		360	180	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
4-Bromophenyl phenyl ether	ND		180	26	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
4-Chloro-3-methylphenol	ND		180	45	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
4-Chloroaniline	ND		180	45	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
4-Chlorophenyl phenyl ether	ND		180	23	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
4-Methylphenol	ND		360	22	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
4-Nitroaniline	ND		360	96	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
4-Nitrophenol	ND		360	130	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Acenaphthene	ND		180	27	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Acenaphthylene	ND		180	24	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Acetophenone	ND		180	25	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Anthracene	ND		180	45	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Atrazine	ND		180	64	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Benzaldehyde	ND		180	150	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Benzo[a]anthracene	**94**	**J**	180	18	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Benzo[a]pyrene	**140**	**J**	180	27	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Benzo[b]fluoranthene	**250**		180	29	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Benzo[g,h,i]perylene	**180**		180	19	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1

Client Sample ID: TP-28 (2-4)
Date Collected: 12/01/17 12:08
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-5
Matrix: Solid
Percent Solids: 92.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	85	J	180	24	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Biphenyl	ND		180	27	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
bis (2-chloroisopropyl) ether	ND		180	37	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Bis(2-chloroethoxy)methane	ND		180	39	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Bis(2-chloroethyl)ether	ND		180	24	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Bis(2-ethylhexyl) phthalate	ND		180	63	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Butyl benzyl phthalate	ND		180	30	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Caprolactam	ND		180	55	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Carbazole	ND		180	22	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Chrysene	130	J	180	41	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Dibenz(a,h)anthracene	ND		180	32	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Dibenzofuran	ND		180	22	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Diethyl phthalate	ND		180	24	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Dimethyl phthalate	ND		180	22	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Di-n-butyl phthalate	ND		180	31	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Di-n-octyl phthalate	ND		180	22	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Fluoranthene	150	J	180	19	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Fluorene	ND		180	22	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Hexachlorobenzene	ND		180	25	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Hexachlorobutadiene	ND		180	27	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Hexachlorocyclopentadiene	ND		180	25	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Hexachloroethane	ND		180	24	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Indeno[1,2,3-cd]pyrene	150	J	180	23	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Isophorone	ND		180	39	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Naphthalene	ND		180	24	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Nitrobenzene	ND		180	21	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
N-Nitrosodi-n-propylamine	ND		180	31	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
N-Nitrosodiphenylamine	ND		180	150	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Pentachlorophenol	ND		360	180	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Phenanthrene	85	J	180	27	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Phenol	ND		180	28	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1
Pyrene	140	J	180	22	ug/Kg	☼	12/04/17 14:26	12/05/17 16:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*80*		*54 - 120*	*12/04/17 14:26*	*12/05/17 16:58*	*1*
2-Fluorobiphenyl	*88*		*60 - 120*	*12/04/17 14:26*	*12/05/17 16:58*	*1*
2-Fluorophenol	*66*		*52 - 120*	*12/04/17 14:26*	*12/05/17 16:58*	*1*
Nitrobenzene-d5	*66*		*53 - 120*	*12/04/17 14:26*	*12/05/17 16:58*	*1*
Phenol-d5	*70*		*54 - 120*	*12/04/17 14:26*	*12/05/17 16:58*	*1*
p-Terphenyl-d14	*102*		*65 - 121*	*12/04/17 14:26*	*12/05/17 16:58*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	11700		10.4	4.6	mg/Kg	☼	12/05/17 15:17	12/05/17 22:15	1
Antimony	0.95	J	15.6	0.42	mg/Kg	☼	12/05/17 15:17	12/05/17 22:15	1
Arsenic	5.1		2.1	0.42	mg/Kg	☼	12/05/17 15:17	12/05/17 22:15	1
Barium	67.4		0.52	0.11	mg/Kg	☼	12/05/17 15:17	12/05/17 22:15	1
Beryllium	0.46		0.21	0.029	mg/Kg	☼	12/05/17 15:17	12/05/17 22:15	1
Cadmium	ND		0.21	0.031	mg/Kg	☼	12/05/17 15:17	12/05/17 22:15	1
Calcium	15500	B	52.1	3.4	mg/Kg	☼	12/05/17 15:17	12/05/17 22:15	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128303-1

Client Sample ID: TP-28 (2-4)
Date Collected: 12/01/17 12:08
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-5
Matrix: Solid
Percent Solids: 92.3

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	18.3		0.52	0.21	mg/Kg	☼	12/05/17 15:17	12/05/17 22:15	1
Cobalt	4.9		0.52	0.052	mg/Kg	☼	12/05/17 15:17	12/05/17 22:15	1
Copper	43.8		1.0	0.22	mg/Kg	☼	12/05/17 15:17	12/05/17 22:15	1
Iron	43700		10.4	3.6	mg/Kg	☼	12/05/17 15:17	12/05/17 22:15	1
Lead	26.8		1.0	0.25	mg/Kg	☼	12/05/17 15:17	12/05/17 22:15	1
Magnesium	902		20.8	0.97	mg/Kg	☼	12/05/17 15:17	12/05/17 22:15	1
Manganese	1690	B	0.21	0.033	mg/Kg	☼	12/05/17 15:17	12/05/17 22:15	1
Nickel	22.0		5.2	0.24	mg/Kg	☼	12/05/17 15:17	12/05/17 22:15	1
Potassium	1350		31.3	20.8	mg/Kg	☼	12/05/17 15:17	12/05/17 22:15	1
Selenium	1.2	J	4.2	0.42	mg/Kg	☼	12/05/17 15:17	12/05/17 22:15	1
Silver	ND		0.63	0.21	mg/Kg	☼	12/05/17 15:17	12/05/17 22:15	1
Sodium	170		146	13.5	mg/Kg	☼	12/05/17 15:17	12/05/17 22:15	1
Thallium	ND		6.3	0.31	mg/Kg	☼	12/05/17 15:17	12/05/17 22:15	1
Vanadium	24.9		0.52	0.11	mg/Kg	☼	12/05/17 15:17	12/05/17 22:15	1
Zinc	64.2		2.1	0.67	mg/Kg	☼	12/05/17 15:17	12/05/17 22:15	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.10		0.021	0.0084	mg/Kg	☼	12/07/17 15:00	12/07/17 16:52	1

Client Sample ID: TP-26 (12-15)

Date Collected: 12/01/17 13:17
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-6

Matrix: Solid
Percent Solids: 70.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		240	65	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
2,4,6-Trichlorophenol	ND		240	48	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
2,4-Dichlorophenol	ND		240	25	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
2,4-Dimethylphenol	ND		240	58	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
2,4-Dinitrophenol	ND		2300	1100	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
2,4-Dinitrotoluene	ND		240	50	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
2,6-Dinitrotoluene	ND		240	28	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
2-Chloronaphthalene	ND		240	40	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
2-Chlorophenol	ND		240	44	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
2-Methylnaphthalene	ND		240	48	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
2-Methylphenol	ND		240	28	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
2-Nitroaniline	ND		470	35	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
2-Nitrophenol	ND		240	68	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
3,3'-Dichlorobenzidine	ND		470	280	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
3-Nitroaniline	ND		470	67	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
4,6-Dinitro-2-methylphenol	ND		470	240	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
4-Bromophenyl phenyl ether	ND		240	34	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
4-Chloro-3-methylphenol	ND		240	59	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
4-Chloroaniline	ND		240	59	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
4-Chlorophenyl phenyl ether	ND		240	30	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
4-Methylphenol	ND		470	28	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
4-Nitroaniline	ND		470	130	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
4-Nitrophenol	ND		470	170	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Acenaphthene	ND		240	35	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Acenaphthylene	ND		240	31	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Acetophenone	ND		240	33	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Anthracene	ND		240	59	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Atrazine	ND		240	84	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Benzaldehyde	ND		240	190	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Benzo[a]anthracene	**25**	**J**	240	24	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Benzo[a]pyrene	**48**	**J**	240	35	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Benzo[b]fluoranthene	**78**	**J**	240	38	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Benzo[g,h,i]perylene	**45**	**J**	240	25	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Benzo[k]fluoranthene	ND		240	31	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Biphenyl	ND		240	35	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
bis (2-chloroisopropyl) ether	ND		240	48	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Bis(2-chloroethoxy)methane	ND		240	51	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Bis(2-chloroethyl)ether	ND		240	31	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Bis(2-ethylhexyl) phthalate	ND		240	82	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Butyl benzyl phthalate	ND		240	40	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Caprolactam	ND		240	72	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Carbazole	ND		240	28	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Chrysene	ND		240	54	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Dibenz(a,h)anthracene	ND		240	42	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Dibenzofuran	ND		240	28	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Diethyl phthalate	ND		240	31	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Dimethyl phthalate	ND		240	28	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Di-n-butyl phthalate	ND		240	41	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Di-n-octyl phthalate	ND		240	28	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1

Client Sample ID: TP-26 (12-15)
Date Collected: 12/01/17 13:17
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-6
Matrix: Solid
Percent Solids: 70.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	26	J	240	25	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Fluorene	ND		240	28	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Hexachlorobenzene	ND		240	33	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Hexachlorobutadiene	ND		240	35	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Hexachlorocyclopentadiene	ND		240	33	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Hexachloroethane	ND		240	31	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Indeno[1,2,3-cd]pyrene	54	J	240	30	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Isophorone	ND		240	51	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Naphthalene	ND		240	31	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Nitrobenzene	ND		240	27	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
N-Nitrosodi-n-propylamine	ND		240	41	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
N-Nitrosodiphenylamine	ND		240	200	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Pentachlorophenol	ND		470	240	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Phenanthrene	ND		240	35	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Phenol	ND		240	37	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1
Pyrene	ND		240	28	ug/Kg	☼	12/04/17 14:26	12/05/17 17:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*77*		*54 - 120*	*12/04/17 14:26*	*12/05/17 17:24*	*1*
2-Fluorobiphenyl	*84*		*60 - 120*	*12/04/17 14:26*	*12/05/17 17:24*	*1*
2-Fluorophenol	*65*		*52 - 120*	*12/04/17 14:26*	*12/05/17 17:24*	*1*
Nitrobenzene-d5	*69*		*53 - 120*	*12/04/17 14:26*	*12/05/17 17:24*	*1*
Phenol-d5	*69*		*54 - 120*	*12/04/17 14:26*	*12/05/17 17:24*	*1*
p-Terphenyl-d14	*97*		*65 - 121*	*12/04/17 14:26*	*12/05/17 17:24*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	7830		12.9	5.7	mg/Kg	☼	12/05/17 15:17	12/05/17 22:18	1
Antimony	ND		19.3	0.51	mg/Kg	☼	12/05/17 15:17	12/05/17 22:18	1
Arsenic	8.0		2.6	0.51	mg/Kg	☼	12/05/17 15:17	12/05/17 22:18	1
Barium	64.9		0.64	0.14	mg/Kg	☼	12/05/17 15:17	12/05/17 22:18	1
Beryllium	0.77		0.26	0.036	mg/Kg	☼	12/05/17 15:17	12/05/17 22:18	1
Cadmium	0.077	J	0.26	0.039	mg/Kg	☼	12/05/17 15:17	12/05/17 22:18	1
Calcium	3050	B	64.3	4.2	mg/Kg	☼	12/05/17 15:17	12/05/17 22:18	1
Chromium	15.8		0.64	0.26	mg/Kg	☼	12/05/17 15:17	12/05/17 22:18	1
Cobalt	12.8		0.64	0.064	mg/Kg	☼	12/05/17 15:17	12/05/17 22:18	1
Copper	53.4		1.3	0.27	mg/Kg	☼	12/05/17 15:17	12/05/17 22:18	1
Iron	21500		12.9	4.5	mg/Kg	☼	12/05/17 15:17	12/05/17 22:18	1
Lead	105		1.3	0.31	mg/Kg	☼	12/05/17 15:17	12/05/17 22:18	1
Magnesium	518		25.7	1.2	mg/Kg	☼	12/05/17 15:17	12/05/17 22:18	1
Manganese	155	B	0.26	0.041	mg/Kg	☼	12/05/17 15:17	12/05/17 22:18	1
Nickel	25.4		6.4	0.30	mg/Kg	☼	12/05/17 15:17	12/05/17 22:18	1
Potassium	949		38.6	25.7	mg/Kg	☼	12/05/17 15:17	12/05/17 22:18	1
Selenium	ND		5.1	0.51	mg/Kg	☼	12/05/17 15:17	12/05/17 22:18	1
Silver	ND		0.77	0.26	mg/Kg	☼	12/05/17 15:17	12/05/17 22:18	1
Sodium	274		180	16.7	mg/Kg	☼	12/05/17 15:17	12/05/17 22:18	1
Thallium	ND		7.7	0.39	mg/Kg	☼	12/05/17 15:17	12/05/17 22:18	1
Vanadium	26.5		0.64	0.14	mg/Kg	☼	12/05/17 15:17	12/05/17 22:18	1
Zinc	110		2.6	0.82	mg/Kg	☼	12/05/17 15:17	12/05/17 22:18	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128303-1

Client Sample ID: TP-26 (12-15)
Date Collected: 12/01/17 13:17
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-6
Matrix: Solid
Percent Solids: 70.3

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.074		0.029	0.012	mg/Kg	☼	12/07/17 15:00	12/07/17 16:54	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128303-1

Client Sample ID: TP-29 (5-8)
Date Collected: 12/01/17 13:55
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-7
Matrix: Solid
Percent Solids: 94.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		180	48	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
2,4,6-Trichlorophenol	ND		180	35	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
2,4-Dichlorophenol	ND		180	19	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
2,4-Dimethylphenol	ND		180	43	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
2,4-Dinitrophenol	ND		1700	820	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
2,4-Dinitrotoluene	ND		180	37	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
2,6-Dinitrotoluene	ND		180	21	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
2-Chloronaphthalene	ND		180	29	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
2-Chlorophenol	ND		180	32	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
2-Methylnaphthalene	ND		180	35	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
2-Methylphenol	ND		180	21	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
2-Nitroaniline	ND		340	26	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
2-Nitrophenol	ND		180	50	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
3,3'-Dichlorobenzidine	ND		340	210	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
3-Nitroaniline	ND		340	49	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
4,6-Dinitro-2-methylphenol	ND		340	180	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
4-Bromophenyl phenyl ether	ND		180	25	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
4-Chloro-3-methylphenol	ND		180	44	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
4-Chloroaniline	ND		180	44	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
4-Chlorophenyl phenyl ether	ND		180	22	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
4-Methylphenol	ND		340	21	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
4-Nitroaniline	ND		340	93	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
4-Nitrophenol	ND		340	120	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Acenaphthene	ND		180	26	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Acenaphthylene	ND		180	23	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Acetophenone	ND		180	24	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Anthracene	ND		180	44	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Atrazine	ND		180	62	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Benzaldehyde	ND		180	140	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Benzo[a]anthracene	ND		180	18	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Benzo[a]pyrene	ND		180	26	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Benzo[b]fluoranthene	ND		180	28	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Benzo[g,h,i]perylene	ND		180	19	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Benzo[k]fluoranthene	ND		180	23	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Biphenyl	ND		180	26	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
bis (2-chloroisopropyl) ether	ND		180	35	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Bis(2-chloroethoxy)methane	ND		180	38	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Bis(2-chloroethyl)ether	ND		180	23	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Bis(2-ethylhexyl) phthalate	ND		180	61	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Butyl benzyl phthalate	ND		180	29	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Caprolactam	ND		180	53	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Carbazole	ND		180	21	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Chrysene	ND		180	40	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Dibenz(a,h)anthracene	ND		180	31	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Dibenzofuran	ND		180	21	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Diethyl phthalate	ND		180	23	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Dimethyl phthalate	ND		180	21	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Di-n-butyl phthalate	ND		180	30	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Di-n-octyl phthalate	ND		180	21	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1

Client Sample ID: TP-29 (5-8)

Date Collected: 12/01/17 13:55
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-7

Matrix: Solid
Percent Solids: 94.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		180	19	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Fluorene	ND		180	21	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Hexachlorobenzene	ND		180	24	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Hexachlorobutadiene	ND		180	26	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Hexachlorocyclopentadiene	ND		180	24	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Hexachloroethane	ND		180	23	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Indeno[1,2,3-cd]pyrene	ND		180	22	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Isophorone	ND		180	38	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Naphthalene	ND		180	23	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Nitrobenzene	ND		180	20	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
N-Nitrosodi-n-propylamine	ND		180	30	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
N-Nitrosodiphenylamine	ND		180	140	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Pentachlorophenol	ND		340	180	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Phenanthrene	**35**	**J**	180	26	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Phenol	ND		180	27	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1
Pyrene	ND		180	21	ug/Kg	☼	12/04/17 14:26	12/05/17 17:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*75*		*54 - 120*	*12/04/17 14:26*	*12/05/17 17:50*	*1*
2-Fluorobiphenyl	*84*		*60 - 120*	*12/04/17 14:26*	*12/05/17 17:50*	*1*
2-Fluorophenol	*67*		*52 - 120*	*12/04/17 14:26*	*12/05/17 17:50*	*1*
Nitrobenzene-d5	*67*		*53 - 120*	*12/04/17 14:26*	*12/05/17 17:50*	*1*
Phenol-d5	*70*		*54 - 120*	*12/04/17 14:26*	*12/05/17 17:50*	*1*
p-Terphenyl-d14	*94*		*65 - 121*	*12/04/17 14:26*	*12/05/17 17:50*	*1*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.7	0.34	ug/Kg	☼	12/05/17 07:17	12/06/17 18:16	1
4,4'-DDE	ND		1.7	0.37	ug/Kg	☼	12/05/17 07:17	12/06/17 18:16	1
4,4'-DDT	ND	*	1.7	0.41	ug/Kg	☼	12/05/17 07:17	12/06/17 18:16	1
Aldrin	ND		1.7	0.43	ug/Kg	☼	12/05/17 07:17	12/06/17 18:16	1
alpha-BHC	ND		1.7	0.31	ug/Kg	☼	12/05/17 07:17	12/06/17 18:16	1
alpha-Chlordane	ND		1.7	0.87	ug/Kg	☼	12/05/17 07:17	12/06/17 18:16	1
beta-BHC	ND		1.7	0.31	ug/Kg	☼	12/05/17 07:17	12/06/17 18:16	1
delta-BHC	ND		1.7	0.32	ug/Kg	☼	12/05/17 07:17	12/06/17 18:16	1
Dieldrin	ND		1.7	0.42	ug/Kg	☼	12/05/17 07:17	12/06/17 18:16	1
Endosulfan I	ND		1.7	0.34	ug/Kg	☼	12/05/17 07:17	12/06/17 18:16	1
Endosulfan II	ND		1.7	0.31	ug/Kg	☼	12/05/17 07:17	12/06/17 18:16	1
Endosulfan sulfate	ND		1.7	0.33	ug/Kg	☼	12/05/17 07:17	12/06/17 18:16	1
Endrin	ND		1.7	0.35	ug/Kg	☼	12/05/17 07:17	12/06/17 18:16	1
Endrin aldehyde	ND		1.7	0.45	ug/Kg	☼	12/05/17 07:17	12/06/17 18:16	1
Endrin ketone	ND		1.7	0.43	ug/Kg	☼	12/05/17 07:17	12/06/17 18:16	1
gamma-BHC (Lindane)	ND		1.7	0.32	ug/Kg	☼	12/05/17 07:17	12/06/17 18:16	1
gamma-Chlordane	ND		1.7	0.55	ug/Kg	☼	12/05/17 07:17	12/06/17 18:16	1
Heptachlor	ND		1.7	0.38	ug/Kg	☼	12/05/17 07:17	12/06/17 18:16	1
Heptachlor epoxide	ND		1.7	0.45	ug/Kg	☼	12/05/17 07:17	12/06/17 18:16	1
Methoxychlor	ND	*	1.7	0.36	ug/Kg	☼	12/05/17 07:17	12/06/17 18:16	1
Toxaphene	ND		17	10	ug/Kg	☼	12/05/17 07:17	12/06/17 18:16	1

Client Sample ID: TP-29 (5-8)

Date Collected: 12/01/17 13:55
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-7

Matrix: Solid
Percent Solids: 94.9

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*105*		*45 - 120*	*12/05/17 07:17*	*12/06/17 18:16*	*1*
DCB Decachlorobiphenyl	*111*		*45 - 120*	*12/05/17 07:17*	*12/06/17 18:16*	*1*
Tetrachloro-m-xylene	*85*		*30 - 124*	*12/05/17 07:17*	*12/06/17 18:16*	*1*
Tetrachloro-m-xylene	*83*		*30 - 124*	*12/05/17 07:17*	*12/06/17 18:16*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.19	0.037	mg/Kg	☼	12/06/17 07:41	12/06/17 19:09	1
PCB-1221	ND		0.19	0.037	mg/Kg	☼	12/06/17 07:41	12/06/17 19:09	1
PCB-1232	ND		0.19	0.037	mg/Kg	☼	12/06/17 07:41	12/06/17 19:09	1
PCB-1242	ND		0.19	0.037	mg/Kg	☼	12/06/17 07:41	12/06/17 19:09	1
PCB-1248	ND		0.19	0.037	mg/Kg	☼	12/06/17 07:41	12/06/17 19:09	1
PCB-1254	ND		0.19	0.089	mg/Kg	☼	12/06/17 07:41	12/06/17 19:09	1
PCB-1260	ND		0.19	0.089	mg/Kg	☼	12/06/17 07:41	12/06/17 19:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*119*		*60 - 154*	*12/06/17 07:41*	*12/06/17 19:09*	*1*
Tetrachloro-m-xylene	*105*		*60 - 154*	*12/06/17 07:41*	*12/06/17 19:09*	*1*
DCB Decachlorobiphenyl	*77*		*65 - 174*	*12/06/17 07:41*	*12/06/17 19:09*	*1*
DCB Decachlorobiphenyl	*72*		*65 - 174*	*12/06/17 07:41*	*12/06/17 19:09*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND	*	17	5.5	ug/Kg	☼	12/05/17 07:54	12/08/17 16:41	1
Silvex (2,4,5-TP)	ND		17	6.1	ug/Kg	☼	12/05/17 07:54	12/08/17 16:41	1
2,4-D	ND	*	17	11	ug/Kg	☼	12/05/17 07:54	12/08/17 16:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*138*	*X*	*28 - 129*	*12/05/17 07:54*	*12/08/17 16:41*	*1*
2,4-Dichlorophenylacetic acid	*106*		*28 - 129*	*12/05/17 07:54*	*12/08/17 16:41*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**4250**		9.9	4.4	mg/Kg	☼	12/05/17 15:17	12/05/17 22:22	1
Antimony	ND		14.8	0.40	mg/Kg	☼	12/05/17 15:17	12/05/17 22:22	1
Arsenic	**2.8**		2.0	0.40	mg/Kg	☼	12/05/17 15:17	12/05/17 22:22	1
Barium	**18.2**		0.49	0.11	mg/Kg	☼	12/05/17 15:17	12/05/17 22:22	1
Beryllium	**0.17**	**J**	0.20	0.028	mg/Kg	☼	12/05/17 15:17	12/05/17 22:22	1
Cadmium	**0.038**	**J**	0.20	0.030	mg/Kg	☼	12/05/17 15:17	12/05/17 22:22	1
Calcium	**3490**	**B**	49.4	3.3	mg/Kg	☼	12/05/17 15:17	12/05/17 22:22	1
Chromium	**5.6**		0.49	0.20	mg/Kg	☼	12/05/17 15:17	12/05/17 22:22	1
Cobalt	**1.6**		0.49	0.049	mg/Kg	☼	12/05/17 15:17	12/05/17 22:22	1
Copper	**4.0**		0.99	0.21	mg/Kg	☼	12/05/17 15:17	12/05/17 22:22	1
Iron	**5850**		9.9	3.5	mg/Kg	☼	12/05/17 15:17	12/05/17 22:22	1
Lead	**4.7**		0.99	0.24	mg/Kg	☼	12/05/17 15:17	12/05/17 22:22	1
Magnesium	**1110**		19.8	0.92	mg/Kg	☼	12/05/17 15:17	12/05/17 22:22	1
Manganese	**85.6**	**B**	0.20	0.032	mg/Kg	☼	12/05/17 15:17	12/05/17 22:22	1
Nickel	**4.6**	**J**	4.9	0.23	mg/Kg	☼	12/05/17 15:17	12/05/17 22:22	1
Potassium	**802**		29.7	19.8	mg/Kg	☼	12/05/17 15:17	12/05/17 22:22	1
Selenium	**0.67**	**J**	4.0	0.40	mg/Kg	☼	12/05/17 15:17	12/05/17 22:22	1
Silver	ND		0.59	0.20	mg/Kg	☼	12/05/17 15:17	12/05/17 22:22	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128303-1

Client Sample ID: TP-29 (5-8)
Date Collected: 12/01/17 13:55
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-7
Matrix: Solid
Percent Solids: 94.9

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	91.1	J	138	12.9	mg/Kg	☼	12/05/17 15:17	12/05/17 22:22	1
Thallium	ND		5.9	0.30	mg/Kg	☼	12/05/17 15:17	12/05/17 22:22	1
Vanadium	9.0		0.49	0.11	mg/Kg	☼	12/05/17 15:17	12/05/17 22:22	1
Zinc	15.9		2.0	0.63	mg/Kg	☼	12/05/17 15:17	12/05/17 22:22	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.0081	mg/Kg	☼	12/07/17 15:00	12/07/17 16:55	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128303-1

Client Sample ID: TP-30 (10-15)
Date Collected: 12/01/17 14:46
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-8
Matrix: Solid
Percent Solids: 79.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		210	57	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
2,4,6-Trichlorophenol	ND		210	42	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
2,4-Dichlorophenol	ND		210	22	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
2,4-Dimethylphenol	ND		210	51	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
2,4-Dinitrophenol	ND		2100	970	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
2,4-Dinitrotoluene	ND		210	44	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
2,6-Dinitrotoluene	ND		210	25	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
2-Chloronaphthalene	ND		210	35	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
2-Chlorophenol	ND		210	39	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
2-Methylnaphthalene	ND		210	42	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
2-Methylphenol	ND		210	25	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
2-Nitroaniline	ND		410	31	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
2-Nitrophenol	ND		210	60	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
3,3'-Dichlorobenzidine	ND		410	250	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
3-Nitroaniline	ND		410	58	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
4,6-Dinitro-2-methylphenol	ND		410	210	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
4-Bromophenyl phenyl ether	ND		210	30	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
4-Chloro-3-methylphenol	ND		210	52	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
4-Chloroaniline	ND		210	52	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
4-Chlorophenyl phenyl ether	ND		210	26	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
4-Methylphenol	ND		410	25	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
4-Nitroaniline	ND		410	110	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
4-Nitrophenol	ND		410	150	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Acenaphthene	ND		210	31	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Acenaphthylene	ND		210	27	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Acetophenone	ND		210	29	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Anthracene	ND		210	52	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Atrazine	ND		210	73	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Benzaldehyde	ND		210	170	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Benzo[a]anthracene	**21**	**J**	210	21	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Benzo[a]pyrene	**40**	**J**	210	31	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Benzo[b]fluoranthene	**60**	**J**	210	34	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Benzo[g,h,i]perylene	ND		210	22	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Benzo[k]fluoranthene	ND		210	27	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Biphenyl	ND		210	31	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
bis (2-chloroisopropyl) ether	ND		210	42	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Bis(2-chloroethoxy)methane	ND		210	45	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Bis(2-chloroethyl)ether	ND		210	27	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Bis(2-ethylhexyl) phthalate	ND		210	72	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Butyl benzyl phthalate	ND		210	35	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Caprolactam	ND		210	63	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Carbazole	ND		210	25	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Chrysene	ND		210	47	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Dibenz(a,h)anthracene	ND		210	37	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Dibenzofuran	ND		210	25	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Diethyl phthalate	ND		210	27	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Dimethyl phthalate	ND		210	25	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Di-n-butyl phthalate	ND		210	36	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Di-n-octyl phthalate	ND		210	25	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1

Client Sample ID: TP-30 (10-15)
Date Collected: 12/01/17 14:46
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-8
Matrix: Solid
Percent Solids: 79.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	28	J	210	22	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Fluorene	ND		210	25	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Hexachlorobenzene	ND		210	29	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Hexachlorobutadiene	ND		210	31	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Hexachlorocyclopentadiene	ND		210	29	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Hexachloroethane	ND		210	27	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Indeno[1,2,3-cd]pyrene	36	J	210	26	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Isophorone	ND		210	45	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Naphthalene	ND		210	27	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Nitrobenzene	ND		210	24	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
N-Nitrosodi-n-propylamine	ND		210	36	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
N-Nitrosodiphenylamine	ND		210	170	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Pentachlorophenol	ND		410	210	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Phenanthrene	ND		210	31	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Phenol	ND		210	32	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1
Pyrene	26	J	210	25	ug/Kg	☼	12/04/17 14:26	12/05/17 18:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*75*		*54 - 120*	*12/04/17 14:26*	*12/05/17 18:17*	*1*
2-Fluorobiphenyl	*82*		*60 - 120*	*12/04/17 14:26*	*12/05/17 18:17*	*1*
2-Fluorophenol	*63*		*52 - 120*	*12/04/17 14:26*	*12/05/17 18:17*	*1*
Nitrobenzene-d5	*60*		*53 - 120*	*12/04/17 14:26*	*12/05/17 18:17*	*1*
Phenol-d5	*67*		*54 - 120*	*12/04/17 14:26*	*12/05/17 18:17*	*1*
p-Terphenyl-d14	*95*		*65 - 121*	*12/04/17 14:26*	*12/05/17 18:17*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	6160		11.6	5.1	mg/Kg	☼	12/05/17 15:17	12/05/17 22:25	1
Antimony	0.55	J	17.4	0.46	mg/Kg	☼	12/05/17 15:17	12/05/17 22:25	1
Arsenic	12.1		2.3	0.46	mg/Kg	☼	12/05/17 15:17	12/05/17 22:25	1
Barium	67.4		0.58	0.13	mg/Kg	☼	12/05/17 15:17	12/05/17 22:25	1
Beryllium	0.59		0.23	0.032	mg/Kg	☼	12/05/17 15:17	12/05/17 22:25	1
Cadmium	0.63		0.23	0.035	mg/Kg	☼	12/05/17 15:17	12/05/17 22:25	1
Calcium	2170	B	57.9	3.8	mg/Kg	☼	12/05/17 15:17	12/05/17 22:25	1
Chromium	10.8		0.58	0.23	mg/Kg	☼	12/05/17 15:17	12/05/17 22:25	1
Cobalt	6.0		0.58	0.058	mg/Kg	☼	12/05/17 15:17	12/05/17 22:25	1
Copper	37.3		1.2	0.24	mg/Kg	☼	12/05/17 15:17	12/05/17 22:25	1
Iron	8410		11.6	4.1	mg/Kg	☼	12/05/17 15:17	12/05/17 22:25	1
Lead	47.3		1.2	0.28	mg/Kg	☼	12/05/17 15:17	12/05/17 22:25	1
Magnesium	261		23.2	1.1	mg/Kg	☼	12/05/17 15:17	12/05/17 22:25	1
Manganese	71.9	B	0.23	0.037	mg/Kg	☼	12/05/17 15:17	12/05/17 22:25	1
Nickel	17.1		5.8	0.27	mg/Kg	☼	12/05/17 15:17	12/05/17 22:25	1
Potassium	1040		34.7	23.2	mg/Kg	☼	12/05/17 15:17	12/05/17 22:25	1
Selenium	1.0	J	4.6	0.46	mg/Kg	☼	12/05/17 15:17	12/05/17 22:25	1
Silver	ND		0.69	0.23	mg/Kg	☼	12/05/17 15:17	12/05/17 22:25	1
Sodium	556		162	15.1	mg/Kg	☼	12/05/17 15:17	12/05/17 22:25	1
Thallium	ND		6.9	0.35	mg/Kg	☼	12/05/17 15:17	12/05/17 22:25	1
Vanadium	35.6		0.58	0.13	mg/Kg	☼	12/05/17 15:17	12/05/17 22:25	1
Zinc	96.5		2.3	0.74	mg/Kg	☼	12/05/17 15:17	12/05/17 22:25	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128303-1

Client Sample ID: TP-30 (10-15)
Date Collected: 12/01/17 14:46
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-8
Matrix: Solid
Percent Solids: 79.4

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.048		0.026	0.010	mg/Kg	☼	12/07/17 15:00	12/07/17 17:14	1

Client Sample ID: TP-24 (10-12)
Date Collected: 12/01/17 11:25
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-9
Matrix: Solid
Percent Solids: 91.5

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.3	0.38	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
1,1,2,2-Tetrachloroethane	ND		5.3	0.85	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.3	1.2	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
1,1,2-Trichloroethane	ND		5.3	0.68	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
1,1-Dichloroethane	ND		5.3	0.64	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
1,1-Dichloroethene	ND		5.3	0.64	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
1,2,4-Trichlorobenzene	ND		5.3	0.32	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
1,2,4-Trimethylbenzene	ND		5.3	1.0	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
1,2-Dibromo-3-Chloropropane	ND		5.3	2.6	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
1,2-Dibromoethane	ND		5.3	0.68	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
1,2-Dichlorobenzene	ND		5.3	0.41	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
1,2-Dichloroethane	ND		5.3	0.26	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
1,2-Dichloropropane	ND		5.3	2.6	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
1,3,5-Trimethylbenzene	ND		5.3	0.34	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
1,3-Dichlorobenzene	ND		5.3	0.27	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
1,4-Dichlorobenzene	ND		5.3	0.74	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
2-Butanone (MEK)	ND		26	1.9	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
2-Hexanone	ND		26	2.6	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
4-Isopropyltoluene	ND		5.3	0.42	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
4-Methyl-2-pentanone (MIBK)	ND		26	1.7	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
Acetone	ND		26	4.4	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
Benzene	ND		5.3	0.26	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
Bromodichloromethane	ND		5.3	0.71	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
Bromoform	ND		5.3	2.6	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
Bromomethane	ND		5.3	0.47	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
Carbon disulfide	ND		5.3	2.6	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
Carbon tetrachloride	ND		5.3	0.51	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
Chlorobenzene	ND		5.3	0.70	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
Chloroethane	ND		5.3	1.2	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
Chloroform	ND		5.3	0.33	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
Chloromethane	ND		5.3	0.32	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
cis-1,2-Dichloroethene	ND		5.3	0.67	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
cis-1,3-Dichloropropene	ND		5.3	0.76	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
Cyclohexane	ND		5.3	0.74	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
Dibromochloromethane	ND		5.3	0.67	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
Dichlorodifluoromethane	ND		5.3	0.43	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
Ethylbenzene	ND		5.3	0.36	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
Isopropylbenzene	ND		5.3	0.79	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
m,p-Xylene	ND		11	0.88	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
Methyl acetate	ND		26	3.2	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
Methyl tert-butyl ether	ND		5.3	0.52	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
Methylcyclohexane	ND		5.3	0.80	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
Methylene Chloride	ND		5.3	2.4	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
n-Butylbenzene	ND		5.3	0.46	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
N-Propylbenzene	ND		5.3	0.42	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
o-Xylene	ND		5.3	0.69	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
sec-Butylbenzene	ND		5.3	0.46	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
Styrene	ND		5.3	0.26	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
tert-Butylbenzene	ND		5.3	0.55	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128303-1

Client Sample ID: TP-24 (10-12)
Date Collected: 12/01/17 11:25
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-9
Matrix: Solid
Percent Solids: 91.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		5.3	0.71	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
Toluene	ND		5.3	0.40	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
trans-1,2-Dichloroethene	ND		5.3	0.54	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
trans-1,3-Dichloropropene	ND		5.3	2.3	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
Trichloroethene	ND		5.3	1.2	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
Trichlorofluoromethane	ND		5.3	0.50	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
Vinyl chloride	ND		5.3	0.64	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1
Xylenes, Total	ND		11	0.88	ug/Kg	☼	12/01/17 16:38	12/08/17 15:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*64 - 126*	*12/01/17 16:38*	*12/08/17 15:43*	*1*
4-Bromofluorobenzene (Surr)	*88*		*72 - 126*	*12/01/17 16:38*	*12/08/17 15:43*	*1*
Dibromofluoromethane (Surr)	*106*		*60 - 140*	*12/01/17 16:38*	*12/08/17 15:43*	*1*
Toluene-d8 (Surr)	*106*		*71 - 125*	*12/01/17 16:38*	*12/08/17 15:43*	*1*

Surrogate Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128303-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(64-126)	(72-126)	(60-140)	(71-125)
480-128303-5	TP-28 (2-4)	103	83	103	109
480-128303-9	TP-24 (10-12)	104	88	106	106
LCS 480-390132/1-A	Lab Control Sample	102	96	105	101
LCSD 480-390132/2-A	Lab Control Sample Dup	103	96	102	100
MB 480-390132/3-A	Method Blank	104	96	103	100

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPH
Lab Sample ID	Client Sample ID	(54-120)	(60-120)	(52-120)	(53-120)	(54-120)	(65-121)
480-128303-1	TP-19 (3-6)	69	87	64	69	70	101
480-128303-1 MS	TP-19 (3-6)	82	86	67	66	69	101
480-128303-1 MSD	TP-19 (3-6)	84	87	68	68	70	103
480-128303-2	TP-20 (5-10)	94	86	72	75	89	100
480-128303-3	TP-25 (0-2)	0 X	58 X	72	62	78	99
480-128303-3 - DL	TP-25 (0-2)	0 X	0 X	0 X	0 X	0 X	0 X
480-128303-4	TP-24 (10-15)	75	85	60	66	63	96
480-128303-5	TP-28 (2-4)	80	88	66	66	70	102
480-128303-6	TP-26 (12-15)	77	84	65	69	69	97
480-128303-7	TP-29 (5-8)	75	84	67	67	70	94
480-128303-8	TP-30 (10-15)	75	82	63	60	67	95
LCS 480-390366/2-A	Lab Control Sample	81	84	68	65	70	91
MB 480-390366/1-A	Method Blank	69	91	73	70	75	101

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPH = p-Terphenyl-d14

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCB1	DCB2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(45-120)	(45-120)	(30-124)	(30-124)
480-128303-3	TP-25 (0-2)	0 X	0 X	0 X	0 X
480-128303-4	TP-24 (10-15)	102	177 X	92	77
480-128303-7	TP-29 (5-8)	105	111	85	83
LCS 480-390408/2-A	Lab Control Sample	108	120	76	72

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCB1	DCB2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(45-120)	(45-120)	(30-124)	(30-124)
MB 480-390408/1-A	Method Blank	113	124 X	86	74

Surrogate Legend

DCB = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCB1	DCB2
Lab Sample ID	Client Sample ID	(60-154)	(60-154)	(65-174)	(65-174)
480-128303-3	TP-25 (0-2)	70	73	53 X	64 X
480-128303-4	TP-24 (10-15)	111	100	89	92
480-128303-4 MS	TP-24 (10-15)	136	115	104	108
480-128303-4 MSD	TP-24 (10-15)	146	133	111	116
480-128303-7	TP-29 (5-8)	119	105	77	72
LCS 480-390657/2-A	Lab Control Sample	125	105	94	101
MB 480-390657/1-A	Method Blank	117	101	94	99

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

Method: 8151A - Herbicides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCPA1	DCPA2
Lab Sample ID	Client Sample ID	(28-129)	(28-129)
480-128303-3	TP-25 (0-2)	109	98
480-128303-4	TP-24 (10-15)	165 X	105
480-128303-7	TP-29 (5-8)	138 X	106
LCS 480-390419/2-A	Lab Control Sample	98	123
LCSD 480-390419/3-A	Lab Control Sample Dup	207 X	147 X
MB 480-390419/1-A	Method Blank	113	95

Surrogate Legend

DCPA = 2,4-Dichlorophenylacetic acid

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-390132/3-A
Matrix: Solid
Analysis Batch: 391130

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390132

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
1,2,4-Trimethylbenzene	ND		5.0	0.96	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
1,3,5-Trimethylbenzene	ND		5.0	0.32	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
2-Hexanone	ND		25	2.5	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
4-Isopropyltoluene	ND		5.0	0.40	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
Acetone	ND		25	4.2	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
Benzene	ND		5.0	0.25	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
Bromoform	ND		5.0	2.5	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
Bromomethane	ND		5.0	0.45	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
Carbon disulfide	ND		5.0	2.5	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
Chlorobenzene	ND		5.0	0.66	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
Chloroethane	ND		5.0	1.1	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
Chloroform	ND		5.0	0.31	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
Chloromethane	ND		5.0	0.30	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
Cyclohexane	ND		5.0	0.70	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
Ethylbenzene	ND		5.0	0.35	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
m,p-Xylene	ND		10	0.84	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
Methyl acetate	ND		25	3.0	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
Methylene Chloride	ND		5.0	2.3	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
n-Butylbenzene	ND		5.0	0.44	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
N-Propylbenzene	ND		5.0	0.40	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
o-Xylene	ND		5.0	0.65	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
sec-Butylbenzene	ND		5.0	0.44	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
Styrene	ND		5.0	0.25	ug/Kg		12/01/17 16:38	12/08/17 14:40	1

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

Lab Sample ID: MB 480-390132/3-A
Matrix: Solid
Analysis Batch: 391130

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390132

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	ND		5.0	0.52	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
Tetrachloroethene	ND		5.0	0.67	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
Toluene	ND		5.0	0.38	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
Trichloroethene	ND		5.0	1.1	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
Vinyl chloride	ND		5.0	0.61	ug/Kg		12/01/17 16:38	12/08/17 14:40	1
Xylenes, Total	ND		10	0.84	ug/Kg		12/01/17 16:38	12/08/17 14:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*64 - 126*	*12/01/17 16:38*	*12/08/17 14:40*	*1*
4-Bromofluorobenzene (Surr)	*96*		*72 - 126*	*12/01/17 16:38*	*12/08/17 14:40*	*1*
Dibromofluoromethane (Surr)	*103*		*60 - 140*	*12/01/17 16:38*	*12/08/17 14:40*	*1*
Toluene-d8 (Surr)	*100*		*71 - 125*	*12/01/17 16:38*	*12/08/17 14:40*	*1*

Lab Sample ID: LCS 480-390132/1-A
Matrix: Solid
Analysis Batch: 391130

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390132

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	50.0	44.3		ug/Kg		89	77 - 121
1,1,2,2-Tetrachloroethane	50.0	46.3		ug/Kg		93	80 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	45.9		ug/Kg		92	60 - 140
1,1,2-Trichloroethane	50.0	45.6		ug/Kg		91	78 - 122
1,1-Dichloroethane	50.0	44.8		ug/Kg		90	73 - 126
1,1-Dichloroethene	50.0	46.2		ug/Kg		92	59 - 125
1,2,4-Trichlorobenzene	50.0	44.4		ug/Kg		89	64 - 120
1,2,4-Trimethylbenzene	50.0	45.8		ug/Kg		92	74 - 120
1,2-Dibromo-3-Chloropropane	50.0	50.5		ug/Kg		101	63 - 124
1,2-Dibromoethane	50.0	46.2		ug/Kg		92	78 - 120
1,2-Dichlorobenzene	50.0	44.8		ug/Kg		90	75 - 120
1,2-Dichloroethane	50.0	44.5		ug/Kg		89	77 - 122
1,2-Dichloropropane	50.0	44.2		ug/Kg		88	75 - 124
1,3,5-Trimethylbenzene	50.0	45.7		ug/Kg		91	74 - 120
1,3-Dichlorobenzene	50.0	44.9		ug/Kg		90	74 - 120
1,4-Dichlorobenzene	50.0	44.3		ug/Kg		89	73 - 120
2-Butanone (MEK)	250	239		ug/Kg		95	70 - 134
2-Hexanone	250	237		ug/Kg		95	59 - 130
4-Isopropyltoluene	50.0	45.9		ug/Kg		92	74 - 120
4-Methyl-2-pentanone (MIBK)	250	229		ug/Kg		92	65 - 133
Acetone	250	268		ug/Kg		107	61 - 137
Benzene	50.0	45.4		ug/Kg		91	79 - 127
Bromodichloromethane	50.0	47.8		ug/Kg		96	80 - 122
Bromoform	50.0	45.2		ug/Kg		90	68 - 126
Bromomethane	50.0	55.0		ug/Kg		110	37 - 149
Carbon disulfide	50.0	44.9		ug/Kg		90	64 - 131

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

Lab Sample ID: LCS 480-390132/1-A
Matrix: Solid
Analysis Batch: 391130

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390132

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbon tetrachloride	50.0	47.2		ug/Kg		94	75 - 135
Chlorobenzene	50.0	45.0		ug/Kg		90	76 - 124
Chloroethane	50.0	52.6		ug/Kg		105	69 - 135
Chloroform	50.0	45.6		ug/Kg		91	80 - 120
Chloromethane	50.0	51.5		ug/Kg		103	63 - 127
cis-1,2-Dichloroethene	50.0	45.9		ug/Kg		92	81 - 120
cis-1,3-Dichloropropene	50.0	45.8		ug/Kg		92	80 - 120
Cyclohexane	50.0	43.8		ug/Kg		88	65 - 120
Dibromochloromethane	50.0	51.2		ug/Kg		102	76 - 125
Dichlorodifluoromethane	50.0	51.7		ug/Kg		103	57 - 142
Ethylbenzene	50.0	45.3		ug/Kg		91	80 - 120
Isopropylbenzene	50.0	45.2		ug/Kg		90	72 - 120
m,p-Xylene	50.0	43.3		ug/Kg		87	70 - 130
Methyl acetate	100	91.2		ug/Kg		91	55 - 136
Methyl tert-butyl ether	50.0	45.4		ug/Kg		91	63 - 125
Methylcyclohexane	50.0	44.4		ug/Kg		89	60 - 140
Methylene Chloride	50.0	47.2		ug/Kg		94	61 - 127
Naphthalene	50.0	45.5		ug/Kg		91	38 - 137
n-Butylbenzene	50.0	45.9		ug/Kg		92	70 - 120
N-Propylbenzene	50.0	45.5		ug/Kg		91	70 - 130
o-Xylene	50.0	44.8		ug/Kg		90	70 - 130
sec-Butylbenzene	50.0	45.6		ug/Kg		91	74 - 120
Styrene	50.0	44.5		ug/Kg		89	80 - 120
tert-Butylbenzene	50.0	42.7		ug/Kg		85	73 - 120
Tetrachloroethene	50.0	43.7		ug/Kg		87	74 - 122
Toluene	50.0	44.4		ug/Kg		89	74 - 128
trans-1,2-Dichloroethene	50.0	46.2		ug/Kg		92	78 - 126
trans-1,3-Dichloropropene	50.0	45.2		ug/Kg		90	73 - 123
Trichloroethene	50.0	44.8		ug/Kg		90	77 - 129
Trichlorofluoromethane	50.0	50.1		ug/Kg		100	65 - 146
Vinyl chloride	50.0	52.0		ug/Kg		104	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*64 - 126*
4-Bromofluorobenzene (Surr)	*96*		*72 - 126*
Dibromofluoromethane (Surr)	*105*		*60 - 140*
Toluene-d8 (Surr)	*101*		*71 - 125*

Lab Sample ID: LCSD 480-390132/2-A
Matrix: Solid
Analysis Batch: 391130

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 390132

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	50.0	45.4		ug/Kg		91	77 - 121	3	20
1,1,2,2-Tetrachloroethane	50.0	52.2		ug/Kg		104	80 - 120	12	20
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	46.8		ug/Kg		94	60 - 140	2	20
1,1,2-Trichloroethane	50.0	48.5		ug/Kg		97	78 - 122	6	20

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

Lab Sample ID: LCSD 480-390132/2-A
Matrix: Solid
Analysis Batch: 391130

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 390132

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethane	50.0	45.7		ug/Kg		91	73 - 126	2	20
1,1-Dichloroethene	50.0	46.4		ug/Kg		93	59 - 125	0	20
1,2,4-Trichlorobenzene	50.0	46.3		ug/Kg		93	64 - 120	4	20
1,2,4-Trimethylbenzene	50.0	46.3		ug/Kg		93	74 - 120	1	20
1,2-Dibromo-3-Chloropropane	50.0	56.6		ug/Kg		113	63 - 124	11	20
1,2-Dibromoethane	50.0	50.4		ug/Kg		101	78 - 120	9	20
1,2-Dichlorobenzene	50.0	47.1		ug/Kg		94	75 - 120	5	20
1,2-Dichloroethane	50.0	47.7		ug/Kg		95	77 - 122	7	20
1,2-Dichloropropane	50.0	45.9		ug/Kg		92	75 - 124	4	20
1,3,5-Trimethylbenzene	50.0	46.7		ug/Kg		93	74 - 120	2	20
1,3-Dichlorobenzene	50.0	46.1		ug/Kg		92	74 - 120	3	20
1,4-Dichlorobenzene	50.0	45.9		ug/Kg		92	73 - 120	3	20
2-Butanone (MEK)	250	287		ug/Kg		115	70 - 134	18	20
2-Hexanone	250	280		ug/Kg		112	59 - 130	17	20
4-Isopropyltoluene	50.0	46.6		ug/Kg		93	74 - 120	1	20
4-Methyl-2-pentanone (MIBK)	250	267		ug/Kg		107	65 - 133	15	20
Acetone	250	320		ug/Kg		128	61 - 137	18	20
Benzene	50.0	46.8		ug/Kg		94	79 - 127	3	20
Bromodichloromethane	50.0	49.5		ug/Kg		99	80 - 122	3	20
Bromoform	50.0	47.9		ug/Kg		96	68 - 126	6	20
Bromomethane	50.0	55.0		ug/Kg		110	37 - 149	0	20
Carbon disulfide	50.0	46.5		ug/Kg		93	64 - 131	4	20
Carbon tetrachloride	50.0	47.1		ug/Kg		94	75 - 135	0	20
Chlorobenzene	50.0	46.4		ug/Kg		93	76 - 124	3	20
Chloroethane	50.0	53.8		ug/Kg		108	69 - 135	2	20
Chloroform	50.0	47.2		ug/Kg		94	80 - 120	3	20
Chloromethane	50.0	50.4		ug/Kg		101	63 - 127	2	20
cis-1,2-Dichloroethene	50.0	47.3		ug/Kg		95	81 - 120	3	20
cis-1,3-Dichloropropene	50.0	48.5		ug/Kg		97	80 - 120	6	20
Cyclohexane	50.0	44.4		ug/Kg		89	65 - 120	1	20
Dibromochloromethane	50.0	54.4		ug/Kg		109	76 - 125	6	20
Dichlorodifluoromethane	50.0	51.2		ug/Kg		102	57 - 142	1	20
Ethylbenzene	50.0	47.0		ug/Kg		94	80 - 120	4	20
Isopropylbenzene	50.0	46.0		ug/Kg		92	72 - 120	2	20
m,p-Xylene	50.0	44.8		ug/Kg		90	70 - 130	3	20
Methyl acetate	100	106		ug/Kg		106	55 - 136	15	20
Methyl tert-butyl ether	50.0	49.2		ug/Kg		98	63 - 125	8	20
Methylcyclohexane	50.0	45.5		ug/Kg		91	60 - 140	3	20
Methylene Chloride	50.0	50.0		ug/Kg		100	61 - 127	6	20
Naphthalene	50.0	51.2		ug/Kg		102	38 - 137	12	20
n-Butylbenzene	50.0	46.5		ug/Kg		93	70 - 120	1	20
N-Propylbenzene	50.0	46.5		ug/Kg		93	70 - 130	2	20
o-Xylene	50.0	46.5		ug/Kg		93	70 - 130	4	20
sec-Butylbenzene	50.0	46.2		ug/Kg		92	74 - 120	1	20
Styrene	50.0	46.3		ug/Kg		93	80 - 120	4	20
tert-Butylbenzene	50.0	43.8		ug/Kg		88	73 - 120	2	20
Tetrachloroethene	50.0	44.4		ug/Kg		89	74 - 122	2	20
Toluene	50.0	45.8		ug/Kg		92	74 - 128	3	20

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

Lab Sample ID: LCSD 480-390132/2-A
Matrix: Solid
Analysis Batch: 391130

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 390132

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
trans-1,2-Dichloroethene			50.0	47.7		ug/Kg		95	78 - 126	3	20
trans-1,3-Dichloropropene			50.0	48.3		ug/Kg		97	73 - 123	6	20
Trichloroethene			50.0	45.2		ug/Kg		90	77 - 129	1	20
Trichlorofluoromethane			50.0	48.7		ug/Kg		97	65 - 146	3	20
Vinyl chloride			50.0	52.2		ug/Kg		104	61 - 133	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*64 - 126*
4-Bromofluorobenzene (Surr)	*96*		*72 - 126*
Dibromofluoromethane (Surr)	*102*		*60 - 140*
Toluene-d8 (Surr)	*100*		*71 - 125*

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

Lab Sample ID: MB 480-390366/1-A
Matrix: Solid
Analysis Batch: 390522

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390366

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		170	45	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
2,4,6-Trichlorophenol	ND		170	33	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
2,4-Dichlorophenol	ND		170	18	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
2,4-Dimethylphenol	ND		170	40	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
2,4-Dinitrophenol	ND		1600	770	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
2,4-Dinitrotoluene	ND		170	34	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
2,6-Dinitrotoluene	ND		170	20	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
2-Chloronaphthalene	ND		170	27	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
2-Chlorophenol	ND		170	30	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
2-Methylnaphthalene	ND		170	33	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
2-Methylphenol	ND		170	20	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
2-Nitroaniline	ND		320	24	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
2-Nitrophenol	ND		170	47	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
3,3'-Dichlorobenzidine	ND		320	200	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
3-Nitroaniline	ND		320	46	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
4,6-Dinitro-2-methylphenol	ND		320	170	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
4-Bromophenyl phenyl ether	ND		170	24	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
4-Chloro-3-methylphenol	ND		170	41	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
4-Chloroaniline	ND		170	41	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
4-Chlorophenyl phenyl ether	ND		170	21	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
4-Methylphenol	ND		320	20	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
4-Nitroaniline	ND		320	87	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
4-Nitrophenol	ND		320	120	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Acenaphthene	ND		170	24	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Acenaphthylene	ND		170	22	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Acetophenone	ND		170	23	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Anthracene	ND		170	41	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Atrazine	ND		170	58	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Benzaldehyde	ND		170	130	ug/Kg		12/04/17 14:26	12/05/17 13:26	1

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

Lab Sample ID: MB 480-390366/1-A
Matrix: Solid
Analysis Batch: 390522

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390366

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		170	17	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Benzo[a]pyrene	ND		170	24	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Benzo[b]fluoranthene	ND		170	26	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Benzo[g,h,i]perylene	ND		170	18	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Benzo[k]fluoranthene	ND		170	22	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Biphenyl	ND		170	24	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
bis (2-chloroisopropyl) ether	ND		170	33	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Bis(2-chloroethoxy)methane	ND		170	35	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Bis(2-chloroethyl)ether	ND		170	22	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Bis(2-ethylhexyl) phthalate	ND		170	57	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Butyl benzyl phthalate	ND		170	27	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Caprolactam	ND		170	50	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Carbazole	ND		170	20	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Chrysene	ND		170	37	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Dibenz(a,h)anthracene	ND		170	29	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Dibenzofuran	ND		170	20	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Diethyl phthalate	ND		170	22	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Dimethyl phthalate	ND		170	20	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Di-n-butyl phthalate	ND		170	28	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Di-n-octyl phthalate	ND		170	20	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Fluoranthene	ND		170	18	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Fluorene	ND		170	20	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Hexachlorobenzene	ND		170	23	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Hexachlorobutadiene	ND		170	24	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Hexachlorocyclopentadiene	ND		170	23	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Hexachloroethane	ND		170	22	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Indeno[1,2,3-cd]pyrene	ND		170	21	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Isophorone	ND		170	35	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Naphthalene	ND		170	22	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Nitrobenzene	ND		170	19	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
N-Nitrosodi-n-propylamine	ND		170	28	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
N-Nitrosodiphenylamine	ND		170	140	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Pentachlorophenol	ND		320	170	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Phenanthrene	ND		170	24	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Phenol	ND		170	25	ug/Kg		12/04/17 14:26	12/05/17 13:26	1
Pyrene	ND		170	20	ug/Kg		12/04/17 14:26	12/05/17 13:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*69*		*54 - 120*	*12/04/17 14:26*	*12/05/17 13:26*	*1*
2-Fluorobiphenyl	*91*		*60 - 120*	*12/04/17 14:26*	*12/05/17 13:26*	*1*
2-Fluorophenol	*73*		*52 - 120*	*12/04/17 14:26*	*12/05/17 13:26*	*1*
Nitrobenzene-d5	*70*		*53 - 120*	*12/04/17 14:26*	*12/05/17 13:26*	*1*
Phenol-d5	*75*		*54 - 120*	*12/04/17 14:26*	*12/05/17 13:26*	*1*
p-Terphenyl-d14	*101*		*65 - 121*	*12/04/17 14:26*	*12/05/17 13:26*	*1*

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

Lab Sample ID: LCS 480-390366/2-A
Matrix: Solid
Analysis Batch: 390522

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390366

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-Trichlorophenol	1660	1360		ug/Kg		82	59 - 126
2,4,6-Trichlorophenol	1660	1400		ug/Kg		84	59 - 123
2,4-Dichlorophenol	1660	1290		ug/Kg		78	61 - 120
2,4-Dimethylphenol	1660	1190		ug/Kg		72	59 - 120
2,4-Dinitrophenol	3310	2480		ug/Kg		75	41 - 146
2,4-Dinitrotoluene	1660	1450		ug/Kg		88	63 - 120
2,6-Dinitrotoluene	1660	1390		ug/Kg		84	66 - 120
2-Chloronaphthalene	1660	1350		ug/Kg		82	57 - 120
2-Chlorophenol	1660	1260		ug/Kg		76	53 - 120
2-Methylnaphthalene	1660	1290		ug/Kg		78	59 - 120
2-Methylphenol	1660	1150		ug/Kg		70	54 - 120
2-Nitroaniline	1660	1150		ug/Kg		69	61 - 120
2-Nitrophenol	1660	1340		ug/Kg		81	56 - 120
3,3'-Dichlorobenzidine	3310	2500		ug/Kg		76	54 - 120
3-Nitroaniline	1660	1270		ug/Kg		77	48 - 120
4,6-Dinitro-2-methylphenol	3310	2770		ug/Kg		84	49 - 122
4-Bromophenyl phenyl ether	1660	1450		ug/Kg		87	58 - 120
4-Chloro-3-methylphenol	1660	1210		ug/Kg		73	61 - 120
4-Chloroaniline	1660	1110		ug/Kg		67	38 - 120
4-Chlorophenyl phenyl ether	1660	1410		ug/Kg		85	63 - 124
4-Methylphenol	1660	1120		ug/Kg		68	55 - 120
4-Nitroaniline	1660	1390		ug/Kg		84	56 - 120
4-Nitrophenol	3310	2570		ug/Kg		78	43 - 147
Acenaphthene	1660	1380		ug/Kg		83	62 - 120
Acenaphthylene	1660	1320		ug/Kg		80	58 - 121
Acetophenone	1660	1120		ug/Kg		68	54 - 120
Anthracene	1660	1440		ug/Kg		87	62 - 120
Atrazine	3310	3050		ug/Kg		92	60 - 127
Benzaldehyde	3310	1150		ug/Kg		35	10 - 150
Benzo[a]anthracene	1660	1400		ug/Kg		84	65 - 120
Benzo[a]pyrene	1660	1480		ug/Kg		90	64 - 120
Benzo[b]fluoranthene	1660	1550		ug/Kg		94	64 - 120
Benzo[g,h,i]perylene	1660	1400		ug/Kg		85	45 - 145
Benzo[k]fluoranthene	1660	1390		ug/Kg		84	65 - 120
Biphenyl	1660	1360		ug/Kg		82	59 - 120
bis (2-chloroisopropyl) ether	1660	1050		ug/Kg		64	44 - 120
Bis(2-chloroethoxy)methane	1660	1120		ug/Kg		68	55 - 120
Bis(2-chloroethyl)ether	1660	1070		ug/Kg		64	45 - 120
Bis(2-ethylhexyl) phthalate	1660	1370		ug/Kg		83	61 - 133
Butyl benzyl phthalate	1660	1400		ug/Kg		85	61 - 129
Caprolactam	3310	2310		ug/Kg		70	47 - 120
Carbazole	1660	1420		ug/Kg		86	65 - 120
Chrysene	1660	1410		ug/Kg		85	64 - 120
Dibenz(a,h)anthracene	1660	1460		ug/Kg		88	54 - 132
Dibenzofuran	1660	1400		ug/Kg		84	63 - 120
Diethyl phthalate	1660	1430		ug/Kg		86	66 - 120
Dimethyl phthalate	1660	1400		ug/Kg		85	65 - 124
Di-n-butyl phthalate	1660	1420		ug/Kg		86	58 - 130

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

Lab Sample ID: LCS 480-390366/2-A
Matrix: Solid
Analysis Batch: 390522

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390366

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Di-n-octyl phthalate	1660	1360		ug/Kg		82	57 - 133
Fluoranthene	1660	1450		ug/Kg		87	62 - 120
Fluorene	1660	1400		ug/Kg		85	63 - 120
Hexachlorobenzene	1660	1480		ug/Kg		89	60 - 120
Hexachlorobutadiene	1660	1270		ug/Kg		77	45 - 120
Hexachlorocyclopentadiene	1660	1270		ug/Kg		77	47 - 120
Hexachloroethane	1660	1080		ug/Kg		65	41 - 120
Indeno[1,2,3-cd]pyrene	1660	1420		ug/Kg		86	56 - 134
Isophorone	1660	1060		ug/Kg		64	56 - 120
Naphthalene	1660	1250		ug/Kg		76	55 - 120
Nitrobenzene	1660	1030		ug/Kg		62	54 - 120
N-Nitrosodi-n-propylamine	1660	1030		ug/Kg		62	52 - 120
Pentachlorophenol	3310	2370		ug/Kg		72	51 - 120
Phenanthrene	1660	1430		ug/Kg		86	60 - 120
Phenol	1660	1100		ug/Kg		66	53 - 120
Pyrene	1660	1400		ug/Kg		85	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*81*		*54 - 120*
2-Fluorobiphenyl	*84*		*60 - 120*
2-Fluorophenol	*68*		*52 - 120*
Nitrobenzene-d5	*65*		*53 - 120*
Phenol-d5	*70*		*54 - 120*
p-Terphenyl-d14	*91*		*65 - 121*

Lab Sample ID: 480-128303-1 MS
Matrix: Solid
Analysis Batch: 390522

Client Sample ID: TP-19 (3-6)
Prep Type: Total/NA
Prep Batch: 390366

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-Trichlorophenol	ND		1780	1500		ug/Kg	☼	84	46 - 120
2,4,6-Trichlorophenol	ND		1780	1480		ug/Kg	☼	83	41 - 123
2,4-Dichlorophenol	ND		1780	1380		ug/Kg	☼	78	45 - 120
2,4-Dimethylphenol	ND		1780	1130		ug/Kg	☼	64	52 - 120
2,4-Dinitrophenol	ND		3560	1590	J	ug/Kg	☼	45	41 - 146
2,4-Dinitrotoluene	ND		1780	1510		ug/Kg	☼	85	63 - 125
2,6-Dinitrotoluene	ND		1780	1450		ug/Kg	☼	82	66 - 120
2-Chloronaphthalene	ND		1780	1510		ug/Kg	☼	85	57 - 120
2-Chlorophenol	ND		1780	1310		ug/Kg	☼	73	43 - 120
2-Methylnaphthalene	ND		1780	1370		ug/Kg	☼	77	55 - 120
2-Methylphenol	ND		1780	1180		ug/Kg	☼	66	48 - 120
2-Nitroaniline	ND		1780	1250		ug/Kg	☼	70	61 - 120
2-Nitrophenol	ND		1780	1420		ug/Kg	☼	80	37 - 120
3,3'-Dichlorobenzidine	ND		3560	2630		ug/Kg	☼	74	37 - 126
3-Nitroaniline	ND		1780	1360		ug/Kg	☼	77	48 - 120
4,6-Dinitro-2-methylphenol	ND		3560	2740		ug/Kg	☼	77	23 - 149
4-Bromophenyl phenyl ether	ND		1780	1680		ug/Kg	☼	94	58 - 120
4-Chloro-3-methylphenol	ND		1780	1310		ug/Kg	☼	74	49 - 125

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

Lab Sample ID: 480-128303-1 MS
Matrix: Solid
Analysis Batch: 390522

Client Sample ID: TP-19 (3-6)
Prep Type: Total/NA
Prep Batch: 390366

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chloroaniline	ND		1780	1100		ug/Kg	☼	62	38 - 120
4-Chlorophenyl phenyl ether	ND		1780	1550		ug/Kg	☼	87	63 - 124
4-Methylphenol	ND		1780	1230		ug/Kg	☼	69	50 - 120
4-Nitroaniline	ND		1780	1360		ug/Kg	☼	76	47 - 120
4-Nitrophenol	ND		3560	2570		ug/Kg	☼	72	31 - 147
Acenaphthene	ND		1780	1480		ug/Kg	☼	83	60 - 120
Acenaphthylene	ND		1780	1430		ug/Kg	☼	80	58 - 121
Acetophenone	ND		1780	1190		ug/Kg	☼	67	47 - 120
Anthracene	ND		1780	1600		ug/Kg	☼	90	62 - 120
Atrazine	ND		3560	3100		ug/Kg	☼	87	60 - 150
Benzaldehyde	ND		3560	1290		ug/Kg	☼	36	10 - 150
Benzo[a]anthracene	38	J	1780	1560		ug/Kg	☼	86	65 - 120
Benzo[a]pyrene	49	J	1780	1590		ug/Kg	☼	87	64 - 120
Benzo[b]fluoranthene	76	J	1780	1550		ug/Kg	☼	83	64 - 120
Benzo[g,h,i]perylene	31	J	1780	1630		ug/Kg	☼	90	45 - 145
Benzo[k]fluoranthene	ND		1780	1670		ug/Kg	☼	94	65 - 120
Biphenyl	ND		1780	1490		ug/Kg	☼	84	58 - 120
bis (2-chloroisopropyl) ether	ND		1780	1160		ug/Kg	☼	65	31 - 120
Bis(2-chloroethoxy)methane	ND		1780	1200		ug/Kg	☼	67	52 - 120
Bis(2-chloroethyl)ether	ND		1780	1200		ug/Kg	☼	67	45 - 120
Bis(2-ethylhexyl) phthalate	ND		1780	1540		ug/Kg	☼	87	61 - 133
Butyl benzyl phthalate	ND		1780	1610		ug/Kg	☼	90	61 - 120
Caprolactam	ND		3560	2350		ug/Kg	☼	66	37 - 133
Carbazole	ND		1780	1500		ug/Kg	☼	84	59 - 120
Chrysene	41	J	1780	1530		ug/Kg	☼	84	64 - 120
Dibenz(a,h)anthracene	ND		1780	1620		ug/Kg	☼	91	54 - 132
Dibenzofuran	ND		1780	1520		ug/Kg	☼	86	62 - 120
Diethyl phthalate	ND		1780	1480		ug/Kg	☼	83	66 - 120
Dimethyl phthalate	ND		1780	1500		ug/Kg	☼	84	65 - 124
Di-n-butyl phthalate	ND		1780	1520		ug/Kg	☼	86	58 - 130
Di-n-octyl phthalate	ND		1780	1470		ug/Kg	☼	83	57 - 133
Fluoranthene	60	J	1780	1500		ug/Kg	☼	81	62 - 120
Fluorene	ND		1780	1490		ug/Kg	☼	84	63 - 120
Hexachlorobenzene	ND		1780	1620		ug/Kg	☼	91	60 - 120
Hexachlorobutadiene	ND		1780	1380		ug/Kg	☼	77	45 - 120
Hexachlorocyclopentadiene	ND		1780	1410		ug/Kg	☼	79	31 - 120
Hexachloroethane	ND		1780	1240		ug/Kg	☼	69	21 - 120
Indeno[1,2,3-cd]pyrene	40	J	1780	1620		ug/Kg	☼	89	56 - 134
Isophorone	ND		1780	1130		ug/Kg	☼	63	56 - 120
Naphthalene	ND		1780	1350		ug/Kg	☼	76	46 - 120
Nitrobenzene	ND		1780	1120		ug/Kg	☼	63	49 - 120
N-Nitrosodi-n-propylamine	ND		1780	1140		ug/Kg	☼	64	46 - 120
Pentachlorophenol	ND		3560	2150		ug/Kg	☼	60	25 - 136
Phenanthrene	48	J	1780	1590		ug/Kg	☼	87	60 - 122
Phenol	ND		1780	1180		ug/Kg	☼	66	50 - 120
Pyrene	63	J	1780	1760		ug/Kg	☼	96	61 - 133

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

Lab Sample ID: 480-128303-1 MS
Matrix: Solid
Analysis Batch: 390522

Client Sample ID: TP-19 (3-6)
Prep Type: Total/NA
Prep Batch: 390366

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4,6-Tribromophenol	*82*		*54 - 120*
2-Fluorobiphenyl	*86*		*60 - 120*
2-Fluorophenol	*67*		*52 - 120*
Nitrobenzene-d5	*66*		*53 - 120*
Phenol-d5	*69*		*54 - 120*
p-Terphenyl-d14	*101*		*65 - 121*

Lab Sample ID: 480-128303-1 MSD
Matrix: Solid
Analysis Batch: 390522

Client Sample ID: TP-19 (3-6)
Prep Type: Total/NA
Prep Batch: 390366

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,5-Trichlorophenol	ND		1750	1430		ug/Kg	☼	82	46 - 120	5	18
2,4,6-Trichlorophenol	ND		1750	1460		ug/Kg	☼	84	41 - 123	1	19
2,4-Dichlorophenol	ND		1750	1420		ug/Kg	☼	81	45 - 120	3	19
2,4-Dimethylphenol	ND		1750	1140		ug/Kg	☼	65	52 - 120	0	42
2,4-Dinitrophenol	ND		3490	1450	J	ug/Kg	☼	41	41 - 146	9	22
2,4-Dinitrotoluene	ND		1750	1510		ug/Kg	☼	87	63 - 125	0	20
2,6-Dinitrotoluene	ND		1750	1550		ug/Kg	☼	89	66 - 120	7	15
2-Chloronaphthalene	ND		1750	1440		ug/Kg	☼	82	57 - 120	5	21
2-Chlorophenol	ND		1750	1330		ug/Kg	☼	76	43 - 120	1	25
2-Methylnaphthalene	ND		1750	1430		ug/Kg	☼	82	55 - 120	4	21
2-Methylphenol	ND		1750	1190		ug/Kg	☼	68	48 - 120	1	27
2-Nitroaniline	ND		1750	1270		ug/Kg	☼	73	61 - 120	1	15
2-Nitrophenol	ND		1750	1440		ug/Kg	☼	82	37 - 120	1	18
3,3'-Dichlorobenzidine	ND		3490	2570		ug/Kg	☼	74	37 - 126	2	25
3-Nitroaniline	ND		1750	1350		ug/Kg	☼	78	48 - 120	1	19
4,6-Dinitro-2-methylphenol	ND		3490	2690		ug/Kg	☼	77	23 - 149	2	15
4-Bromophenyl phenyl ether	ND		1750	1630		ug/Kg	☼	93	58 - 120	3	15
4-Chloro-3-methylphenol	ND		1750	1330		ug/Kg	☼	76	49 - 125	1	27
4-Chloroaniline	ND		1750	1100		ug/Kg	☼	63	38 - 120	0	22
4-Chlorophenyl phenyl ether	ND		1750	1470		ug/Kg	☼	84	63 - 124	5	16
4-Methylphenol	ND		1750	1200		ug/Kg	☼	69	50 - 120	3	24
4-Nitroaniline	ND		1750	1410		ug/Kg	☼	81	47 - 120	4	24
4-Nitrophenol	ND		3490	2600		ug/Kg	☼	74	31 - 147	1	25
Acenaphthene	ND		1750	1490		ug/Kg	☼	85	60 - 120	0	35
Acenaphthylene	ND		1750	1440		ug/Kg	☼	82	58 - 121	1	18
Acetophenone	ND		1750	1220		ug/Kg	☼	70	47 - 120	3	20
Anthracene	ND		1750	1550		ug/Kg	☼	89	62 - 120	3	15
Atrazine	ND		3490	3090		ug/Kg	☼	88	60 - 150	0	20
Benzaldehyde	ND		3490	1320		ug/Kg	☼	38	10 - 150	3	20
Benzo[a]anthracene	38	J	1750	1540		ug/Kg	☼	86	65 - 120	1	15
Benzo[a]pyrene	49	J	1750	1580		ug/Kg	☼	88	64 - 120	1	15
Benzo[b]fluoranthene	76	J	1750	1740		ug/Kg	☼	95	64 - 120	11	15
Benzo[g,h,i]perylene	31	J	1750	1580		ug/Kg	☼	89	45 - 145	3	15
Benzo[k]fluoranthene	ND		1750	1500		ug/Kg	☼	86	65 - 120	11	22
Biphenyl	ND		1750	1470		ug/Kg	☼	84	58 - 120	1	20
bis (2-chloroisopropyl) ether	ND		1750	1140		ug/Kg	☼	65	31 - 120	1	24

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

Lab Sample ID: 480-128303-1 MSD
Matrix: Solid
Analysis Batch: 390522

Client Sample ID: TP-19 (3-6)
Prep Type: Total/NA
Prep Batch: 390366

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bis(2-chloroethoxy)methane	ND		1750	1240		ug/Kg	☼	71	52 - 120	4	17
Bis(2-chloroethyl)ether	ND		1750	1140		ug/Kg	☼	66	45 - 120	4	21
Bis(2-ethylhexyl) phthalate	ND		1750	1560		ug/Kg	☼	89	61 - 133	1	15
Butyl benzyl phthalate	ND		1750	1620		ug/Kg	☼	93	61 - 120	1	16
Caprolactam	ND		3490	2400		ug/Kg	☼	69	37 - 133	2	20
Carbazole	ND		1750	1530		ug/Kg	☼	87	59 - 120	2	20
Chrysene	41	J	1750	1570		ug/Kg	☼	87	64 - 120	2	15
Dibenz(a,h)anthracene	ND		1750	1600		ug/Kg	☼	92	54 - 132	1	15
Dibenzofuran	ND		1750	1500		ug/Kg	☼	86	62 - 120	1	15
Diethyl phthalate	ND		1750	1450		ug/Kg	☼	83	66 - 120	2	15
Dimethyl phthalate	ND		1750	1490		ug/Kg	☼	85	65 - 124	1	15
Di-n-butyl phthalate	ND		1750	1550		ug/Kg	☼	89	58 - 130	2	15
Di-n-octyl phthalate	ND		1750	1490		ug/Kg	☼	85	57 - 133	1	16
Fluoranthene	60	J	1750	1540		ug/Kg	☼	84	62 - 120	2	15
Fluorene	ND		1750	1480		ug/Kg	☼	84	63 - 120	1	15
Hexachlorobenzene	ND		1750	1680		ug/Kg	☼	96	60 - 120	4	15
Hexachlorobutadiene	ND		1750	1370		ug/Kg	☼	79	45 - 120	0	44
Hexachlorocyclopentadiene	ND		1750	1440		ug/Kg	☼	82	31 - 120	2	49
Hexachloroethane	ND		1750	1210		ug/Kg	☼	69	21 - 120	2	46
Indeno[1,2,3-cd]pyrene	40	J	1750	1580		ug/Kg	☼	88	56 - 134	2	15
Isophorone	ND		1750	1170		ug/Kg	☼	67	56 - 120	4	17
Naphthalene	ND		1750	1380		ug/Kg	☼	79	46 - 120	2	29
Nitrobenzene	ND		1750	1170		ug/Kg	☼	67	49 - 120	4	24
N-Nitrosodi-n-propylamine	ND		1750	1130		ug/Kg	☼	65	46 - 120	0	31
Pentachlorophenol	ND		3490	2110		ug/Kg	☼	61	25 - 136	2	35
Phenanthrene	48	J	1750	1600		ug/Kg	☼	89	60 - 122	0	15
Phenol	ND		1750	1170		ug/Kg	☼	67	50 - 120	1	35
Pyrene	63	J	1750	1760		ug/Kg	☼	97	61 - 133	0	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*84*		*54 - 120*
2-Fluorobiphenyl	*87*		*60 - 120*
2-Fluorophenol	*68*		*52 - 120*
Nitrobenzene-d5	*68*		*53 - 120*
Phenol-d5	*70*		*54 - 120*
p-Terphenyl-d14	*103*		*65 - 121*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-390408/1-A
Matrix: Solid
Analysis Batch: 390730

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390408

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.7	0.32	ug/Kg		12/05/17 07:17	12/06/17 14:01	1
4,4'-DDE	ND		1.7	0.35	ug/Kg		12/05/17 07:17	12/06/17 14:01	1
4,4'-DDT	ND		1.7	0.39	ug/Kg		12/05/17 07:17	12/06/17 14:01	1
Aldrin	ND		1.7	0.41	ug/Kg		12/05/17 07:17	12/06/17 14:01	1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 480-390408/1-A
Matrix: Solid
Analysis Batch: 390730

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390408

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
alpha-BHC	ND		1.7	0.30	ug/Kg		12/05/17 07:17	12/06/17 14:01	1
alpha-Chlordane	ND		1.7	0.83	ug/Kg		12/05/17 07:17	12/06/17 14:01	1
beta-BHC	ND		1.7	0.30	ug/Kg		12/05/17 07:17	12/06/17 14:01	1
delta-BHC	ND		1.7	0.31	ug/Kg		12/05/17 07:17	12/06/17 14:01	1
Dieldrin	ND		1.7	0.40	ug/Kg		12/05/17 07:17	12/06/17 14:01	1
Endosulfan I	ND		1.7	0.32	ug/Kg		12/05/17 07:17	12/06/17 14:01	1
Endosulfan II	ND		1.7	0.30	ug/Kg		12/05/17 07:17	12/06/17 14:01	1
Endosulfan sulfate	ND		1.7	0.31	ug/Kg		12/05/17 07:17	12/06/17 14:01	1
Endrin	ND		1.7	0.33	ug/Kg		12/05/17 07:17	12/06/17 14:01	1
Endrin aldehyde	ND		1.7	0.42	ug/Kg		12/05/17 07:17	12/06/17 14:01	1
Endrin ketone	ND		1.7	0.41	ug/Kg		12/05/17 07:17	12/06/17 14:01	1
gamma-BHC (Lindane)	ND		1.7	0.30	ug/Kg		12/05/17 07:17	12/06/17 14:01	1
gamma-Chlordane	ND		1.7	0.53	ug/Kg		12/05/17 07:17	12/06/17 14:01	1
Heptachlor	ND		1.7	0.36	ug/Kg		12/05/17 07:17	12/06/17 14:01	1
Heptachlor epoxide	ND		1.7	0.43	ug/Kg		12/05/17 07:17	12/06/17 14:01	1
Methoxychlor	ND		1.7	0.34	ug/Kg		12/05/17 07:17	12/06/17 14:01	1
Toxaphene	ND		17	9.7	ug/Kg		12/05/17 07:17	12/06/17 14:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*113*		*45 - 120*	*12/05/17 07:17*	*12/06/17 14:01*	*1*
DCB Decachlorobiphenyl	*124*	*X*	*45 - 120*	*12/05/17 07:17*	*12/06/17 14:01*	*1*
Tetrachloro-m-xylene	*86*		*30 - 124*	*12/05/17 07:17*	*12/06/17 14:01*	*1*
Tetrachloro-m-xylene	*74*		*30 - 124*	*12/05/17 07:17*	*12/06/17 14:01*	*1*

Lab Sample ID: LCS 480-390408/2-A
Matrix: Solid
Analysis Batch: 390730

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390408

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	16.6	17.6		ug/Kg		106	56 - 120
4,4'-DDE	16.6	16.4		ug/Kg		99	44 - 120
4,4'-DDT	16.6	20.8	*	ug/Kg		125	38 - 120
Aldrin	16.6	14.0		ug/Kg		85	38 - 120
alpha-BHC	16.6	13.2		ug/Kg		80	39 - 120
alpha-Chlordane	16.6	14.6		ug/Kg		88	47 - 120
beta-BHC	16.6	14.0		ug/Kg		84	40 - 120
delta-BHC	16.6	14.2		ug/Kg		86	45 - 120
Dieldrin	16.6	17.3		ug/Kg		104	58 - 120
Endosulfan I	16.6	16.9		ug/Kg		102	49 - 120
Endosulfan II	16.6	17.0		ug/Kg		103	55 - 120
Endosulfan sulfate	16.6	17.5		ug/Kg		105	49 - 124
Endrin	16.6	17.1		ug/Kg		103	58 - 120
Endrin aldehyde	16.6	14.8		ug/Kg		90	37 - 121
Endrin ketone	16.6	18.4		ug/Kg		111	46 - 123
gamma-BHC (Lindane)	16.6	14.7		ug/Kg		89	50 - 120
gamma-Chlordane	16.6	15.9		ug/Kg		96	48 - 120
Heptachlor	16.6	16.5		ug/Kg		100	50 - 120
Heptachlor epoxide	16.6	15.3		ug/Kg		92	50 - 120

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 480-390408/2-A
Matrix: Solid
Analysis Batch: 390730

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390408

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Methoxychlor			16.6	23.0	*	ug/Kg		139	58 - 133		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*108*		*45 - 120*
DCB Decachlorobiphenyl	*120*		*45 - 120*
Tetrachloro-m-xylene	*76*		*30 - 124*
Tetrachloro-m-xylene	*72*		*30 - 124*

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

Lab Sample ID: MB 480-390657/1-A
Matrix: Solid
Analysis Batch: 390770

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390657

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.23	0.044	mg/Kg		12/06/17 07:41	12/06/17 14:38	1
PCB-1221	ND		0.23	0.044	mg/Kg		12/06/17 07:41	12/06/17 14:38	1
PCB-1232	ND		0.23	0.044	mg/Kg		12/06/17 07:41	12/06/17 14:38	1
PCB-1242	ND		0.23	0.044	mg/Kg		12/06/17 07:41	12/06/17 14:38	1
PCB-1248	ND		0.23	0.044	mg/Kg		12/06/17 07:41	12/06/17 14:38	1
PCB-1254	ND		0.23	0.11	mg/Kg		12/06/17 07:41	12/06/17 14:38	1
PCB-1260	ND		0.23	0.11	mg/Kg		12/06/17 07:41	12/06/17 14:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*117*		*60 - 154*	*12/06/17 07:41*	*12/06/17 14:38*	*1*
Tetrachloro-m-xylene	*101*		*60 - 154*	*12/06/17 07:41*	*12/06/17 14:38*	*1*
DCB Decachlorobiphenyl	*94*		*65 - 174*	*12/06/17 07:41*	*12/06/17 14:38*	*1*
DCB Decachlorobiphenyl	*99*		*65 - 174*	*12/06/17 07:41*	*12/06/17 14:38*	*1*

Lab Sample ID: LCS 480-390657/2-A
Matrix: Solid
Analysis Batch: 390770

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390657

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016			1.74	2.11		mg/Kg		122	51 - 185		
PCB-1260			1.74	1.94		mg/Kg		112	61 - 184		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*125*		*60 - 154*
Tetrachloro-m-xylene	*105*		*60 - 154*
DCB Decachlorobiphenyl	*94*		*65 - 174*
DCB Decachlorobiphenyl	*101*		*65 - 174*

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

Lab Sample ID: 480-128303-4 MS
Matrix: Solid
Analysis Batch: 390770

Client Sample ID: TP-24 (10-15)
Prep Type: Total/NA
Prep Batch: 390657

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	ND		2.67	3.48		mg/Kg	☼	130	50 - 177
PCB-1260	ND		2.67	3.33		mg/Kg	☼	125	33 - 200

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*136*		*60 - 154*
Tetrachloro-m-xylene	*115*		*60 - 154*
DCB Decachlorobiphenyl	*104*		*65 - 174*
DCB Decachlorobiphenyl	*108*		*65 - 174*

Lab Sample ID: 480-128303-4 MSD
Matrix: Solid
Analysis Batch: 390770

Client Sample ID: TP-24 (10-15)
Prep Type: Total/NA
Prep Batch: 390657

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	ND		2.49	3.43		mg/Kg	☼	138	50 - 177	2	50
PCB-1260	ND		2.49	3.29		mg/Kg	☼	132	33 - 200	1	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*146*		*60 - 154*
Tetrachloro-m-xylene	*133*		*60 - 154*
DCB Decachlorobiphenyl	*111*		*65 - 174*
DCB Decachlorobiphenyl	*116*		*65 - 174*

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 480-390419/1-A
Matrix: Solid
Analysis Batch: 391186

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390419

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		17	5.3	ug/Kg		12/05/17 07:54	12/08/17 13:50	1
Silvex (2,4,5-TP)	ND		17	6.0	ug/Kg		12/05/17 07:54	12/08/17 13:50	1
2,4-D	ND		17	10	ug/Kg		12/05/17 07:54	12/08/17 13:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*113*		*28 - 129*	*12/05/17 07:54*	*12/08/17 13:50*	*1*
2,4-Dichlorophenylacetic acid	*95*		*28 - 129*	*12/05/17 07:54*	*12/08/17 13:50*	*1*

Lab Sample ID: LCS 480-390419/2-A
Matrix: Solid
Analysis Batch: 391186

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390419

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-T	65.4	64.2		ug/Kg		98	41 - 120
Silvex (2,4,5-TP)	65.4	54.6		ug/Kg		83	39 - 125
2,4-D	65.4	69.4		ug/Kg		106	40 - 120

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCS 480-390419/2-A
Matrix: Solid
Analysis Batch: 391186

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390419

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4-Dichlorophenylacetic acid	98		28 - 129
2,4-Dichlorophenylacetic acid	123		28 - 129

Lab Sample ID: LCSD 480-390419/3-A
Matrix: Solid
Analysis Batch: 391186

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 390419

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,5-T			65.4	79.3	*	ug/Kg		121	41 - 120	21	50
Silvex (2,4,5-TP)			65.4	65.8		ug/Kg		101	39 - 125	19	50
2,4-D			65.4	89.6	*	ug/Kg		137	40 - 120	25	50

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4-Dichlorophenylacetic acid	207	X	28 - 129
2,4-Dichlorophenylacetic acid	147	X	28 - 129

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-390362/1-A
Matrix: Solid
Analysis Batch: 390702

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390362

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		9.8	4.3	mg/Kg		12/05/17 15:17	12/05/17 21:28	1
Antimony	ND		14.7	0.39	mg/Kg		12/05/17 15:17	12/05/17 21:28	1
Arsenic	ND		2.0	0.39	mg/Kg		12/05/17 15:17	12/05/17 21:28	1
Barium	ND		0.49	0.11	mg/Kg		12/05/17 15:17	12/05/17 21:28	1
Beryllium	ND		0.20	0.027	mg/Kg		12/05/17 15:17	12/05/17 21:28	1
Cadmium	ND		0.20	0.029	mg/Kg		12/05/17 15:17	12/05/17 21:28	1
Calcium	3.84	J	48.9	3.2	mg/Kg		12/05/17 15:17	12/05/17 21:28	1
Chromium	ND		0.49	0.20	mg/Kg		12/05/17 15:17	12/05/17 21:28	1
Cobalt	ND		0.49	0.049	mg/Kg		12/05/17 15:17	12/05/17 21:28	1
Copper	ND		0.98	0.21	mg/Kg		12/05/17 15:17	12/05/17 21:28	1
Iron	ND		9.8	3.4	mg/Kg		12/05/17 15:17	12/05/17 21:28	1
Lead	ND		0.98	0.23	mg/Kg		12/05/17 15:17	12/05/17 21:28	1
Magnesium	ND		19.6	0.91	mg/Kg		12/05/17 15:17	12/05/17 21:28	1
Manganese	0.0694	J	0.20	0.031	mg/Kg		12/05/17 15:17	12/05/17 21:28	1
Nickel	ND		4.9	0.22	mg/Kg		12/05/17 15:17	12/05/17 21:28	1
Potassium	ND		29.3	19.6	mg/Kg		12/05/17 15:17	12/05/17 21:28	1
Selenium	ND		3.9	0.39	mg/Kg		12/05/17 15:17	12/05/17 21:28	1
Silver	ND		0.59	0.20	mg/Kg		12/05/17 15:17	12/05/17 21:28	1
Sodium	ND		137	12.7	mg/Kg		12/05/17 15:17	12/05/17 21:28	1
Thallium	ND		5.9	0.29	mg/Kg		12/05/17 15:17	12/05/17 21:28	1
Vanadium	ND		0.49	0.11	mg/Kg		12/05/17 15:17	12/05/17 21:28	1
Zinc	ND		2.0	0.63	mg/Kg		12/05/17 15:17	12/05/17 21:28	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 480-390362/2-A
Matrix: Solid
Analysis Batch: 390702

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390362

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	8090	9179		mg/Kg		113.5	39.6 - 160.7
Antimony	99.3	69.73		mg/Kg		70.2	21.6 - 256.8
Arsenic	100	86.55		mg/Kg		86.6	69.6 - 131.0
Barium	217	185.6		mg/Kg		85.5	73.7 - 128.1
Beryllium	147	122.6		mg/Kg		83.4	75.5 - 125.9
Cadmium	83.7	72.16		mg/Kg		86.2	73.2 - 131.4
Calcium	6010	5304		mg/Kg		88.3	73.7 - 126.3
Chromium	107	100.2		mg/Kg		93.7	69.4 - 134.6
Cobalt	123	129.7		mg/Kg		105.4	74.3 - 130.1
Copper	166	150.7		mg/Kg		90.8	75.3 - 128.3
Iron	14600	15550		mg/Kg		106.5	36.1 - 163.7
Lead	88.4	94.32		mg/Kg		106.7	69.9 - 130.1
Magnesium	2930	2664		mg/Kg		90.9	65.9 - 134.5
Manganese	311	266.3		mg/Kg		85.6	74.9 - 125.4
Nickel	49.8	53.09		mg/Kg		106.6	69.1 - 135.1
Potassium	2620	2744		mg/Kg		104.7	61.1 - 138.9
Selenium	87.7	78.75		mg/Kg		89.8	64.1 - 135.7
Silver	41.4	35.17		mg/Kg		85.0	65.9 - 133.8
Sodium	252	245.5		mg/Kg		97.4	32.9 - 167.5
Thallium	58.1	63.16		mg/Kg		108.7	63.9 - 136.3
Vanadium	140	133.4		mg/Kg		95.3	69.9 - 129.3
Zinc	145	126.3		mg/Kg		87.1	67.7 - 132.4

Lab Sample ID: 480-128303-1 MS
Matrix: Solid
Analysis Batch: 390702

Client Sample ID: TP-19 (3-6)
Prep Type: Total/NA
Prep Batch: 390362

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	7780		2160	10090		mg/Kg	☼	107	75 - 125
Antimony	0.46	J F1	43.3	33.50		mg/Kg	☼	76	75 - 125
Arsenic	3.5		43.3	46.02		mg/Kg	☼	98	75 - 125
Barium	70.1	F1	43.3	104.5		mg/Kg	☼	79	75 - 125

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-128303-1 MS
Matrix: Solid
Analysis Batch: 390702

Client Sample ID: TP-19 (3-6)
Prep Type: Total/NA
Prep Batch: 390362

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	0.39		43.3	38.98		mg/Kg	☼	89	75 - 125
Cadmium	0.11	J	43.3	40.20		mg/Kg	☼	93	75 - 125
Calcium	16900	B F2	2160	12840	4	mg/Kg	☼	-185	75 - 125
Chromium	12.9		43.3	58.98		mg/Kg	☼	106	75 - 125
Cobalt	2.5		43.3	46.36		mg/Kg	☼	101	75 - 125
Copper	16.5	F1 F2	43.3	78.17	F1	mg/Kg	☼	142	75 - 125
Iron	11600	F2	2160	27100	4	mg/Kg	☼	716	75 - 125
Lead	19.1		43.3	62.06		mg/Kg	☼	99	75 - 125
Magnesium	1350		2160	3165		mg/Kg	☼	84	75 - 125
Manganese	1150	B F2	43.3	622.2	4	mg/Kg	☼	-1226	75 - 125
Nickel	6.8		43.3	54.63		mg/Kg	☼	110	75 - 125
Potassium	1210		2170	3562		mg/Kg	☼	109	75 - 125
Selenium	0.72	J	43.3	40.96		mg/Kg	☼	93	75 - 125
Silver	ND		10.8	10.36		mg/Kg	☼	96	75 - 125
Sodium	195		2170	2092		mg/Kg	☼	88	75 - 125
Thallium	ND		43.3	42.53		mg/Kg	☼	98	75 - 125
Vanadium	20.2		43.3	65.79		mg/Kg	☼	105	75 - 125
Zinc	48.9	F1	43.3	90.68		mg/Kg	☼	97	75 - 125

Lab Sample ID: 480-128303-1 MSD
Matrix: Solid
Analysis Batch: 390702

Client Sample ID: TP-19 (3-6)
Prep Type: Total/NA
Prep Batch: 390362

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	7780		2080	10310		mg/Kg	☼	122	75 - 125	2	20
Antimony	0.46	J F1	41.5	29.71	F1	mg/Kg	☼	70	75 - 125	12	20
Arsenic	3.5		41.5	41.60		mg/Kg	☼	92	75 - 125	10	20
Barium	70.1	F1	41.5	96.61	F1	mg/Kg	☼	64	75 - 125	8	20
Beryllium	0.39		41.5	36.50		mg/Kg	☼	87	75 - 125	7	20
Cadmium	0.11	J	41.5	37.52		mg/Kg	☼	90	75 - 125	7	20
Calcium	16900	B F2	2080	6952	4 F2	mg/Kg	☼	-477	75 - 125	59	20
Chromium	12.9		41.5	53.34		mg/Kg	☼	97	75 - 125	10	20
Cobalt	2.5		41.5	42.85		mg/Kg	☼	97	75 - 125	8	20
Copper	16.5	F1 F2	41.5	59.74	F2	mg/Kg	☼	104	75 - 125	27	20
Iron	11600	F2	2080	16360	4 F2	mg/Kg	☼	228	75 - 125	49	20
Lead	19.1		41.5	61.78		mg/Kg	☼	103	75 - 125	0	20
Magnesium	1350		2080	3405		mg/Kg	☼	99	75 - 125	7	20
Manganese	1150	B F2	41.5	385.1	4 F2	mg/Kg	☼	-1848	75 - 125	47	20
Nickel	6.8		41.5	50.16		mg/Kg	☼	104	75 - 125	9	20
Potassium	1210		2080	3675		mg/Kg	☼	119	75 - 125	3	20
Selenium	0.72	J	41.5	38.19		mg/Kg	☼	90	75 - 125	7	20
Silver	ND		10.4	9.62		mg/Kg	☼	93	75 - 125	7	20
Sodium	195		2080	1942		mg/Kg	☼	84	75 - 125	7	20
Thallium	ND		41.5	39.83		mg/Kg	☼	96	75 - 125	7	20
Vanadium	20.2		41.5	58.55		mg/Kg	☼	92	75 - 125	12	20
Zinc	48.9	F1	41.5	104.8	F1	mg/Kg	☼	135	75 - 125	14	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-390973/1-A
Matrix: Solid
Analysis Batch: 391065

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390973

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.0082	mg/Kg		12/07/17 15:00	12/07/17 16:28	1

Lab Sample ID: LCSSRM 480-390973/2-A ^10
Matrix: Solid
Analysis Batch: 391065

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390973

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	12.6	11.28		mg/Kg		89.6	44.4 - 128.6

Lab Sample ID: MB 480-390978/1-A
Matrix: Solid
Analysis Batch: 391065

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390978

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.0082	mg/Kg		12/07/17 15:00	12/07/17 17:10	1

Lab Sample ID: LCSSRM 480-390978/2-A ^10
Matrix: Solid
Analysis Batch: 391065

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390978

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	12.6	11.91		mg/Kg		94.5	44.4 - 128.6

GC/MS VOA

Prep Batch: 390132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128303-5	TP-28 (2-4)	Total/NA	Solid	5035A_L	
480-128303-9	TP-24 (10-12)	Total/NA	Solid	5035A_L	
MB 480-390132/3-A	Method Blank	Total/NA	Solid	5035A_L	
LCS 480-390132/1-A	Lab Control Sample	Total/NA	Solid	5035A_L	
LCSD 480-390132/2-A	Lab Control Sample Dup	Total/NA	Solid	5035A_L	

Analysis Batch: 391130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128303-5	TP-28 (2-4)	Total/NA	Solid	8260C	390132
480-128303-9	TP-24 (10-12)	Total/NA	Solid	8260C	390132
MB 480-390132/3-A	Method Blank	Total/NA	Solid	8260C	390132
LCS 480-390132/1-A	Lab Control Sample	Total/NA	Solid	8260C	390132
LCSD 480-390132/2-A	Lab Control Sample Dup	Total/NA	Solid	8260C	390132

GC/MS Semi VOA

Prep Batch: 390366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128303-1	TP-19 (3-6)	Total/NA	Solid	3550C	
480-128303-2	TP-20 (5-10)	Total/NA	Solid	3550C	
480-128303-3 - DL	TP-25 (0-2)	Total/NA	Solid	3550C	
480-128303-3	TP-25 (0-2)	Total/NA	Solid	3550C	
480-128303-4	TP-24 (10-15)	Total/NA	Solid	3550C	
480-128303-5	TP-28 (2-4)	Total/NA	Solid	3550C	
480-128303-6	TP-26 (12-15)	Total/NA	Solid	3550C	
480-128303-7	TP-29 (5-8)	Total/NA	Solid	3550C	
480-128303-8	TP-30 (10-15)	Total/NA	Solid	3550C	
MB 480-390366/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-390366/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-128303-1 MS	TP-19 (3-6)	Total/NA	Solid	3550C	
480-128303-1 MSD	TP-19 (3-6)	Total/NA	Solid	3550C	

Analysis Batch: 390522

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128303-1	TP-19 (3-6)	Total/NA	Solid	8270D	390366
480-128303-2	TP-20 (5-10)	Total/NA	Solid	8270D	390366
480-128303-3	TP-25 (0-2)	Total/NA	Solid	8270D	390366
480-128303-4	TP-24 (10-15)	Total/NA	Solid	8270D	390366
480-128303-5	TP-28 (2-4)	Total/NA	Solid	8270D	390366
480-128303-6	TP-26 (12-15)	Total/NA	Solid	8270D	390366
480-128303-7	TP-29 (5-8)	Total/NA	Solid	8270D	390366
480-128303-8	TP-30 (10-15)	Total/NA	Solid	8270D	390366
MB 480-390366/1-A	Method Blank	Total/NA	Solid	8270D	390366
LCS 480-390366/2-A	Lab Control Sample	Total/NA	Solid	8270D	390366
480-128303-1 MS	TP-19 (3-6)	Total/NA	Solid	8270D	390366
480-128303-1 MSD	TP-19 (3-6)	Total/NA	Solid	8270D	390366

Analysis Batch: 390917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128303-3 - DL	TP-25 (0-2)	Total/NA	Solid	8270D	390366

GC Semi VOA

Prep Batch: 390408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128303-3	TP-25 (0-2)	Total/NA	Solid	3550C	
480-128303-4	TP-24 (10-15)	Total/NA	Solid	3550C	
480-128303-7	TP-29 (5-8)	Total/NA	Solid	3550C	
MB 480-390408/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-390408/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Prep Batch: 390419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128303-3	TP-25 (0-2)	Total/NA	Solid	8151A	
480-128303-4	TP-24 (10-15)	Total/NA	Solid	8151A	
480-128303-7	TP-29 (5-8)	Total/NA	Solid	8151A	
MB 480-390419/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 480-390419/2-A	Lab Control Sample	Total/NA	Solid	8151A	
LCSD 480-390419/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	

Prep Batch: 390657

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128303-3	TP-25 (0-2)	Total/NA	Solid	3550C	
480-128303-4	TP-24 (10-15)	Total/NA	Solid	3550C	
480-128303-7	TP-29 (5-8)	Total/NA	Solid	3550C	
MB 480-390657/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-390657/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-128303-4 MS	TP-24 (10-15)	Total/NA	Solid	3550C	
480-128303-4 MSD	TP-24 (10-15)	Total/NA	Solid	3550C	

Analysis Batch: 390730

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128303-3	TP-25 (0-2)	Total/NA	Solid	8081B	390408
480-128303-4	TP-24 (10-15)	Total/NA	Solid	8081B	390408
480-128303-7	TP-29 (5-8)	Total/NA	Solid	8081B	390408
MB 480-390408/1-A	Method Blank	Total/NA	Solid	8081B	390408
LCS 480-390408/2-A	Lab Control Sample	Total/NA	Solid	8081B	390408

Analysis Batch: 390770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128303-3	TP-25 (0-2)	Total/NA	Solid	8082A	390657
480-128303-4	TP-24 (10-15)	Total/NA	Solid	8082A	390657
480-128303-7	TP-29 (5-8)	Total/NA	Solid	8082A	390657
MB 480-390657/1-A	Method Blank	Total/NA	Solid	8082A	390657
LCS 480-390657/2-A	Lab Control Sample	Total/NA	Solid	8082A	390657
480-128303-4 MS	TP-24 (10-15)	Total/NA	Solid	8082A	390657
480-128303-4 MSD	TP-24 (10-15)	Total/NA	Solid	8082A	390657

Analysis Batch: 391186

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128303-3	TP-25 (0-2)	Total/NA	Solid	8151A	390419
480-128303-4	TP-24 (10-15)	Total/NA	Solid	8151A	390419
480-128303-7	TP-29 (5-8)	Total/NA	Solid	8151A	390419
MB 480-390419/1-A	Method Blank	Total/NA	Solid	8151A	390419
LCS 480-390419/2-A	Lab Control Sample	Total/NA	Solid	8151A	390419
LCSD 480-390419/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	390419

Metals

Prep Batch: 390362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128303-1	TP-19 (3-6)	Total/NA	Solid	3050B	
480-128303-2	TP-20 (5-10)	Total/NA	Solid	3050B	
480-128303-3	TP-25 (0-2)	Total/NA	Solid	3050B	
480-128303-4	TP-24 (10-15)	Total/NA	Solid	3050B	
480-128303-5	TP-28 (2-4)	Total/NA	Solid	3050B	
480-128303-6	TP-26 (12-15)	Total/NA	Solid	3050B	
480-128303-7	TP-29 (5-8)	Total/NA	Solid	3050B	
480-128303-8	TP-30 (10-15)	Total/NA	Solid	3050B	
MB 480-390362/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 480-390362/2-A	Lab Control Sample	Total/NA	Solid	3050B	
480-128303-1 MS	TP-19 (3-6)	Total/NA	Solid	3050B	
480-128303-1 MSD	TP-19 (3-6)	Total/NA	Solid	3050B	

Analysis Batch: 390702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128303-1	TP-19 (3-6)	Total/NA	Solid	6010C	390362
480-128303-2	TP-20 (5-10)	Total/NA	Solid	6010C	390362
480-128303-3	TP-25 (0-2)	Total/NA	Solid	6010C	390362
480-128303-4	TP-24 (10-15)	Total/NA	Solid	6010C	390362
480-128303-5	TP-28 (2-4)	Total/NA	Solid	6010C	390362
480-128303-6	TP-26 (12-15)	Total/NA	Solid	6010C	390362
480-128303-7	TP-29 (5-8)	Total/NA	Solid	6010C	390362
480-128303-8	TP-30 (10-15)	Total/NA	Solid	6010C	390362
MB 480-390362/1-A	Method Blank	Total/NA	Solid	6010C	390362
LCSSRM 480-390362/2-A	Lab Control Sample	Total/NA	Solid	6010C	390362
480-128303-1 MS	TP-19 (3-6)	Total/NA	Solid	6010C	390362
480-128303-1 MSD	TP-19 (3-6)	Total/NA	Solid	6010C	390362

Prep Batch: 390973

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128303-1	TP-19 (3-6)	Total/NA	Solid	7471B	
480-128303-2	TP-20 (5-10)	Total/NA	Solid	7471B	
480-128303-3	TP-25 (0-2)	Total/NA	Solid	7471B	
480-128303-4	TP-24 (10-15)	Total/NA	Solid	7471B	
480-128303-5	TP-28 (2-4)	Total/NA	Solid	7471B	
480-128303-6	TP-26 (12-15)	Total/NA	Solid	7471B	
480-128303-7	TP-29 (5-8)	Total/NA	Solid	7471B	
MB 480-390973/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 480-390973/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	

Prep Batch: 390978

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128303-8	TP-30 (10-15)	Total/NA	Solid	7471B	
MB 480-390978/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 480-390978/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	

Analysis Batch: 391065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128303-1	TP-19 (3-6)	Total/NA	Solid	7471B	390973
480-128303-2	TP-20 (5-10)	Total/NA	Solid	7471B	390973
480-128303-3	TP-25 (0-2)	Total/NA	Solid	7471B	390973

Metals (Continued)

Analysis Batch: 391065 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128303-4	TP-24 (10-15)	Total/NA	Solid	7471B	390973
480-128303-5	TP-28 (2-4)	Total/NA	Solid	7471B	390973
480-128303-6	TP-26 (12-15)	Total/NA	Solid	7471B	390973
480-128303-7	TP-29 (5-8)	Total/NA	Solid	7471B	390973
480-128303-8	TP-30 (10-15)	Total/NA	Solid	7471B	390978
MB 480-390973/1-A	Method Blank	Total/NA	Solid	7471B	390973
MB 480-390978/1-A	Method Blank	Total/NA	Solid	7471B	390978
LCSSRM 480-390973/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	390973
LCSSRM 480-390978/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	390978

General Chemistry

Analysis Batch: 390299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128303-9	TP-24 (10-12)	Total/NA	Solid	Moisture	

Analysis Batch: 390380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128303-1	TP-19 (3-6)	Total/NA	Solid	Moisture	
480-128303-2	TP-20 (5-10)	Total/NA	Solid	Moisture	
480-128303-3	TP-25 (0-2)	Total/NA	Solid	Moisture	
480-128303-4	TP-24 (10-15)	Total/NA	Solid	Moisture	
480-128303-5	TP-28 (2-4)	Total/NA	Solid	Moisture	
480-128303-6	TP-26 (12-15)	Total/NA	Solid	Moisture	
480-128303-7	TP-29 (5-8)	Total/NA	Solid	Moisture	
480-128303-8	TP-30 (10-15)	Total/NA	Solid	Moisture	

Client Sample ID: TP-19 (3-6)
Date Collected: 12/01/17 00:00
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390380	12/04/17 17:06	MJH	TAL BUF

Client Sample ID: TP-19 (3-6)
Date Collected: 12/01/17 00:00
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-1
Matrix: Solid
Percent Solids: 93.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			390366	12/04/17 14:26	BEK	TAL BUF
Total/NA	Analysis	8270D		1	390522	12/05/17 15:11	DMR	TAL BUF
Total/NA	Prep	3050B			390362	12/05/17 15:17	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390702	12/05/17 21:35	LMH	TAL BUF
Total/NA	Prep	7471B			390973	12/07/17 15:00	EMB	TAL BUF
Total/NA	Analysis	7471B		1	391065	12/07/17 16:42	BMB	TAL BUF

Client Sample ID: TP-20 (5-10)
Date Collected: 12/01/17 10:30
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390380	12/04/17 17:06	MJH	TAL BUF

Client Sample ID: TP-20 (5-10)
Date Collected: 12/01/17 10:30
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-2
Matrix: Solid
Percent Solids: 91.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			390366	12/04/17 14:26	BEK	TAL BUF
Total/NA	Analysis	8270D		10	390522	12/05/17 15:38	DMR	TAL BUF
Total/NA	Prep	3050B			390362	12/05/17 15:17	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390702	12/05/17 21:53	LMH	TAL BUF
Total/NA	Prep	7471B			390973	12/07/17 15:00	EMB	TAL BUF
Total/NA	Analysis	7471B		1	391065	12/07/17 16:48	BMB	TAL BUF

Client Sample ID: TP-25 (0-2)
Date Collected: 12/01/17 09:40
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390380	12/04/17 17:06	MJH	TAL BUF

Client Sample ID: TP-25 (0-2)

Lab Sample ID: 480-128303-3

Date Collected: 12/01/17 09:40
Matrix: Solid
Date Received: 12/01/17 16:45
Percent Solids: 71.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			390366	12/04/17 14:26	BEK	TAL BUF
Total/NA	Analysis	8270D		20	390522	12/05/17 16:05	DMR	TAL BUF
Total/NA	Prep	3550C	DL		390366	12/04/17 14:26	BEK	TAL BUF
Total/NA	Analysis	8270D	DL	100	390917	12/07/17 18:09	DMR	TAL BUF
Total/NA	Prep	3550C			390408	12/05/17 07:17	SMP	TAL BUF
Total/NA	Analysis	8081B		50	390730	12/06/17 17:37	JLS	TAL BUF
Total/NA	Prep	3550C			390657	12/06/17 07:41	SMP	TAL BUF
Total/NA	Analysis	8082A		1	390770	12/06/17 18:53	JMO	TAL BUF
Total/NA	Prep	8151A			390419	12/05/17 07:54	SMP	TAL BUF
Total/NA	Analysis	8151A		1	391186	12/08/17 15:41	JMO	TAL BUF
Total/NA	Prep	3050B			390362	12/05/17 15:17	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390702	12/05/17 21:57	LMH	TAL BUF
Total/NA	Prep	7471B			390973	12/07/17 15:00	EMB	TAL BUF
Total/NA	Analysis	7471B		1	391065	12/07/17 16:49	BMB	TAL BUF

Client Sample ID: TP-24 (10-15)

Lab Sample ID: 480-128303-4

Date Collected: 12/01/17 11:30
Matrix: Solid
Date Received: 12/01/17 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390380	12/04/17 17:06	MJH	TAL BUF

Client Sample ID: TP-24 (10-15)

Lab Sample ID: 480-128303-4

Date Collected: 12/01/17 11:30
Matrix: Solid
Date Received: 12/01/17 16:45
Percent Solids: 90.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			390366	12/04/17 14:26	BEK	TAL BUF
Total/NA	Analysis	8270D		1	390522	12/05/17 16:31	DMR	TAL BUF
Total/NA	Prep	3550C			390408	12/05/17 07:17	SMP	TAL BUF
Total/NA	Analysis	8081B		1	390730	12/06/17 17:57	JLS	TAL BUF
Total/NA	Prep	3550C			390657	12/06/17 07:41	SMP	TAL BUF
Total/NA	Analysis	8082A		1	390770	12/06/17 15:41	JMO	TAL BUF
Total/NA	Prep	8151A			390419	12/05/17 07:54	SMP	TAL BUF
Total/NA	Analysis	8151A		1	391186	12/08/17 16:11	JMO	TAL BUF
Total/NA	Prep	3050B			390362	12/05/17 15:17	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390702	12/05/17 22:11	LMH	TAL BUF
Total/NA	Prep	7471B			390973	12/07/17 15:00	EMB	TAL BUF
Total/NA	Analysis	7471B		1	391065	12/07/17 16:51	BMB	TAL BUF

Client Sample ID: TP-28 (2-4)
Date Collected: 12/01/17 12:08
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390380	12/04/17 17:06	MJH	TAL BUF

Client Sample ID: TP-28 (2-4)
Date Collected: 12/01/17 12:08
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-5
Matrix: Solid
Percent Solids: 92.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_L			390132	12/01/17 16:38	KMN	TAL BUF
Total/NA	Analysis	8260C		1	391130	12/08/17 15:17	AEM	TAL BUF
Total/NA	Prep	3550C			390366	12/04/17 14:26	BEK	TAL BUF
Total/NA	Analysis	8270D		1	390522	12/05/17 16:58	DMR	TAL BUF
Total/NA	Prep	3050B			390362	12/05/17 15:17	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390702	12/05/17 22:15	LMH	TAL BUF
Total/NA	Prep	7471B			390973	12/07/17 15:00	EMB	TAL BUF
Total/NA	Analysis	7471B		1	391065	12/07/17 16:52	BMB	TAL BUF

Client Sample ID: TP-26 (12-15)
Date Collected: 12/01/17 13:17
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390380	12/04/17 17:06	MJH	TAL BUF

Client Sample ID: TP-26 (12-15)
Date Collected: 12/01/17 13:17
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-6
Matrix: Solid
Percent Solids: 70.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			390366	12/04/17 14:26	BEK	TAL BUF
Total/NA	Analysis	8270D		1	390522	12/05/17 17:24	DMR	TAL BUF
Total/NA	Prep	3050B			390362	12/05/17 15:17	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390702	12/05/17 22:18	LMH	TAL BUF
Total/NA	Prep	7471B			390973	12/07/17 15:00	EMB	TAL BUF
Total/NA	Analysis	7471B		1	391065	12/07/17 16:54	BMB	TAL BUF

Client Sample ID: TP-29 (5-8)
Date Collected: 12/01/17 13:55
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390380	12/04/17 17:06	MJH	TAL BUF

Client Sample ID: TP-29 (5-8)

Lab Sample ID: 480-128303-7

Date Collected: 12/01/17 13:55
Matrix: Solid
Date Received: 12/01/17 16:45
Percent Solids: 94.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			390366	12/04/17 14:26	BEK	TAL BUF
Total/NA	Analysis	8270D		1	390522	12/05/17 17:50	DMR	TAL BUF
Total/NA	Prep	3550C			390408	12/05/17 07:17	SMP	TAL BUF
Total/NA	Analysis	8081B		1	390730	12/06/17 18:16	JLS	TAL BUF
Total/NA	Prep	3550C			390657	12/06/17 07:41	SMP	TAL BUF
Total/NA	Analysis	8082A		1	390770	12/06/17 19:09	JMO	TAL BUF
Total/NA	Prep	8151A			390419	12/05/17 07:54	SMP	TAL BUF
Total/NA	Analysis	8151A		1	391186	12/08/17 16:41	JMO	TAL BUF
Total/NA	Prep	3050B			390362	12/05/17 15:17	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390702	12/05/17 22:22	LMH	TAL BUF
Total/NA	Prep	7471B			390973	12/07/17 15:00	EMB	TAL BUF
Total/NA	Analysis	7471B		1	391065	12/07/17 16:55	BMB	TAL BUF

Client Sample ID: TP-30 (10-15)

Lab Sample ID: 480-128303-8

Date Collected: 12/01/17 14:46
Matrix: Solid
Date Received: 12/01/17 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390380	12/04/17 17:06	MJH	TAL BUF

Client Sample ID: TP-30 (10-15)

Lab Sample ID: 480-128303-8

Date Collected: 12/01/17 14:46
Matrix: Solid
Date Received: 12/01/17 16:45
Percent Solids: 79.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			390366	12/04/17 14:26	BEK	TAL BUF
Total/NA	Analysis	8270D		1	390522	12/05/17 18:17	DMR	TAL BUF
Total/NA	Prep	3050B			390362	12/05/17 15:17	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390702	12/05/17 22:25	LMH	TAL BUF
Total/NA	Prep	7471B			390978	12/07/17 15:00	EMB	TAL BUF
Total/NA	Analysis	7471B		1	391065	12/07/17 17:14	BMB	TAL BUF

Client Sample ID: TP-24 (10-12)

Lab Sample ID: 480-128303-9

Date Collected: 12/01/17 11:25
Matrix: Solid
Date Received: 12/01/17 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	390299	12/04/17 10:49	CDC	TAL BUF

Lab Chronicle

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128303-1

Client Sample ID: TP-24 (10-12)

Date Collected: 12/01/17 11:25
Date Received: 12/01/17 16:45

Lab Sample ID: 480-128303-9

Matrix: Solid
Percent Solids: 91.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_L			390132	12/01/17 16:38	KMN	TAL BUF
Total/NA	Analysis	8260C		1	391130	12/08/17 15:43	AEM	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Benchmark Env. Eng. & Science, PLLC
TestAmerica Job ID: 480-128303-1
Project/Site: 1827 Fillmore Avenue Site

Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128303-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
8081B	Organochlorine Pesticides (GC)	SW846	TAL BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL BUF
8151A	Herbicides (GC)	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
7471B	Mercury (CVAA)	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128303-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-128303-1	TP-19 (3-6)	Solid	12/01/17 00:00	12/01/17 16:45
480-128303-2	TP-20 (5-10)	Solid	12/01/17 10:30	12/01/17 16:45
480-128303-3	TP-25 (0-2)	Solid	12/01/17 09:40	12/01/17 16:45
480-128303-4	TP-24 (10-15)	Solid	12/01/17 11:30	12/01/17 16:45
480-128303-5	TP-28 (2-4)	Solid	12/01/17 12:08	12/01/17 16:45
480-128303-6	TP-26 (12-15)	Solid	12/01/17 13:17	12/01/17 16:45
480-128303-7	TP-29 (5-8)	Solid	12/01/17 13:55	12/01/17 16:45
480-128303-8	TP-30 (10-15)	Solid	12/01/17 14:46	12/01/17 16:45
480-128303-9	TP-24 (10-12)	Solid	12/01/17 11:25	12/01/17 16:45

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: T. Behrendt	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-105119-24832.2
Client Contact: Bryan Mayback	Phone: (716) 818-8357	E-Mail: brian.fischer@testamericainc.com		Page: Page 2 of 8
Company: Benchmark Env. Eng. & Science, PLLC				Job #:
Address: 2558 Hamburg Turnpike	Due Date Requested:			
City: Lackawanna	TAT Requested (days): STD			
State, Zip: NY, 14218				
Phone: 716-856-0599(Tel)	PO #: B0421-017-001			
Email: bmayback@turnkeyllc.com	WO #:			
Project Name: 1827 Fillmore Avenue Site - Soil	Project #: 48017094			
Site:	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010C, 7471B, 8270D	8081B, 8082A, 8151A	TCL + CP-51 VOC 8260	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N			
TP-19 (3-6)	12/1/17		G=grab	Solid	N	N	X			1	
TP-20 (5-10)		1030		Solid			X			1	
TP-25 (0-2		940		Solid			X	X		2	
TP-24 (10-15)		1130		Solid			X	X		2	
TP-28 (2-4)	1	1205		Solid			X		X	4	
TP-26 (12-15)		1317		Solid			X			1	
TP-29 (5-8)		1355		Solid			X	X		2	
TP-30 (10-15)		1446		Solid			X			1	
TP-24 (10-12)		1125		Solid					X	4	
				Solid							
				Solid							

480-128303 COC

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) CAT B.

Special Instructions/QC Requirements: Hold ALL METALS For possible TCLP Analysis

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	12/1/17 1645			12/1/17 1645	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 2.6 #1

Ver: 08/04/2016

Login Sample Receipt Checklist

Client: Benchmark Env. Eng. & Science, PLLC

Job Number: 480-128303-1

Login Number: 128303
List Number: 1
Creator: Janish, Carl M

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	False	SAMPLE 1
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	BMTK
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-128422-1
Client Project/Site: 1827 Fillmore Avenue Site

For:
Benchmark Env. Eng. & Science, PLLC
2558 Hamburg Turnpike
Suite 300
Lackawanna, New York 14218

Attn: Mr. Michael Lesakowski

Authorized for release by:
12/15/2017 1:54:25 PM

Brian Fischer, Manager of Project Management
(716)504-9835
brian.fischer@testamericainc.com

LINKS

Review your project results through TotalAccess

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Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

GC/MS Semi VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
X	Surrogate is outside control limits
*	LCS or LCSD is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
F1	MS and/or MSD Recovery is outside acceptance limits.

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
F2	MS/MSD RPD exceeds control limits
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-128422-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-128422-1

Comments
No additional comments.

Receipt
The samples were received on 12/5/2017 12:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA
Method(s) 8270D: The following samples was diluted due to color and, viscosity: TP-13 (10-15) (480-128422-1), TP-13 (10-15) (480-128422-1[MS]), TP-13 (10-15) (480-128422-1[MSD]), TP-18 (5-9) (480-128422-2), BLIND DUP #4 (480-128422-3), TP-17 (2.5-4.0) (480-128422-4), TP-22 (9-12) (480-128422-6), TP-23 (13-15.5) (480-128422-7) and TP-27 (7-9) (480-128422-8). Elevated reporting limits (RL) are provided.

Method(s) 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: TP-18 (5-9) (480-128422-2), BLIND DUP #4 (480-128422-3) and TP-17 (2.5-4.0) (480-128422-4). These results have been reported and qualified.

Method(s) 8270D: The following sample required a dilution due to the nature of the sample matrix: TP-23 (13-15.5) (480-128422-7). 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.

Method(s) 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 480-390795 and analytical batch 480-391010 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 480-390795 and analytical batch 480-391010 were below the method detection limit (MDL) for 2,4-Dinitrophenol. Percent recovery and RPD could not be calculated. The associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA
Method(s) 8081B: The following samples were diluted due to the nature of the sample matrix: (480-128422-A-7-C MS) and (480-128422-A-7-D MSD). As such, surrogate and spike recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method(s) 8081B: The following sample was diluted due to the nature of the sample matrix: TP-23 (13-15.5) (480-128422-7). As such, surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method(s) 8081B: Surrogate recovery for the following sample was outside the upper control limit: TP-16 (8-10) (480-128422-5). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8081B: The surrogate recovery for the Method Blank (MB 480-390860/1-A) and LCS (LCS 480-390860/2-A) was outside the upper control limits. Samples did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8081B: All primary data for analytical batch 391106 is reported from the RTX-CLPI column.

Method(s) 8082A: The DCB Decachlorobiphenyl recovery in the CCVIS 480-380770/4 was decreased and outside of recovery limits,

Job ID: 480-128422-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

though the associated quality control (LCS 480-390657/2-A) and (MB 480-390657/1-A) DCB Decachlorobiphenyl surrogate recoveries are compliant, therefore the data has been reported.

Method(s) 8082A: All primary data for analytical batch 390770 is reported from the ZB-5 column.

Method(s) 8082A: The percent difference in a multi-component continuing calibration verification is assessed on the basis of the total amount, individual peak calculations are only listed for completeness.

Method(s) 8082A: The surrogate recovery for Decachlorobiphenyl (DCB) in the continuing calibration verification (CCV 480-390770/30) was decreased and outside recovery limits, though the surrogate recoveries were compliant in the associated sample TP-23 (13-15.5) (480-128422-7). The data has been reported.

Method(s) 8151A: The continuing calibration verification (CCV) associated with batch 480-391519 recovered above the upper control limit for multiple analytes. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: TP-16 (8-10) (480-128422-5) and TP-23 (13-15.5) (480-128422-7).

Method(s) 8151A: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 480-390865 and analytical batch 480-391519 recovered outside control limits for the following analytes: 2,4-D and 2,4,5-T. These analytes were biased high in the LCS and LCSD but were not detected in the associated samples; therefore, the data have been reported. The following samples are impacted: TP-16 (8-10) (480-128422-5) and TP-23 (13-15.5) (480-128422-7).

Method(s) 8151A: Surrogate recovery in the following sample is above curve limits: TP-23 (13-15.5) (480-128422-7). The results are marked as "NaN" or "not qualified" due to the nature of the calibration curves used for the surrogate. The sample is ND for all analytes. Therefore, the data has been reported.

Method(s) 8151A: All primary data for analytical batch 391519 is reported from the RTX-CLPI column.

Method(s) 8151A: The surrogate recovery for the CCVs associated with analytical batch 480-391519 are elevated and outside the upper control limit. The surrogate recoveries for some of the associated samples are also elevated, though they do not contain any target analytes; therefore, re-analysis was not performed.

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

Metals

Method(s) 6010C: The Serial Dilution and Post Spike (480-128422-A-1-A PDS) and (480-128422-A-1-A SD) exceeded the quality control limits for Total Iron and Zinc. Sample matrix is suspected, therefore, no corrective action was necessary

Method(s) 6010C: The Serial Dilution (480-128422-A-1-A SD) in batch 480-390723, exhibited results outside the quality control limits for Total Arsenic, Beryllium, Calcium, Chromium, Potassium, and Manganese. However, the Post Digestion Spike was compliant so no corrective action was necessary

Method(s) 6010C: The % recoveries of Post Spike, (480-128422-A-1-A PDS), in batch 480-390723 exhibited results outside the quality control limits for Total Aluminum and Barium. However, the Serial Dilution of this sample was compliant. Therefore, no corrective action was necessary

Method(s) 6010C: The following sample was diluted due to the presence of Total Iron which interferes with Cadmium, Cobalt, Chromium, copper, Manganese, Nickel, Lead, Antimony, and Vanadium: TP-17 (2.5-4.0) (480-128422-4). Elevated reporting limits (RLs) are provided.

Method(s) 6010C: The following sample was diluted due to the presence of Total Calcium which interferes with Copper: BLIND DUP #4 (480-128422-3). Elevated reporting limits (RLs) are provided.

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

Organic Prep

Method(s) 3550C: The following samples required a Florisil clean-up, via 3620C, to reduce matrix interferences: TP-16 (8-10)

Job ID: 480-128422-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

(480-128422-5), TP-23 (13-15.5) (480-128422-7), (480-128422-A-7 MS) and (480-128422-A-7 MSD).

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

Detection Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128422-1

Client Sample ID: TP-13 (10-15) — Lab Sample ID: 480-128422-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	450	J F2	1200	180	ug/Kg	5	☼	8270D	Total/NA
Benzo[b]fluoranthene	530	J F2 F1	1200	200	ug/Kg	5	☼	8270D	Total/NA
Benzo[g,h,i]perylene	450	J F2	1200	130	ug/Kg	5	☼	8270D	Total/NA
Chrysene	400	J F2 F1	1200	280	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene	350	J F2 F1	1200	130	ug/Kg	5	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	250	J F2	1200	150	ug/Kg	5	☼	8270D	Total/NA
Pyrene	340	J F2 F1	1200	150	ug/Kg	5	☼	8270D	Total/NA
Aluminum	10800	F1	14.0	6.2	mg/Kg	1	☼	6010C	Total/NA
Antimony	2.5	J F1	21.0	0.56	mg/Kg	1	☼	6010C	Total/NA
Arsenic	15.7		2.8	0.56	mg/Kg	1	☼	6010C	Total/NA
Barium	286		0.70	0.15	mg/Kg	1	☼	6010C	Total/NA
Beryllium	1.3		0.28	0.039	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.57		0.28	0.042	mg/Kg	1	☼	6010C	Total/NA
Calcium	16500	F2 B	69.9	4.6	mg/Kg	1	☼	6010C	Total/NA
Chromium	21.9		0.70	0.28	mg/Kg	1	☼	6010C	Total/NA
Cobalt	12.2		0.70	0.070	mg/Kg	1	☼	6010C	Total/NA
Copper	127	F2 F1	1.4	0.29	mg/Kg	1	☼	6010C	Total/NA
Iron	23500		14.0	4.9	mg/Kg	1	☼	6010C	Total/NA
Lead	584	F2	1.4	0.34	mg/Kg	1	☼	6010C	Total/NA
Magnesium	5950	F2 F1	28.0	1.3	mg/Kg	1	☼	6010C	Total/NA
Manganese	278	B	0.28	0.045	mg/Kg	1	☼	6010C	Total/NA
Nickel	26.4		7.0	0.32	mg/Kg	1	☼	6010C	Total/NA
Potassium	1940	F2 F1	42.0	28.0	mg/Kg	1	☼	6010C	Total/NA
Selenium	1.9	J	5.6	0.56	mg/Kg	1	☼	6010C	Total/NA
Sodium	4110	F1	196	18.2	mg/Kg	1	☼	6010C	Total/NA
Vanadium	42.0		0.70	0.15	mg/Kg	1	☼	6010C	Total/NA
Zinc	357	F2	2.8	0.90	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.12		0.029	0.012	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: TP-18 (5-9) — Lab Sample ID: 480-128422-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	230	J	1800	190	ug/Kg	10	☼	8270D	Total/NA
Pyrene	210	J	1800	210	ug/Kg	10	☼	8270D	Total/NA
Aluminum	4900		10.3	4.6	mg/Kg	1	☼	6010C	Total/NA
Antimony	5.3	J	15.5	0.41	mg/Kg	1	☼	6010C	Total/NA
Arsenic	3.0		2.1	0.41	mg/Kg	1	☼	6010C	Total/NA
Barium	41.2		0.52	0.11	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.24		0.21	0.029	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.20	J	0.21	0.031	mg/Kg	1	☼	6010C	Total/NA
Calcium	61800	B	51.7	3.4	mg/Kg	1	☼	6010C	Total/NA
Chromium	8.2		0.52	0.21	mg/Kg	1	☼	6010C	Total/NA
Cobalt	3.2		0.52	0.052	mg/Kg	1	☼	6010C	Total/NA
Copper	19.3		1.0	0.22	mg/Kg	1	☼	6010C	Total/NA
Iron	7410		10.3	3.6	mg/Kg	1	☼	6010C	Total/NA
Lead	120		1.0	0.25	mg/Kg	1	☼	6010C	Total/NA
Magnesium	10400		20.7	0.96	mg/Kg	1	☼	6010C	Total/NA
Manganese	247	B	0.21	0.033	mg/Kg	1	☼	6010C	Total/NA
Nickel	9.4		5.2	0.24	mg/Kg	1	☼	6010C	Total/NA
Potassium	1370		31.0	20.7	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128422-1

Client Sample ID: TP-18 (5-9) (Continued) — Lab Sample ID: 480-128422-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	198		145	13.4	mg/Kg	1	☼	6010C	Total/NA
Vanadium	14.4		0.52	0.11	mg/Kg	1	☼	6010C	Total/NA
Zinc	54.9		2.1	0.66	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.23		0.020	0.0080	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: BLIND DUP #4 — Lab Sample ID: 480-128422-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	4670		10.9	4.8	mg/Kg	1	☼	6010C	Total/NA
Antimony	6.4	J	16.4	0.44	mg/Kg	1	☼	6010C	Total/NA
Arsenic	3.9		2.2	0.44	mg/Kg	1	☼	6010C	Total/NA
Barium	35.9		0.55	0.12	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.24		0.22	0.031	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.20	J	0.22	0.033	mg/Kg	1	☼	6010C	Total/NA
Calcium	129000	B	273	18.0	mg/Kg	5	☼	6010C	Total/NA
Chromium	9.2		0.55	0.22	mg/Kg	1	☼	6010C	Total/NA
Cobalt	2.6		0.55	0.055	mg/Kg	1	☼	6010C	Total/NA
Copper	17.1		5.5	1.1	mg/Kg	5	☼	6010C	Total/NA
Iron	8330		10.9	3.8	mg/Kg	1	☼	6010C	Total/NA
Lead	82.9		1.1	0.26	mg/Kg	1	☼	6010C	Total/NA
Magnesium	26000		21.9	1.0	mg/Kg	1	☼	6010C	Total/NA
Manganese	186	B	0.22	0.035	mg/Kg	1	☼	6010C	Total/NA
Nickel	11.0		5.5	0.25	mg/Kg	1	☼	6010C	Total/NA
Potassium	1420		32.8	21.9	mg/Kg	1	☼	6010C	Total/NA
Sodium	245		153	14.2	mg/Kg	1	☼	6010C	Total/NA
Vanadium	16.9		0.55	0.12	mg/Kg	1	☼	6010C	Total/NA
Zinc	66.5		2.2	0.70	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.37		0.024	0.0097	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: TP-17 (2.5-4.0) — Lab Sample ID: 480-128422-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	510	J	1000	150	ug/Kg	5	☼	8270D	Total/NA
Acenaphthylene	300	J	1000	130	ug/Kg	5	☼	8270D	Total/NA
Anthracene	880	J	1000	250	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]anthracene	2600		1000	100	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]pyrene	2100		1000	150	ug/Kg	5	☼	8270D	Total/NA
Benzo[b]fluoranthene	2700		1000	160	ug/Kg	5	☼	8270D	Total/NA
Benzo[g,h,i]perylene	1200		1000	110	ug/Kg	5	☼	8270D	Total/NA
Benzo[k]fluoranthene	1100		1000	130	ug/Kg	5	☼	8270D	Total/NA
Carbazole	290	J	1000	120	ug/Kg	5	☼	8270D	Total/NA
Chrysene	2600		1000	230	ug/Kg	5	☼	8270D	Total/NA
Dibenzofuran	150	J	1000	120	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene	5300		1000	110	ug/Kg	5	☼	8270D	Total/NA
Fluorene	330	J	1000	120	ug/Kg	5	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	1100		1000	130	ug/Kg	5	☼	8270D	Total/NA
Phenanthrene	3100		1000	150	ug/Kg	5	☼	8270D	Total/NA
Pyrene	4800		1000	120	ug/Kg	5	☼	8270D	Total/NA
Aluminum	17300		11.8	5.2	mg/Kg	1	☼	6010C	Total/NA
Antimony	5.5	J	88.6	2.4	mg/Kg	5	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TP-17 (2.5-4.0) (Continued)

Lab Sample ID: 480-128422-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.5		2.4	0.47	mg/Kg	1	☼	6010C	Total/NA
Barium	321		0.59	0.13	mg/Kg	1	☼	6010C	Total/NA
Beryllium	1.5		0.24	0.033	mg/Kg	1	☼	6010C	Total/NA
Calcium	51900	B	59.0	3.9	mg/Kg	1	☼	6010C	Total/NA
Chromium	25.8		3.0	1.2	mg/Kg	5	☼	6010C	Total/NA
Cobalt	3.3		3.0	0.30	mg/Kg	5	☼	6010C	Total/NA
Copper	44.9		5.9	1.2	mg/Kg	5	☼	6010C	Total/NA
Iron	79400		59.0	20.7	mg/Kg	5	☼	6010C	Total/NA
Lead	30.8		5.9	1.4	mg/Kg	5	☼	6010C	Total/NA
Magnesium	2480		23.6	1.1	mg/Kg	1	☼	6010C	Total/NA
Manganese	5300	B	1.2	0.19	mg/Kg	5	☼	6010C	Total/NA
Nickel	9.3	J	29.5	1.4	mg/Kg	5	☼	6010C	Total/NA
Potassium	3380		35.4	23.6	mg/Kg	1	☼	6010C	Total/NA
Selenium	1.1	J	4.7	0.47	mg/Kg	1	☼	6010C	Total/NA
Sodium	914		165	15.4	mg/Kg	1	☼	6010C	Total/NA
Vanadium	46.4		3.0	0.65	mg/Kg	5	☼	6010C	Total/NA
Zinc	38.2		2.4	0.76	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.030		0.024	0.0096	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: TP-16 (8-10)

Lab Sample ID: 480-128422-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	52	J	220	33	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	94	J	220	35	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	42	J	220	24	ug/Kg	1	☼	8270D	Total/NA
Chrysene	59	J	220	50	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	100	J	220	24	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	37	J	220	27	ug/Kg	1	☼	8270D	Total/NA
Pyrene	89	J	220	26	ug/Kg	1	☼	8270D	Total/NA
4,4'-DDT	0.64	J	2.1	0.50	ug/Kg	1	☼	8081B	Total/NA
alpha-BHC	0.64	J B	2.1	0.38	ug/Kg	1	☼	8081B	Total/NA
Aluminum	8800		12.6	5.5	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.94	J	18.9	0.50	mg/Kg	1	☼	6010C	Total/NA
Arsenic	14.8		2.5	0.50	mg/Kg	1	☼	6010C	Total/NA
Barium	115		0.63	0.14	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.88		0.25	0.035	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.17	J	0.25	0.038	mg/Kg	1	☼	6010C	Total/NA
Calcium	2860	B	62.9	4.2	mg/Kg	1	☼	6010C	Total/NA
Chromium	13.9		0.63	0.25	mg/Kg	1	☼	6010C	Total/NA
Cobalt	8.9		0.63	0.063	mg/Kg	1	☼	6010C	Total/NA
Copper	37.0		1.3	0.26	mg/Kg	1	☼	6010C	Total/NA
Iron	7640		12.6	4.4	mg/Kg	1	☼	6010C	Total/NA
Lead	33.9		1.3	0.30	mg/Kg	1	☼	6010C	Total/NA
Magnesium	431		25.2	1.2	mg/Kg	1	☼	6010C	Total/NA
Manganese	83.3	B	0.25	0.040	mg/Kg	1	☼	6010C	Total/NA
Nickel	22.2		6.3	0.29	mg/Kg	1	☼	6010C	Total/NA
Potassium	896		37.7	25.2	mg/Kg	1	☼	6010C	Total/NA
Sodium	308		176	16.4	mg/Kg	1	☼	6010C	Total/NA
Vanadium	31.7		0.63	0.14	mg/Kg	1	☼	6010C	Total/NA
Zinc	45.2		2.5	0.81	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TP-16 (8-10) (Continued) — Lab Sample ID: 480-128422-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.017	J	0.026	0.010	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: TP-22 (9-12) — Lab Sample ID: 480-128422-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	330	J	2000	300	ug/Kg	10	☼	8270D	Total/NA
Benzo[b]fluoranthene	550	J	2000	330	ug/Kg	10	☼	8270D	Total/NA
Fluoranthene	700	J	2000	220	ug/Kg	10	☼	8270D	Total/NA
Pyrene	670	J	2000	240	ug/Kg	10	☼	8270D	Total/NA
Aluminum	10600		12.0	5.3	mg/Kg	1	☼	6010C	Total/NA
Antimony	1.2	J	18.0	0.48	mg/Kg	1	☼	6010C	Total/NA
Arsenic	7.0		2.4	0.48	mg/Kg	1	☼	6010C	Total/NA
Barium	91.3		0.60	0.13	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.56		0.24	0.034	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.33		0.24	0.036	mg/Kg	1	☼	6010C	Total/NA
Calcium	30400	B	60.1	4.0	mg/Kg	1	☼	6010C	Total/NA
Chromium	15.4		0.60	0.24	mg/Kg	1	☼	6010C	Total/NA
Cobalt	6.6		0.60	0.060	mg/Kg	1	☼	6010C	Total/NA
Copper	62.6		1.2	0.25	mg/Kg	1	☼	6010C	Total/NA
Iron	14200		12.0	4.2	mg/Kg	1	☼	6010C	Total/NA
Lead	195		1.2	0.29	mg/Kg	1	☼	6010C	Total/NA
Magnesium	9010		24.0	1.1	mg/Kg	1	☼	6010C	Total/NA
Manganese	241	B	0.24	0.038	mg/Kg	1	☼	6010C	Total/NA
Nickel	17.4		6.0	0.28	mg/Kg	1	☼	6010C	Total/NA
Potassium	2480		36.1	24.0	mg/Kg	1	☼	6010C	Total/NA
Selenium	0.48	J	4.8	0.48	mg/Kg	1	☼	6010C	Total/NA
Sodium	212		168	15.6	mg/Kg	1	☼	6010C	Total/NA
Vanadium	24.3		0.60	0.13	mg/Kg	1	☼	6010C	Total/NA
Zinc	201		2.4	0.77	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.89		0.024	0.0098	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: TP-23 (13-15.5) — Lab Sample ID: 480-128422-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	25	J	45	7.5	ug/Kg	1	☼	8260C	Total/NA
Benzo[a]anthracene	2100	J	4900	490	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]pyrene	2200	J	4900	720	ug/Kg	20	☼	8270D	Total/NA
Benzo[b]fluoranthene	3300	J	4900	780	ug/Kg	20	☼	8270D	Total/NA
Benzo[g,h,i]perylene	1100	J	4900	520	ug/Kg	20	☼	8270D	Total/NA
Chrysene	2700	J	4900	1100	ug/Kg	20	☼	8270D	Total/NA
Fluoranthene	5500		4900	520	ug/Kg	20	☼	8270D	Total/NA
Fluorene	680	J	4900	580	ug/Kg	20	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	1100	J	4900	610	ug/Kg	20	☼	8270D	Total/NA
Phenanthrene	4200	J	4900	720	ug/Kg	20	☼	8270D	Total/NA
Pyrene	5200		4900	580	ug/Kg	20	☼	8270D	Total/NA
4,4'-DDT	5.7	J	24	5.7	ug/Kg	10	☼	8081B	Total/NA
Aluminum	7560		14.0	6.2	mg/Kg	1	☼	6010C	Total/NA
Antimony	1.5	J	21.0	0.56	mg/Kg	1	☼	6010C	Total/NA
Arsenic	13.6		2.8	0.56	mg/Kg	1	☼	6010C	Total/NA
Barium	153		0.70	0.15	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TP-23 (13-15.5) (Continued)

Lab Sample ID: 480-128422-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Beryllium	2.0		0.28	0.039	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.36		0.28	0.042	mg/Kg	1	☼	6010C	Total/NA
Calcium	4200	B	70.1	4.6	mg/Kg	1	☼	6010C	Total/NA
Chromium	15.3		0.70	0.28	mg/Kg	1	☼	6010C	Total/NA
Cobalt	11.3		0.70	0.070	mg/Kg	1	☼	6010C	Total/NA
Copper	52.2		1.4	0.29	mg/Kg	1	☼	6010C	Total/NA
Iron	13100		14.0	4.9	mg/Kg	1	☼	6010C	Total/NA
Lead	165		1.4	0.34	mg/Kg	1	☼	6010C	Total/NA
Magnesium	563		28.1	1.3	mg/Kg	1	☼	6010C	Total/NA
Manganese	120	B	0.28	0.045	mg/Kg	1	☼	6010C	Total/NA
Nickel	25.7		7.0	0.32	mg/Kg	1	☼	6010C	Total/NA
Potassium	825		42.1	28.1	mg/Kg	1	☼	6010C	Total/NA
Selenium	2.6	J	5.6	0.56	mg/Kg	1	☼	6010C	Total/NA
Sodium	414		196	18.2	mg/Kg	1	☼	6010C	Total/NA
Vanadium	25.5		0.70	0.15	mg/Kg	1	☼	6010C	Total/NA
Zinc	226		2.8	0.90	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.12		0.030	0.012	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: TP-27 (7-9)

Lab Sample ID: 480-128422-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	270	J	1800	270	ug/Kg	10	☼	8270D	Total/NA
Fluoranthene	540	J	1800	190	ug/Kg	10	☼	8270D	Total/NA
Pyrene	470	J	1800	210	ug/Kg	10	☼	8270D	Total/NA
Aluminum	6790		10.5	4.6	mg/Kg	1	☼	6010C	Total/NA
Antimony	1.1	J	15.8	0.42	mg/Kg	1	☼	6010C	Total/NA
Arsenic	4.3		2.1	0.42	mg/Kg	1	☼	6010C	Total/NA
Barium	260		0.53	0.12	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.79		0.21	0.030	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.32		0.21	0.032	mg/Kg	1	☼	6010C	Total/NA
Calcium	10100	B	52.7	3.5	mg/Kg	1	☼	6010C	Total/NA
Chromium	22.9		0.53	0.21	mg/Kg	1	☼	6010C	Total/NA
Cobalt	5.6		0.53	0.053	mg/Kg	1	☼	6010C	Total/NA
Copper	56.2		1.1	0.22	mg/Kg	1	☼	6010C	Total/NA
Iron	9030		10.5	3.7	mg/Kg	1	☼	6010C	Total/NA
Lead	210		1.1	0.25	mg/Kg	1	☼	6010C	Total/NA
Magnesium	3870		21.1	0.98	mg/Kg	1	☼	6010C	Total/NA
Manganese	92.4	B	0.21	0.034	mg/Kg	1	☼	6010C	Total/NA
Nickel	15.3		5.3	0.24	mg/Kg	1	☼	6010C	Total/NA
Potassium	1110		31.6	21.1	mg/Kg	1	☼	6010C	Total/NA
Sodium	203		148	13.7	mg/Kg	1	☼	6010C	Total/NA
Vanadium	18.9		0.53	0.12	mg/Kg	1	☼	6010C	Total/NA
Zinc	184		2.1	0.67	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.24		0.021	0.0086	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: TP-21 (8-10)

Lab Sample ID: 480-128422-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	29	J	180	18	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	51	J	180	26	ug/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TP-21 (8-10) (Continued)

Lab Sample ID: 480-128422-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	78	J	180	28	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	40	J	180	19	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	29	J	180	23	ug/Kg	1	☼	8270D	Total/NA
Chrysene	78	J	180	40	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	92	J	180	19	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	35	J	180	22	ug/Kg	1	☼	8270D	Total/NA
Naphthalene	26	J	180	23	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	100	J	180	26	ug/Kg	1	☼	8270D	Total/NA
Pyrene	77	J	180	21	ug/Kg	1	☼	8270D	Total/NA
Aluminum	4500		10.5	4.6	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.76	J	15.7	0.42	mg/Kg	1	☼	6010C	Total/NA
Arsenic	3.6		2.1	0.42	mg/Kg	1	☼	6010C	Total/NA
Barium	27.7		0.52	0.12	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.24		0.21	0.029	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.031	J	0.21	0.031	mg/Kg	1	☼	6010C	Total/NA
Calcium	2310	B	52.4	3.5	mg/Kg	1	☼	6010C	Total/NA
Chromium	9.4		0.52	0.21	mg/Kg	1	☼	6010C	Total/NA
Cobalt	2.7		0.52	0.052	mg/Kg	1	☼	6010C	Total/NA
Copper	3.2		1.0	0.22	mg/Kg	1	☼	6010C	Total/NA
Iron	8580		10.5	3.7	mg/Kg	1	☼	6010C	Total/NA
Lead	8.3		1.0	0.25	mg/Kg	1	☼	6010C	Total/NA
Magnesium	1050		21.0	0.97	mg/Kg	1	☼	6010C	Total/NA
Manganese	207	B	0.21	0.034	mg/Kg	1	☼	6010C	Total/NA
Nickel	5.7		5.2	0.24	mg/Kg	1	☼	6010C	Total/NA
Potassium	968		31.5	21.0	mg/Kg	1	☼	6010C	Total/NA
Sodium	74.4	J	147	13.6	mg/Kg	1	☼	6010C	Total/NA
Vanadium	9.9		0.52	0.12	mg/Kg	1	☼	6010C	Total/NA
Zinc	19.9		2.1	0.67	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128422-1

Client Sample ID: TP-13 (10-15)
Date Collected: 12/04/17 09:04
Date Received: 12/05/17 12:30

Lab Sample ID: 480-128422-1
Matrix: Solid
Percent Solids: 68.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		1200	330	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
2,4,6-Trichlorophenol	ND		1200	250	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
2,4-Dichlorophenol	ND		1200	130	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
2,4-Dimethylphenol	ND		1200	300	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
2,4-Dinitrophenol	ND		12000	5700	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
2,4-Dinitrotoluene	ND		1200	250	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
2,6-Dinitrotoluene	ND		1200	150	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
2-Chloronaphthalene	ND		1200	200	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
2-Chlorophenol	ND		1200	220	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
2-Methylnaphthalene	ND		1200	250	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
2-Methylphenol	ND		1200	150	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
2-Nitroaniline	ND		2400	180	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
2-Nitrophenol	ND		1200	350	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
3,3'-Dichlorobenzidine	ND		2400	1500	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
3-Nitroaniline	ND		2400	340	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
4,6-Dinitro-2-methylphenol	ND		2400	1200	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
4-Bromophenyl phenyl ether	ND		1200	170	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
4-Chloro-3-methylphenol	ND		1200	300	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
4-Chloroaniline	ND		1200	300	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
4-Chlorophenyl phenyl ether	ND		1200	150	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
4-Methylphenol	ND		2400	150	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
4-Nitroaniline	ND		2400	650	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
4-Nitrophenol	ND		2400	860	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Acenaphthene	ND		1200	180	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Acenaphthylene	ND		1200	160	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Acetophenone	ND		1200	170	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Anthracene	ND		1200	300	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Atrazine	ND		1200	430	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Benzaldehyde	ND		1200	980	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Benzo[a]anthracene	ND	F2 F1	1200	120	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Benzo[a]pyrene	**450**	**J F2**	1200	180	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Benzo[b]fluoranthene	**530**	**J F2 F1**	1200	200	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Benzo[g,h,i]perylene	**450**	**J F2**	1200	130	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Benzo[k]fluoranthene	ND	F2	1200	160	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Biphenyl	ND		1200	180	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
bis (2-chloroisopropyl) ether	ND		1200	250	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Bis(2-chloroethoxy)methane	ND		1200	260	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Bis(2-chloroethyl)ether	ND		1200	160	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Bis(2-ethylhexyl) phthalate	ND		1200	420	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Butyl benzyl phthalate	ND		1200	200	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Caprolactam	ND		1200	370	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Carbazole	ND		1200	150	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Chrysene	**400**	**J F2 F1**	1200	280	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Dibenz(a,h)anthracene	ND		1200	220	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Dibenzofuran	ND		1200	150	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Diethyl phthalate	ND		1200	160	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Dimethyl phthalate	ND		1200	150	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Di-n-butyl phthalate	ND		1200	210	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Di-n-octyl phthalate	ND		1200	150	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5

Client Sample ID: TP-13 (10-15)
Date Collected: 12/04/17 09:04
Date Received: 12/05/17 12:30

Lab Sample ID: 480-128422-1
Matrix: Solid
Percent Solids: 68.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	350	J F2 F1	1200	130	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Fluorene	ND		1200	150	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Hexachlorobenzene	ND		1200	170	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Hexachlorobutadiene	ND		1200	180	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Hexachlorocyclopentadiene	ND		1200	170	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Hexachloroethane	ND		1200	160	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Indeno[1,2,3-cd]pyrene	250	J F2	1200	150	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Isophorone	ND		1200	260	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Naphthalene	ND		1200	160	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Nitrobenzene	ND		1200	140	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
N-Nitrosodi-n-propylamine	ND		1200	210	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
N-Nitrosodiphenylamine	ND		1200	1000	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Pentachlorophenol	ND		2400	1200	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Phenanthrene	ND	F2	1200	180	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Phenol	ND		1200	190	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5
Pyrene	340	J F2 F1	1200	150	ug/Kg	☼	12/06/17 14:13	12/07/17 18:29	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*84*		*54 - 120*	*12/06/17 14:13*	*12/07/17 18:29*	*5*
2-Fluorobiphenyl	*93*		*60 - 120*	*12/06/17 14:13*	*12/07/17 18:29*	*5*
2-Fluorophenol	*92*		*52 - 120*	*12/06/17 14:13*	*12/07/17 18:29*	*5*
Nitrobenzene-d5	*75*		*53 - 120*	*12/06/17 14:13*	*12/07/17 18:29*	*5*
Phenol-d5	*91*		*54 - 120*	*12/06/17 14:13*	*12/07/17 18:29*	*5*
p-Terphenyl-d14	*101*		*65 - 121*	*12/06/17 14:13*	*12/07/17 18:29*	*5*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	10800	F1	14.0	6.2	mg/Kg	☼	12/06/17 16:35	12/07/17 19:41	1
Antimony	2.5	J F1	21.0	0.56	mg/Kg	☼	12/06/17 16:35	12/07/17 19:41	1
Arsenic	15.7		2.8	0.56	mg/Kg	☼	12/06/17 16:35	12/07/17 19:41	1
Barium	286		0.70	0.15	mg/Kg	☼	12/06/17 16:35	12/07/17 19:41	1
Beryllium	1.3		0.28	0.039	mg/Kg	☼	12/06/17 16:35	12/07/17 19:41	1
Cadmium	0.57		0.28	0.042	mg/Kg	☼	12/06/17 16:35	12/07/17 19:41	1
Calcium	16500	F2 B	69.9	4.6	mg/Kg	☼	12/06/17 16:35	12/07/17 19:41	1
Chromium	21.9		0.70	0.28	mg/Kg	☼	12/06/17 16:35	12/07/17 19:41	1
Cobalt	12.2		0.70	0.070	mg/Kg	☼	12/06/17 16:35	12/07/17 19:41	1
Copper	127	F2 F1	1.4	0.29	mg/Kg	☼	12/06/17 16:35	12/07/17 19:41	1
Iron	23500		14.0	4.9	mg/Kg	☼	12/06/17 16:35	12/07/17 19:41	1
Lead	584	F2	1.4	0.34	mg/Kg	☼	12/06/17 16:35	12/07/17 19:41	1
Magnesium	5950	F2 F1	28.0	1.3	mg/Kg	☼	12/06/17 16:35	12/07/17 19:41	1
Manganese	278	B	0.28	0.045	mg/Kg	☼	12/06/17 16:35	12/07/17 19:41	1
Nickel	26.4		7.0	0.32	mg/Kg	☼	12/06/17 16:35	12/07/17 19:41	1
Potassium	1940	F2 F1	42.0	28.0	mg/Kg	☼	12/06/17 16:35	12/07/17 19:41	1
Selenium	1.9	J	5.6	0.56	mg/Kg	☼	12/06/17 16:35	12/07/17 19:41	1
Silver	ND		0.84	0.28	mg/Kg	☼	12/06/17 16:35	12/07/17 19:41	1
Sodium	4110	F1	196	18.2	mg/Kg	☼	12/06/17 16:35	12/07/17 19:41	1
Thallium	ND		8.4	0.42	mg/Kg	☼	12/06/17 16:35	12/07/17 19:41	1
Vanadium	42.0		0.70	0.15	mg/Kg	☼	12/06/17 16:35	12/07/17 19:41	1
Zinc	357	F2	2.8	0.90	mg/Kg	☼	12/06/17 16:35	12/07/17 19:41	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128422-1

Client Sample ID: TP-13 (10-15)
Date Collected: 12/04/17 09:04
Date Received: 12/05/17 12:30

Lab Sample ID: 480-128422-1
Matrix: Solid
Percent Solids: 68.7

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.12		0.029	0.012	mg/Kg	☼	12/11/17 12:25	12/11/17 16:00	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128422-1

Client Sample ID: TP-18 (5-9)
Date Collected: 12/04/17 09:45
Date Received: 12/05/17 12:30

Lab Sample ID: 480-128422-2
Matrix: Solid
Percent Solids: 93.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		1800	490	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
2,4,6-Trichlorophenol	ND		1800	360	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
2,4-Dichlorophenol	ND		1800	190	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
2,4-Dimethylphenol	ND		1800	440	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
2,4-Dinitrophenol	ND		18000	8400	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
2,4-Dinitrotoluene	ND		1800	380	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
2,6-Dinitrotoluene	ND		1800	210	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
2-Chloronaphthalene	ND		1800	300	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
2-Chlorophenol	ND		1800	330	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
2-Methylnaphthalene	ND		1800	360	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
2-Methylphenol	ND		1800	210	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
2-Nitroaniline	ND		3500	270	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
2-Nitrophenol	ND		1800	510	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
3,3'-Dichlorobenzidine	ND		3500	2100	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
3-Nitroaniline	ND		3500	500	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
4,6-Dinitro-2-methylphenol	ND		3500	1800	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
4-Bromophenyl phenyl ether	ND		1800	260	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
4-Chloro-3-methylphenol	ND		1800	450	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
4-Chloroaniline	ND		1800	450	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
4-Chlorophenyl phenyl ether	ND		1800	230	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
4-Methylphenol	ND		3500	210	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
4-Nitroaniline	ND		3500	950	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
4-Nitrophenol	ND		3500	1300	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Acenaphthene	ND		1800	270	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Acenaphthylene	ND		1800	240	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Acetophenone	ND		1800	250	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Anthracene	ND		1800	450	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Atrazine	ND		1800	630	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Benzaldehyde	ND		1800	1400	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Benzo[a]anthracene	ND		1800	180	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Benzo[a]pyrene	ND		1800	270	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Benzo[b]fluoranthene	ND		1800	290	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Benzo[g,h,i]perylene	ND		1800	190	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Benzo[k]fluoranthene	ND		1800	240	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Biphenyl	ND		1800	270	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
bis (2-chloroisopropyl) ether	ND		1800	360	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Bis(2-chloroethoxy)methane	ND		1800	390	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Bis(2-chloroethyl)ether	ND		1800	240	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Bis(2-ethylhexyl) phthalate	ND		1800	620	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Butyl benzyl phthalate	ND		1800	300	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Caprolactam	ND		1800	550	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Carbazole	ND		1800	210	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Chrysene	ND		1800	410	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Dibenz(a,h)anthracene	ND		1800	320	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Dibenzofuran	ND		1800	210	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Diethyl phthalate	ND		1800	240	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Dimethyl phthalate	ND		1800	210	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Di-n-butyl phthalate	ND		1800	310	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Di-n-octyl phthalate	ND		1800	210	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128422-1

Client Sample ID: TP-18 (5-9)
Date Collected: 12/04/17 09:45
Date Received: 12/05/17 12:30

Lab Sample ID: 480-128422-2
Matrix: Solid
Percent Solids: 93.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	230	J	1800	190	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Fluorene	ND		1800	210	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Hexachlorobenzene	ND		1800	250	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Hexachlorobutadiene	ND		1800	270	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Hexachlorocyclopentadiene	ND		1800	250	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Hexachloroethane	ND		1800	240	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Indeno[1,2,3-cd]pyrene	ND		1800	230	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Isophorone	ND		1800	390	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Naphthalene	ND		1800	240	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Nitrobenzene	ND		1800	200	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
N-Nitrosodi-n-propylamine	ND		1800	310	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
N-Nitrosodiphenylamine	ND		1800	1500	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Pentachlorophenol	ND		3500	1800	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Phenanthrene	ND		1800	270	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Phenol	ND		1800	280	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10
Pyrene	210	J	1800	210	ug/Kg	☼	12/06/17 14:13	12/07/17 23:48	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*107*		*54 - 120*	*12/06/17 14:13*	*12/07/17 23:48*	*10*
2-Fluorobiphenyl	*111*		*60 - 120*	*12/06/17 14:13*	*12/07/17 23:48*	*10*
2-Fluorophenol	*121*	*X*	*52 - 120*	*12/06/17 14:13*	*12/07/17 23:48*	*10*
Nitrobenzene-d5	*89*		*53 - 120*	*12/06/17 14:13*	*12/07/17 23:48*	*10*
Phenol-d5	*104*		*54 - 120*	*12/06/17 14:13*	*12/07/17 23:48*	*10*
p-Terphenyl-d14	*102*		*65 - 121*	*12/06/17 14:13*	*12/07/17 23:48*	*10*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	4900		10.3	4.6	mg/Kg	☼	12/06/17 16:35	12/07/17 19:59	1
Antimony	5.3	J	15.5	0.41	mg/Kg	☼	12/06/17 16:35	12/07/17 19:59	1
Arsenic	3.0		2.1	0.41	mg/Kg	☼	12/06/17 16:35	12/07/17 19:59	1
Barium	41.2		0.52	0.11	mg/Kg	☼	12/06/17 16:35	12/07/17 19:59	1
Beryllium	0.24		0.21	0.029	mg/Kg	☼	12/06/17 16:35	12/07/17 19:59	1
Cadmium	0.20	J	0.21	0.031	mg/Kg	☼	12/06/17 16:35	12/07/17 19:59	1
Calcium	61800	B	51.7	3.4	mg/Kg	☼	12/06/17 16:35	12/07/17 19:59	1
Chromium	8.2		0.52	0.21	mg/Kg	☼	12/06/17 16:35	12/07/17 19:59	1
Cobalt	3.2		0.52	0.052	mg/Kg	☼	12/06/17 16:35	12/07/17 19:59	1
Copper	19.3		1.0	0.22	mg/Kg	☼	12/06/17 16:35	12/07/17 19:59	1
Iron	7410		10.3	3.6	mg/Kg	☼	12/06/17 16:35	12/07/17 19:59	1
Lead	120		1.0	0.25	mg/Kg	☼	12/06/17 16:35	12/07/17 19:59	1
Magnesium	10400		20.7	0.96	mg/Kg	☼	12/06/17 16:35	12/07/17 19:59	1
Manganese	247	B	0.21	0.033	mg/Kg	☼	12/06/17 16:35	12/07/17 19:59	1
Nickel	9.4		5.2	0.24	mg/Kg	☼	12/06/17 16:35	12/07/17 19:59	1
Potassium	1370		31.0	20.7	mg/Kg	☼	12/06/17 16:35	12/07/17 19:59	1
Selenium	ND		4.1	0.41	mg/Kg	☼	12/06/17 16:35	12/07/17 19:59	1
Silver	ND		0.62	0.21	mg/Kg	☼	12/06/17 16:35	12/07/17 19:59	1
Sodium	198		145	13.4	mg/Kg	☼	12/06/17 16:35	12/07/17 19:59	1
Thallium	ND		6.2	0.31	mg/Kg	☼	12/06/17 16:35	12/07/17 19:59	1
Vanadium	14.4		0.52	0.11	mg/Kg	☼	12/06/17 16:35	12/07/17 19:59	1
Zinc	54.9		2.1	0.66	mg/Kg	☼	12/06/17 16:35	12/07/17 19:59	1

Client Sample Results

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128422-1

Client Sample ID: TP-18 (5-9)
Date Collected: 12/04/17 09:45
Date Received: 12/05/17 12:30

Lab Sample ID: 480-128422-2
Matrix: Solid
Percent Solids: 93.2

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.23		0.020	0.0080	mg/Kg	☼	12/11/17 12:25	12/11/17 16:10	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128422-1

Client Sample ID: BLIND DUP #4
Date Collected: 12/04/17 12:00
Date Received: 12/05/17 12:30

Lab Sample ID: 480-128422-3
Matrix: Solid
Percent Solids: 85.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		2000	530	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
2,4,6-Trichlorophenol	ND		2000	390	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
2,4-Dichlorophenol	ND		2000	210	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
2,4-Dimethylphenol	ND		2000	470	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
2,4-Dinitrophenol	ND		19000	9100	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
2,4-Dinitrotoluene	ND		2000	400	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
2,6-Dinitrotoluene	ND		2000	230	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
2-Chloronaphthalene	ND		2000	320	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
2-Chlorophenol	ND		2000	360	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
2-Methylnaphthalene	ND		2000	390	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
2-Methylphenol	ND		2000	230	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
2-Nitroaniline	ND		3800	290	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
2-Nitrophenol	ND		2000	560	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
3,3'-Dichlorobenzidine	ND		3800	2300	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
3-Nitroaniline	ND		3800	540	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
4,6-Dinitro-2-methylphenol	ND		3800	2000	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
4-Bromophenyl phenyl ether	ND		2000	280	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
4-Chloro-3-methylphenol	ND		2000	490	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
4-Chloroaniline	ND		2000	490	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
4-Chlorophenyl phenyl ether	ND		2000	240	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
4-Methylphenol	ND		3800	230	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
4-Nitroaniline	ND		3800	1000	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
4-Nitrophenol	ND		3800	1400	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Acenaphthene	ND		2000	290	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Acenaphthylene	ND		2000	250	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Acetophenone	ND		2000	270	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Anthracene	ND		2000	490	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Atrazine	ND		2000	680	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Benzaldehyde	ND		2000	1600	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Benzo[a]anthracene	ND		2000	200	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Benzo[a]pyrene	ND		2000	290	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Benzo[b]fluoranthene	ND		2000	310	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Benzo[g,h,i]perylene	ND		2000	210	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Benzo[k]fluoranthene	ND		2000	250	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Biphenyl	ND		2000	290	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
bis (2-chloroisopropyl) ether	ND		2000	390	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Bis(2-chloroethoxy)methane	ND		2000	420	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Bis(2-chloroethyl)ether	ND		2000	250	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Bis(2-ethylhexyl) phthalate	ND		2000	670	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Butyl benzyl phthalate	ND		2000	320	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Caprolactam	ND		2000	590	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Carbazole	ND		2000	230	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Chrysene	ND		2000	440	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Dibenz(a,h)anthracene	ND		2000	350	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Dibenzofuran	ND		2000	230	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Diethyl phthalate	ND		2000	250	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Dimethyl phthalate	ND		2000	230	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Di-n-butyl phthalate	ND		2000	340	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Di-n-octyl phthalate	ND		2000	230	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10

Client Sample ID: BLIND DUP #4
Date Collected: 12/04/17 12:00
Date Received: 12/05/17 12:30

Lab Sample ID: 480-128422-3
Matrix: Solid
Percent Solids: 85.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		2000	210	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Fluorene	ND		2000	230	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Hexachlorobenzene	ND		2000	270	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Hexachlorobutadiene	ND		2000	290	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Hexachlorocyclopentadiene	ND		2000	270	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Hexachloroethane	ND		2000	250	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Indeno[1,2,3-cd]pyrene	ND		2000	240	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Isophorone	ND		2000	420	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Naphthalene	ND		2000	250	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Nitrobenzene	ND		2000	220	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
N-Nitrosodi-n-propylamine	ND		2000	340	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
N-Nitrosodiphenylamine	ND		2000	1600	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Pentachlorophenol	ND		3800	2000	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Phenanthrene	ND		2000	290	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Phenol	ND		2000	300	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10
Pyrene	ND		2000	230	ug/Kg	☼	12/06/17 14:13	12/08/17 00:15	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*98*		*54 - 120*	*12/06/17 14:13*	*12/08/17 00:15*	*10*
2-Fluorobiphenyl	*96*		*60 - 120*	*12/06/17 14:13*	*12/08/17 00:15*	*10*
2-Fluorophenol	*122*	*X*	*52 - 120*	*12/06/17 14:13*	*12/08/17 00:15*	*10*
Nitrobenzene-d5	*75*		*53 - 120*	*12/06/17 14:13*	*12/08/17 00:15*	*10*
Phenol-d5	*98*		*54 - 120*	*12/06/17 14:13*	*12/08/17 00:15*	*10*
p-Terphenyl-d14	*77*		*65 - 121*	*12/06/17 14:13*	*12/08/17 00:15*	*10*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**4670**		10.9	4.8	mg/Kg	☼	12/06/17 16:35	12/07/17 20:03	1
Antimony	**6.4**	**J**	16.4	0.44	mg/Kg	☼	12/06/17 16:35	12/07/17 20:03	1
Arsenic	**3.9**		2.2	0.44	mg/Kg	☼	12/06/17 16:35	12/07/17 20:03	1
Barium	**35.9**		0.55	0.12	mg/Kg	☼	12/06/17 16:35	12/07/17 20:03	1
Beryllium	**0.24**		0.22	0.031	mg/Kg	☼	12/06/17 16:35	12/07/17 20:03	1
Cadmium	**0.20**	**J**	0.22	0.033	mg/Kg	☼	12/06/17 16:35	12/07/17 20:03	1
Calcium	**129000**	**B**	273	18.0	mg/Kg	☼	12/06/17 16:35	12/08/17 09:50	5
Chromium	**9.2**		0.55	0.22	mg/Kg	☼	12/06/17 16:35	12/07/17 20:03	1
Cobalt	**2.6**		0.55	0.055	mg/Kg	☼	12/06/17 16:35	12/07/17 20:03	1
Copper	**17.1**		5.5	1.1	mg/Kg	☼	12/06/17 16:35	12/08/17 09:50	5
Iron	**8330**		10.9	3.8	mg/Kg	☼	12/06/17 16:35	12/07/17 20:03	1
Lead	**82.9**		1.1	0.26	mg/Kg	☼	12/06/17 16:35	12/07/17 20:03	1
Magnesium	**26000**		21.9	1.0	mg/Kg	☼	12/06/17 16:35	12/07/17 20:03	1
Manganese	**186**	**B**	0.22	0.035	mg/Kg	☼	12/06/17 16:35	12/07/17 20:03	1
Nickel	**11.0**		5.5	0.25	mg/Kg	☼	12/06/17 16:35	12/07/17 20:03	1
Potassium	**1420**		32.8	21.9	mg/Kg	☼	12/06/17 16:35	12/07/17 20:03	1
Selenium	ND		4.4	0.44	mg/Kg	☼	12/06/17 16:35	12/07/17 20:03	1
Silver	ND		0.66	0.22	mg/Kg	☼	12/06/17 16:35	12/07/17 20:03	1
Sodium	**245**		153	14.2	mg/Kg	☼	12/06/17 16:35	12/07/17 20:03	1
Thallium	ND		6.6	0.33	mg/Kg	☼	12/06/17 16:35	12/07/17 20:03	1
Vanadium	**16.9**		0.55	0.12	mg/Kg	☼	12/06/17 16:35	12/07/17 20:03	1
Zinc	**66.5**		2.2	0.70	mg/Kg	☼	12/06/17 16:35	12/07/17 20:03	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128422-1

Client Sample ID: BLIND DUP #4
Date Collected: 12/04/17 12:00
Date Received: 12/05/17 12:30

Lab Sample ID: 480-128422-3
Matrix: Solid
Percent Solids: 85.1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.37		0.024	0.0097	mg/Kg	☼	12/11/17 12:25	12/11/17 16:12	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128422-1

Client Sample ID: TP-17 (2.5-4.0)
Date Collected: 12/04/17 10:30
Date Received: 12/05/17 12:30

Lab Sample ID: 480-128422-4
Matrix: Solid
Percent Solids: 83.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		1000	270	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
2,4,6-Trichlorophenol	ND		1000	200	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
2,4-Dichlorophenol	ND		1000	110	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
2,4-Dimethylphenol	ND		1000	240	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
2,4-Dinitrophenol	ND		9900	4700	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
2,4-Dinitrotoluene	ND		1000	210	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
2,6-Dinitrotoluene	ND		1000	120	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
2-Chloronaphthalene	ND		1000	170	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
2-Chlorophenol	ND		1000	190	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
2-Methylnaphthalene	ND		1000	200	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
2-Methylphenol	ND		1000	120	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
2-Nitroaniline	ND		2000	150	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
2-Nitrophenol	ND		1000	290	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
3,3'-Dichlorobenzidine	ND		2000	1200	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
3-Nitroaniline	ND		2000	280	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
4,6-Dinitro-2-methylphenol	ND		2000	1000	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
4-Bromophenyl phenyl ether	ND		1000	140	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
4-Chloro-3-methylphenol	ND		1000	250	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
4-Chloroaniline	ND		1000	250	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
4-Chlorophenyl phenyl ether	ND		1000	130	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
4-Methylphenol	ND		2000	120	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
4-Nitroaniline	ND		2000	530	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
4-Nitrophenol	ND		2000	710	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Acenaphthene	**510**	**J**	1000	150	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Acenaphthylene	**300**	**J**	1000	130	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Acetophenone	ND		1000	140	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Anthracene	**880**	**J**	1000	250	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Atrazine	ND		1000	350	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Benzaldehyde	ND		1000	810	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Benzo[a]anthracene	**2600**		1000	100	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Benzo[a]pyrene	**2100**		1000	150	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Benzo[b]fluoranthene	**2700**		1000	160	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Benzo[g,h,i]perylene	**1200**		1000	110	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Benzo[k]fluoranthene	**1100**		1000	130	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Biphenyl	ND		1000	150	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
bis (2-chloroisopropyl) ether	ND		1000	200	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Bis(2-chloroethoxy)methane	ND		1000	210	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Bis(2-chloroethyl)ether	ND		1000	130	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Bis(2-ethylhexyl) phthalate	ND		1000	350	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Butyl benzyl phthalate	ND		1000	170	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Caprolactam	ND		1000	300	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Carbazole	**290**	**J**	1000	120	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Chrysene	**2600**		1000	230	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Dibenz(a,h)anthracene	ND		1000	180	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Dibenzofuran	**150**	**J**	1000	120	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Diethyl phthalate	ND		1000	130	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Dimethyl phthalate	ND		1000	120	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Di-n-butyl phthalate	ND		1000	170	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Di-n-octyl phthalate	ND		1000	120	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5

Client Sample ID: TP-17 (2.5-4.0)
Date Collected: 12/04/17 10:30
Date Received: 12/05/17 12:30

Lab Sample ID: 480-128422-4
Matrix: Solid
Percent Solids: 83.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	5300		1000	110	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Fluorene	330	J	1000	120	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Hexachlorobenzene	ND		1000	140	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Hexachlorobutadiene	ND		1000	150	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Hexachlorocyclopentadiene	ND		1000	140	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Hexachloroethane	ND		1000	130	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Indeno[1,2,3-cd]pyrene	1100		1000	130	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Isophorone	ND		1000	210	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Naphthalene	ND		1000	130	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Nitrobenzene	ND		1000	110	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
N-Nitrosodi-n-propylamine	ND		1000	170	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
N-Nitrosodiphenylamine	ND		1000	820	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Pentachlorophenol	ND		2000	1000	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Phenanthrene	3100		1000	150	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Phenol	ND		1000	160	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5
Pyrene	4800		1000	120	ug/Kg	☼	12/06/17 14:13	12/08/17 00:41	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*44*	*X*	*54 - 120*	*12/06/17 14:13*	*12/08/17 00:41*	*5*
2-Fluorobiphenyl	*94*		*60 - 120*	*12/06/17 14:13*	*12/08/17 00:41*	*5*
2-Fluorophenol	*94*		*52 - 120*	*12/06/17 14:13*	*12/08/17 00:41*	*5*
Nitrobenzene-d5	*77*		*53 - 120*	*12/06/17 14:13*	*12/08/17 00:41*	*5*
Phenol-d5	*92*		*54 - 120*	*12/06/17 14:13*	*12/08/17 00:41*	*5*
p-Terphenyl-d14	*90*		*65 - 121*	*12/06/17 14:13*	*12/08/17 00:41*	*5*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	17300		11.8	5.2	mg/Kg	☼	12/06/17 16:35	12/07/17 20:06	1
Antimony	5.5	J	88.6	2.4	mg/Kg	☼	12/06/17 16:35	12/07/17 20:10	5
Arsenic	5.5		2.4	0.47	mg/Kg	☼	12/06/17 16:35	12/07/17 20:06	1
Barium	321		0.59	0.13	mg/Kg	☼	12/06/17 16:35	12/07/17 20:06	1
Beryllium	1.5		0.24	0.033	mg/Kg	☼	12/06/17 16:35	12/07/17 20:06	1
Cadmium	ND		1.2	0.18	mg/Kg	☼	12/06/17 16:35	12/07/17 20:10	5
Calcium	51900	B	59.0	3.9	mg/Kg	☼	12/06/17 16:35	12/07/17 20:06	1
Chromium	25.8		3.0	1.2	mg/Kg	☼	12/06/17 16:35	12/07/17 20:10	5
Cobalt	3.3		3.0	0.30	mg/Kg	☼	12/06/17 16:35	12/07/17 20:10	5
Copper	44.9		5.9	1.2	mg/Kg	☼	12/06/17 16:35	12/07/17 20:10	5
Iron	79400		59.0	20.7	mg/Kg	☼	12/06/17 16:35	12/07/17 20:10	5
Lead	30.8		5.9	1.4	mg/Kg	☼	12/06/17 16:35	12/07/17 20:10	5
Magnesium	2480		23.6	1.1	mg/Kg	☼	12/06/17 16:35	12/07/17 20:06	1
Manganese	5300	B	1.2	0.19	mg/Kg	☼	12/06/17 16:35	12/07/17 20:10	5
Nickel	9.3	J	29.5	1.4	mg/Kg	☼	12/06/17 16:35	12/07/17 20:10	5
Potassium	3380		35.4	23.6	mg/Kg	☼	12/06/17 16:35	12/07/17 20:06	1
Selenium	1.1	J	4.7	0.47	mg/Kg	☼	12/06/17 16:35	12/07/17 20:06	1
Silver	ND		0.71	0.24	mg/Kg	☼	12/06/17 16:35	12/07/17 20:06	1
Sodium	914		165	15.4	mg/Kg	☼	12/06/17 16:35	12/07/17 20:06	1
Thallium	ND		7.1	0.35	mg/Kg	☼	12/06/17 16:35	12/07/17 20:06	1
Vanadium	46.4		3.0	0.65	mg/Kg	☼	12/06/17 16:35	12/07/17 20:10	5
Zinc	38.2		2.4	0.76	mg/Kg	☼	12/06/17 16:35	12/07/17 20:06	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128422-1

Client Sample ID: TP-17 (2.5-4.0)
Date Collected: 12/04/17 10:30
Date Received: 12/05/17 12:30

Lab Sample ID: 480-128422-4
Matrix: Solid
Percent Solids: 83.0

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.030		0.024	0.0096	mg/Kg	☼	12/11/17 12:25	12/11/17 16:13	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128422-1

Client Sample ID: TP-16 (8-10)
Date Collected: 12/04/17 10:58
Date Received: 12/05/17 12:30

Lab Sample ID: 480-128422-5
Matrix: Solid
Percent Solids: 76.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		220	60	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
2,4,6-Trichlorophenol	ND		220	44	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
2,4-Dichlorophenol	ND		220	24	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
2,4-Dimethylphenol	ND		220	54	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
2,4-Dinitrophenol	ND		2200	1000	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
2,4-Dinitrotoluene	ND		220	46	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
2,6-Dinitrotoluene	ND		220	26	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
2-Chloronaphthalene	ND		220	37	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
2-Chlorophenol	ND		220	41	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
2-Methylnaphthalene	ND		220	44	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
2-Methylphenol	ND		220	26	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
2-Nitroaniline	ND		430	33	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
2-Nitrophenol	ND		220	63	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
3,3'-Dichlorobenzidine	ND		430	260	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
3-Nitroaniline	ND		430	62	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
4,6-Dinitro-2-methylphenol	ND		430	220	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
4-Bromophenyl phenyl ether	ND		220	31	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
4-Chloro-3-methylphenol	ND		220	55	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
4-Chloroaniline	ND		220	55	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
4-Chlorophenyl phenyl ether	ND		220	27	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
4-Methylphenol	ND		430	26	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
4-Nitroaniline	ND		430	120	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
4-Nitrophenol	ND		430	160	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Acenaphthene	ND		220	33	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Acenaphthylene	ND		220	29	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Acetophenone	ND		220	30	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Anthracene	ND		220	55	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Atrazine	ND		220	77	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Benzaldehyde	ND		220	180	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Benzo[a]anthracene	ND		220	22	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Benzo[a]pyrene	**52**	**J**	220	33	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Benzo[b]fluoranthene	**94**	**J**	220	35	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Benzo[g,h,i]perylene	**42**	**J**	220	24	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Benzo[k]fluoranthene	ND		220	29	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Biphenyl	ND		220	33	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
bis (2-chloroisopropyl) ether	ND		220	44	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Bis(2-chloroethoxy)methane	ND		220	47	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Bis(2-chloroethyl)ether	ND		220	29	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Bis(2-ethylhexyl) phthalate	ND		220	76	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Butyl benzyl phthalate	ND		220	37	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Caprolactam	ND		220	67	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Carbazole	ND		220	26	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Chrysene	**59**	**J**	220	50	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Dibenz(a,h)anthracene	ND		220	39	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Dibenzofuran	ND		220	26	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Diethyl phthalate	ND		220	29	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Dimethyl phthalate	ND		220	26	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Di-n-butyl phthalate	ND		220	38	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Di-n-octyl phthalate	ND		220	26	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128422-1

Client Sample ID: TP-16 (8-10)
Date Collected: 12/04/17 10:58
Date Received: 12/05/17 12:30

Lab Sample ID: 480-128422-5
Matrix: Solid
Percent Solids: 76.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	100	J	220	24	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Fluorene	ND		220	26	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Hexachlorobenzene	ND		220	30	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Hexachlorobutadiene	ND		220	33	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Hexachlorocyclopentadiene	ND		220	30	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Hexachloroethane	ND		220	29	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Indeno[1,2,3-cd]pyrene	37	J	220	27	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Isophorone	ND		220	47	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Naphthalene	ND		220	29	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Nitrobenzene	ND		220	25	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
N-Nitrosodi-n-propylamine	ND		220	38	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
N-Nitrosodiphenylamine	ND		220	180	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Pentachlorophenol	ND		430	220	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Phenanthrene	ND		220	33	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Phenol	ND		220	34	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1
Pyrene	89	J	220	26	ug/Kg	☼	12/06/17 14:13	12/08/17 01:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*72*		*54 - 120*	*12/06/17 14:13*	*12/08/17 01:08*	*1*
2-Fluorobiphenyl	*84*		*60 - 120*	*12/06/17 14:13*	*12/08/17 01:08*	*1*
2-Fluorophenol	*85*		*52 - 120*	*12/06/17 14:13*	*12/08/17 01:08*	*1*
Nitrobenzene-d5	*76*		*53 - 120*	*12/06/17 14:13*	*12/08/17 01:08*	*1*
Phenol-d5	*88*		*54 - 120*	*12/06/17 14:13*	*12/08/17 01:08*	*1*
p-Terphenyl-d14	*89*		*65 - 121*	*12/06/17 14:13*	*12/08/17 01:08*	*1*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.1	0.42	ug/Kg	☼	12/07/17 07:31	12/08/17 14:45	1
4,4'-DDE	ND		2.1	0.45	ug/Kg	☼	12/07/17 07:31	12/08/17 14:45	1
4,4'-DDT	0.64	J	2.1	0.50	ug/Kg	☼	12/07/17 07:31	12/08/17 14:45	1
Aldrin	ND		2.1	0.53	ug/Kg	☼	12/07/17 07:31	12/08/17 14:45	1
alpha-BHC	0.64	J B	2.1	0.38	ug/Kg	☼	12/07/17 07:31	12/08/17 14:45	1
alpha-Chlordane	ND		2.1	1.1	ug/Kg	☼	12/07/17 07:31	12/08/17 14:45	1
beta-BHC	ND		2.1	0.38	ug/Kg	☼	12/07/17 07:31	12/08/17 14:45	1
delta-BHC	ND		2.1	0.40	ug/Kg	☼	12/07/17 07:31	12/08/17 14:45	1
Dieldrin	ND		2.1	0.51	ug/Kg	☼	12/07/17 07:31	12/08/17 14:45	1
Endosulfan I	ND		2.1	0.41	ug/Kg	☼	12/07/17 07:31	12/08/17 14:45	1
Endosulfan II	ND		2.1	0.38	ug/Kg	☼	12/07/17 07:31	12/08/17 14:45	1
Endosulfan sulfate	ND		2.1	0.40	ug/Kg	☼	12/07/17 07:31	12/08/17 14:45	1
Endrin	ND		2.1	0.42	ug/Kg	☼	12/07/17 07:31	12/08/17 14:45	1
Endrin aldehyde	ND		2.1	0.55	ug/Kg	☼	12/07/17 07:31	12/08/17 14:45	1
Endrin ketone	ND		2.1	0.53	ug/Kg	☼	12/07/17 07:31	12/08/17 14:45	1
gamma-BHC (Lindane)	ND		2.1	0.39	ug/Kg	☼	12/07/17 07:31	12/08/17 14:45	1
gamma-Chlordane	ND		2.1	0.68	ug/Kg	☼	12/07/17 07:31	12/08/17 14:45	1
Heptachlor	ND		2.1	0.46	ug/Kg	☼	12/07/17 07:31	12/08/17 14:45	1
Heptachlor epoxide	ND		2.1	0.55	ug/Kg	☼	12/07/17 07:31	12/08/17 14:45	1
Methoxychlor	ND		2.1	0.44	ug/Kg	☼	12/07/17 07:31	12/08/17 14:45	1
Toxaphene	ND		21	12	ug/Kg	☼	12/07/17 07:31	12/08/17 14:45	1

Client Sample ID: TP-16 (8-10)
Date Collected: 12/04/17 10:58
Date Received: 12/05/17 12:30

Lab Sample ID: 480-128422-5
Matrix: Solid
Percent Solids: 76.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	123	X	45 - 120	12/07/17 07:31	12/08/17 14:45	1
DCB Decachlorobiphenyl	145	X	45 - 120	12/07/17 07:31	12/08/17 14:45	1
Tetrachloro-m-xylene	89		30 - 124	12/07/17 07:31	12/08/17 14:45	1
Tetrachloro-m-xylene	80		30 - 124	12/07/17 07:31	12/08/17 14:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.31	0.061	mg/Kg	☼	12/06/17 07:41	12/06/17 19:41	1
PCB-1221	ND		0.31	0.061	mg/Kg	☼	12/06/17 07:41	12/06/17 19:41	1
PCB-1232	ND		0.31	0.061	mg/Kg	☼	12/06/17 07:41	12/06/17 19:41	1
PCB-1242	ND		0.31	0.061	mg/Kg	☼	12/06/17 07:41	12/06/17 19:41	1
PCB-1248	ND		0.31	0.061	mg/Kg	☼	12/06/17 07:41	12/06/17 19:41	1
PCB-1254	ND		0.31	0.15	mg/Kg	☼	12/06/17 07:41	12/06/17 19:41	1
PCB-1260	ND		0.31	0.15	mg/Kg	☼	12/06/17 07:41	12/06/17 19:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	134		60 - 154	12/06/17 07:41	12/06/17 19:41	1
Tetrachloro-m-xylene	112		60 - 154	12/06/17 07:41	12/06/17 19:41	1
DCB Decachlorobiphenyl	93		65 - 174	12/06/17 07:41	12/06/17 19:41	1
DCB Decachlorobiphenyl	89		65 - 174	12/06/17 07:41	12/06/17 19:41	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND	*	22	7.0	ug/Kg	☼	12/07/17 07:37	12/12/17 03:01	1
Silvex (2,4,5-TP)	ND		22	7.9	ug/Kg	☼	12/07/17 07:37	12/12/17 03:01	1
2,4-D	ND	*	22	14	ug/Kg	☼	12/07/17 07:37	12/12/17 03:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	111		28 - 129	12/07/17 07:37	12/12/17 03:01	1
2,4-Dichlorophenylacetic acid	150	X	28 - 129	12/07/17 07:37	12/12/17 03:01	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	8800		12.6	5.5	mg/Kg	☼	12/06/17 16:35	12/07/17 20:24	1
Antimony	0.94	J	18.9	0.50	mg/Kg	☼	12/06/17 16:35	12/07/17 20:24	1
Arsenic	14.8		2.5	0.50	mg/Kg	☼	12/06/17 16:35	12/07/17 20:24	1
Barium	115		0.63	0.14	mg/Kg	☼	12/06/17 16:35	12/07/17 20:24	1
Beryllium	0.88		0.25	0.035	mg/Kg	☼	12/06/17 16:35	12/07/17 20:24	1
Cadmium	0.17	J	0.25	0.038	mg/Kg	☼	12/06/17 16:35	12/07/17 20:24	1
Calcium	2860	B	62.9	4.2	mg/Kg	☼	12/06/17 16:35	12/07/17 20:24	1
Chromium	13.9		0.63	0.25	mg/Kg	☼	12/06/17 16:35	12/07/17 20:24	1
Cobalt	8.9		0.63	0.063	mg/Kg	☼	12/06/17 16:35	12/07/17 20:24	1
Copper	37.0		1.3	0.26	mg/Kg	☼	12/06/17 16:35	12/07/17 20:24	1
Iron	7640		12.6	4.4	mg/Kg	☼	12/06/17 16:35	12/07/17 20:24	1
Lead	33.9		1.3	0.30	mg/Kg	☼	12/06/17 16:35	12/07/17 20:24	1
Magnesium	431		25.2	1.2	mg/Kg	☼	12/06/17 16:35	12/07/17 20:24	1
Manganese	83.3	B	0.25	0.040	mg/Kg	☼	12/06/17 16:35	12/07/17 20:24	1
Nickel	22.2		6.3	0.29	mg/Kg	☼	12/06/17 16:35	12/07/17 20:24	1
Potassium	896		37.7	25.2	mg/Kg	☼	12/06/17 16:35	12/07/17 20:24	1
Selenium	ND		5.0	0.50	mg/Kg	☼	12/06/17 16:35	12/07/17 20:24	1
Silver	ND		0.75	0.25	mg/Kg	☼	12/06/17 16:35	12/07/17 20:24	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128422-1

Client Sample ID: TP-16 (8-10)
Date Collected: 12/04/17 10:58
Date Received: 12/05/17 12:30

Lab Sample ID: 480-128422-5
Matrix: Solid
Percent Solids: 76.0

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	308		176	16.4	mg/Kg	☼	12/06/17 16:35	12/07/17 20:24	1
Thallium	ND		7.5	0.38	mg/Kg	☼	12/06/17 16:35	12/07/17 20:24	1
Vanadium	31.7		0.63	0.14	mg/Kg	☼	12/06/17 16:35	12/07/17 20:24	1
Zinc	45.2		2.5	0.81	mg/Kg	☼	12/06/17 16:35	12/07/17 20:24	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	J	0.026	0.010	mg/Kg	☼	12/11/17 12:25	12/11/17 16:15	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128422-1

Client Sample ID: TP-22 (9-12)
Date Collected: 12/04/17 12:30
Date Received: 12/05/17 12:30

Lab Sample ID: 480-128422-6
Matrix: Solid
Percent Solids: 82.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		2000	550	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
2,4,6-Trichlorophenol	ND		2000	410	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
2,4-Dichlorophenol	ND		2000	220	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
2,4-Dimethylphenol	ND		2000	490	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
2,4-Dinitrophenol	ND		20000	9400	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
2,4-Dinitrotoluene	ND		2000	420	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
2,6-Dinitrotoluene	ND		2000	240	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
2-Chloronaphthalene	ND		2000	340	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
2-Chlorophenol	ND		2000	370	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
2-Methylnaphthalene	ND		2000	410	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
2-Methylphenol	ND		2000	240	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
2-Nitroaniline	ND		4000	300	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
2-Nitrophenol	ND		2000	580	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
3,3'-Dichlorobenzidine	ND		4000	2400	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
3-Nitroaniline	ND		4000	570	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
4,6-Dinitro-2-methylphenol	ND		4000	2000	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
4-Bromophenyl phenyl ether	ND		2000	290	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
4-Chloro-3-methylphenol	ND		2000	510	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
4-Chloroaniline	ND		2000	510	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
4-Chlorophenyl phenyl ether	ND		2000	250	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
4-Methylphenol	ND		4000	240	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
4-Nitroaniline	ND		4000	1100	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
4-Nitrophenol	ND		4000	1400	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Acenaphthene	ND		2000	300	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Acenaphthylene	ND		2000	270	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Acetophenone	ND		2000	280	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Anthracene	ND		2000	510	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Atrazine	ND		2000	710	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Benzaldehyde	ND		2000	1600	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Benzo[a]anthracene	ND		2000	200	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Benzo[a]pyrene	**330**	**J**	2000	300	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Benzo[b]fluoranthene	**550**	**J**	2000	330	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Benzo[g,h,i]perylene	ND		2000	220	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Benzo[k]fluoranthene	ND		2000	270	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Biphenyl	ND		2000	300	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
bis (2-chloroisopropyl) ether	ND		2000	410	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Bis(2-chloroethoxy)methane	ND		2000	430	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Bis(2-chloroethyl)ether	ND		2000	270	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Bis(2-ethylhexyl) phthalate	ND		2000	700	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Butyl benzyl phthalate	ND		2000	340	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Caprolactam	ND		2000	610	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Carbazole	ND		2000	240	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Chrysene	ND		2000	460	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Dibenz(a,h)anthracene	ND		2000	360	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Dibenzofuran	ND		2000	240	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Diethyl phthalate	ND		2000	270	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Dimethyl phthalate	ND		2000	240	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Di-n-butyl phthalate	ND		2000	350	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Di-n-octyl phthalate	ND		2000	240	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128422-1

Client Sample ID: TP-22 (9-12)
Date Collected: 12/04/17 12:30
Date Received: 12/05/17 12:30

Lab Sample ID: 480-128422-6
Matrix: Solid
Percent Solids: 82.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	700	J	2000	220	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Fluorene	ND		2000	240	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Hexachlorobenzene	ND		2000	280	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Hexachlorobutadiene	ND		2000	300	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Hexachlorocyclopentadiene	ND		2000	280	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Hexachloroethane	ND		2000	270	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Indeno[1,2,3-cd]pyrene	ND		2000	250	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Isophorone	ND		2000	430	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Naphthalene	ND		2000	270	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Nitrobenzene	ND		2000	230	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
N-Nitrosodi-n-propylamine	ND		2000	350	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
N-Nitrosodiphenylamine	ND		2000	1700	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Pentachlorophenol	ND		4000	2000	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Phenanthrene	ND		2000	300	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Phenol	ND		2000	310	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10
Pyrene	670	J	2000	240	ug/Kg	☼	12/06/17 14:13	12/08/17 01:35	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*91*		*54 - 120*	*12/06/17 14:13*	*12/08/17 01:35*	*10*
2-Fluorobiphenyl	*96*		*60 - 120*	*12/06/17 14:13*	*12/08/17 01:35*	*10*
2-Fluorophenol	*109*		*52 - 120*	*12/06/17 14:13*	*12/08/17 01:35*	*10*
Nitrobenzene-d5	*81*		*53 - 120*	*12/06/17 14:13*	*12/08/17 01:35*	*10*
Phenol-d5	*96*		*54 - 120*	*12/06/17 14:13*	*12/08/17 01:35*	*10*
p-Terphenyl-d14	*78*		*65 - 121*	*12/06/17 14:13*	*12/08/17 01:35*	*10*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	10600		12.0	5.3	mg/Kg	☼	12/06/17 16:35	12/07/17 20:28	1
Antimony	1.2	J	18.0	0.48	mg/Kg	☼	12/06/17 16:35	12/07/17 20:28	1
Arsenic	7.0		2.4	0.48	mg/Kg	☼	12/06/17 16:35	12/07/17 20:28	1
Barium	91.3		0.60	0.13	mg/Kg	☼	12/06/17 16:35	12/07/17 20:28	1
Beryllium	0.56		0.24	0.034	mg/Kg	☼	12/06/17 16:35	12/07/17 20:28	1
Cadmium	0.33		0.24	0.036	mg/Kg	☼	12/06/17 16:35	12/07/17 20:28	1
Calcium	30400	B	60.1	4.0	mg/Kg	☼	12/06/17 16:35	12/07/17 20:28	1
Chromium	15.4		0.60	0.24	mg/Kg	☼	12/06/17 16:35	12/07/17 20:28	1
Cobalt	6.6		0.60	0.060	mg/Kg	☼	12/06/17 16:35	12/07/17 20:28	1
Copper	62.6		1.2	0.25	mg/Kg	☼	12/06/17 16:35	12/07/17 20:28	1
Iron	14200		12.0	4.2	mg/Kg	☼	12/06/17 16:35	12/07/17 20:28	1
Lead	195		1.2	0.29	mg/Kg	☼	12/06/17 16:35	12/07/17 20:28	1
Magnesium	9010		24.0	1.1	mg/Kg	☼	12/06/17 16:35	12/07/17 20:28	1
Manganese	241	B	0.24	0.038	mg/Kg	☼	12/06/17 16:35	12/07/17 20:28	1
Nickel	17.4		6.0	0.28	mg/Kg	☼	12/06/17 16:35	12/07/17 20:28	1
Potassium	2480		36.1	24.0	mg/Kg	☼	12/06/17 16:35	12/07/17 20:28	1
Selenium	0.48	J	4.8	0.48	mg/Kg	☼	12/06/17 16:35	12/07/17 20:28	1
Silver	ND		0.72	0.24	mg/Kg	☼	12/06/17 16:35	12/07/17 20:28	1
Sodium	212		168	15.6	mg/Kg	☼	12/06/17 16:35	12/07/17 20:28	1
Thallium	ND		7.2	0.36	mg/Kg	☼	12/06/17 16:35	12/07/17 20:28	1
Vanadium	24.3		0.60	0.13	mg/Kg	☼	12/06/17 16:35	12/07/17 20:28	1
Zinc	201		2.4	0.77	mg/Kg	☼	12/06/17 16:35	12/07/17 20:28	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128422-1

Client Sample ID: TP-22 (9-12)
Date Collected: 12/04/17 12:30
Date Received: 12/05/17 12:30

Lab Sample ID: 480-128422-6
Matrix: Solid
Percent Solids: 82.7

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.89		0.024	0.0098	mg/Kg	☼	12/11/17 12:25	12/11/17 16:17	1

Client Sample ID: TP-23 (13-15.5)
Date Collected: 12/04/17 13:45
Date Received: 12/05/17 12:30

Lab Sample ID: 480-128422-7
Matrix: Solid
Percent Solids: 68.4

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		8.9	0.65	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
1,1,2,2-Tetrachloroethane	ND		8.9	1.4	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		8.9	2.0	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
1,1,2-Trichloroethane	ND		8.9	1.2	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
1,1-Dichloroethane	ND		8.9	1.1	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
1,1-Dichloroethene	ND		8.9	1.1	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
1,2,4-Trichlorobenzene	ND		8.9	0.54	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
1,2,4-Trimethylbenzene	ND		8.9	1.7	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
1,2-Dibromo-3-Chloropropane	ND		8.9	4.5	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
1,2-Dibromoethane	ND		8.9	1.1	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
1,2-Dichlorobenzene	ND		8.9	0.70	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
1,2-Dichloroethane	ND		8.9	0.45	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
1,2-Dichloropropane	ND		8.9	4.5	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
1,3,5-Trimethylbenzene	ND		8.9	0.58	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
1,3-Dichlorobenzene	ND		8.9	0.46	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
1,4-Dichlorobenzene	ND		8.9	1.3	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
2-Butanone (MEK)	ND		45	3.3	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
2-Hexanone	ND		45	4.5	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
4-Isopropyltoluene	ND		8.9	0.72	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
4-Methyl-2-pentanone (MIBK)	ND		45	2.9	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
Acetone	**25**	**J**	45	7.5	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
Benzene	ND		8.9	0.44	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
Bromodichloromethane	ND		8.9	1.2	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
Bromoform	ND		8.9	4.5	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
Bromomethane	ND		8.9	0.80	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
Carbon disulfide	ND		8.9	4.5	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
Carbon tetrachloride	ND		8.9	0.87	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
Chlorobenzene	ND		8.9	1.2	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
Chloroethane	ND		8.9	2.0	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
Chloroform	ND		8.9	0.55	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
Chloromethane	ND		8.9	0.54	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
cis-1,2-Dichloroethene	ND		8.9	1.1	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
cis-1,3-Dichloropropene	ND		8.9	1.3	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
Cyclohexane	ND		8.9	1.3	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
Dibromochloromethane	ND		8.9	1.1	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
Dichlorodifluoromethane	ND		8.9	0.74	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
Ethylbenzene	ND		8.9	0.62	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
Isopropylbenzene	ND		8.9	1.3	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
m,p-Xylene	ND		18	1.5	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
Methyl acetate	ND		45	5.4	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
Methyl tert-butyl ether	ND		8.9	0.88	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
Methylcyclohexane	ND		8.9	1.4	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
Methylene Chloride	ND		8.9	4.1	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
n-Butylbenzene	ND		8.9	0.78	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
N-Propylbenzene	ND		8.9	0.72	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
o-Xylene	ND		8.9	1.2	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
sec-Butylbenzene	ND		8.9	0.78	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
Styrene	ND		8.9	0.45	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
tert-Butylbenzene	ND		8.9	0.93	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1

Client Sample ID: TP-23 (13-15.5)
Date Collected: 12/04/17 13:45
Date Received: 12/05/17 12:30

Lab Sample ID: 480-128422-7
Matrix: Solid
Percent Solids: 68.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		8.9	1.2	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
Toluene	ND		8.9	0.68	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
trans-1,2-Dichloroethene	ND		8.9	0.92	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
trans-1,3-Dichloropropene	ND		8.9	3.9	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
Trichloroethene	ND		8.9	2.0	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
Trichlorofluoromethane	ND		8.9	0.85	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
Vinyl chloride	ND		8.9	1.1	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1
Xylenes, Total	ND		18	1.5	ug/Kg	☼	12/05/17 15:30	12/13/17 14:09	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Naphthalene, decahydro-	*290*	*T J N*	*ug/Kg*	☼	*10.65*	*91-17-8*	*12/05/17 15:30*	*12/13/17 14:09*	*1*
Naphthalene, decahydro-2-methyl-	*330*	*T J N*	*ug/Kg*	☼	*11.20*	*2958-76-1*	*12/05/17 15:30*	*12/13/17 14:09*	*1*
Undecane, 2,6-dimethyl-	*480*	*T J N*	*ug/Kg*	☼	*11.69*	*17301-23-4*	*12/05/17 15:30*	*12/13/17 14:09*	*1*
Unknown	*210*	*T J*	*ug/Kg*	☼	*11.77*		*12/05/17 15:30*	*12/13/17 14:09*	*1*
Unknown	*190*	*T J*	*ug/Kg*	☼	*11.98*		*12/05/17 15:30*	*12/13/17 14:09*	*1*
Unknown	*180*	*T J*	*ug/Kg*	☼	*12.04*		*12/05/17 15:30*	*12/13/17 14:09*	*1*
Unknown	*200*	*T J*	*ug/Kg*	☼	*12.10*		*12/05/17 15:30*	*12/13/17 14:09*	*1*
Unknown	*300*	*T J*	*ug/Kg*	☼	*12.16*		*12/05/17 15:30*	*12/13/17 14:09*	*1*
Unknown	*240*	*T J*	*ug/Kg*	☼	*12.48*		*12/05/17 15:30*	*12/13/17 14:09*	*1*
Unknown	*230*	*T J*	*ug/Kg*	☼	*12.53*		*12/05/17 15:30*	*12/13/17 14:09*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*64 - 126*	*12/05/17 15:30*	*12/13/17 14:09*	*1*
4-Bromofluorobenzene (Surr)	*88*		*72 - 126*	*12/05/17 15:30*	*12/13/17 14:09*	*1*
Dibromofluoromethane (Surr)	*107*		*60 - 140*	*12/05/17 15:30*	*12/13/17 14:09*	*1*
Toluene-d8 (Surr)	*104*		*71 - 125*	*12/05/17 15:30*	*12/13/17 14:09*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		4900	1300	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
2,4,6-Trichlorophenol	ND		4900	990	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
2,4-Dichlorophenol	ND		4900	520	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
2,4-Dimethylphenol	ND		4900	1200	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
2,4-Dinitrophenol	ND		48000	23000	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
2,4-Dinitrotoluene	ND		4900	1000	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
2,6-Dinitrotoluene	ND		4900	580	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
2-Chloronaphthalene	ND		4900	810	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
2-Chlorophenol	ND		4900	900	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
2-Methylnaphthalene	ND		4900	990	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
2-Methylphenol	ND		4900	580	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
2-Nitroaniline	ND		9600	720	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
2-Nitrophenol	ND		4900	1400	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
3,3'-Dichlorobenzidine	ND		9600	5800	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
3-Nitroaniline	ND		9600	1400	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
4,6-Dinitro-2-methylphenol	ND		9600	4900	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
4-Bromophenyl phenyl ether	ND		4900	700	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
4-Chloro-3-methylphenol	ND		4900	1200	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
4-Chloroaniline	ND		4900	1200	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
4-Chlorophenyl phenyl ether	ND		4900	610	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
4-Methylphenol	ND		9600	580	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20

Client Sample ID: TP-23 (13-15.5)
Date Collected: 12/04/17 13:45
Date Received: 12/05/17 12:30

Lab Sample ID: 480-128422-7
Matrix: Solid
Percent Solids: 68.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitroaniline	ND		9600	2600	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
4-Nitrophenol	ND		9600	3400	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Acenaphthene	ND		4900	720	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Acenaphthylene	ND		4900	640	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Acetophenone	ND		4900	670	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Anthracene	ND		4900	1200	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Atrazine	ND		4900	1700	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Benzaldehyde	ND		4900	3900	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Benzo[a]anthracene	**2100**	**J**	4900	490	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Benzo[a]pyrene	**2200**	**J**	4900	720	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Benzo[b]fluoranthene	**3300**	**J**	4900	780	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Benzo[g,h,i]perylene	**1100**	**J**	4900	520	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Benzo[k]fluoranthene	ND		4900	640	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Biphenyl	ND		4900	720	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
bis (2-chloroisopropyl) ether	ND		4900	990	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Bis(2-chloroethoxy)methane	ND		4900	1000	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Bis(2-chloroethyl)ether	ND		4900	640	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Bis(2-ethylhexyl) phthalate	ND		4900	1700	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Butyl benzyl phthalate	ND		4900	810	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Caprolactam	ND		4900	1500	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Carbazole	ND		4900	580	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Chrysene	**2700**	**J**	4900	1100	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Dibenz(a,h)anthracene	ND		4900	870	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Dibenzofuran	ND		4900	580	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Diethyl phthalate	ND		4900	640	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Dimethyl phthalate	ND		4900	580	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Di-n-butyl phthalate	ND		4900	840	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Di-n-octyl phthalate	ND		4900	580	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Fluoranthene	**5500**		4900	520	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Fluorene	**680**	**J**	4900	580	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Hexachlorobenzene	ND		4900	670	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Hexachlorobutadiene	ND		4900	720	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Hexachlorocyclopentadiene	ND		4900	670	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Hexachloroethane	ND		4900	640	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Indeno[1,2,3-cd]pyrene	**1100**	**J**	4900	610	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Isophorone	ND		4900	1000	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Naphthalene	ND		4900	640	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Nitrobenzene	ND		4900	550	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
N-Nitrosodi-n-propylamine	ND		4900	840	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
N-Nitrosodiphenylamine	ND		4900	4000	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Pentachlorophenol	ND		9600	4900	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Phenanthrene	**4200**	**J**	4900	720	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Phenol	ND		4900	750	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20
Pyrene	**5200**		4900	580	ug/Kg	☼	12/06/17 14:13	12/08/17 02:01	20

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*6200*	*T J*	*ug/Kg*	☼	*12.60*		*12/06/17 14:13*	*12/08/17 02:01*	*20*
4b,8-Dimethyl-2-isopropylphenanthrene, 4b,5,6,7,8,8a,9,10-oc	*5200*	*T J N*	*ug/Kg*	☼	*12.77*	*1000197-14-1*	*12/06/17 14:13*	*12/08/17 02:01*	*20*

Client Sample ID: TP-23 (13-15.5)
Date Collected: 12/04/17 13:45
Date Received: 12/05/17 12:30

Lab Sample ID: 480-128422-7
Matrix: Solid
Percent Solids: 68.4

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

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Phenanthrene, 1-methyl-7-(1-methylethyl)-	9900	T J N	ug/Kg	☼	13.46	483-65-8	12/06/17 14:13	12/08/17 02:01	20
Unknown	6700	T J	ug/Kg	☼	14.73		12/06/17 14:13	12/08/17 02:01	20
Unknown	4900	T J	ug/Kg	☼	14.82		12/06/17 14:13	12/08/17 02:01	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	114		54 - 120	12/06/17 14:13	12/08/17 02:01	20
2-Fluorobiphenyl	80		60 - 120	12/06/17 14:13	12/08/17 02:01	20
2-Fluorophenol	114		52 - 120	12/06/17 14:13	12/08/17 02:01	20
Nitrobenzene-d5	64		53 - 120	12/06/17 14:13	12/08/17 02:01	20
Phenol-d5	82		54 - 120	12/06/17 14:13	12/08/17 02:01	20
p-Terphenyl-d14	37	X	65 - 121	12/06/17 14:13	12/08/17 02:01	20

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		24	4.7	ug/Kg	☼	12/07/17 07:31	12/08/17 14:25	10
4,4'-DDE	ND		24	5.1	ug/Kg	☼	12/07/17 07:31	12/08/17 14:25	10
4,4'-DDT	**5.7**	**J**	24	5.7	ug/Kg	☼	12/07/17 07:31	12/08/17 14:25	10
Aldrin	ND		24	6.0	ug/Kg	☼	12/07/17 07:31	12/08/17 14:25	10
alpha-BHC	ND		24	4.4	ug/Kg	☼	12/07/17 07:31	12/08/17 14:25	10
alpha-Chlordane	ND		24	12	ug/Kg	☼	12/07/17 07:31	12/08/17 14:25	10
beta-BHC	ND		24	4.4	ug/Kg	☼	12/07/17 07:31	12/08/17 14:25	10
delta-BHC	ND		24	4.5	ug/Kg	☼	12/07/17 07:31	12/08/17 14:25	10
Dieldrin	ND	F2	24	5.8	ug/Kg	☼	12/07/17 07:31	12/08/17 14:25	10
Endosulfan I	ND		24	4.7	ug/Kg	☼	12/07/17 07:31	12/08/17 14:25	10
Endosulfan II	ND		24	4.4	ug/Kg	☼	12/07/17 07:31	12/08/17 14:25	10
Endosulfan sulfate	ND		24	4.5	ug/Kg	☼	12/07/17 07:31	12/08/17 14:25	10
Endrin	ND		24	4.8	ug/Kg	☼	12/07/17 07:31	12/08/17 14:25	10
Endrin aldehyde	ND		24	6.2	ug/Kg	☼	12/07/17 07:31	12/08/17 14:25	10
Endrin ketone	ND		24	6.0	ug/Kg	☼	12/07/17 07:31	12/08/17 14:25	10
gamma-BHC (Lindane)	ND		24	4.5	ug/Kg	☼	12/07/17 07:31	12/08/17 14:25	10
gamma-Chlordane	ND		24	7.7	ug/Kg	☼	12/07/17 07:31	12/08/17 14:25	10
Heptachlor	ND		24	5.3	ug/Kg	☼	12/07/17 07:31	12/08/17 14:25	10
Heptachlor epoxide	ND	F1	24	6.3	ug/Kg	☼	12/07/17 07:31	12/08/17 14:25	10
Methoxychlor	ND		24	5.0	ug/Kg	☼	12/07/17 07:31	12/08/17 14:25	10
Toxaphene	ND		240	140	ug/Kg	☼	12/07/17 07:31	12/08/17 14:25	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	0	X	45 - 120	12/07/17 07:31	12/08/17 14:25	10
DCB Decachlorobiphenyl	0	X	45 - 120	12/07/17 07:31	12/08/17 14:25	10
Tetrachloro-m-xylene	135	X	30 - 124	12/07/17 07:31	12/08/17 14:25	10
Tetrachloro-m-xylene	115		30 - 124	12/07/17 07:31	12/08/17 14:25	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.34	0.066	mg/Kg	☼	12/06/17 07:41	12/06/17 20:29	1
PCB-1221	ND		0.34	0.066	mg/Kg	☼	12/06/17 07:41	12/06/17 20:29	1
PCB-1232	ND		0.34	0.066	mg/Kg	☼	12/06/17 07:41	12/06/17 20:29	1
PCB-1242	ND		0.34	0.066	mg/Kg	☼	12/06/17 07:41	12/06/17 20:29	1
PCB-1248	ND		0.34	0.066	mg/Kg	☼	12/06/17 07:41	12/06/17 20:29	1

Client Sample ID: TP-23 (13-15.5)
Date Collected: 12/04/17 13:45
Date Received: 12/05/17 12:30

Lab Sample ID: 480-128422-7
Matrix: Solid
Percent Solids: 68.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1254	ND		0.34	0.16	mg/Kg	☼	12/06/17 07:41	12/06/17 20:29	1
PCB-1260	ND		0.34	0.16	mg/Kg	☼	12/06/17 07:41	12/06/17 20:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*135*		*60 - 154*	*12/06/17 07:41*	*12/06/17 20:29*	*1*
Tetrachloro-m-xylene	*122*		*60 - 154*	*12/06/17 07:41*	*12/06/17 20:29*	*1*
DCB Decachlorobiphenyl	*97*		*65 - 174*	*12/06/17 07:41*	*12/06/17 20:29*	*1*
DCB Decachlorobiphenyl	*97*		*65 - 174*	*12/06/17 07:41*	*12/06/17 20:29*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND	*	24	7.8	ug/Kg	☼	12/07/17 07:37	12/12/17 02:32	1
Silvex (2,4,5-TP)	ND		24	8.7	ug/Kg	☼	12/07/17 07:37	12/12/17 02:32	1
2,4-D	ND	*	24	15	ug/Kg	☼	12/07/17 07:37	12/12/17 02:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*NaN*		*28 - 129*	*12/07/17 07:37*	*12/12/17 02:32*	*1*
2,4-Dichlorophenylacetic acid	*NaN*		*28 - 129*	*12/07/17 07:37*	*12/12/17 02:32*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	7560		14.0	6.2	mg/Kg	☼	12/06/17 16:35	12/07/17 20:32	1
Antimony	1.5	J	21.0	0.56	mg/Kg	☼	12/06/17 16:35	12/07/17 20:32	1
Arsenic	13.6		2.8	0.56	mg/Kg	☼	12/06/17 16:35	12/07/17 20:32	1
Barium	153		0.70	0.15	mg/Kg	☼	12/06/17 16:35	12/07/17 20:32	1
Beryllium	2.0		0.28	0.039	mg/Kg	☼	12/06/17 16:35	12/07/17 20:32	1
Cadmium	0.36		0.28	0.042	mg/Kg	☼	12/06/17 16:35	12/07/17 20:32	1
Calcium	4200	B	70.1	4.6	mg/Kg	☼	12/06/17 16:35	12/07/17 20:32	1
Chromium	15.3		0.70	0.28	mg/Kg	☼	12/06/17 16:35	12/07/17 20:32	1
Cobalt	11.3		0.70	0.070	mg/Kg	☼	12/06/17 16:35	12/07/17 20:32	1
Copper	52.2		1.4	0.29	mg/Kg	☼	12/06/17 16:35	12/07/17 20:32	1
Iron	13100		14.0	4.9	mg/Kg	☼	12/06/17 16:35	12/07/17 20:32	1
Lead	165		1.4	0.34	mg/Kg	☼	12/06/17 16:35	12/07/17 20:32	1
Magnesium	563		28.1	1.3	mg/Kg	☼	12/06/17 16:35	12/07/17 20:32	1
Manganese	120	B	0.28	0.045	mg/Kg	☼	12/06/17 16:35	12/07/17 20:32	1
Nickel	25.7		7.0	0.32	mg/Kg	☼	12/06/17 16:35	12/07/17 20:32	1
Potassium	825		42.1	28.1	mg/Kg	☼	12/06/17 16:35	12/07/17 20:32	1
Selenium	2.6	J	5.6	0.56	mg/Kg	☼	12/06/17 16:35	12/07/17 20:32	1
Silver	ND		0.84	0.28	mg/Kg	☼	12/06/17 16:35	12/07/17 20:32	1
Sodium	414		196	18.2	mg/Kg	☼	12/06/17 16:35	12/07/17 20:32	1
Thallium	ND		8.4	0.42	mg/Kg	☼	12/06/17 16:35	12/07/17 20:32	1
Vanadium	25.5		0.70	0.15	mg/Kg	☼	12/06/17 16:35	12/07/17 20:32	1
Zinc	226		2.8	0.90	mg/Kg	☼	12/06/17 16:35	12/07/17 20:32	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.12		0.030	0.012	mg/Kg	☼	12/11/17 12:25	12/11/17 16:19	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128422-1

Client Sample ID: TP-27 (7-9)
Date Collected: 12/04/17 14:28
Date Received: 12/05/17 12:30

Lab Sample ID: 480-128422-8
Matrix: Solid
Percent Solids: 94.0

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.3	0.31	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
1,1,2,2-Tetrachloroethane	ND		4.3	0.70	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.3	0.99	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
1,1,2-Trichloroethane	ND		4.3	0.56	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
1,1-Dichloroethane	ND		4.3	0.53	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
1,1-Dichloroethene	ND		4.3	0.53	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
1,2,4-Trichlorobenzene	ND		4.3	0.26	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
1,2,4-Trimethylbenzene	ND		4.3	0.83	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
1,2-Dibromo-3-Chloropropane	ND		4.3	2.2	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
1,2-Dibromoethane	ND		4.3	0.56	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
1,2-Dichlorobenzene	ND		4.3	0.34	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
1,2-Dichloroethane	ND		4.3	0.22	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
1,2-Dichloropropane	ND		4.3	2.2	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
1,3,5-Trimethylbenzene	ND		4.3	0.28	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
1,3-Dichlorobenzene	ND		4.3	0.22	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
1,4-Dichlorobenzene	ND		4.3	0.61	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
2-Butanone (MEK)	ND		22	1.6	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
2-Hexanone	ND		22	2.2	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
4-Isopropyltoluene	ND		4.3	0.35	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
4-Methyl-2-pentanone (MIBK)	ND		22	1.4	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
Acetone	ND		22	3.7	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
Benzene	ND		4.3	0.21	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
Bromodichloromethane	ND		4.3	0.58	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
Bromoform	ND		4.3	2.2	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
Bromomethane	ND		4.3	0.39	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
Carbon disulfide	ND		4.3	2.2	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
Carbon tetrachloride	ND		4.3	0.42	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
Chlorobenzene	ND		4.3	0.57	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
Chloroethane	ND		4.3	0.98	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
Chloroform	ND		4.3	0.27	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
Chloromethane	ND		4.3	0.26	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
cis-1,2-Dichloroethene	ND		4.3	0.56	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
cis-1,3-Dichloropropene	ND		4.3	0.62	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
Cyclohexane	ND		4.3	0.61	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
Dibromochloromethane	ND		4.3	0.56	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
Dichlorodifluoromethane	ND		4.3	0.36	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
Ethylbenzene	ND		4.3	0.30	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
Isopropylbenzene	ND		4.3	0.65	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
m,p-Xylene	ND		8.7	0.73	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
Methyl acetate	ND		22	2.6	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
Methyl tert-butyl ether	ND		4.3	0.43	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
Methylcyclohexane	ND		4.3	0.66	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
Methylene Chloride	ND		4.3	2.0	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
n-Butylbenzene	ND		4.3	0.38	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
N-Propylbenzene	ND		4.3	0.35	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
o-Xylene	ND		4.3	0.57	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
sec-Butylbenzene	ND		4.3	0.38	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
Styrene	ND		4.3	0.22	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
tert-Butylbenzene	ND		4.3	0.45	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1

Client Sample ID: TP-27 (7-9)
Date Collected: 12/04/17 14:28
Date Received: 12/05/17 12:30

Lab Sample ID: 480-128422-8
Matrix: Solid
Percent Solids: 94.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		4.3	0.58	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
Toluene	ND		4.3	0.33	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
trans-1,2-Dichloroethene	ND		4.3	0.45	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
trans-1,3-Dichloropropene	ND		4.3	1.9	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
Trichloroethene	ND		4.3	0.95	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
Trichlorofluoromethane	ND		4.3	0.41	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
Vinyl chloride	ND		4.3	0.53	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1
Xylenes, Total	ND		8.7	0.73	ug/Kg	☼	12/05/17 15:30	12/13/17 14:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*64 - 126*	*12/05/17 15:30*	*12/13/17 14:34*	*1*
4-Bromofluorobenzene (Surr)	*88*		*72 - 126*	*12/05/17 15:30*	*12/13/17 14:34*	*1*
Dibromofluoromethane (Surr)	*108*		*60 - 140*	*12/05/17 15:30*	*12/13/17 14:34*	*1*
Toluene-d8 (Surr)	*105*		*71 - 125*	*12/05/17 15:30*	*12/13/17 14:34*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		1800	490	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
2,4,6-Trichlorophenol	ND		1800	360	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
2,4-Dichlorophenol	ND		1800	190	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
2,4-Dimethylphenol	ND		1800	440	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
2,4-Dinitrophenol	ND		18000	8300	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
2,4-Dinitrotoluene	ND		1800	370	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
2,6-Dinitrotoluene	ND		1800	210	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
2-Chloronaphthalene	ND		1800	300	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
2-Chlorophenol	ND		1800	330	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
2-Methylnaphthalene	ND		1800	360	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
2-Methylphenol	ND		1800	210	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
2-Nitroaniline	ND		3500	270	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
2-Nitrophenol	ND		1800	510	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
3,3'-Dichlorobenzidine	ND		3500	2100	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
3-Nitroaniline	ND		3500	500	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
4,6-Dinitro-2-methylphenol	ND		3500	1800	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
4-Bromophenyl phenyl ether	ND		1800	250	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
4-Chloro-3-methylphenol	ND		1800	450	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
4-Chloroaniline	ND		1800	450	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
4-Chlorophenyl phenyl ether	ND		1800	220	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
4-Methylphenol	ND		3500	210	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
4-Nitroaniline	ND		3500	940	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
4-Nitrophenol	ND		3500	1300	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Acenaphthene	ND		1800	270	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Acenaphthylene	ND		1800	230	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Acetophenone	ND		1800	240	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Anthracene	ND		1800	450	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Atrazine	ND		1800	630	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Benzaldehyde	ND		1800	1400	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Benzo[a]anthracene	ND		1800	180	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Benzo[a]pyrene	**270**	**J**	1800	270	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Benzo[b]fluoranthene	ND		1800	290	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Benzo[g,h,i]perylene	ND		1800	190	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128422-1

Client Sample ID: TP-27 (7-9)
Date Collected: 12/04/17 14:28
Date Received: 12/05/17 12:30

Lab Sample ID: 480-128422-8
Matrix: Solid
Percent Solids: 94.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	ND		1800	230	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Biphenyl	ND		1800	270	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
bis (2-chloroisopropyl) ether	ND		1800	360	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Bis(2-chloroethoxy)methane	ND		1800	380	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Bis(2-chloroethyl)ether	ND		1800	230	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Bis(2-ethylhexyl) phthalate	ND		1800	620	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Butyl benzyl phthalate	ND		1800	300	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Caprolactam	ND		1800	540	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Carbazole	ND		1800	210	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Chrysene	ND		1800	400	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Dibenz(a,h)anthracene	ND		1800	320	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Dibenzofuran	ND		1800	210	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Diethyl phthalate	ND		1800	230	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Dimethyl phthalate	ND		1800	210	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Di-n-butyl phthalate	ND		1800	310	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Di-n-octyl phthalate	ND		1800	210	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Fluoranthene	**540**	**J**	1800	190	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Fluorene	ND		1800	210	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Hexachlorobenzene	ND		1800	240	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Hexachlorobutadiene	ND		1800	270	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Hexachlorocyclopentadiene	ND		1800	240	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Hexachloroethane	ND		1800	230	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Indeno[1,2,3-cd]pyrene	ND		1800	220	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Isophorone	ND		1800	380	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Naphthalene	ND		1800	230	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Nitrobenzene	ND		1800	200	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
N-Nitrosodi-n-propylamine	ND		1800	310	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
N-Nitrosodiphenylamine	ND		1800	1500	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Pentachlorophenol	ND		3500	1800	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Phenanthrene	ND		1800	270	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Phenol	ND		1800	280	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10
Pyrene	**470**	**J**	1800	210	ug/Kg	☼	12/06/17 14:13	12/08/17 02:28	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*88*		*54 - 120*	*12/06/17 14:13*	*12/08/17 02:28*	*10*
2-Fluorobiphenyl	*100*		*60 - 120*	*12/06/17 14:13*	*12/08/17 02:28*	*10*
2-Fluorophenol	*108*		*52 - 120*	*12/06/17 14:13*	*12/08/17 02:28*	*10*
Nitrobenzene-d5	*86*		*53 - 120*	*12/06/17 14:13*	*12/08/17 02:28*	*10*
Phenol-d5	*91*		*54 - 120*	*12/06/17 14:13*	*12/08/17 02:28*	*10*
p-Terphenyl-d14	*84*		*65 - 121*	*12/06/17 14:13*	*12/08/17 02:28*	*10*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**6790**		10.5	4.6	mg/Kg	☼	12/06/17 16:35	12/07/17 20:35	1
Antimony	**1.1**	**J**	15.8	0.42	mg/Kg	☼	12/06/17 16:35	12/07/17 20:35	1
Arsenic	**4.3**		2.1	0.42	mg/Kg	☼	12/06/17 16:35	12/07/17 20:35	1
Barium	**260**		0.53	0.12	mg/Kg	☼	12/06/17 16:35	12/07/17 20:35	1
Beryllium	**0.79**		0.21	0.030	mg/Kg	☼	12/06/17 16:35	12/07/17 20:35	1
Cadmium	**0.32**		0.21	0.032	mg/Kg	☼	12/06/17 16:35	12/07/17 20:35	1
Calcium	**10100**	**B**	52.7	3.5	mg/Kg	☼	12/06/17 16:35	12/07/17 20:35	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128422-1

Client Sample ID: TP-27 (7-9)
Date Collected: 12/04/17 14:28
Date Received: 12/05/17 12:30

Lab Sample ID: 480-128422-8
Matrix: Solid
Percent Solids: 94.0

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	22.9		0.53	0.21	mg/Kg	☼	12/06/17 16:35	12/07/17 20:35	1
Cobalt	5.6		0.53	0.053	mg/Kg	☼	12/06/17 16:35	12/07/17 20:35	1
Copper	56.2		1.1	0.22	mg/Kg	☼	12/06/17 16:35	12/07/17 20:35	1
Iron	9030		10.5	3.7	mg/Kg	☼	12/06/17 16:35	12/07/17 20:35	1
Lead	210		1.1	0.25	mg/Kg	☼	12/06/17 16:35	12/07/17 20:35	1
Magnesium	3870		21.1	0.98	mg/Kg	☼	12/06/17 16:35	12/07/17 20:35	1
Manganese	92.4	B	0.21	0.034	mg/Kg	☼	12/06/17 16:35	12/07/17 20:35	1
Nickel	15.3		5.3	0.24	mg/Kg	☼	12/06/17 16:35	12/07/17 20:35	1
Potassium	1110		31.6	21.1	mg/Kg	☼	12/06/17 16:35	12/07/17 20:35	1
Selenium	ND		4.2	0.42	mg/Kg	☼	12/06/17 16:35	12/07/17 20:35	1
Silver	ND		0.63	0.21	mg/Kg	☼	12/06/17 16:35	12/07/17 20:35	1
Sodium	203		148	13.7	mg/Kg	☼	12/06/17 16:35	12/07/17 20:35	1
Thallium	ND		6.3	0.32	mg/Kg	☼	12/06/17 16:35	12/07/17 20:35	1
Vanadium	18.9		0.53	0.12	mg/Kg	☼	12/06/17 16:35	12/07/17 20:35	1
Zinc	184		2.1	0.67	mg/Kg	☼	12/06/17 16:35	12/07/17 20:35	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.24		0.021	0.0086	mg/Kg	☼	12/11/17 12:25	12/11/17 16:20	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128422-1

Client Sample ID: TP-21 (8-10)
Date Collected: 12/04/17 11:32
Date Received: 12/05/17 12:30

Lab Sample ID: 480-128422-9
Matrix: Solid
Percent Solids: 93.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		180	48	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
2,4,6-Trichlorophenol	ND		180	36	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
2,4-Dichlorophenol	ND		180	19	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
2,4-Dimethylphenol	ND		180	43	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
2,4-Dinitrophenol	ND		1700	820	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
2,4-Dinitrotoluene	ND		180	37	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
2,6-Dinitrotoluene	ND		180	21	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
2-Chloronaphthalene	ND		180	29	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
2-Chlorophenol	ND		180	33	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
2-Methylnaphthalene	ND		180	36	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
2-Methylphenol	ND		180	21	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
2-Nitroaniline	ND		350	26	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
2-Nitrophenol	ND		180	51	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
3,3'-Dichlorobenzidine	ND		350	210	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
3-Nitroaniline	ND		350	49	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
4,6-Dinitro-2-methylphenol	ND		350	180	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
4-Bromophenyl phenyl ether	ND		180	25	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
4-Chloro-3-methylphenol	ND		180	44	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
4-Chloroaniline	ND		180	44	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
4-Chlorophenyl phenyl ether	ND		180	22	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
4-Methylphenol	ND		350	21	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
4-Nitroaniline	ND		350	94	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
4-Nitrophenol	ND		350	130	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Acenaphthene	ND		180	26	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Acenaphthylene	ND		180	23	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Acetophenone	ND		180	24	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Anthracene	ND		180	44	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Atrazine	ND		180	62	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Benzaldehyde	ND		180	140	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Benzo[a]anthracene	**29**	**J**	180	18	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Benzo[a]pyrene	**51**	**J**	180	26	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Benzo[b]fluoranthene	**78**	**J**	180	28	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Benzo[g,h,i]perylene	**40**	**J**	180	19	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Benzo[k]fluoranthene	**29**	**J**	180	23	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Biphenyl	ND		180	26	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
bis (2-chloroisopropyl) ether	ND		180	36	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Bis(2-chloroethoxy)methane	ND		180	38	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Bis(2-chloroethyl)ether	ND		180	23	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Bis(2-ethylhexyl) phthalate	ND		180	61	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Butyl benzyl phthalate	ND		180	29	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Caprolactam	ND		180	54	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Carbazole	ND		180	21	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Chrysene	**78**	**J**	180	40	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Dibenz(a,h)anthracene	ND		180	32	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Dibenzofuran	ND		180	21	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Diethyl phthalate	ND		180	23	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Dimethyl phthalate	ND		180	21	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Di-n-butyl phthalate	ND		180	31	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Di-n-octyl phthalate	ND		180	21	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128422-1

Client Sample ID: TP-21 (8-10)
Date Collected: 12/04/17 11:32
Date Received: 12/05/17 12:30

Lab Sample ID: 480-128422-9
Matrix: Solid
Percent Solids: 93.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	92	J	180	19	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Fluorene	ND		180	21	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Hexachlorobenzene	ND		180	24	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Hexachlorobutadiene	ND		180	26	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Hexachlorocyclopentadiene	ND		180	24	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Hexachloroethane	ND		180	23	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Indeno[1,2,3-cd]pyrene	35	J	180	22	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Isophorone	ND		180	38	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Naphthalene	26	J	180	23	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Nitrobenzene	ND		180	20	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
N-Nitrosodi-n-propylamine	ND		180	31	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
N-Nitrosodiphenylamine	ND		180	150	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Pentachlorophenol	ND		350	180	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Phenanthrene	100	J	180	26	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Phenol	ND		180	27	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1
Pyrene	77	J	180	21	ug/Kg	☼	12/06/17 14:13	12/08/17 02:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*66*		*54 - 120*	*12/06/17 14:13*	*12/08/17 02:54*	*1*
2-Fluorobiphenyl	*89*		*60 - 120*	*12/06/17 14:13*	*12/08/17 02:54*	*1*
2-Fluorophenol	*82*		*52 - 120*	*12/06/17 14:13*	*12/08/17 02:54*	*1*
Nitrobenzene-d5	*77*		*53 - 120*	*12/06/17 14:13*	*12/08/17 02:54*	*1*
Phenol-d5	*84*		*54 - 120*	*12/06/17 14:13*	*12/08/17 02:54*	*1*
p-Terphenyl-d14	*92*		*65 - 121*	*12/06/17 14:13*	*12/08/17 02:54*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	4500		10.5	4.6	mg/Kg	☼	12/06/17 16:35	12/07/17 20:39	1
Antimony	0.76	J	15.7	0.42	mg/Kg	☼	12/06/17 16:35	12/07/17 20:39	1
Arsenic	3.6		2.1	0.42	mg/Kg	☼	12/06/17 16:35	12/07/17 20:39	1
Barium	27.7		0.52	0.12	mg/Kg	☼	12/06/17 16:35	12/07/17 20:39	1
Beryllium	0.24		0.21	0.029	mg/Kg	☼	12/06/17 16:35	12/07/17 20:39	1
Cadmium	0.031	J	0.21	0.031	mg/Kg	☼	12/06/17 16:35	12/07/17 20:39	1
Calcium	2310	B	52.4	3.5	mg/Kg	☼	12/06/17 16:35	12/07/17 20:39	1
Chromium	9.4		0.52	0.21	mg/Kg	☼	12/06/17 16:35	12/07/17 20:39	1
Cobalt	2.7		0.52	0.052	mg/Kg	☼	12/06/17 16:35	12/07/17 20:39	1
Copper	3.2		1.0	0.22	mg/Kg	☼	12/06/17 16:35	12/07/17 20:39	1
Iron	8580		10.5	3.7	mg/Kg	☼	12/06/17 16:35	12/07/17 20:39	1
Lead	8.3		1.0	0.25	mg/Kg	☼	12/06/17 16:35	12/07/17 20:39	1
Magnesium	1050		21.0	0.97	mg/Kg	☼	12/06/17 16:35	12/07/17 20:39	1
Manganese	207	B	0.21	0.034	mg/Kg	☼	12/06/17 16:35	12/07/17 20:39	1
Nickel	5.7		5.2	0.24	mg/Kg	☼	12/06/17 16:35	12/07/17 20:39	1
Potassium	968		31.5	21.0	mg/Kg	☼	12/06/17 16:35	12/07/17 20:39	1
Selenium	ND		4.2	0.42	mg/Kg	☼	12/06/17 16:35	12/07/17 20:39	1
Silver	ND		0.63	0.21	mg/Kg	☼	12/06/17 16:35	12/07/17 20:39	1
Sodium	74.4	J	147	13.6	mg/Kg	☼	12/06/17 16:35	12/07/17 20:39	1
Thallium	ND		6.3	0.31	mg/Kg	☼	12/06/17 16:35	12/07/17 20:39	1
Vanadium	9.9		0.52	0.12	mg/Kg	☼	12/06/17 16:35	12/07/17 20:39	1
Zinc	19.9		2.1	0.67	mg/Kg	☼	12/06/17 16:35	12/07/17 20:39	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128422-1

Client Sample ID: TP-21 (8-10)
Date Collected: 12/04/17 11:32
Date Received: 12/05/17 12:30

Lab Sample ID: 480-128422-9
Matrix: Solid
Percent Solids: 93.4

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.0083	mg/Kg	☼	12/11/17 12:25	12/11/17 16:25	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128422-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid | **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(64-126)	(72-126)	(60-140)	(71-125)
480-128422-7	TP-23 (13-15.5)	104	88	107	104
480-128422-8	TP-27 (7-9)	103	88	108	105
LCS 480-390601/1-A	Lab Control Sample	103	97	106	100
LCSD 480-390601/2-A	Lab Control Sample Dup	102	98	106	101
MB 480-390601/3-A	Method Blank	102	97	105	99

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Solid | **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPHd14
Lab Sample ID	Client Sample ID	(54-120)	(60-120)	(52-120)	(53-120)	(54-120)	(65-121)
480-128422-1	TP-13 (10-15)	84	93	92	75	91	101
480-128422-1 MS	TP-13 (10-15)	96	91	93	76	86	97
480-128422-1 MSD	TP-13 (10-15)	92	90	91	77	86	92
480-128422-2	TP-18 (5-9)	107	111	121 X	89	104	102
480-128422-3	BLIND DUP #4	98	96	122 X	75	98	77
480-128422-4	TP-17 (2.5-4.0)	44 X	94	94	77	92	90
480-128422-5	TP-16 (8-10)	72	84	85	76	88	89
480-128422-6	TP-22 (9-12)	91	96	109	81	96	78
480-128422-7	TP-23 (13-15.5)	114	80	114	64	82	37 X
480-128422-8	TP-27 (7-9)	88	100	108	86	91	84
480-128422-9	TP-21 (8-10)	66	89	82	77	84	92
LCS 480-390795/2-A	Lab Control Sample	81	82	78	73	82	92
MB 480-390795/1-A	Method Blank	69	85	83	69	82	98

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHd14 = p-Terphenyl-d14

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid | **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(45-120)	(45-120)	(30-124)	(30-124)
480-128422-5	TP-16 (8-10)	123 X	145 X	89	80
480-128422-7	TP-23 (13-15.5)	0 X	0 X	135 X	115
480-128422-7 MS	TP-23 (13-15.5)	0 X	0 X	96	112
480-128422-7 MSD	TP-23 (13-15.5)	102	143 X	92	107

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(45-120)	(45-120)	(30-124)	(30-124)
LCS 480-390860/2-A	Lab Control Sample	123 X	119	82	73
MB 480-390860/1-A	Method Blank	133 X	122 X	88	76

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCBP1	DCBP2
Lab Sample ID	Client Sample ID	(60-154)	(60-154)	(65-174)	(65-174)
480-128422-5	TP-16 (8-10)	134	112	93	89
480-128422-7	TP-23 (13-15.5)	135	122	97	97
LCS 480-390657/2-A	Lab Control Sample	125	105	94	101
MB 480-390657/1-A	Method Blank	117	101	94	99

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

Method: 8151A - Herbicides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCPAA1	DCPAA2
Lab Sample ID	Client Sample ID	(28-129)	(28-129)
480-128422-5	TP-16 (8-10)	111	150 X
480-128422-7	TP-23 (13-15.5)	NaN	NaN
LCS 480-390865/2-A	Lab Control Sample	89	161 X
LCSD 480-390865/3-A	Lab Control Sample Dup	86	113
MB 480-390865/1-A	Method Blank	99	102

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-390601/3-A
Matrix: Solid
Analysis Batch: 391789

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390601

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
1,2,4-Trimethylbenzene	ND		5.0	0.96	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
1,3,5-Trimethylbenzene	ND		5.0	0.32	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
2-Hexanone	ND		25	2.5	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
4-Isopropyltoluene	ND		5.0	0.40	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
Acetone	ND		25	4.2	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
Benzene	ND		5.0	0.25	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
Bromoform	ND		5.0	2.5	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
Bromomethane	ND		5.0	0.45	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
Carbon disulfide	ND		5.0	2.5	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
Chlorobenzene	ND		5.0	0.66	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
Chloroethane	ND		5.0	1.1	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
Chloroform	ND		5.0	0.31	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
Chloromethane	ND		5.0	0.30	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
Cyclohexane	ND		5.0	0.70	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
Dichlorodifluoromethane	0.821	J	5.0	0.41	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
Ethylbenzene	ND		5.0	0.35	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
m,p-Xylene	ND		10	0.84	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
Methyl acetate	ND		25	3.0	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
Methylene Chloride	ND		5.0	2.3	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
n-Butylbenzene	ND		5.0	0.44	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
N-Propylbenzene	ND		5.0	0.40	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
o-Xylene	ND		5.0	0.65	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
sec-Butylbenzene	ND		5.0	0.44	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
Styrene	ND		5.0	0.25	ug/Kg		12/05/17 15:30	12/13/17 13:18	1

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

Lab Sample ID: MB 480-390601/3-A
Matrix: Solid
Analysis Batch: 391789

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390601

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	ND		5.0	0.52	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
Tetrachloroethene	ND		5.0	0.67	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
Toluene	ND		5.0	0.38	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
Trichloroethene	ND		5.0	1.1	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
Vinyl chloride	ND		5.0	0.61	ug/Kg		12/05/17 15:30	12/13/17 13:18	1
Xylenes, Total	ND		10	0.84	ug/Kg		12/05/17 15:30	12/13/17 13:18	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorodifluoromethane	*26.6*		*ug/Kg*		*1.82*	*75-45-6*	*12/05/17 15:30*	*12/13/17 13:18*	*1*
Tentatively Identified Compound	*None*		*ug/Kg*				*12/05/17 15:30*	*12/13/17 13:18*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*64 - 126*	*12/05/17 15:30*	*12/13/17 13:18*	*1*
4-Bromofluorobenzene (Surr)	*97*		*72 - 126*	*12/05/17 15:30*	*12/13/17 13:18*	*1*
Dibromofluoromethane (Surr)	*105*		*60 - 140*	*12/05/17 15:30*	*12/13/17 13:18*	*1*
Toluene-d8 (Surr)	*99*		*71 - 125*	*12/05/17 15:30*	*12/13/17 13:18*	*1*

Lab Sample ID: LCS 480-390601/1-A
Matrix: Solid
Analysis Batch: 391789

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390601

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	50.0	44.2		ug/Kg		88	77 - 121
1,1,2,2-Tetrachloroethane	50.0	43.8		ug/Kg		88	80 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	43.7		ug/Kg		87	60 - 140
1,1,2-Trichloroethane	50.0	42.3		ug/Kg		85	78 - 122
1,1-Dichloroethane	50.0	43.4		ug/Kg		87	73 - 126
1,1-Dichloroethene	50.0	43.3		ug/Kg		87	59 - 125
1,2,4-Trichlorobenzene	50.0	42.1		ug/Kg		84	64 - 120
1,2,4-Trimethylbenzene	50.0	43.5		ug/Kg		87	74 - 120
1,2-Dibromo-3-Chloropropane	50.0	46.1		ug/Kg		92	63 - 124
1,2-Dibromoethane	50.0	43.7		ug/Kg		87	78 - 120
1,2-Dichlorobenzene	50.0	42.7		ug/Kg		85	75 - 120
1,2-Dichloroethane	50.0	43.3		ug/Kg		87	77 - 122
1,2-Dichloropropane	50.0	42.5		ug/Kg		85	75 - 124
1,3,5-Trimethylbenzene	50.0	43.8		ug/Kg		88	74 - 120
1,3-Dichlorobenzene	50.0	43.3		ug/Kg		87	74 - 120
1,4-Dichlorobenzene	50.0	43.0		ug/Kg		86	73 - 120
2-Butanone (MEK)	250	219		ug/Kg		88	70 - 134
2-Hexanone	250	212		ug/Kg		85	59 - 130
4-Isopropyltoluene	50.0	43.9		ug/Kg		88	74 - 120
4-Methyl-2-pentanone (MIBK)	250	204		ug/Kg		82	65 - 133
Acetone	250	249		ug/Kg		99	61 - 137
Benzene	50.0	44.5		ug/Kg		89	79 - 127

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

Lab Sample ID: LCS 480-390601/1-A
Matrix: Solid
Analysis Batch: 391789

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390601

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromodichloromethane	50.0	47.2		ug/Kg		94	80 - 122
Bromoform	50.0	44.2		ug/Kg		88	68 - 126
Bromomethane	50.0	66.8		ug/Kg		134	37 - 149
Carbon disulfide	50.0	42.9		ug/Kg		86	64 - 131
Carbon tetrachloride	50.0	47.4		ug/Kg		95	75 - 135
Chlorobenzene	50.0	43.0		ug/Kg		86	76 - 124
Chloroethane	50.0	60.9		ug/Kg		122	69 - 135
Chloroform	50.0	44.7		ug/Kg		89	80 - 120
Chloromethane	50.0	49.9		ug/Kg		100	63 - 127
cis-1,2-Dichloroethene	50.0	44.7		ug/Kg		89	81 - 120
cis-1,3-Dichloropropene	50.0	45.3		ug/Kg		91	80 - 120
Cyclohexane	50.0	41.9		ug/Kg		84	65 - 120
Dibromochloromethane	50.0	50.2		ug/Kg		100	76 - 125
Dichlorodifluoromethane	50.0	58.5		ug/Kg		117	57 - 142
Ethylbenzene	50.0	43.7		ug/Kg		87	80 - 120
Isopropylbenzene	50.0	43.8		ug/Kg		88	72 - 120
m,p-Xylene	50.0	41.6		ug/Kg		83	70 - 130
Methyl acetate	100	82.4		ug/Kg		82	55 - 136
Methyl tert-butyl ether	50.0	43.5		ug/Kg		87	63 - 125
Methylcyclohexane	50.0	42.9		ug/Kg		86	60 - 140
Methylene Chloride	50.0	48.7		ug/Kg		97	61 - 127
Naphthalene	50.0	42.2		ug/Kg		84	38 - 137
n-Butylbenzene	50.0	43.9		ug/Kg		88	70 - 120
N-Propylbenzene	50.0	43.9		ug/Kg		88	70 - 130
o-Xylene	50.0	43.1		ug/Kg		86	70 - 130
sec-Butylbenzene	50.0	43.7		ug/Kg		87	74 - 120
Styrene	50.0	43.1		ug/Kg		86	80 - 120
tert-Butylbenzene	50.0	41.9		ug/Kg		84	73 - 120
Tetrachloroethene	50.0	42.1		ug/Kg		84	74 - 122
Toluene	50.0	42.4		ug/Kg		85	74 - 128
trans-1,2-Dichloroethene	50.0	45.0		ug/Kg		90	78 - 126
trans-1,3-Dichloropropene	50.0	43.9		ug/Kg		88	73 - 123
Trichloroethene	50.0	43.5		ug/Kg		87	77 - 129
Trichlorofluoromethane	50.0	52.3		ug/Kg		105	65 - 146
Vinyl chloride	50.0	52.8		ug/Kg		106	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*64 - 126*
4-Bromofluorobenzene (Surr)	*97*		*72 - 126*
Dibromofluoromethane (Surr)	*106*		*60 - 140*
Toluene-d8 (Surr)	*100*		*71 - 125*

Lab Sample ID: LCSD 480-390601/2-A
Matrix: Solid
Analysis Batch: 391789

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 390601

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	50.0	43.3		ug/Kg		87	77 - 121	2	20

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

Lab Sample ID: LCSD 480-390601/2-A
Matrix: Solid
Analysis Batch: 391789

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 390601

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,2,2-Tetrachloroethane	50.0	44.2		ug/Kg		88	80 - 120	1	20
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	42.9		ug/Kg		86	60 - 140	2	20
1,1,2-Trichloroethane	50.0	44.1		ug/Kg		88	78 - 122	4	20
1,1-Dichloroethane	50.0	43.1		ug/Kg		86	73 - 126	1	20
1,1-Dichloroethene	50.0	42.6		ug/Kg		85	59 - 125	2	20
1,2,4-Trichlorobenzene	50.0	40.4		ug/Kg		81	64 - 120	4	20
1,2,4-Trimethylbenzene	50.0	42.9		ug/Kg		86	74 - 120	1	20
1,2-Dibromo-3-Chloropropane	50.0	45.8		ug/Kg		92	63 - 124	0	20
1,2-Dibromoethane	50.0	44.7		ug/Kg		89	78 - 120	2	20
1,2-Dichlorobenzene	50.0	43.0		ug/Kg		86	75 - 120	1	20
1,2-Dichloroethane	50.0	43.7		ug/Kg		87	77 - 122	1	20
1,2-Dichloropropane	50.0	42.7		ug/Kg		85	75 - 124	0	20
1,3,5-Trimethylbenzene	50.0	42.9		ug/Kg		86	74 - 120	2	20
1,3-Dichlorobenzene	50.0	42.1		ug/Kg		84	74 - 120	3	20
1,4-Dichlorobenzene	50.0	42.7		ug/Kg		85	73 - 120	1	20
2-Butanone (MEK)	250	219		ug/Kg		88	70 - 134	0	20
2-Hexanone	250	220		ug/Kg		88	59 - 130	4	20
4-Isopropyltoluene	50.0	42.8		ug/Kg		86	74 - 120	3	20
4-Methyl-2-pentanone (MIBK)	250	210		ug/Kg		84	65 - 133	2	20
Acetone	250	252		ug/Kg		101	61 - 137	1	20
Benzene	50.0	43.9		ug/Kg		88	79 - 127	1	20
Bromodichloromethane	50.0	47.3		ug/Kg		95	80 - 122	0	20
Bromoform	50.0	45.4		ug/Kg		91	68 - 126	3	20
Bromomethane	50.0	66.0		ug/Kg		132	37 - 149	1	20
Carbon disulfide	50.0	42.8		ug/Kg		86	64 - 131	0	20
Carbon tetrachloride	50.0	47.0		ug/Kg		94	75 - 135	1	20
Chlorobenzene	50.0	43.5		ug/Kg		87	76 - 124	1	20
Chloroethane	50.0	59.2		ug/Kg		118	69 - 135	3	20
Chloroform	50.0	44.3		ug/Kg		89	80 - 120	1	20
Chloromethane	50.0	50.7		ug/Kg		101	63 - 127	2	20
cis-1,2-Dichloroethene	50.0	44.9		ug/Kg		90	81 - 120	0	20
cis-1,3-Dichloropropene	50.0	45.3		ug/Kg		91	80 - 120	0	20
Cyclohexane	50.0	41.7		ug/Kg		83	65 - 120	1	20
Dibromochloromethane	50.0	51.2		ug/Kg		102	76 - 125	2	20
Dichlorodifluoromethane	50.0	56.6		ug/Kg		113	57 - 142	3	20
Ethylbenzene	50.0	43.6		ug/Kg		87	80 - 120	0	20
Isopropylbenzene	50.0	43.0		ug/Kg		86	72 - 120	2	20
m,p-Xylene	50.0	42.0		ug/Kg		84	70 - 130	1	20
Methyl acetate	100	83.1		ug/Kg		83	55 - 136	1	20
Methyl tert-butyl ether	50.0	43.7		ug/Kg		87	63 - 125	0	20
Methylcyclohexane	50.0	42.2		ug/Kg		84	60 - 140	2	20
Methylene Chloride	50.0	47.4		ug/Kg		95	61 - 127	3	20
Naphthalene	50.0	41.7		ug/Kg		83	38 - 137	1	20
n-Butylbenzene	50.0	42.3		ug/Kg		85	70 - 120	4	20
N-Propylbenzene	50.0	43.1		ug/Kg		86	70 - 130	2	20
o-Xylene	50.0	42.7		ug/Kg		85	70 - 130	1	20
sec-Butylbenzene	50.0	42.5		ug/Kg		85	74 - 120	3	20

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

Lab Sample ID: LCSD 480-390601/2-A
Matrix: Solid
Analysis Batch: 391789

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 390601

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Styrene			50.0	43.3		ug/Kg		87	80 - 120	0	20
tert-Butylbenzene			50.0	41.4		ug/Kg		83	73 - 120	1	20
Tetrachloroethene			50.0	41.9		ug/Kg		84	74 - 122	1	20
Toluene			50.0	43.1		ug/Kg		86	74 - 128	2	20
trans-1,2-Dichloroethene			50.0	43.6		ug/Kg		87	78 - 126	3	20
trans-1,3-Dichloropropene			50.0	45.0		ug/Kg		90	73 - 123	2	20
Trichloroethene			50.0	42.7		ug/Kg		85	77 - 129	2	20
Trichlorofluoromethane			50.0	52.0		ug/Kg		104	65 - 146	1	20
Vinyl chloride			50.0	53.7		ug/Kg		107	61 - 133	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*64 - 126*
4-Bromofluorobenzene (Surr)	*98*		*72 - 126*
Dibromofluoromethane (Surr)	*106*		*60 - 140*
Toluene-d8 (Surr)	*101*		*71 - 125*

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

Lab Sample ID: MB 480-390795/1-A
Matrix: Solid
Analysis Batch: 391010

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390795

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		170	46	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
2,4,6-Trichlorophenol	ND		170	34	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
2,4-Dichlorophenol	ND		170	18	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
2,4-Dimethylphenol	ND		170	41	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
2,4-Dinitrophenol	ND		1700	780	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
2,4-Dinitrotoluene	ND		170	35	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
2,6-Dinitrotoluene	ND		170	20	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
2-Chloronaphthalene	ND		170	28	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
2-Chlorophenol	ND		170	31	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
2-Methylnaphthalene	ND		170	34	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
2-Methylphenol	ND		170	20	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
2-Nitroaniline	ND		330	25	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
2-Nitrophenol	ND		170	48	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
3,3'-Dichlorobenzidine	ND		330	200	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
3-Nitroaniline	ND		330	47	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
4,6-Dinitro-2-methylphenol	ND		330	170	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
4-Bromophenyl phenyl ether	ND		170	24	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
4-Chloro-3-methylphenol	ND		170	42	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
4-Chloroaniline	ND		170	42	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
4-Chlorophenyl phenyl ether	ND		170	21	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
4-Methylphenol	ND		330	20	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
4-Nitroaniline	ND		330	89	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
4-Nitrophenol	ND		330	120	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Acenaphthene	ND		170	25	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Acenaphthylene	ND		170	22	ug/Kg		12/06/17 14:13	12/07/17 16:42	1

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

Lab Sample ID: MB 480-390795/1-A
Matrix: Solid
Analysis Batch: 391010

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390795

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetophenone	ND		170	23	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Anthracene	ND		170	42	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Atrazine	ND		170	59	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Benzaldehyde	ND		170	130	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Benzo[a]anthracene	ND		170	17	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Benzo[a]pyrene	ND		170	25	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Benzo[b]fluoranthene	ND		170	27	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Benzo[g,h,i]perylene	ND		170	18	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Benzo[k]fluoranthene	ND		170	22	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Biphenyl	ND		170	25	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
bis (2-chloroisopropyl) ether	ND		170	34	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Bis(2-chloroethoxy)methane	ND		170	36	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Bis(2-chloroethyl)ether	ND		170	22	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Bis(2-ethylhexyl) phthalate	ND		170	58	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Butyl benzyl phthalate	ND		170	28	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Caprolactam	ND		170	51	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Carbazole	ND		170	20	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Chrysene	ND		170	38	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Dibenz(a,h)anthracene	ND		170	30	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Dibenzofuran	ND		170	20	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Diethyl phthalate	ND		170	22	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Dimethyl phthalate	ND		170	20	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Di-n-butyl phthalate	ND		170	29	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Di-n-octyl phthalate	ND		170	20	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Fluoranthene	ND		170	18	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Fluorene	ND		170	20	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Hexachlorobenzene	ND		170	23	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Hexachlorobutadiene	ND		170	25	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Hexachlorocyclopentadiene	ND		170	23	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Hexachloroethane	ND		170	22	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Indeno[1,2,3-cd]pyrene	ND		170	21	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Isophorone	ND		170	36	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Naphthalene	ND		170	22	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Nitrobenzene	ND		170	19	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
N-Nitrosodi-n-propylamine	ND		170	29	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
N-Nitrosodiphenylamine	ND		170	140	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Pentachlorophenol	ND		330	170	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Phenanthrene	ND		170	25	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Phenol	ND		170	26	ug/Kg		12/06/17 14:13	12/07/17 16:42	1
Pyrene	ND		170	20	ug/Kg		12/06/17 14:13	12/07/17 16:42	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*968*	*T J*	*ug/Kg*		*2.33*		*12/06/17 14:13*	*12/07/17 16:42*	*1*
Unknown	*343*	*T J*	*ug/Kg*		*4.79*		*12/06/17 14:13*	*12/07/17 16:42*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*69*		*54 - 120*	*12/06/17 14:13*	*12/07/17 16:42*	*1*

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

Lab Sample ID: MB 480-390795/1-A
Matrix: Solid
Analysis Batch: 391010

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390795

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	85		60 - 120	12/06/17 14:13	12/07/17 16:42	1
2-Fluorophenol	83		52 - 120	12/06/17 14:13	12/07/17 16:42	1
Nitrobenzene-d5	69		53 - 120	12/06/17 14:13	12/07/17 16:42	1
Phenol-d5	82		54 - 120	12/06/17 14:13	12/07/17 16:42	1
p-Terphenyl-d14	98		65 - 121	12/06/17 14:13	12/07/17 16:42	1

Lab Sample ID: LCS 480-390795/2-A
Matrix: Solid
Analysis Batch: 391010

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390795

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-Trichlorophenol	1660	1360		ug/Kg		82	59 - 126
2,4,6-Trichlorophenol	1660	1340		ug/Kg		81	59 - 123
2,4-Dichlorophenol	1660	1280		ug/Kg		77	61 - 120
2,4-Dimethylphenol	1660	1290		ug/Kg		77	59 - 120
2,4-Dinitrophenol	3330	2180		ug/Kg		66	41 - 146
2,4-Dinitrotoluene	1660	1320		ug/Kg		79	63 - 120
2,6-Dinitrotoluene	1660	1320		ug/Kg		79	66 - 120
2-Chloronaphthalene	1660	1280		ug/Kg		77	57 - 120
2-Chlorophenol	1660	1240		ug/Kg		74	53 - 120
2-Methylnaphthalene	1660	1250		ug/Kg		75	59 - 120
2-Methylphenol	1660	1320		ug/Kg		80	54 - 120
2-Nitroaniline	1660	1220		ug/Kg		73	61 - 120
2-Nitrophenol	1660	1240		ug/Kg		74	56 - 120
3,3'-Dichlorobenzidine	3330	2190		ug/Kg		66	54 - 120
3-Nitroaniline	1660	1260		ug/Kg		76	48 - 120
4,6-Dinitro-2-methylphenol	3330	2680		ug/Kg		81	49 - 122
4-Bromophenyl phenyl ether	1660	1350		ug/Kg		81	58 - 120
4-Chloro-3-methylphenol	1660	1370		ug/Kg		82	61 - 120
4-Chloroaniline	1660	1060		ug/Kg		64	38 - 120
4-Chlorophenyl phenyl ether	1660	1300		ug/Kg		78	63 - 124
4-Methylphenol	1660	1290		ug/Kg		78	55 - 120
4-Nitroaniline	1660	1270		ug/Kg		76	56 - 120
4-Nitrophenol	3330	2570		ug/Kg		77	43 - 147
Acenaphthene	1660	1330		ug/Kg		80	62 - 120
Acenaphthylene	1660	1360		ug/Kg		82	58 - 121
Acetophenone	1660	1260		ug/Kg		76	54 - 120
Anthracene	1660	1440		ug/Kg		87	62 - 120
Atrazine	3330	2770		ug/Kg		83	60 - 127
Benzaldehyde	3330	1250		ug/Kg		38	10 - 150
Benzo[a]anthracene	1660	1530		ug/Kg		92	65 - 120
Benzo[a]pyrene	1660	1490		ug/Kg		89	64 - 120
Benzo[b]fluoranthene	1660	1490		ug/Kg		89	64 - 120
Benzo[g,h,i]perylene	1660	1510		ug/Kg		91	45 - 145
Benzo[k]fluoranthene	1660	1440		ug/Kg		86	65 - 120
Biphenyl	1660	1310		ug/Kg		79	59 - 120
bis (2-chloroisopropyl) ether	1660	1140		ug/Kg		69	44 - 120
Bis(2-chloroethoxy)methane	1660	1260		ug/Kg		76	55 - 120

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

Lab Sample ID: LCS 480-390795/2-A
Matrix: Solid
Analysis Batch: 391010

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390795

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-chloroethyl)ether	1660	1340		ug/Kg		81	45 - 120
Bis(2-ethylhexyl) phthalate	1660	1180		ug/Kg		71	61 - 133
Butyl benzyl phthalate	1660	1230		ug/Kg		74	61 - 129
Caprolactam	3330	2700		ug/Kg		81	47 - 120
Carbazole	1660	1450		ug/Kg		87	65 - 120
Chrysene	1660	1460		ug/Kg		88	64 - 120
Dibenz(a,h)anthracene	1660	1470		ug/Kg		88	54 - 132
Dibenzofuran	1660	1340		ug/Kg		80	63 - 120
Diethyl phthalate	1660	1300		ug/Kg		78	66 - 120
Dimethyl phthalate	1660	1360		ug/Kg		82	65 - 124
Di-n-butyl phthalate	1660	1260		ug/Kg		76	58 - 130
Di-n-octyl phthalate	1660	1210		ug/Kg		73	57 - 133
Fluoranthene	1660	1420		ug/Kg		85	62 - 120
Fluorene	1660	1350		ug/Kg		81	63 - 120
Hexachlorobenzene	1660	1340		ug/Kg		80	60 - 120
Hexachlorobutadiene	1660	1110		ug/Kg		67	45 - 120
Hexachlorocyclopentadiene	1660	1000		ug/Kg		60	47 - 120
Hexachloroethane	1660	1030		ug/Kg		62	41 - 120
Indeno[1,2,3-cd]pyrene	1660	1480		ug/Kg		89	56 - 134
Isophorone	1660	1300		ug/Kg		78	56 - 120
Naphthalene	1660	1260		ug/Kg		76	55 - 120
Nitrobenzene	1660	1220		ug/Kg		74	54 - 120
N-Nitrosodi-n-propylamine	1660	1170		ug/Kg		71	52 - 120
Pentachlorophenol	3330	2520		ug/Kg		76	51 - 120
Phenanthrene	1660	1450		ug/Kg		87	60 - 120
Phenol	1660	1300		ug/Kg		78	53 - 120
Pyrene	1660	1530		ug/Kg		92	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*81*		*54 - 120*
2-Fluorobiphenyl	*82*		*60 - 120*
2-Fluorophenol	*78*		*52 - 120*
Nitrobenzene-d5	*73*		*53 - 120*
Phenol-d5	*82*		*54 - 120*
p-Terphenyl-d14	*92*		*65 - 121*

Lab Sample ID: 480-128422-1 MS
Matrix: Solid
Analysis Batch: 391010

Client Sample ID: TP-13 (10-15)
Prep Type: Total/NA
Prep Batch: 390795

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-Trichlorophenol	ND		2410	2120		ug/Kg	☼	88	46 - 120
2,4,6-Trichlorophenol	ND		2410	2250		ug/Kg	☼	93	41 - 123
2,4-Dichlorophenol	ND		2410	2090		ug/Kg	☼	86	45 - 120
2,4-Dimethylphenol	ND		2410	2020		ug/Kg	☼	84	52 - 120
2,4-Dinitrophenol	ND		4820	ND		ug/Kg	☼	NC	41 - 146
2,4-Dinitrotoluene	ND		2410	2050		ug/Kg	☼	85	63 - 125
2,6-Dinitrotoluene	ND		2410	1930		ug/Kg	☼	80	66 - 120

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

Lab Sample ID: 480-128422-1 MS
Matrix: Solid
Analysis Batch: 391010

Client Sample ID: TP-13 (10-15)
Prep Type: Total/NA
Prep Batch: 390795

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chloronaphthalene	ND		2410	1910		ug/Kg	☼	79	57 - 120
2-Chlorophenol	ND		2410	1990		ug/Kg	☼	83	43 - 120
2-Methylnaphthalene	ND		2410	2110		ug/Kg	☼	87	55 - 120
2-Methylphenol	ND		2410	2020		ug/Kg	☼	84	48 - 120
2-Nitroaniline	ND		2410	1970	J	ug/Kg	☼	82	61 - 120
2-Nitrophenol	ND		2410	1850		ug/Kg	☼	77	37 - 120
3,3'-Dichlorobenzidine	ND		4820	3750		ug/Kg	☼	78	37 - 126
3-Nitroaniline	ND		2410	2140	J	ug/Kg	☼	89	48 - 120
4,6-Dinitro-2-methylphenol	ND		4820	4040		ug/Kg	☼	84	23 - 149
4-Bromophenyl phenyl ether	ND		2410	2120		ug/Kg	☼	88	58 - 120
4-Chloro-3-methylphenol	ND		2410	2060		ug/Kg	☼	85	49 - 125
4-Chloroaniline	ND		2410	1530		ug/Kg	☼	63	38 - 120
4-Chlorophenyl phenyl ether	ND		2410	2150		ug/Kg	☼	89	63 - 124
4-Methylphenol	ND		2410	2000	J	ug/Kg	☼	83	50 - 120
4-Nitroaniline	ND		2410	2090	J	ug/Kg	☼	87	47 - 120
4-Nitrophenol	ND		4820	4290		ug/Kg	☼	89	31 - 147
Acenaphthene	ND		2410	2180		ug/Kg	☼	90	60 - 120
Acenaphthylene	ND		2410	2390		ug/Kg	☼	99	58 - 121
Acetophenone	ND		2410	1950		ug/Kg	☼	81	47 - 120
Anthracene	ND		2410	2410		ug/Kg	☼	100	62 - 120
Atrazine	ND		4820	4230		ug/Kg	☼	88	60 - 150
Benzaldehyde	ND		4820	2120		ug/Kg	☼	44	10 - 150
Benzo[a]anthracene	ND	F2 F1	2410	3270	F1	ug/Kg	☼	136	65 - 120
Benzo[a]pyrene	450	J F2	2410	3250		ug/Kg	☼	116	64 - 120
Benzo[b]fluoranthene	530	J F2 F1	2410	3510	F1	ug/Kg	☼	123	64 - 120
Benzo[g,h,i]perylene	450	J F2	2410	3070		ug/Kg	☼	108	45 - 145
Benzo[k]fluoranthene	ND	F2	2410	2810		ug/Kg	☼	116	65 - 120
Biphenyl	ND		2410	2170		ug/Kg	☼	90	58 - 120
bis (2-chloroisopropyl) ether	ND		2410	1900		ug/Kg	☼	79	31 - 120
Bis(2-chloroethoxy)methane	ND		2410	2120		ug/Kg	☼	88	52 - 120
Bis(2-chloroethyl)ether	ND		2410	2070		ug/Kg	☼	86	45 - 120
Bis(2-ethylhexyl) phthalate	ND		2410	2080		ug/Kg	☼	86	61 - 133
Butyl benzyl phthalate	ND		2410	2030		ug/Kg	☼	84	61 - 120
Caprolactam	ND		4820	4120		ug/Kg	☼	85	37 - 133
Carbazole	ND		2410	2330		ug/Kg	☼	97	59 - 120
Chrysene	400	J F2 F1	2410	3420	F1	ug/Kg	☼	125	64 - 120
Dibenz(a,h)anthracene	ND		2410	2560		ug/Kg	☼	106	54 - 132
Dibenzofuran	ND		2410	2350		ug/Kg	☼	97	62 - 120
Diethyl phthalate	ND		2410	2040		ug/Kg	☼	84	66 - 120
Dimethyl phthalate	ND		2410	2170		ug/Kg	☼	90	65 - 124
Di-n-butyl phthalate	ND		2410	1940		ug/Kg	☼	81	58 - 130
Di-n-octyl phthalate	ND		2410	2090		ug/Kg	☼	87	57 - 133
Fluoranthene	350	J F2 F1	2410	3980	F1	ug/Kg	☼	150	62 - 120
Fluorene	ND		2410	2250		ug/Kg	☼	93	63 - 120
Hexachlorobenzene	ND		2410	2080		ug/Kg	☼	86	60 - 120
Hexachlorobutadiene	ND		2410	1790		ug/Kg	☼	74	45 - 120
Hexachlorocyclopentadiene	ND		2410	1510		ug/Kg	☼	63	31 - 120
Hexachloroethane	ND		2410	1660		ug/Kg	☼	69	21 - 120

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

Lab Sample ID: 480-128422-1 MS
Matrix: Solid
Analysis Batch: 391010

Client Sample ID: TP-13 (10-15)
Prep Type: Total/NA
Prep Batch: 390795

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Indeno[1,2,3-cd]pyrene	250	J F2	2410	2830		ug/Kg	☼	107	56 - 134
Isophorone	ND		2410	2030		ug/Kg	☼	84	56 - 120
Naphthalene	ND		2410	2110		ug/Kg	☼	88	46 - 120
Nitrobenzene	ND		2410	2070		ug/Kg	☼	86	49 - 120
N-Nitrosodi-n-propylamine	ND		2410	1970		ug/Kg	☼	82	46 - 120
Pentachlorophenol	ND		4820	4540		ug/Kg	☼	94	25 - 136
Phenanthrene	ND	F2	2410	2900		ug/Kg	☼	120	60 - 122
Phenol	ND		2410	2010		ug/Kg	☼	83	50 - 120
Pyrene	340	J F2 F1	2410	4270	F1	ug/Kg	☼	163	61 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol	*96*		*54 - 120*
2-Fluorobiphenyl	*91*		*60 - 120*
2-Fluorophenol	*93*		*52 - 120*
Nitrobenzene-d5	*76*		*53 - 120*
Phenol-d5	*86*		*54 - 120*
p-Terphenyl-d14	*97*		*65 - 121*

Lab Sample ID: 480-128422-1 MSD
Matrix: Solid
Analysis Batch: 391010

Client Sample ID: TP-13 (10-15)
Prep Type: Total/NA
Prep Batch: 390795

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,5-Trichlorophenol	ND		2410	2060		ug/Kg	☼	85	46 - 120	3	18
2,4,6-Trichlorophenol	ND		2410	2230		ug/Kg	☼	93	41 - 123	1	19
2,4-Dichlorophenol	ND		2410	1910		ug/Kg	☼	79	45 - 120	9	19
2,4-Dimethylphenol	ND		2410	1900		ug/Kg	☼	79	52 - 120	6	42
2,4-Dinitrophenol	ND		4830	ND		ug/Kg	☼	NC	41 - 146	NC	22
2,4-Dinitrotoluene	ND		2410	1930		ug/Kg	☼	80	63 - 125	6	20
2,6-Dinitrotoluene	ND		2410	1890		ug/Kg	☼	78	66 - 120	2	15
2-Chloronaphthalene	ND		2410	1910		ug/Kg	☼	79	57 - 120	0	21
2-Chlorophenol	ND		2410	2020		ug/Kg	☼	84	43 - 120	1	25
2-Methylnaphthalene	ND		2410	1940		ug/Kg	☼	80	55 - 120	8	21
2-Methylphenol	ND		2410	1990		ug/Kg	☼	82	48 - 120	1	27
2-Nitroaniline	ND		2410	1920	J	ug/Kg	☼	80	61 - 120	2	15
2-Nitrophenol	ND		2410	1700		ug/Kg	☼	70	37 - 120	9	18
3,3'-Dichlorobenzidine	ND		4830	3440		ug/Kg	☼	71	37 - 126	9	25
3-Nitroaniline	ND		2410	1960	J	ug/Kg	☼	81	48 - 120	9	19
4,6-Dinitro-2-methylphenol	ND		4830	3560		ug/Kg	☼	74	23 - 149	13	15
4-Bromophenyl phenyl ether	ND		2410	2010		ug/Kg	☼	83	58 - 120	6	15
4-Chloro-3-methylphenol	ND		2410	1960		ug/Kg	☼	81	49 - 125	5	27
4-Chloroaniline	ND		2410	1520		ug/Kg	☼	63	38 - 120	0	22
4-Chlorophenyl phenyl ether	ND		2410	2010		ug/Kg	☼	83	63 - 124	7	16
4-Methylphenol	ND		2410	2030	J	ug/Kg	☼	84	50 - 120	2	24
4-Nitroaniline	ND		2410	2090	J	ug/Kg	☼	86	47 - 120	0	24
4-Nitrophenol	ND		4830	4060		ug/Kg	☼	84	31 - 147	5	25
Acenaphthene	ND		2410	2110		ug/Kg	☼	87	60 - 120	3	35
Acenaphthylene	ND		2410	2120		ug/Kg	☼	88	58 - 121	12	18

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

Lab Sample ID: 480-128422-1 MSD
Matrix: Solid
Analysis Batch: 391010

Client Sample ID: TP-13 (10-15)
Prep Type: Total/NA
Prep Batch: 390795

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetophenone	ND		2410	1930		ug/Kg	☼	80	47 - 120	1	20
Anthracene	ND		2410	2130		ug/Kg	☼	88	62 - 120	12	15
Atrazine	ND		4830	4040		ug/Kg	☼	84	60 - 150	5	20
Benzaldehyde	ND		4830	1950		ug/Kg	☼	40	10 - 150	8	20
Benzo[a]anthracene	ND	F2 F1	2410	2270	F2	ug/Kg	☼	94	65 - 120	36	15
Benzo[a]pyrene	450	J F2	2410	2440	F2	ug/Kg	☼	82	64 - 120	29	15
Benzo[b]fluoranthene	530	J F2 F1	2410	2660	F2	ug/Kg	☼	88	64 - 120	28	15
Benzo[g,h,i]perylene	450	J F2	2410	2520	F2	ug/Kg	☼	85	45 - 145	20	15
Benzo[k]fluoranthene	ND	F2	2410	2210	F2	ug/Kg	☼	92	65 - 120	24	22
Biphenyl	ND		2410	2090		ug/Kg	☼	86	58 - 120	4	20
bis (2-chloroisopropyl) ether	ND		2410	1870		ug/Kg	☼	77	31 - 120	2	24
Bis(2-chloroethoxy)methane	ND		2410	1960		ug/Kg	☼	81	52 - 120	8	17
Bis(2-chloroethyl)ether	ND		2410	2000		ug/Kg	☼	83	45 - 120	3	21
Bis(2-ethylhexyl) phthalate	ND		2410	1970		ug/Kg	☼	82	61 - 133	6	15
Butyl benzyl phthalate	ND		2410	2060		ug/Kg	☼	85	61 - 120	1	16
Caprolactam	ND		4830	3930		ug/Kg	☼	81	37 - 133	5	20
Carbazole	ND		2410	2120		ug/Kg	☼	88	59 - 120	9	20
Chrysene	400	J F2 F1	2410	2530	F2	ug/Kg	☼	88	64 - 120	30	15
Dibenz(a,h)anthracene	ND		2410	2200		ug/Kg	☼	91	54 - 132	15	15
Dibenzofuran	ND		2410	2200		ug/Kg	☼	91	62 - 120	6	15
Diethyl phthalate	ND		2410	1960		ug/Kg	☼	81	66 - 120	4	15
Dimethyl phthalate	ND		2410	2070		ug/Kg	☼	86	65 - 124	5	15
Di-n-butyl phthalate	ND		2410	1780		ug/Kg	☼	74	58 - 130	9	15
Di-n-octyl phthalate	ND		2410	1870		ug/Kg	☼	78	57 - 133	11	16
Fluoranthene	350	J F2 F1	2410	2610	F2	ug/Kg	☼	94	62 - 120	42	15
Fluorene	ND		2410	2210		ug/Kg	☼	91	63 - 120	2	15
Hexachlorobenzene	ND		2410	1960		ug/Kg	☼	81	60 - 120	6	15
Hexachlorobutadiene	ND		2410	1710		ug/Kg	☼	71	45 - 120	5	44
Hexachlorocyclopentadiene	ND		2410	1270		ug/Kg	☼	53	31 - 120	17	49
Hexachloroethane	ND		2410	1660		ug/Kg	☼	69	21 - 120	0	46
Indeno[1,2,3-cd]pyrene	250	J F2	2410	2250	F2	ug/Kg	☼	83	56 - 134	23	15
Isophorone	ND		2410	1970		ug/Kg	☼	82	56 - 120	3	17
Naphthalene	ND		2410	1930		ug/Kg	☼	80	46 - 120	9	29
Nitrobenzene	ND		2410	1680		ug/Kg	☼	70	49 - 120	21	24
N-Nitrosodi-n-propylamine	ND		2410	1660		ug/Kg	☼	69	46 - 120	17	31
Pentachlorophenol	ND		4830	4360		ug/Kg	☼	90	25 - 136	4	35
Phenanthrene	ND	F2	2410	2440	F2	ug/Kg	☼	101	60 - 122	17	15
Phenol	ND		2410	2070		ug/Kg	☼	86	50 - 120	3	35
Pyrene	340	J F2 F1	2410	2970	F2	ug/Kg	☼	109	61 - 133	36	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*92*		*54 - 120*
2-Fluorobiphenyl	*90*		*60 - 120*
2-Fluorophenol	*91*		*52 - 120*
Nitrobenzene-d5	*77*		*53 - 120*
Phenol-d5	*86*		*54 - 120*
p-Terphenyl-d14	*92*		*65 - 121*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-390860/1-A
Matrix: Solid
Analysis Batch: 391106

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390860

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.7	0.32	ug/Kg		12/07/17 07:31	12/08/17 13:07	1
4,4'-DDE	ND		1.7	0.35	ug/Kg		12/07/17 07:31	12/08/17 13:07	1
4,4'-DDT	ND		1.7	0.39	ug/Kg		12/07/17 07:31	12/08/17 13:07	1
Aldrin	ND		1.7	0.41	ug/Kg		12/07/17 07:31	12/08/17 13:07	1
alpha-BHC	0.502	J	1.7	0.30	ug/Kg		12/07/17 07:31	12/08/17 13:07	1
alpha-Chlordane	ND		1.7	0.82	ug/Kg		12/07/17 07:31	12/08/17 13:07	1
beta-BHC	ND		1.7	0.30	ug/Kg		12/07/17 07:31	12/08/17 13:07	1
delta-BHC	ND		1.7	0.31	ug/Kg		12/07/17 07:31	12/08/17 13:07	1
Dieldrin	ND		1.7	0.40	ug/Kg		12/07/17 07:31	12/08/17 13:07	1
Endosulfan I	ND		1.7	0.32	ug/Kg		12/07/17 07:31	12/08/17 13:07	1
Endosulfan II	ND		1.7	0.30	ug/Kg		12/07/17 07:31	12/08/17 13:07	1
Endosulfan sulfate	ND		1.7	0.31	ug/Kg		12/07/17 07:31	12/08/17 13:07	1
Endrin	ND		1.7	0.33	ug/Kg		12/07/17 07:31	12/08/17 13:07	1
Endrin aldehyde	ND		1.7	0.42	ug/Kg		12/07/17 07:31	12/08/17 13:07	1
Endrin ketone	ND		1.7	0.41	ug/Kg		12/07/17 07:31	12/08/17 13:07	1
gamma-BHC (Lindane)	ND		1.7	0.30	ug/Kg		12/07/17 07:31	12/08/17 13:07	1
gamma-Chlordane	ND		1.7	0.52	ug/Kg		12/07/17 07:31	12/08/17 13:07	1
Heptachlor	ND		1.7	0.36	ug/Kg		12/07/17 07:31	12/08/17 13:07	1
Heptachlor epoxide	ND		1.7	0.43	ug/Kg		12/07/17 07:31	12/08/17 13:07	1
Methoxychlor	ND		1.7	0.34	ug/Kg		12/07/17 07:31	12/08/17 13:07	1
Toxaphene	ND		17	9.6	ug/Kg		12/07/17 07:31	12/08/17 13:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*133*	*X*	*45 - 120*	*12/07/17 07:31*	*12/08/17 13:07*	*1*
DCB Decachlorobiphenyl	*122*	*X*	*45 - 120*	*12/07/17 07:31*	*12/08/17 13:07*	*1*
Tetrachloro-m-xylene	*88*		*30 - 124*	*12/07/17 07:31*	*12/08/17 13:07*	*1*
Tetrachloro-m-xylene	*76*		*30 - 124*	*12/07/17 07:31*	*12/08/17 13:07*	*1*

Lab Sample ID: LCS 480-390860/2-A
Matrix: Solid
Analysis Batch: 391106

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390860

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	16.2	16.2		ug/Kg		100	56 - 120
4,4'-DDE	16.2	14.5		ug/Kg		90	44 - 120
4,4'-DDT	16.2	16.4		ug/Kg		101	38 - 120
Aldrin	16.2	13.6		ug/Kg		84	38 - 120
alpha-BHC	16.2	10.8		ug/Kg		67	39 - 120
alpha-Chlordane	16.2	13.8		ug/Kg		85	47 - 120
beta-BHC	16.2	12.3		ug/Kg		76	40 - 120
delta-BHC	16.2	14.2		ug/Kg		88	45 - 120
Dieldrin	16.2	15.4		ug/Kg		95	58 - 120
Endosulfan I	16.2	16.9		ug/Kg		105	49 - 120
Endosulfan II	16.2	16.9		ug/Kg		105	55 - 120
Endosulfan sulfate	16.2	17.2		ug/Kg		106	49 - 124
Endrin	16.2	17.0		ug/Kg		105	58 - 120
Endrin aldehyde	16.2	11.8		ug/Kg		73	37 - 121
Endrin ketone	16.2	17.3		ug/Kg		107	46 - 123

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 480-390860/2-A
Matrix: Solid
Analysis Batch: 391106

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390860

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
gamma-BHC (Lindane)	16.2	12.0		ug/Kg		74	50 - 120
gamma-Chlordane	16.2	13.9		ug/Kg		86	48 - 120
Heptachlor	16.2	14.0		ug/Kg		87	50 - 120
Heptachlor epoxide	16.2	15.4		ug/Kg		95	50 - 120
Methoxychlor	16.2	17.8		ug/Kg		110	58 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*123*	*X*	*45 - 120*
DCB Decachlorobiphenyl	*119*		*45 - 120*
Tetrachloro-m-xylene	*82*		*30 - 124*
Tetrachloro-m-xylene	*73*		*30 - 124*

Lab Sample ID: 480-128422-7 MS
Matrix: Solid
Analysis Batch: 391106

Client Sample ID: TP-23 (13-15.5)
Prep Type: Total/NA
Prep Batch: 390860

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	ND		23.8	14.8	J	ug/Kg	☼	62	37 - 126
4,4'-DDE	ND		23.8	13.4	J	ug/Kg	☼	56	34 - 120
4,4'-DDT	5.7	J	23.8	18.0	J	ug/Kg	☼	76	43 - 123
Aldrin	ND		23.8	15.5	J	ug/Kg	☼	65	37 - 125
alpha-BHC	ND		23.8	19.0	J	ug/Kg	☼	80	39 - 120
alpha-Chlordane	ND		23.8	15.0	J	ug/Kg	☼	63	35 - 120
beta-BHC	ND		23.8	13.9	J	ug/Kg	☼	58	36 - 120
delta-BHC	ND		23.8	18.6	J	ug/Kg	☼	78	34 - 120
Dieldrin	ND	F2	23.8	14.8	J	ug/Kg	☼	62	45 - 120
Endosulfan I	ND		23.8	11.8	J	ug/Kg	☼	50	39 - 120
Endosulfan II	ND		23.8	15.1	J	ug/Kg	☼	63	34 - 126
Endosulfan sulfate	ND		23.8	16.4	J	ug/Kg	☼	69	27 - 130
Endrin	ND		23.8	13.1	J	ug/Kg	☼	55	47 - 121
Endrin aldehyde	ND		23.8	9.00	J	ug/Kg	☼	38	33 - 123
Endrin ketone	ND		23.8	17.8	J	ug/Kg	☼	75	43 - 126
gamma-BHC (Lindane)	ND		23.8	17.9	J	ug/Kg	☼	75	50 - 120
gamma-Chlordane	ND		23.8	13.8	J	ug/Kg	☼	58	31 - 120
Heptachlor	ND		23.8	13.6	J	ug/Kg	☼	57	42 - 120
Heptachlor epoxide	ND	F1	23.8	10.6	J	ug/Kg	☼	45	40 - 120
Methoxychlor	ND		23.8	19.5	J	ug/Kg	☼	82	44 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*0*	*X*	*45 - 120*
DCB Decachlorobiphenyl	*0*	*X*	*45 - 120*
Tetrachloro-m-xylene	*96*		*30 - 124*
Tetrachloro-m-xylene	*112*		*30 - 124*

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 480-128422-7 MSD
Matrix: Solid
Analysis Batch: 391106

Client Sample ID: TP-23 (13-15.5)
Prep Type: Total/NA
Prep Batch: 390860

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	ND		23.7	13.0	J	ug/Kg	☼	55	37 - 126	13	21
4,4'-DDE	ND		23.7	12.2	J	ug/Kg	☼	51	34 - 120	10	18
4,4'-DDT	5.7	J	23.7	16.2	J	ug/Kg	☼	68	43 - 123	10	25
Aldrin	ND		23.7	13.7	J	ug/Kg	☼	58	37 - 125	12	12
alpha-BHC	ND		23.7	17.8	J	ug/Kg	☼	75	39 - 120	6	15
alpha-Chlordane	ND		23.7	13.6	J	ug/Kg	☼	57	35 - 120	10	23
beta-BHC	ND		23.7	13.3	J	ug/Kg	☼	56	36 - 120	4	19
delta-BHC	ND		23.7	17.1	J	ug/Kg	☼	72	34 - 120	8	14
Dieldrin	ND	F2	23.7	12.8	J F2	ug/Kg	☼	54	45 - 120	14	12
Endosulfan I	ND		23.7	10.2	J	ug/Kg	☼	43	39 - 120	14	18
Endosulfan II	ND		23.7	12.2	J	ug/Kg	☼	51	34 - 126	21	26
Endosulfan sulfate	ND		23.7	15.7	J	ug/Kg	☼	66	27 - 130	4	35
Endrin	ND		23.7	11.3	J	ug/Kg	☼	48	47 - 121	15	20
Endrin aldehyde	ND		23.7	7.72	J	ug/Kg	☼	33	33 - 123	15	47
Endrin ketone	ND		23.7	16.1	J	ug/Kg	☼	68	43 - 126	10	37
gamma-BHC (Lindane)	ND		23.7	16.6	J	ug/Kg	☼	70	50 - 120	8	12
gamma-Chlordane	ND		23.7	12.4	J	ug/Kg	☼	52	31 - 120	10	15
Heptachlor	ND		23.7	11.8	J	ug/Kg	☼	50	42 - 120	14	22
Heptachlor epoxide	ND	F1	23.7	9.11	J F1	ug/Kg	☼	38	40 - 120	15	15
Methoxychlor	ND		23.7	17.8	J	ug/Kg	☼	75	44 - 150	9	24

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*102*		*45 - 120*
DCB Decachlorobiphenyl	*143*	*X*	*45 - 120*
Tetrachloro-m-xylene	*92*		*30 - 124*
Tetrachloro-m-xylene	*107*		*30 - 124*

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

Lab Sample ID: MB 480-390657/1-A
Matrix: Solid
Analysis Batch: 390770

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390657

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.23	0.044	mg/Kg		12/06/17 07:41	12/06/17 14:38	1
PCB-1221	ND		0.23	0.044	mg/Kg		12/06/17 07:41	12/06/17 14:38	1
PCB-1232	ND		0.23	0.044	mg/Kg		12/06/17 07:41	12/06/17 14:38	1
PCB-1242	ND		0.23	0.044	mg/Kg		12/06/17 07:41	12/06/17 14:38	1
PCB-1248	ND		0.23	0.044	mg/Kg		12/06/17 07:41	12/06/17 14:38	1
PCB-1254	ND		0.23	0.11	mg/Kg		12/06/17 07:41	12/06/17 14:38	1
PCB-1260	ND		0.23	0.11	mg/Kg		12/06/17 07:41	12/06/17 14:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*117*		*60 - 154*	*12/06/17 07:41*	*12/06/17 14:38*	*1*
Tetrachloro-m-xylene	*101*		*60 - 154*	*12/06/17 07:41*	*12/06/17 14:38*	*1*
DCB Decachlorobiphenyl	*94*		*65 - 174*	*12/06/17 07:41*	*12/06/17 14:38*	*1*
DCB Decachlorobiphenyl	*99*		*65 - 174*	*12/06/17 07:41*	*12/06/17 14:38*	*1*

Lab Sample ID: LCS 480-390657/2-A
Matrix: Solid
Analysis Batch: 390770

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390657

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016			1.74	2.11		mg/Kg		122	51 - 185		
PCB-1260			1.74	1.94		mg/Kg		112	61 - 184		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*125*		*60 - 154*
Tetrachloro-m-xylene	*105*		*60 - 154*
DCB Decachlorobiphenyl	*94*		*65 - 174*
DCB Decachlorobiphenyl	*101*		*65 - 174*

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 480-390865/1-A
Matrix: Solid
Analysis Batch: 391519

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390865

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		17	5.3	ug/Kg		12/07/17 07:37	12/12/17 01:02	1
Silvex (2,4,5-TP)	ND		17	6.0	ug/Kg		12/07/17 07:37	12/12/17 01:02	1
2,4-D	ND		17	10	ug/Kg		12/07/17 07:37	12/12/17 01:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*99*		*28 - 129*	*12/07/17 07:37*	*12/12/17 01:02*	*1*
2,4-Dichlorophenylacetic acid	*102*		*28 - 129*	*12/07/17 07:37*	*12/12/17 01:02*	*1*

Lab Sample ID: LCS 480-390865/2-A
Matrix: Solid
Analysis Batch: 391519

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390865

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
2,4,5-T			66.4	85.9	*	ug/Kg		129	41 - 120		
Silvex (2,4,5-TP)			66.4	71.2		ug/Kg		107	39 - 125		
2,4-D			66.4	75.6		ug/Kg		114	40 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*89*		*28 - 129*
2,4-Dichlorophenylacetic acid	*161*	*X*	*28 - 129*

Lab Sample ID: LCSD 480-390865/3-A
Matrix: Solid
Analysis Batch: 391519

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 390865

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,5-T			65.9	80.1	*	ug/Kg		122	41 - 120	7	50
Silvex (2,4,5-TP)			65.9	61.1		ug/Kg		93	39 - 125	15	50
2,4-D			65.9	90.3	*	ug/Kg		137	40 - 120	18	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*86*		*28 - 129*
2,4-Dichlorophenylacetic acid	*113*		*28 - 129*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-390723/1-A
Matrix: Solid
Analysis Batch: 391171

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390723

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		9.7	4.3	mg/Kg		12/06/17 16:35	12/07/17 19:23	1
Antimony	ND		14.6	0.39	mg/Kg		12/06/17 16:35	12/07/17 19:23	1
Arsenic	ND		1.9	0.39	mg/Kg		12/06/17 16:35	12/07/17 19:23	1
Barium	ND		0.49	0.11	mg/Kg		12/06/17 16:35	12/07/17 19:23	1
Beryllium	ND		0.19	0.027	mg/Kg		12/06/17 16:35	12/07/17 19:23	1
Cadmium	ND		0.19	0.029	mg/Kg		12/06/17 16:35	12/07/17 19:23	1
Calcium	5.52	J	48.5	3.2	mg/Kg		12/06/17 16:35	12/07/17 19:23	1
Chromium	ND		0.49	0.19	mg/Kg		12/06/17 16:35	12/07/17 19:23	1
Cobalt	ND		0.49	0.049	mg/Kg		12/06/17 16:35	12/07/17 19:23	1
Copper	ND		0.97	0.20	mg/Kg		12/06/17 16:35	12/07/17 19:23	1
Iron	ND		9.7	3.4	mg/Kg		12/06/17 16:35	12/07/17 19:23	1
Lead	ND		0.97	0.23	mg/Kg		12/06/17 16:35	12/07/17 19:23	1
Magnesium	ND		19.4	0.90	mg/Kg		12/06/17 16:35	12/07/17 19:23	1
Manganese	0.0475	J	0.19	0.031	mg/Kg		12/06/17 16:35	12/07/17 19:23	1
Nickel	ND		4.9	0.22	mg/Kg		12/06/17 16:35	12/07/17 19:23	1
Potassium	ND		29.1	19.4	mg/Kg		12/06/17 16:35	12/07/17 19:23	1
Selenium	ND		3.9	0.39	mg/Kg		12/06/17 16:35	12/07/17 19:23	1
Silver	ND		0.58	0.19	mg/Kg		12/06/17 16:35	12/07/17 19:23	1
Sodium	ND		136	12.6	mg/Kg		12/06/17 16:35	12/07/17 19:23	1
Thallium	ND		5.8	0.29	mg/Kg		12/06/17 16:35	12/07/17 19:23	1
Vanadium	ND		0.49	0.11	mg/Kg		12/06/17 16:35	12/07/17 19:23	1
Zinc	ND		1.9	0.62	mg/Kg		12/06/17 16:35	12/07/17 19:23	1

Lab Sample ID: LCSSRM 480-390723/2-A
Matrix: Solid
Analysis Batch: 391171

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390723

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	8090	9101		mg/Kg		112.5	39.6 - 160.7
Antimony	99.3	72.44		mg/Kg		73.0	21.6 - 256.8
Arsenic	100	89.27		mg/Kg		89.3	69.6 - 131.0
Barium	217	190.7		mg/Kg		87.9	73.7 - 128.1
Beryllium	147	127.9		mg/Kg		87.0	75.5 - 125.9
Cadmium	83.7	74.72		mg/Kg		89.3	73.2 - 131.4
Calcium	6010	5463		mg/Kg		90.9	73.7 - 126.3
Chromium	107	101.5		mg/Kg		94.8	69.4 - 134.6
Cobalt	123	134.2		mg/Kg		109.1	74.3 - 130.1
Copper	166	148.6		mg/Kg		89.5	75.3 - 128.3
Iron	14600	15350		mg/Kg		105.2	36.1 - 163.7

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 480-390723/2-A
Matrix: Solid
Analysis Batch: 391171

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390723

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	88.4	94.17		mg/Kg		106.5	69.9 - 130.1
Magnesium	2930	2801		mg/Kg		95.6	65.9 - 134.5
Manganese	311	281.2		mg/Kg		90.4	74.9 - 125.4
Nickel	49.8	54.56		mg/Kg		109.6	69.1 - 135.1
Potassium	2620	2785		mg/Kg		106.3	61.1 - 138.9
Selenium	87.7	80.21		mg/Kg		91.5	64.1 - 135.7
Silver	41.4	35.78		mg/Kg		86.4	65.9 - 133.8
Sodium	252	258.2		mg/Kg		102.4	32.9 - 167.5
Thallium	58.1	62.23		mg/Kg		107.1	63.9 - 136.3
Vanadium	140	133.1		mg/Kg		95.1	69.9 - 129.3
Zinc	145	131.7		mg/Kg		90.8	67.7 - 132.4

Lab Sample ID: 480-128422-1 MS
Matrix: Solid
Analysis Batch: 391171

Client Sample ID: TP-13 (10-15)
Prep Type: Total/NA
Prep Batch: 390723

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	10800	F1	2820	20640	F1	mg/Kg	☼	350	75 - 125
Antimony	2.5	J F1	56.3	37.27	F1	mg/Kg	☼	62	75 - 125
Arsenic	15.7		56.3	60.59		mg/Kg	☼	80	75 - 125
Barium	286		56.3	180.4	4	mg/Kg	☼	-188	75 - 125
Beryllium	1.3		56.3	49.26		mg/Kg	☼	85	75 - 125
Cadmium	0.57		56.3	50.13		mg/Kg	☼	88	75 - 125
Calcium	16500	F2 B	2820	46420	4	mg/Kg	☼	1064	75 - 125
Chromium	21.9		56.3	74.96		mg/Kg	☼	94	75 - 125
Cobalt	12.2		56.3	64.74		mg/Kg	☼	93	75 - 125
Copper	127	F2 F1	56.3	135.3	F1	mg/Kg	☼	15	75 - 125
Iron	23500		2820	21190	4	mg/Kg	☼	-82	75 - 125
Lead	584	F2	56.3	1123	4	mg/Kg	☼	957	75 - 125
Magnesium	5950	F2 F1	2820	16060	F1	mg/Kg	☼	359	75 - 125
Manganese	278	B	56.3	427.3	4	mg/Kg	☼	266	75 - 125
Nickel	26.4		56.3	82.99		mg/Kg	☼	100	75 - 125
Potassium	1940	F2 F1	2820	7316	F1	mg/Kg	☼	191	75 - 125
Selenium	1.9	J	56.3	51.10		mg/Kg	☼	87	75 - 125
Silver	ND		14.1	13.23		mg/Kg	☼	94	75 - 125
Sodium	4110	F1	2820	5336	F1	mg/Kg	☼	43	75 - 125
Thallium	ND		56.3	54.87		mg/Kg	☼	97	75 - 125
Vanadium	42.0		56.3	90.88		mg/Kg	☼	87	75 - 125
Zinc	357	F2	56.3	266.8	4	mg/Kg	☼	-161	75 - 125

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-128422-1 MSD
Matrix: Solid
Analysis Batch: 391171

Client Sample ID: TP-13 (10-15)
Prep Type: Total/NA
Prep Batch: 390723

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	10800	F1	2930	17480	F1	mg/Kg	☼	229	75 - 125	17	20
Antimony	2.5	J F1	58.6	40.56	F1	mg/Kg	☼	65	75 - 125	8	20
Arsenic	15.7		58.6	64.94		mg/Kg	☼	84	75 - 125	7	20
Barium	286		58.6	212.8	4	mg/Kg	☼	-125	75 - 125	16	20
Beryllium	1.3		58.6	52.82		mg/Kg	☼	88	75 - 125	7	20
Cadmium	0.57		58.6	52.48		mg/Kg	☼	89	75 - 125	5	20
Calcium	16500	F2 B	2930	22460	4 F2	mg/Kg	☼	205	75 - 125	70	20
Chromium	21.9		58.6	77.58		mg/Kg	☼	95	75 - 125	3	20
Cobalt	12.2		58.6	67.87		mg/Kg	☼	95	75 - 125	5	20
Copper	127	F2 F1	58.6	191.8	F2	mg/Kg	☼	111	75 - 125	35	20
Iron	23500		2930	23120	4	mg/Kg	☼	-13	75 - 125	9	20
Lead	584	F2	58.6	483.4	4 F2	mg/Kg	☼	-171	75 - 125	80	20
Magnesium	5950	F2 F1	2930	10630	F1 F2	mg/Kg	☼	160	75 - 125	41	20
Manganese	278	B	58.6	385.3	4	mg/Kg	☼	184	75 - 125	10	20
Nickel	26.4		58.6	86.49		mg/Kg	☼	102	75 - 125	4	20
Potassium	1940	F2 F1	2930	5666	F1 F2	mg/Kg	☼	127	75 - 125	25	20
Selenium	1.9	J	58.6	53.72		mg/Kg	☼	88	75 - 125	5	20
Silver	ND		14.7	13.45		mg/Kg	☼	92	75 - 125	2	20
Sodium	4110	F1	2930	6189	F1	mg/Kg	☼	71	75 - 125	15	20
Thallium	ND		58.6	57.64		mg/Kg	☼	98	75 - 125	5	20
Vanadium	42.0		58.6	96.31		mg/Kg	☼	93	75 - 125	6	20
Zinc	357	F2	58.6	414.9	4 F2	mg/Kg	☼	98	75 - 125	43	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-391446/1-A
Matrix: Solid
Analysis Batch: 391512

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 391446

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.021	0.0083	mg/Kg		12/11/17 12:25	12/11/17 15:55	1

Lab Sample ID: LCSSRM 480-391446/2-A ^10
Matrix: Solid
Analysis Batch: 391512

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 391446

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	12.6	12.93		mg/Kg		102.6	44.4 - 128.6

Lab Sample ID: 480-128422-1 MS
Matrix: Solid
Analysis Batch: 391512

Client Sample ID: TP-13 (10-15)
Prep Type: Total/NA
Prep Batch: 391446

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.12		0.493	0.666		mg/Kg	☼	111	80 - 120

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: 480-128422-1 MSD
Matrix: Solid
Analysis Batch: 391512

Client Sample ID: TP-13 (10-15)
Prep Type: Total/NA
Prep Batch: 391446

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.12		0.486	0.611		mg/Kg	☼	101	80 - 120	8	20

GC/MS VOA

Prep Batch: 390601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128422-7	TP-23 (13-15.5)	Total/NA	Solid	5035A_L	
480-128422-8	TP-27 (7-9)	Total/NA	Solid	5035A_L	
MB 480-390601/3-A	Method Blank	Total/NA	Solid	5035A_L	
LCS 480-390601/1-A	Lab Control Sample	Total/NA	Solid	5035A_L	
LCSD 480-390601/2-A	Lab Control Sample Dup	Total/NA	Solid	5035A_L	

Analysis Batch: 391789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128422-7	TP-23 (13-15.5)	Total/NA	Solid	8260C	390601
480-128422-8	TP-27 (7-9)	Total/NA	Solid	8260C	390601
MB 480-390601/3-A	Method Blank	Total/NA	Solid	8260C	390601
LCS 480-390601/1-A	Lab Control Sample	Total/NA	Solid	8260C	390601
LCSD 480-390601/2-A	Lab Control Sample Dup	Total/NA	Solid	8260C	390601

GC/MS Semi VOA

Prep Batch: 390795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128422-1	TP-13 (10-15)	Total/NA	Solid	3550C	
480-128422-2	TP-18 (5-9)	Total/NA	Solid	3550C	
480-128422-3	BLIND DUP #4	Total/NA	Solid	3550C	
480-128422-4	TP-17 (2.5-4.0)	Total/NA	Solid	3550C	
480-128422-5	TP-16 (8-10)	Total/NA	Solid	3550C	
480-128422-6	TP-22 (9-12)	Total/NA	Solid	3550C	
480-128422-7	TP-23 (13-15.5)	Total/NA	Solid	3550C	
480-128422-8	TP-27 (7-9)	Total/NA	Solid	3550C	
480-128422-9	TP-21 (8-10)	Total/NA	Solid	3550C	
MB 480-390795/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-390795/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-128422-1 MS	TP-13 (10-15)	Total/NA	Solid	3550C	
480-128422-1 MSD	TP-13 (10-15)	Total/NA	Solid	3550C	

Analysis Batch: 391010

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128422-1	TP-13 (10-15)	Total/NA	Solid	8270D	390795
480-128422-2	TP-18 (5-9)	Total/NA	Solid	8270D	390795
480-128422-3	BLIND DUP #4	Total/NA	Solid	8270D	390795
480-128422-4	TP-17 (2.5-4.0)	Total/NA	Solid	8270D	390795
480-128422-5	TP-16 (8-10)	Total/NA	Solid	8270D	390795
480-128422-6	TP-22 (9-12)	Total/NA	Solid	8270D	390795
480-128422-7	TP-23 (13-15.5)	Total/NA	Solid	8270D	390795
480-128422-8	TP-27 (7-9)	Total/NA	Solid	8270D	390795
480-128422-9	TP-21 (8-10)	Total/NA	Solid	8270D	390795
MB 480-390795/1-A	Method Blank	Total/NA	Solid	8270D	390795
LCS 480-390795/2-A	Lab Control Sample	Total/NA	Solid	8270D	390795
480-128422-1 MS	TP-13 (10-15)	Total/NA	Solid	8270D	390795
480-128422-1 MSD	TP-13 (10-15)	Total/NA	Solid	8270D	390795

GC Semi VOA

Prep Batch: 390657

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128422-5	TP-16 (8-10)	Total/NA	Solid	3550C	
480-128422-7	TP-23 (13-15.5)	Total/NA	Solid	3550C	
MB 480-390657/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-390657/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Analysis Batch: 390770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128422-5	TP-16 (8-10)	Total/NA	Solid	8082A	390657
480-128422-7	TP-23 (13-15.5)	Total/NA	Solid	8082A	390657
MB 480-390657/1-A	Method Blank	Total/NA	Solid	8082A	390657
LCS 480-390657/2-A	Lab Control Sample	Total/NA	Solid	8082A	390657

Prep Batch: 390860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128422-5	TP-16 (8-10)	Total/NA	Solid	3550C	
480-128422-7	TP-23 (13-15.5)	Total/NA	Solid	3550C	
MB 480-390860/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-390860/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-128422-7 MS	TP-23 (13-15.5)	Total/NA	Solid	3550C	
480-128422-7 MSD	TP-23 (13-15.5)	Total/NA	Solid	3550C	

Prep Batch: 390865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128422-5	TP-16 (8-10)	Total/NA	Solid	8151A	
480-128422-7	TP-23 (13-15.5)	Total/NA	Solid	8151A	
MB 480-390865/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 480-390865/2-A	Lab Control Sample	Total/NA	Solid	8151A	
LCSD 480-390865/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	

Analysis Batch: 391106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128422-5	TP-16 (8-10)	Total/NA	Solid	8081B	390860
480-128422-7	TP-23 (13-15.5)	Total/NA	Solid	8081B	390860
MB 480-390860/1-A	Method Blank	Total/NA	Solid	8081B	390860
LCS 480-390860/2-A	Lab Control Sample	Total/NA	Solid	8081B	390860
480-128422-7 MS	TP-23 (13-15.5)	Total/NA	Solid	8081B	390860
480-128422-7 MSD	TP-23 (13-15.5)	Total/NA	Solid	8081B	390860

Analysis Batch: 391519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128422-5	TP-16 (8-10)	Total/NA	Solid	8151A	390865
480-128422-7	TP-23 (13-15.5)	Total/NA	Solid	8151A	390865
MB 480-390865/1-A	Method Blank	Total/NA	Solid	8151A	390865
LCS 480-390865/2-A	Lab Control Sample	Total/NA	Solid	8151A	390865
LCSD 480-390865/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	390865

Metals

Prep Batch: 390723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128422-1	TP-13 (10-15)	Total/NA	Solid	3050B	
480-128422-2	TP-18 (5-9)	Total/NA	Solid	3050B	
480-128422-3	BLIND DUP #4	Total/NA	Solid	3050B	
480-128422-4	TP-17 (2.5-4.0)	Total/NA	Solid	3050B	
480-128422-5	TP-16 (8-10)	Total/NA	Solid	3050B	
480-128422-6	TP-22 (9-12)	Total/NA	Solid	3050B	
480-128422-7	TP-23 (13-15.5)	Total/NA	Solid	3050B	
480-128422-8	TP-27 (7-9)	Total/NA	Solid	3050B	
480-128422-9	TP-21 (8-10)	Total/NA	Solid	3050B	
MB 480-390723/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 480-390723/2-A	Lab Control Sample	Total/NA	Solid	3050B	
480-128422-1 MS	TP-13 (10-15)	Total/NA	Solid	3050B	
480-128422-1 MSD	TP-13 (10-15)	Total/NA	Solid	3050B	

Analysis Batch: 391171

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128422-1	TP-13 (10-15)	Total/NA	Solid	6010C	390723
480-128422-2	TP-18 (5-9)	Total/NA	Solid	6010C	390723
480-128422-3	BLIND DUP #4	Total/NA	Solid	6010C	390723
480-128422-4	TP-17 (2.5-4.0)	Total/NA	Solid	6010C	390723
480-128422-4	TP-17 (2.5-4.0)	Total/NA	Solid	6010C	390723
480-128422-5	TP-16 (8-10)	Total/NA	Solid	6010C	390723
480-128422-6	TP-22 (9-12)	Total/NA	Solid	6010C	390723
480-128422-7	TP-23 (13-15.5)	Total/NA	Solid	6010C	390723
480-128422-8	TP-27 (7-9)	Total/NA	Solid	6010C	390723
480-128422-9	TP-21 (8-10)	Total/NA	Solid	6010C	390723
MB 480-390723/1-A	Method Blank	Total/NA	Solid	6010C	390723
LCSSRM 480-390723/2-A	Lab Control Sample	Total/NA	Solid	6010C	390723
480-128422-1 MS	TP-13 (10-15)	Total/NA	Solid	6010C	390723
480-128422-1 MSD	TP-13 (10-15)	Total/NA	Solid	6010C	390723

Analysis Batch: 391382

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128422-3	BLIND DUP #4	Total/NA	Solid	6010C	390723

Prep Batch: 391446

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128422-1	TP-13 (10-15)	Total/NA	Solid	7471B	
480-128422-2	TP-18 (5-9)	Total/NA	Solid	7471B	
480-128422-3	BLIND DUP #4	Total/NA	Solid	7471B	
480-128422-4	TP-17 (2.5-4.0)	Total/NA	Solid	7471B	
480-128422-5	TP-16 (8-10)	Total/NA	Solid	7471B	
480-128422-6	TP-22 (9-12)	Total/NA	Solid	7471B	
480-128422-7	TP-23 (13-15.5)	Total/NA	Solid	7471B	
480-128422-8	TP-27 (7-9)	Total/NA	Solid	7471B	
480-128422-9	TP-21 (8-10)	Total/NA	Solid	7471B	
MB 480-391446/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 480-391446/2-A ^10	Lab Control Sample	Total/NA	Solid	7471B	
480-128422-1 MS	TP-13 (10-15)	Total/NA	Solid	7471B	
480-128422-1 MSD	TP-13 (10-15)	Total/NA	Solid	7471B	

Metals (Continued)

Analysis Batch: 391512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128422-1	TP-13 (10-15)	Total/NA	Solid	7471B	391446
480-128422-2	TP-18 (5-9)	Total/NA	Solid	7471B	391446
480-128422-3	BLIND DUP #4	Total/NA	Solid	7471B	391446
480-128422-4	TP-17 (2.5-4.0)	Total/NA	Solid	7471B	391446
480-128422-5	TP-16 (8-10)	Total/NA	Solid	7471B	391446
480-128422-6	TP-22 (9-12)	Total/NA	Solid	7471B	391446
480-128422-7	TP-23 (13-15.5)	Total/NA	Solid	7471B	391446
480-128422-8	TP-27 (7-9)	Total/NA	Solid	7471B	391446
480-128422-9	TP-21 (8-10)	Total/NA	Solid	7471B	391446
MB 480-391446/1-A	Method Blank	Total/NA	Solid	7471B	391446
LCSSRM 480-391446/2-A ^10	Lab Control Sample	Total/NA	Solid	7471B	391446
480-128422-1 MS	TP-13 (10-15)	Total/NA	Solid	7471B	391446
480-128422-1 MSD	TP-13 (10-15)	Total/NA	Solid	7471B	391446

General Chemistry

Analysis Batch: 391265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128422-1	TP-13 (10-15)	Total/NA	Solid	Moisture	
480-128422-2	TP-18 (5-9)	Total/NA	Solid	Moisture	
480-128422-3	BLIND DUP #4	Total/NA	Solid	Moisture	
480-128422-4	TP-17 (2.5-4.0)	Total/NA	Solid	Moisture	
480-128422-5	TP-16 (8-10)	Total/NA	Solid	Moisture	
480-128422-6	TP-22 (9-12)	Total/NA	Solid	Moisture	
480-128422-7	TP-23 (13-15.5)	Total/NA	Solid	Moisture	
480-128422-8	TP-27 (7-9)	Total/NA	Solid	Moisture	
480-128422-9	TP-21 (8-10)	Total/NA	Solid	Moisture	
480-128422-1 MS	TP-13 (10-15)	Total/NA	Solid	Moisture	
480-128422-1 MSD	TP-13 (10-15)	Total/NA	Solid	Moisture	

Client Sample ID: TP-13 (10-15)

Lab Sample ID: 480-128422-1

Date Collected: 12/04/17 09:04

Matrix: Solid

Date Received: 12/05/17 12:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	391265	12/09/17 05:44	CSW	TAL BUF

Client Sample ID: TP-13 (10-15)

Lab Sample ID: 480-128422-1

Date Collected: 12/04/17 09:04

Matrix: Solid

Date Received: 12/05/17 12:30

Percent Solids: 68.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			390795	12/06/17 14:13	BEK	TAL BUF
Total/NA	Analysis	8270D		5	391010	12/07/17 18:29	DMR	TAL BUF
Total/NA	Prep	3050B			390723	12/06/17 16:35	EMB	TAL BUF
Total/NA	Analysis	6010C		1	391171	12/07/17 19:41	LMH	TAL BUF
Total/NA	Prep	7471B			391446	12/11/17 12:25	EMB	TAL BUF
Total/NA	Analysis	7471B		1	391512	12/11/17 16:00	BMB	TAL BUF

Client Sample ID: TP-18 (5-9)

Lab Sample ID: 480-128422-2

Date Collected: 12/04/17 09:45

Matrix: Solid

Date Received: 12/05/17 12:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	391265	12/09/17 05:44	CSW	TAL BUF

Client Sample ID: TP-18 (5-9)

Lab Sample ID: 480-128422-2

Date Collected: 12/04/17 09:45

Matrix: Solid

Date Received: 12/05/17 12:30

Percent Solids: 93.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			390795	12/06/17 14:13	BEK	TAL BUF
Total/NA	Analysis	8270D		10	391010	12/07/17 23:48	DMR	TAL BUF
Total/NA	Prep	3050B			390723	12/06/17 16:35	EMB	TAL BUF
Total/NA	Analysis	6010C		1	391171	12/07/17 19:59	LMH	TAL BUF
Total/NA	Prep	7471B			391446	12/11/17 12:25	EMB	TAL BUF
Total/NA	Analysis	7471B		1	391512	12/11/17 16:10	BMB	TAL BUF

Client Sample ID: BLIND DUP #4

Lab Sample ID: 480-128422-3

Date Collected: 12/04/17 12:00

Matrix: Solid

Date Received: 12/05/17 12:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	391265	12/09/17 05:44	CSW	TAL BUF

Client Sample ID: BLIND DUP #4

Lab Sample ID: 480-128422-3

Date Collected: 12/04/17 12:00
Matrix: Solid
Date Received: 12/05/17 12:30
Percent Solids: 85.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			390795	12/06/17 14:13	BEK	TAL BUF
Total/NA	Analysis	8270D		10	391010	12/08/17 00:15	DMR	TAL BUF
Total/NA	Prep	3050B			390723	12/06/17 16:35	EMB	TAL BUF
Total/NA	Analysis	6010C		1	391171	12/07/17 20:03	LMH	TAL BUF
Total/NA	Prep	3050B			390723	12/06/17 16:35	EMB	TAL BUF
Total/NA	Analysis	6010C		5	391382	12/08/17 09:50	LMH	TAL BUF
Total/NA	Prep	7471B			391446	12/11/17 12:25	EMB	TAL BUF
Total/NA	Analysis	7471B		1	391512	12/11/17 16:12	BMB	TAL BUF

Client Sample ID: TP-17 (2.5-4.0)

Lab Sample ID: 480-128422-4

Date Collected: 12/04/17 10:30
Matrix: Solid
Date Received: 12/05/17 12:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	391265	12/09/17 05:44	CSW	TAL BUF

Client Sample ID: TP-17 (2.5-4.0)

Lab Sample ID: 480-128422-4

Date Collected: 12/04/17 10:30
Matrix: Solid
Date Received: 12/05/17 12:30
Percent Solids: 83.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			390795	12/06/17 14:13	BEK	TAL BUF
Total/NA	Analysis	8270D		5	391010	12/08/17 00:41	DMR	TAL BUF
Total/NA	Prep	3050B			390723	12/06/17 16:35	EMB	TAL BUF
Total/NA	Analysis	6010C		1	391171	12/07/17 20:06	LMH	TAL BUF
Total/NA	Prep	3050B			390723	12/06/17 16:35	EMB	TAL BUF
Total/NA	Analysis	6010C		5	391171	12/07/17 20:10	LMH	TAL BUF
Total/NA	Prep	7471B			391446	12/11/17 12:25	EMB	TAL BUF
Total/NA	Analysis	7471B		1	391512	12/11/17 16:13	BMB	TAL BUF

Client Sample ID: TP-16 (8-10)

Lab Sample ID: 480-128422-5

Date Collected: 12/04/17 10:58
Matrix: Solid
Date Received: 12/05/17 12:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	391265	12/09/17 05:44	CSW	TAL BUF

Client Sample ID: TP-16 (8-10)

Lab Sample ID: 480-128422-5

Date Collected: 12/04/17 10:58
Matrix: Solid
Date Received: 12/05/17 12:30
Percent Solids: 76.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			390795	12/06/17 14:13	BEK	TAL BUF

Client Sample ID: TP-16 (8-10)

Lab Sample ID: 480-128422-5

Date Collected: 12/04/17 10:58
Matrix: Solid
Date Received: 12/05/17 12:30
Percent Solids: 76.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270D		1	391010	12/08/17 01:08	DMR	TAL BUF
Total/NA	Prep	3550C			390860	12/07/17 07:31	SMP	TAL BUF
Total/NA	Analysis	8081B		1	391106	12/08/17 14:45	JLS	TAL BUF
Total/NA	Prep	3550C			390657	12/06/17 07:41	SMP	TAL BUF
Total/NA	Analysis	8082A		1	390770	12/06/17 19:41	JMO	TAL BUF
Total/NA	Prep	8151A			390865	12/07/17 07:37	SMP	TAL BUF
Total/NA	Analysis	8151A		1	391519	12/12/17 03:01	JMO	TAL BUF
Total/NA	Prep	3050B			390723	12/06/17 16:35	EMB	TAL BUF
Total/NA	Analysis	6010C		1	391171	12/07/17 20:24	LMH	TAL BUF
Total/NA	Prep	7471B			391446	12/11/17 12:25	EMB	TAL BUF
Total/NA	Analysis	7471B		1	391512	12/11/17 16:15	BMB	TAL BUF

Client Sample ID: TP-22 (9-12)

Lab Sample ID: 480-128422-6

Date Collected: 12/04/17 12:30
Matrix: Solid
Date Received: 12/05/17 12:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	391265	12/09/17 05:44	CSW	TAL BUF

Client Sample ID: TP-22 (9-12)

Lab Sample ID: 480-128422-6

Date Collected: 12/04/17 12:30
Matrix: Solid
Date Received: 12/05/17 12:30
Percent Solids: 82.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			390795	12/06/17 14:13	BEK	TAL BUF
Total/NA	Analysis	8270D		10	391010	12/08/17 01:35	DMR	TAL BUF
Total/NA	Prep	3050B			390723	12/06/17 16:35	EMB	TAL BUF
Total/NA	Analysis	6010C		1	391171	12/07/17 20:28	LMH	TAL BUF
Total/NA	Prep	7471B			391446	12/11/17 12:25	EMB	TAL BUF
Total/NA	Analysis	7471B		1	391512	12/11/17 16:17	BMB	TAL BUF

Client Sample ID: TP-23 (13-15.5)

Lab Sample ID: 480-128422-7

Date Collected: 12/04/17 13:45
Matrix: Solid
Date Received: 12/05/17 12:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	391265	12/09/17 05:44	CSW	TAL BUF

Client Sample ID: TP-23 (13-15.5)

Lab Sample ID: 480-128422-7

Date Collected: 12/04/17 13:45
Matrix: Solid
Date Received: 12/05/17 12:30
Percent Solids: 68.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_L			390601	12/05/17 15:30	AMM	TAL BUF
Total/NA	Analysis	8260C		1	391789	12/13/17 14:09	AEM	TAL BUF
Total/NA	Prep	3550C			390795	12/06/17 14:13	BEK	TAL BUF
Total/NA	Analysis	8270D		20	391010	12/08/17 02:01	DMR	TAL BUF
Total/NA	Prep	3550C			390860	12/07/17 07:31	SMP	TAL BUF
Total/NA	Analysis	8081B		10	391106	12/08/17 14:25	JLS	TAL BUF
Total/NA	Prep	3550C			390657	12/06/17 07:41	SMP	TAL BUF
Total/NA	Analysis	8082A		1	390770	12/06/17 20:29	JMO	TAL BUF
Total/NA	Prep	8151A			390865	12/07/17 07:37	SMP	TAL BUF
Total/NA	Analysis	8151A		1	391519	12/12/17 02:32	JMO	TAL BUF
Total/NA	Prep	3050B			390723	12/06/17 16:35	EMB	TAL BUF
Total/NA	Analysis	6010C		1	391171	12/07/17 20:32	LMH	TAL BUF
Total/NA	Prep	7471B			391446	12/11/17 12:25	EMB	TAL BUF
Total/NA	Analysis	7471B		1	391512	12/11/17 16:19	BMB	TAL BUF

Client Sample ID: TP-27 (7-9)

Lab Sample ID: 480-128422-8

Date Collected: 12/04/17 14:28
Matrix: Solid
Date Received: 12/05/17 12:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	391265	12/09/17 05:44	CSW	TAL BUF

Client Sample ID: TP-27 (7-9)

Lab Sample ID: 480-128422-8

Date Collected: 12/04/17 14:28
Matrix: Solid
Date Received: 12/05/17 12:30
Percent Solids: 94.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_L			390601	12/05/17 15:30	AMM	TAL BUF
Total/NA	Analysis	8260C		1	391789	12/13/17 14:34	AEM	TAL BUF
Total/NA	Prep	3550C			390795	12/06/17 14:13	BEK	TAL BUF
Total/NA	Analysis	8270D		10	391010	12/08/17 02:28	DMR	TAL BUF
Total/NA	Prep	3050B			390723	12/06/17 16:35	EMB	TAL BUF
Total/NA	Analysis	6010C		1	391171	12/07/17 20:35	LMH	TAL BUF
Total/NA	Prep	7471B			391446	12/11/17 12:25	EMB	TAL BUF
Total/NA	Analysis	7471B		1	391512	12/11/17 16:20	BMB	TAL BUF

Client Sample ID: TP-21 (8-10)

Lab Sample ID: 480-128422-9

Date Collected: 12/04/17 11:32
Matrix: Solid
Date Received: 12/05/17 12:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	391265	12/09/17 05:44	CSW	TAL BUF

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128422-1

Client Sample ID: TP-21 (8-10)
Date Collected: 12/04/17 11:32
Date Received: 12/05/17 12:30

Lab Sample ID: 480-128422-9
Matrix: Solid
Percent Solids: 93.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			390795	12/06/17 14:13	BEK	TAL BUF
Total/NA	Analysis	8270D		1	391010	12/08/17 02:54	DMR	TAL BUF
Total/NA	Prep	3050B			390723	12/06/17 16:35	EMB	TAL BUF
Total/NA	Analysis	6010C		1	391171	12/07/17 20:39	LMH	TAL BUF
Total/NA	Prep	7471B			391446	12/11/17 12:25	EMB	TAL BUF
Total/NA	Analysis	7471B		1	391512	12/11/17 16:25	BMB	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128422-1

Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128422-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
8081B	Organochlorine Pesticides (GC)	SW846	TAL BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL BUF
8151A	Herbicides (GC)	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
7471B	Mercury (CVAA)	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128422-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-128422-1	TP-13 (10-15)	Solid	12/04/17 09:04	12/05/17 12:30
480-128422-2	TP-18 (5-9)	Solid	12/04/17 09:45	12/05/17 12:30
480-128422-3	BLIND DUP #4	Solid	12/04/17 12:00	12/05/17 12:30
480-128422-4	TP-17 (2.5-4.0)	Solid	12/04/17 10:30	12/05/17 12:30
480-128422-5	TP-16 (8-10)	Solid	12/04/17 10:58	12/05/17 12:30
480-128422-6	TP-22 (9-12)	Solid	12/04/17 12:30	12/05/17 12:30
480-128422-7	TP-23 (13-15.5)	Solid	12/04/17 13:45	12/05/17 12:30
480-128422-8	TP-27 (7-9)	Solid	12/04/17 14:28	12/05/17 12:30
480-128422-9	TP-21 (8-10)	Solid	12/04/17 11:32	12/05/17 12:30

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: T. Behrendt	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-105119-24832.2
Client Contact: Bryan Mayback	Phone: (716) 818-8358	E-Mail: brian.fischer@testamericainc.com		Page: Page 2 of 8
Company: Benchmark Env. Eng. & Science, PLLC				Job #:

Address: 2558 Hamburg Turnpike	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Lackawanna	TAT Requested (days): STD		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic A, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2
State, Zip: NY, 14218			
Phone: 716-856-0599(Tel)	PO #: B0421-017-001		
Email: bmayback@turnkeyllc.com	WO #:		Other: 480-128422 COC
Project Name: 1827 Fillmore Avenue Site - Soil	Project #: 48017094		
Site:	SSOW#:		

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010C, 7471B, 8270D	8081B, 8082A, 8151A	TCL+CP-5 VOC 8260	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N			
TP-13 (10-15) MS/MSD	12/4/17	904	Grab	Solid			X				
TP-18 (5-9)		945		Solid			X				
Blind Dup #4		1200		Solid			X				
TP-17 (2.5-4.0)		1030		Solid			X				
TP-16 (8-10)		1058		Solid			X	X			
TP-22 (9-12)		1230		Solid			X				
TP-23 (13-15.5)		1345		Solid			X	X	X		Analize VOC+SVOC TICs
TP-27 (7-9)		1428		Solid			X		X		
TP-21 (8-10)		1132		Solid			X				
				Solid							
				Solid							

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify): CAT B

Special Instructions/QC Requirements: Hold metals for TCLP requests

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		12/5/17 0700	BM		12/05/17 1217	TA
2		12/05/17 1230	TA		12/5/17 1230	
3						

Custody Seals Intact: △ Yes △ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 08/04/2016

7,8 #1

Login Sample Receipt Checklist

Client: Benchmark Env. Eng. & Science, PLLC

Job Number: 480-128422-1

Login Number: 128422

List Source: TestAmerica Buffalo

List Number: 1

Creator: Janish, Carl M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	BM
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-128697-1
Client Project/Site: 1827 Fillmore Avenue Site

For:
Benchmark Env. Eng. & Science, PLLC
2558 Hamburg Turnpike
Suite 300
Lackawanna, New York 14218

Attn: Mr. Michael Lesakowski

Joseph V. Giacomazza

Authorized for release by:
12/20/2017 10:28:06 AM
Joe Giacomazza, Project Management Assistant II
joe.giacomazza@testamericainc.com

Designee for

Brian Fischer, Manager of Project Management
(716)504-9835
brian.fischer@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
E	Result exceeded calibration range.

GC/MS Semi VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.
E	Result exceeded calibration range.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-128697-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-128697-1

Comments
No additional comments.

Receipt
The samples were received on 12/8/2017 1:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.0º C, 2.5º C, 2.6º C and 2.8º C.

Receipt Exceptions
VOA vials for MW-5 (480-128697-1) were not received. Sample was not logged in for 8260C testing.

GC/MS VOA
Method(s) 8260C: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: MW-8 (480-128697-2). Elevated reporting limits (RLs) are provided.

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

GC/MS Semi VOA
Method(s) 8270D: The continuing calibration verification (CCV) associated with batch 480-391870 recovered outside acceptance criteria, low biased, for Pentachlorophenol. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported. The following samples are impacted: MW-5 (480-128697-1), MW-8 (480-128697-2), MW-6 (480-128697-3), MW-7 (480-128697-4) and BLIND DUP (480-128697-5).

Method(s) 8270D: The laboratory control sample (LCS) for preparation batch 480-391561 and analytical batch 480-391870 recovered outside control limits for the following analytes: 3,3'-Dichlorobenzidine. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported. The following samples are impacted: MW-5 (480-128697-1), MW-8 (480-128697-2), MW-6 (480-128697-3), MW-7 (480-128697-4) and BLIND DUP (480-128697-5).

Method(s) 8270D: The following samples were diluted due to the nature of the sample matrix: MW-8 (480-128697-2) and BLIND DUP (480-128697-5). Elevated reporting limits (RLs) are provided.

Method(s) 8270D: The following sample required a dilution due to the nature of the sample matrix: BLIND DUP (480-128697-5). 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.

Method(s) 8270D: Due to an increase in the spiking concentration required for other analytes of interest, the following compound has been elevated to a level above the upper range of the initial calibration: 3,3'-Dichlorobenzidine. The laboratory control sample (LCS 480-391561/2-A) has been qualified with an "E" flag.

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

GC Semi VOA
Method(s) 8081B: All primary data for analytical batch 391568 is reported from the RTX-CLPI column.

Method(s) 8082A: The continuing calibration verifications (CCV 480-391610/5) and (CCV 480-391610/6) associated with analytical batch 480-391610 recovered above the upper control limit for PCB-1232 and PCB-1221. The samples associated with these CCVs were non-detect for the affected analytes; therefore, the data have been reported. The following samples are impacted: MW-5 (480-128697-1), MW-8 (480-128697-2), MW-6 (480-128697-3), MW-7 (480-128697-4) and BLIND DUP (480-128697-5).

Method(s) 8082A: All primary data for analytical batch 391610 is reported from the ZB-5 column.

Method(s) 8082A: The percent difference in a multi-component continuing calibration verification is assessed on the basis of the total amount, individual peak calculations are only listed for completeness.

Job ID: 480-128697-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

Method(s) 8151A: The continuing calibration verification (CCV) associated with batch 480-391678 recovered above the upper control limit for multiple analytes and surrogate 2,4-Dichlorophenylacetic acid. The samples associated with these CCVs were non-detect for the affected analytes and the surrogate results are not adversely affected; therefore, the data have been reported. The following samples are impacted: MW-5 (480-128697-1), MW-8 (480-128697-2), MW-6 (480-128697-3), MW-7 (480-128697-4) and BLIND DUP (480-128697-5).

Method(s) 8151A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 480-391367 and analytical batch 480-391678 were outside control limits. Sample matrix interference is suspected. The associated laboratory control sample (LCS) has recoveries for some analytes that were high. All associated samples were non-detect for all analytes. Therefore, the data has been reported.

Method(s) 8151A: The laboratory control sample (LCS) for preparation batch 480-391367 and analytical batch 480-391678 recovered outside control limits for the following analyte: 2,4-D. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. The following samples are impacted: MW-5 (480-128697-1), MW-8 (480-128697-2), MW-6 (480-128697-3), MW-7 (480-128697-4) and BLIND DUP (480-128697-5).

Method(s) 8151A: All primary data for analytical batch 391678 is reported from the RTX-CLPI column.

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

Metals

Method(s) 6010C: The recovery of Post Spike, (480-128697-I-3-D PDS), in batch 480-391424 and 480-391795 exhibited results outside the quality control limits for Dissolved Sodium. However, the Serial Dilution of this sample was compliant. Therefore, no corrective action was necessary.

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

Organic Prep

Method(s) 3510C: Due to the matrix, the initial volume(s) used for the following sample deviated from the standard procedure: BLIND DUP (480-128697-5). The reporting limits (RLs) have been adjusted proportionately.

Method(s) 3510C: The following sample required a Florisil clean-up, via EPA Method 3620C, to reduce matrix interferences: BLIND DUP (480-128697-5).

Method(s) 3510C: Due to the matrix, the initial volume(s) used for the following sample deviated from the standard procedure: BLIND DUP (480-128697-5). The reporting limits (RLs) have been adjusted proportionately.

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

Detection Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128697-1

Client Sample ID: MW-5 — Lab Sample ID: 480-128697-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diethyl phthalate	0.53	J	5.0	0.22	ug/L	1		8270D	Total/NA
4,4'-DDD	0.012	J	0.050	0.0092	ug/L	1		8081B	Total/NA
Barium	0.13		0.0020	0.00070	mg/L	1		6010C	Dissolved
Cadmium	0.00050	J	0.0020	0.00050	mg/L	1		6010C	Dissolved
Calcium	206		0.50	0.10	mg/L	1		6010C	Dissolved
Cobalt	0.0032	J	0.0040	0.00063	mg/L	1		6010C	Dissolved
Copper	0.0020	J	0.010	0.0016	mg/L	1		6010C	Dissolved
Lead	0.0062	J	0.010	0.0030	mg/L	1		6010C	Dissolved
Magnesium	20.9		0.20	0.043	mg/L	1		6010C	Dissolved
Manganese	0.44		0.0030	0.00040	mg/L	1		6010C	Dissolved
Nickel	0.0095	J	0.010	0.0013	mg/L	1		6010C	Dissolved
Potassium	9.0		0.50	0.10	mg/L	1		6010C	Dissolved
Sodium	26.4		1.0	0.32	mg/L	1		6010C	Dissolved
Zinc	0.18		0.010	0.0015	mg/L	1		6010C	Dissolved

Client Sample ID: MW-8 — Lab Sample ID: 480-128697-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	9.0	J	20	2.6	ug/L	2		8260C	Total/NA
4-Isopropyltoluene	9.3		2.0	0.62	ug/L	2		8260C	Total/NA
Acetone	28		20	6.0	ug/L	2		8260C	Total/NA
delta-BHC	0.013	J	0.050	0.010	ug/L	1		8081B	Total/NA
Barium	0.17		0.0020	0.00070	mg/L	1		6010C	Dissolved
Calcium	115		0.50	0.10	mg/L	1		6010C	Dissolved
Cobalt	0.0022	J	0.0040	0.00063	mg/L	1		6010C	Dissolved
Iron	0.19		0.050	0.019	mg/L	1		6010C	Dissolved
Lead	0.0034	J	0.010	0.0030	mg/L	1		6010C	Dissolved
Magnesium	29.3		0.20	0.043	mg/L	1		6010C	Dissolved
Manganese	0.30		0.0030	0.00040	mg/L	1		6010C	Dissolved
Nickel	0.0027	J	0.010	0.0013	mg/L	1		6010C	Dissolved
Potassium	15.9		0.50	0.10	mg/L	1		6010C	Dissolved
Sodium	31.2		1.0	0.32	mg/L	1		6010C	Dissolved
Zinc	0.0080	J	0.010	0.0015	mg/L	1		6010C	Dissolved

Client Sample ID: MW-6 — Lab Sample ID: 480-128697-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4.6	J	10	3.0	ug/L	1		8260C	Total/NA
Fluoranthene	0.48	J	5.2	0.42	ug/L	1		8270D	Total/NA
Phenanthrene	0.99	J	5.2	0.46	ug/L	1		8270D	Total/NA
Barium	0.34		0.0020	0.00070	mg/L	1		6010C	Dissolved
Calcium	109		0.50	0.10	mg/L	1		6010C	Dissolved
Iron	0.26		0.050	0.019	mg/L	1		6010C	Dissolved
Lead	0.0099	J	0.010	0.0030	mg/L	1		6010C	Dissolved
Magnesium	12.1		0.20	0.043	mg/L	1		6010C	Dissolved
Manganese	0.36		0.0030	0.00040	mg/L	1		6010C	Dissolved
Potassium	7.7		0.50	0.10	mg/L	1		6010C	Dissolved
Sodium	96.6		1.0	0.32	mg/L	1		6010C	Dissolved
Zinc	0.026		0.010	0.0015	mg/L	1		6010C	Dissolved

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128697-1

Client Sample ID: MW-7 — Lab Sample ID: 480-128697-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	2.1	J	10	1.3	ug/L	1		8260C	Total/NA
4-Isopropyltoluene	1.4		1.0	0.31	ug/L	1		8260C	Total/NA
Acetone	11		10	3.0	ug/L	1		8260C	Total/NA
4-Methylphenol	0.89	J	10	0.36	ug/L	1		8270D	Total/NA
Acenaphthene	0.59	J	5.0	0.41	ug/L	1		8270D	Total/NA
Fluoranthene	0.57	J	5.0	0.40	ug/L	1		8270D	Total/NA
Fluorene	0.62	J	5.0	0.36	ug/L	1		8270D	Total/NA
Phenanthrene	2.2	J	5.0	0.44	ug/L	1		8270D	Total/NA
4,4'-DDT	0.019	J	0.050	0.011	ug/L	1		8081B	Total/NA
Barium	0.24		0.0020	0.00070	mg/L	1		6010C	Dissolved
Calcium	212		0.50	0.10	mg/L	1		6010C	Dissolved
Cobalt	0.0022	J	0.0040	0.00063	mg/L	1		6010C	Dissolved
Lead	0.0043	J	0.010	0.0030	mg/L	1		6010C	Dissolved
Magnesium	45.0		0.20	0.043	mg/L	1		6010C	Dissolved
Manganese	0.38		0.0030	0.00040	mg/L	1		6010C	Dissolved
Nickel	0.0060	J	0.010	0.0013	mg/L	1		6010C	Dissolved
Potassium	17.2		0.50	0.10	mg/L	1		6010C	Dissolved
Sodium	13.6		1.0	0.32	mg/L	1		6010C	Dissolved
Zinc	0.019		0.010	0.0015	mg/L	1		6010C	Dissolved

Client Sample ID: BLIND DUP — Lab Sample ID: 480-128697-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	1.9	J	10	1.3	ug/L	1		8260C	Total/NA
4-Isopropyltoluene	1.3		1.0	0.31	ug/L	1		8260C	Total/NA
Acetone	9.6	J	10	3.0	ug/L	1		8260C	Total/NA
Carbon disulfide	0.20	J	1.0	0.19	ug/L	1		8260C	Total/NA
Barium	0.24		0.0020	0.00070	mg/L	1		6010C	Dissolved
Calcium	212		0.50	0.10	mg/L	1		6010C	Dissolved
Cobalt	0.0015	J	0.0040	0.00063	mg/L	1		6010C	Dissolved
Lead	0.0038	J	0.010	0.0030	mg/L	1		6010C	Dissolved
Magnesium	44.5		0.20	0.043	mg/L	1		6010C	Dissolved
Manganese	0.38		0.0030	0.00040	mg/L	1		6010C	Dissolved
Nickel	0.0042	J	0.010	0.0013	mg/L	1		6010C	Dissolved
Potassium	17.0		0.50	0.10	mg/L	1		6010C	Dissolved
Sodium	13.5		1.0	0.32	mg/L	1		6010C	Dissolved
Zinc	0.016		0.010	0.0015	mg/L	1		6010C	Dissolved

Client Sample ID: TRIP BLANK — Lab Sample ID: 480-128697-6

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128697-1

Client Sample ID: MW-5
Date Collected: 12/07/17 12:47
Date Received: 12/08/17 13:00

Lab Sample ID: 480-128697-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		12/12/17 08:17	12/13/17 21:49	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		12/12/17 08:17	12/13/17 21:49	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		12/12/17 08:17	12/13/17 21:49	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		12/12/17 08:17	12/13/17 21:49	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		12/12/17 08:17	12/13/17 21:49	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		12/12/17 08:17	12/13/17 21:49	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		12/12/17 08:17	12/13/17 21:49	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		12/12/17 08:17	12/13/17 21:49	1
2-Chlorophenol	ND		5.0	0.53	ug/L		12/12/17 08:17	12/13/17 21:49	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		12/12/17 08:17	12/13/17 21:49	1
2-Methylphenol	ND		5.0	0.40	ug/L		12/12/17 08:17	12/13/17 21:49	1
2-Nitroaniline	ND		10	0.42	ug/L		12/12/17 08:17	12/13/17 21:49	1
2-Nitrophenol	ND		5.0	0.48	ug/L		12/12/17 08:17	12/13/17 21:49	1
3,3'-Dichlorobenzidine	ND	*	5.0	0.40	ug/L		12/12/17 08:17	12/13/17 21:49	1
3-Nitroaniline	ND		10	0.48	ug/L		12/12/17 08:17	12/13/17 21:49	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		12/12/17 08:17	12/13/17 21:49	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		12/12/17 08:17	12/13/17 21:49	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		12/12/17 08:17	12/13/17 21:49	1
4-Chloroaniline	ND		5.0	0.59	ug/L		12/12/17 08:17	12/13/17 21:49	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		12/12/17 08:17	12/13/17 21:49	1
4-Methylphenol	ND		10	0.36	ug/L		12/12/17 08:17	12/13/17 21:49	1
4-Nitroaniline	ND		10	0.25	ug/L		12/12/17 08:17	12/13/17 21:49	1
4-Nitrophenol	ND		10	1.5	ug/L		12/12/17 08:17	12/13/17 21:49	1
Acenaphthene	ND		5.0	0.41	ug/L		12/12/17 08:17	12/13/17 21:49	1
Acenaphthylene	ND		5.0	0.38	ug/L		12/12/17 08:17	12/13/17 21:49	1
Acetophenone	ND		5.0	0.54	ug/L		12/12/17 08:17	12/13/17 21:49	1
Anthracene	ND		5.0	0.28	ug/L		12/12/17 08:17	12/13/17 21:49	1
Atrazine	ND		5.0	0.46	ug/L		12/12/17 08:17	12/13/17 21:49	1
Benzaldehyde	ND		5.0	0.27	ug/L		12/12/17 08:17	12/13/17 21:49	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		12/12/17 08:17	12/13/17 21:49	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		12/12/17 08:17	12/13/17 21:49	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		12/12/17 08:17	12/13/17 21:49	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		12/12/17 08:17	12/13/17 21:49	1
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		12/12/17 08:17	12/13/17 21:49	1
Biphenyl	ND		5.0	0.65	ug/L		12/12/17 08:17	12/13/17 21:49	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		12/12/17 08:17	12/13/17 21:49	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		12/12/17 08:17	12/13/17 21:49	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		12/12/17 08:17	12/13/17 21:49	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		12/12/17 08:17	12/13/17 21:49	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		12/12/17 08:17	12/13/17 21:49	1
Caprolactam	ND		5.0	2.2	ug/L		12/12/17 08:17	12/13/17 21:49	1
Carbazole	ND		5.0	0.30	ug/L		12/12/17 08:17	12/13/17 21:49	1
Chrysene	ND		5.0	0.33	ug/L		12/12/17 08:17	12/13/17 21:49	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		12/12/17 08:17	12/13/17 21:49	1
Dibenzofuran	ND		10	0.51	ug/L		12/12/17 08:17	12/13/17 21:49	1
Diethyl phthalate	**0.53**	**J**	5.0	0.22	ug/L		12/12/17 08:17	12/13/17 21:49	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		12/12/17 08:17	12/13/17 21:49	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		12/12/17 08:17	12/13/17 21:49	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		12/12/17 08:17	12/13/17 21:49	1

Client Sample ID: MW-5
Date Collected: 12/07/17 12:47
Date Received: 12/08/17 13:00

Lab Sample ID: 480-128697-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		5.0	0.40	ug/L		12/12/17 08:17	12/13/17 21:49	1
Fluorene	ND		5.0	0.36	ug/L		12/12/17 08:17	12/13/17 21:49	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		12/12/17 08:17	12/13/17 21:49	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		12/12/17 08:17	12/13/17 21:49	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		12/12/17 08:17	12/13/17 21:49	1
Hexachloroethane	ND		5.0	0.59	ug/L		12/12/17 08:17	12/13/17 21:49	1
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		12/12/17 08:17	12/13/17 21:49	1
Isophorone	ND		5.0	0.43	ug/L		12/12/17 08:17	12/13/17 21:49	1
Naphthalene	ND		5.0	0.76	ug/L		12/12/17 08:17	12/13/17 21:49	1
Nitrobenzene	ND		5.0	0.29	ug/L		12/12/17 08:17	12/13/17 21:49	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		12/12/17 08:17	12/13/17 21:49	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		12/12/17 08:17	12/13/17 21:49	1
Pentachlorophenol	ND		10	2.2	ug/L		12/12/17 08:17	12/13/17 21:49	1
Phenanthrene	ND		5.0	0.44	ug/L		12/12/17 08:17	12/13/17 21:49	1
Phenol	ND		5.0	0.39	ug/L		12/12/17 08:17	12/13/17 21:49	1
Pyrene	ND		5.0	0.34	ug/L		12/12/17 08:17	12/13/17 21:49	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*170*	*T J*	*ug/L*		*1.75*		*12/12/17 08:17*	*12/13/17 21:49*	*1*
Cyclobutene, 2-propenylidene-	*1.7*	*T J N*	*ug/L*		*2.50*	*52097-85-5*	*12/12/17 08:17*	*12/13/17 21:49*	*1*
Unknown	*19*	*T J*	*ug/L*		*3.58*		*12/12/17 08:17*	*12/13/17 21:49*	*1*
Benzene, 1,2-dimethyl-	*1.7*	*T J N*	*ug/L*		*3.94*	*95-47-6*	*12/12/17 08:17*	*12/13/17 21:49*	*1*
p-Xylene	*2.0*	*T J N*	*ug/L*		*3.95*	*106-42-3*	*12/12/17 08:17*	*12/13/17 21:49*	*1*
Cyclopentasiloxane, decamethyl-	*2.6*	*T J N*	*ug/L*		*6.03*	*541-02-6*	*12/12/17 08:17*	*12/13/17 21:49*	*1*
Cyclohexasiloxane, dodecamethyl-	*2.0*	*T J N*	*ug/L*		*6.90*	*540-97-6*	*12/12/17 08:17*	*12/13/17 21:49*	*1*
Unknown	*1.9*	*T J*	*ug/L*		*7.65*		*12/12/17 08:17*	*12/13/17 21:49*	*1*
Unknown	*2.0*	*T J*	*ug/L*		*9.39*		*12/12/17 08:17*	*12/13/17 21:49*	*1*
Metolachlor	*4.6*	*T J N*	*ug/L*		*9.62*	*51218-45-2*	*12/12/17 08:17*	*12/13/17 21:49*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*108*		*41 - 120*	*12/12/17 08:17*	*12/13/17 21:49*	*1*
2-Fluorobiphenyl	*96*		*48 - 120*	*12/12/17 08:17*	*12/13/17 21:49*	*1*
2-Fluorophenol	*74*		*35 - 120*	*12/12/17 08:17*	*12/13/17 21:49*	*1*
Nitrobenzene-d5	*93*		*46 - 120*	*12/12/17 08:17*	*12/13/17 21:49*	*1*
Phenol-d5	*55*		*22 - 120*	*12/12/17 08:17*	*12/13/17 21:49*	*1*
p-Terphenyl-d14	*81*		*59 - 136*	*12/12/17 08:17*	*12/13/17 21:49*	*1*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	**0.012**	**J**	0.050	0.0092	ug/L		12/11/17 14:36	12/12/17 15:15	1
4,4'-DDE	ND		0.050	0.012	ug/L		12/11/17 14:36	12/12/17 15:15	1
4,4'-DDT	ND		0.050	0.011	ug/L		12/11/17 14:36	12/12/17 15:15	1
Aldrin	ND		0.050	0.0081	ug/L		12/11/17 14:36	12/12/17 15:15	1
alpha-BHC	ND		0.050	0.0077	ug/L		12/11/17 14:36	12/12/17 15:15	1
alpha-Chlordane	ND		0.050	0.015	ug/L		12/11/17 14:36	12/12/17 15:15	1
beta-BHC	ND		0.050	0.025	ug/L		12/11/17 14:36	12/12/17 15:15	1
delta-BHC	ND		0.050	0.010	ug/L		12/11/17 14:36	12/12/17 15:15	1
Dieldrin	ND		0.050	0.0098	ug/L		12/11/17 14:36	12/12/17 15:15	1
Endosulfan I	ND		0.050	0.011	ug/L		12/11/17 14:36	12/12/17 15:15	1
Endosulfan II	ND		0.050	0.012	ug/L		12/11/17 14:36	12/12/17 15:15	1

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Lab Sample ID: 480-128697-1
Matrix: Water

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan sulfate	ND		0.050	0.016	ug/L		12/11/17 14:36	12/12/17 15:15	1
Endrin	ND		0.050	0.014	ug/L		12/11/17 14:36	12/12/17 15:15	1
Endrin aldehyde	ND		0.050	0.016	ug/L		12/11/17 14:36	12/12/17 15:15	1
Endrin ketone	ND		0.050	0.012	ug/L		12/11/17 14:36	12/12/17 15:15	1
gamma-BHC (Lindane)	ND		0.050	0.0080	ug/L		12/11/17 14:36	12/12/17 15:15	1
gamma-Chlordane	ND		0.050	0.011	ug/L		12/11/17 14:36	12/12/17 15:15	1
Heptachlor	ND		0.050	0.0085	ug/L		12/11/17 14:36	12/12/17 15:15	1
Heptachlor epoxide	ND		0.050	0.0074	ug/L		12/11/17 14:36	12/12/17 15:15	1
Methoxychlor	ND		0.050	0.014	ug/L		12/11/17 14:36	12/12/17 15:15	1
Toxaphene	ND		0.50	0.12	ug/L		12/11/17 14:36	12/12/17 15:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*51*		*20 - 120*	*12/11/17 14:36*	*12/12/17 15:15*	*1*
DCB Decachlorobiphenyl	*71*		*20 - 120*	*12/11/17 14:36*	*12/12/17 15:15*	*1*
Tetrachloro-m-xylene	*96*		*44 - 120*	*12/11/17 14:36*	*12/12/17 15:15*	*1*
Tetrachloro-m-xylene	*87*		*44 - 120*	*12/11/17 14:36*	*12/12/17 15:15*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		12/11/17 14:13	12/12/17 14:51	1
PCB-1221	ND		0.50	0.18	ug/L		12/11/17 14:13	12/12/17 14:51	1
PCB-1232	ND		0.50	0.18	ug/L		12/11/17 14:13	12/12/17 14:51	1
PCB-1242	ND		0.50	0.18	ug/L		12/11/17 14:13	12/12/17 14:51	1
PCB-1248	ND		0.50	0.18	ug/L		12/11/17 14:13	12/12/17 14:51	1
PCB-1254	ND		0.50	0.25	ug/L		12/11/17 14:13	12/12/17 14:51	1
PCB-1260	ND		0.50	0.25	ug/L		12/11/17 14:13	12/12/17 14:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*52*		*19 - 120*	*12/11/17 14:13*	*12/12/17 14:51*	*1*
DCB Decachlorobiphenyl	*53*		*19 - 120*	*12/11/17 14:13*	*12/12/17 14:51*	*1*
Tetrachloro-m-xylene	*94*		*39 - 121*	*12/11/17 14:13*	*12/12/17 14:51*	*1*
Tetrachloro-m-xylene	*87*		*39 - 121*	*12/11/17 14:13*	*12/12/17 14:51*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		0.50	0.068	ug/L		12/11/17 08:00	12/12/17 19:16	1
Silvex (2,4,5-TP)	ND		0.50	0.050	ug/L		12/11/17 08:00	12/12/17 19:16	1
2,4-D	ND	*	0.50	0.17	ug/L		12/11/17 08:00	12/12/17 19:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*94*		*48 - 132*	*12/11/17 08:00*	*12/12/17 19:16*	*1*
2,4-Dichlorophenylacetic acid	*63*		*48 - 132*	*12/11/17 08:00*	*12/12/17 19:16*	*1*

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		12/13/17 10:56	12/14/17 16:25	1
Antimony	ND		0.020	0.0068	mg/L		12/13/17 10:56	12/14/17 16:25	1
Arsenic	ND		0.015	0.0056	mg/L		12/13/17 10:56	12/14/17 16:25	1
Barium	**0.13**		0.0020	0.00070	mg/L		12/13/17 10:56	12/14/17 16:25	1
Beryllium	ND		0.0020	0.00030	mg/L		12/13/17 10:56	12/14/17 16:25	1
Cadmium	**0.00050**	**J**	0.0020	0.00050	mg/L		12/13/17 10:56	12/14/17 16:25	1

Client: Benchmark Env. Eng. & Science, PLLC
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TestAmerica Job ID: 480-128697-1

Client Sample ID: MW-5
Date Collected: 12/07/17 12:47
Date Received: 12/08/17 13:00

Lab Sample ID: 480-128697-1
Matrix: Water

Method: 6010C - Metals (ICP) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	206		0.50	0.10	mg/L		12/13/17 10:56	12/14/17 16:25	1
Chromium	ND		0.0040	0.0010	mg/L		12/13/17 10:56	12/14/17 16:25	1
Cobalt	0.0032	J	0.0040	0.00063	mg/L		12/13/17 10:56	12/14/17 16:25	1
Copper	0.0020	J	0.010	0.0016	mg/L		12/13/17 10:56	12/14/17 16:25	1
Iron	ND		0.050	0.019	mg/L		12/13/17 10:56	12/14/17 16:25	1
Lead	0.0062	J	0.010	0.0030	mg/L		12/13/17 10:56	12/14/17 16:25	1
Magnesium	20.9		0.20	0.043	mg/L		12/13/17 10:56	12/14/17 16:25	1
Manganese	0.44		0.0030	0.00040	mg/L		12/13/17 10:56	12/14/17 16:25	1
Nickel	0.0095	J	0.010	0.0013	mg/L		12/13/17 10:56	12/14/17 16:25	1
Potassium	9.0		0.50	0.10	mg/L		12/13/17 10:56	12/14/17 16:25	1
Selenium	ND		0.025	0.0087	mg/L		12/13/17 10:56	12/14/17 16:25	1
Silver	ND		0.0060	0.0017	mg/L		12/13/17 10:56	12/14/17 16:25	1
Sodium	26.4		1.0	0.32	mg/L		12/13/17 10:56	12/14/17 16:25	1
Thallium	ND		0.020	0.010	mg/L		12/13/17 10:56	12/14/17 16:25	1
Vanadium	ND		0.0050	0.0015	mg/L		12/13/17 10:56	12/14/17 16:25	1
Zinc	0.18		0.010	0.0015	mg/L		12/13/17 10:56	12/14/17 16:25	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		12/13/17 13:30	12/13/17 16:16	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128697-1

Client Sample ID: MW-8
Date Collected: 12/07/17 12:19
Date Received: 12/08/17 13:00

Lab Sample ID: 480-128697-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0	1.6	ug/L			12/13/17 02:20	2
1,1,2,2-Tetrachloroethane	ND		2.0	0.42	ug/L			12/13/17 02:20	2
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0	0.62	ug/L			12/13/17 02:20	2
1,1,2-Trichloroethane	ND		2.0	0.46	ug/L			12/13/17 02:20	2
1,1-Dichloroethane	ND		2.0	0.76	ug/L			12/13/17 02:20	2
1,1-Dichloroethene	ND		2.0	0.58	ug/L			12/13/17 02:20	2
1,2,4-Trichlorobenzene	ND		2.0	0.82	ug/L			12/13/17 02:20	2
1,2,4-Trimethylbenzene	ND		2.0	1.5	ug/L			12/13/17 02:20	2
1,2-Dibromo-3-Chloropropane	ND		2.0	0.78	ug/L			12/13/17 02:20	2
1,2-Dichlorobenzene	ND		2.0	1.6	ug/L			12/13/17 02:20	2
1,2-Dichloroethane	ND		2.0	0.42	ug/L			12/13/17 02:20	2
1,2-Dichloropropane	ND		2.0	1.4	ug/L			12/13/17 02:20	2
1,3,5-Trimethylbenzene	ND		2.0	1.5	ug/L			12/13/17 02:20	2
1,3-Dichlorobenzene	ND		2.0	1.6	ug/L			12/13/17 02:20	2
1,4-Dichlorobenzene	ND		2.0	1.7	ug/L			12/13/17 02:20	2
2-Butanone (MEK)	**9.0**	**J**	20	2.6	ug/L			12/13/17 02:20	2
2-Hexanone	ND		10	2.5	ug/L			12/13/17 02:20	2
4-Isopropyltoluene	**9.3**		2.0	0.62	ug/L			12/13/17 02:20	2
4-Methyl-2-pentanone (MIBK)	ND		10	4.2	ug/L			12/13/17 02:20	2
Acetone	**28**		20	6.0	ug/L			12/13/17 02:20	2
Benzene	ND		2.0	0.82	ug/L			12/13/17 02:20	2
Bromoform	ND		2.0	0.52	ug/L			12/13/17 02:20	2
Bromomethane	ND		2.0	1.4	ug/L			12/13/17 02:20	2
Carbon disulfide	ND		2.0	0.38	ug/L			12/13/17 02:20	2
Carbon tetrachloride	ND		2.0	0.54	ug/L			12/13/17 02:20	2
Chlorobenzene	ND		2.0	1.5	ug/L			12/13/17 02:20	2
Dibromochloromethane	ND		2.0	0.64	ug/L			12/13/17 02:20	2
Chloroethane	ND		2.0	0.64	ug/L			12/13/17 02:20	2
Chloroform	ND		2.0	0.68	ug/L			12/13/17 02:20	2
Chloromethane	ND		2.0	0.70	ug/L			12/13/17 02:20	2
cis-1,2-Dichloroethene	ND		2.0	1.6	ug/L			12/13/17 02:20	2
Cyclohexane	ND		2.0	0.36	ug/L			12/13/17 02:20	2
Bromodichloromethane	ND		2.0	0.78	ug/L			12/13/17 02:20	2
Dichlorodifluoromethane	ND		2.0	1.4	ug/L			12/13/17 02:20	2
Ethylbenzene	ND		2.0	1.5	ug/L			12/13/17 02:20	2
1,2-Dibromoethane	ND		2.0	1.5	ug/L			12/13/17 02:20	2
Isopropylbenzene	ND		2.0	1.6	ug/L			12/13/17 02:20	2
Methyl acetate	ND		5.0	2.6	ug/L			12/13/17 02:20	2
Methyl tert-butyl ether	ND		2.0	0.32	ug/L			12/13/17 02:20	2
Methylcyclohexane	ND		2.0	0.32	ug/L			12/13/17 02:20	2
Methylene Chloride	ND		2.0	0.88	ug/L			12/13/17 02:20	2
m,p-Xylene	ND		4.0	1.3	ug/L			12/13/17 02:20	2
n-Butylbenzene	ND		2.0	1.3	ug/L			12/13/17 02:20	2
N-Propylbenzene	ND		2.0	1.4	ug/L			12/13/17 02:20	2
o-Xylene	ND		2.0	1.5	ug/L			12/13/17 02:20	2
sec-Butylbenzene	ND		2.0	1.5	ug/L			12/13/17 02:20	2
Tetrachloroethene	ND		2.0	0.72	ug/L			12/13/17 02:20	2
Toluene	ND		2.0	1.0	ug/L			12/13/17 02:20	2
trans-1,2-Dichloroethene	ND		2.0	1.8	ug/L			12/13/17 02:20	2

Client Sample ID: MW-8
Date Collected: 12/07/17 12:19
Date Received: 12/08/17 13:00

Lab Sample ID: 480-128697-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		2.0	0.74	ug/L			12/13/17 02:20	2
Trichloroethene	ND		2.0	0.92	ug/L			12/13/17 02:20	2
Trichlorofluoromethane	ND		2.0	1.8	ug/L			12/13/17 02:20	2
Vinyl chloride	ND		2.0	1.8	ug/L			12/13/17 02:20	2
Xylenes, Total	ND		4.0	1.3	ug/L			12/13/17 02:20	2
cis-1,3-Dichloropropene	ND		2.0	0.72	ug/L			12/13/17 02:20	2
Styrene	ND		2.0	1.5	ug/L			12/13/17 02:20	2
tert-Butylbenzene	ND		2.0	1.6	ug/L			12/13/17 02:20	2

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*12/13/17 02:20*	*2*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*12/13/17 02:20*	*2*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*		*12/13/17 02:20*	*2*
Toluene-d8 (Surr)	*95*		*80 - 120*		*12/13/17 02:20*	*2*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*12/13/17 02:20*	*2*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		50	4.8	ug/L		12/12/17 08:17	12/13/17 22:18	10
2,4,6-Trichlorophenol	ND		50	6.1	ug/L		12/12/17 08:17	12/13/17 22:18	10
2,4-Dichlorophenol	ND		50	5.1	ug/L		12/12/17 08:17	12/13/17 22:18	10
2,4-Dimethylphenol	ND		50	5.0	ug/L		12/12/17 08:17	12/13/17 22:18	10
2,4-Dinitrophenol	ND		100	22	ug/L		12/12/17 08:17	12/13/17 22:18	10
2,4-Dinitrotoluene	ND		50	4.5	ug/L		12/12/17 08:17	12/13/17 22:18	10
2,6-Dinitrotoluene	ND		50	4.0	ug/L		12/12/17 08:17	12/13/17 22:18	10
2-Chloronaphthalene	ND		50	4.6	ug/L		12/12/17 08:17	12/13/17 22:18	10
2-Chlorophenol	ND		50	5.3	ug/L		12/12/17 08:17	12/13/17 22:18	10
2-Methylnaphthalene	ND		50	6.0	ug/L		12/12/17 08:17	12/13/17 22:18	10
2-Methylphenol	ND		50	4.0	ug/L		12/12/17 08:17	12/13/17 22:18	10
2-Nitroaniline	ND		100	4.2	ug/L		12/12/17 08:17	12/13/17 22:18	10
2-Nitrophenol	ND		50	4.8	ug/L		12/12/17 08:17	12/13/17 22:18	10
3,3'-Dichlorobenzidine	ND	*	50	4.0	ug/L		12/12/17 08:17	12/13/17 22:18	10
3-Nitroaniline	ND		100	4.8	ug/L		12/12/17 08:17	12/13/17 22:18	10
4,6-Dinitro-2-methylphenol	ND		100	22	ug/L		12/12/17 08:17	12/13/17 22:18	10
4-Bromophenyl phenyl ether	ND		50	4.5	ug/L		12/12/17 08:17	12/13/17 22:18	10
4-Chloro-3-methylphenol	ND		50	4.5	ug/L		12/12/17 08:17	12/13/17 22:18	10
4-Chloroaniline	ND		50	5.9	ug/L		12/12/17 08:17	12/13/17 22:18	10
4-Chlorophenyl phenyl ether	ND		50	3.5	ug/L		12/12/17 08:17	12/13/17 22:18	10
4-Methylphenol	ND		100	3.6	ug/L		12/12/17 08:17	12/13/17 22:18	10
4-Nitroaniline	ND		100	2.5	ug/L		12/12/17 08:17	12/13/17 22:18	10
4-Nitrophenol	ND		100	15	ug/L		12/12/17 08:17	12/13/17 22:18	10
Acenaphthene	ND		50	4.1	ug/L		12/12/17 08:17	12/13/17 22:18	10
Acenaphthylene	ND		50	3.8	ug/L		12/12/17 08:17	12/13/17 22:18	10
Acetophenone	ND		50	5.4	ug/L		12/12/17 08:17	12/13/17 22:18	10
Anthracene	ND		50	2.8	ug/L		12/12/17 08:17	12/13/17 22:18	10
Atrazine	ND		50	4.6	ug/L		12/12/17 08:17	12/13/17 22:18	10
Benzaldehyde	ND		50	2.7	ug/L		12/12/17 08:17	12/13/17 22:18	10
Benzo(a)anthracene	ND		50	3.6	ug/L		12/12/17 08:17	12/13/17 22:18	10

Client Sample ID: MW-8
Date Collected: 12/07/17 12:19
Date Received: 12/08/17 13:00

Lab Sample ID: 480-128697-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo(a)pyrene	ND		50	4.7	ug/L		12/12/17 08:17	12/13/17 22:18	10
Benzo(b)fluoranthene	ND		50	3.4	ug/L		12/12/17 08:17	12/13/17 22:18	10
Benzo(g,h,i)perylene	ND		50	3.5	ug/L		12/12/17 08:17	12/13/17 22:18	10
Benzo(k)fluoranthene	ND		50	7.3	ug/L		12/12/17 08:17	12/13/17 22:18	10
Biphenyl	ND		50	6.5	ug/L		12/12/17 08:17	12/13/17 22:18	10
bis (2-chloroisopropyl) ether	ND		50	5.2	ug/L		12/12/17 08:17	12/13/17 22:18	10
Bis(2-chloroethoxy)methane	ND		50	3.5	ug/L		12/12/17 08:17	12/13/17 22:18	10
Bis(2-chloroethyl)ether	ND		50	4.0	ug/L		12/12/17 08:17	12/13/17 22:18	10
Bis(2-ethylhexyl) phthalate	ND		50	22	ug/L		12/12/17 08:17	12/13/17 22:18	10
Butyl benzyl phthalate	ND		50	10	ug/L		12/12/17 08:17	12/13/17 22:18	10
Caprolactam	ND		50	22	ug/L		12/12/17 08:17	12/13/17 22:18	10
Carbazole	ND		50	3.0	ug/L		12/12/17 08:17	12/13/17 22:18	10
Chrysene	ND		50	3.3	ug/L		12/12/17 08:17	12/13/17 22:18	10
Dibenz(a,h)anthracene	ND		50	4.2	ug/L		12/12/17 08:17	12/13/17 22:18	10
Dibenzofuran	ND		100	5.1	ug/L		12/12/17 08:17	12/13/17 22:18	10
Diethyl phthalate	ND		50	2.2	ug/L		12/12/17 08:17	12/13/17 22:18	10
Dimethyl phthalate	ND		50	3.6	ug/L		12/12/17 08:17	12/13/17 22:18	10
Di-n-butyl phthalate	ND		50	3.1	ug/L		12/12/17 08:17	12/13/17 22:18	10
Di-n-octyl phthalate	ND		50	4.7	ug/L		12/12/17 08:17	12/13/17 22:18	10
Fluoranthene	ND		50	4.0	ug/L		12/12/17 08:17	12/13/17 22:18	10
Fluorene	ND		50	3.6	ug/L		12/12/17 08:17	12/13/17 22:18	10
Hexachlorobenzene	ND		50	5.1	ug/L		12/12/17 08:17	12/13/17 22:18	10
Hexachlorobutadiene	ND		50	6.8	ug/L		12/12/17 08:17	12/13/17 22:18	10
Hexachlorocyclopentadiene	ND		50	5.9	ug/L		12/12/17 08:17	12/13/17 22:18	10
Hexachloroethane	ND		50	5.9	ug/L		12/12/17 08:17	12/13/17 22:18	10
Indeno(1,2,3-cd)pyrene	ND		50	4.7	ug/L		12/12/17 08:17	12/13/17 22:18	10
Isophorone	ND		50	4.3	ug/L		12/12/17 08:17	12/13/17 22:18	10
Naphthalene	ND		50	7.6	ug/L		12/12/17 08:17	12/13/17 22:18	10
Nitrobenzene	ND		50	2.9	ug/L		12/12/17 08:17	12/13/17 22:18	10
N-Nitrosodi-n-propylamine	ND		50	5.4	ug/L		12/12/17 08:17	12/13/17 22:18	10
N-Nitrosodiphenylamine	ND		50	5.1	ug/L		12/12/17 08:17	12/13/17 22:18	10
Pentachlorophenol	ND		100	22	ug/L		12/12/17 08:17	12/13/17 22:18	10
Phenanthrene	ND		50	4.4	ug/L		12/12/17 08:17	12/13/17 22:18	10
Phenol	ND		50	3.9	ug/L		12/12/17 08:17	12/13/17 22:18	10
Pyrene	ND		50	3.4	ug/L		12/12/17 08:17	12/13/17 22:18	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*23*	*T J*	*ug/L*		*6.18*		*12/12/17 08:17*	*12/13/17 22:18*	*10*
(+)-.alpha.-Terpineol (p-menth-1-en-8-ol)	*18*	*T J N*	*ug/L*		*6.43*	*1000157-89-9*	*12/12/17 08:17*	*12/13/17 22:18*	*10*
Benzeneacetic acid	*22*	*T J N*	*ug/L*		*6.69*	*103-82-2*	*12/12/17 08:17*	*12/13/17 22:18*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*88*		*41 - 120*	*12/12/17 08:17*	*12/13/17 22:18*	*10*
2-Fluorobiphenyl	*99*		*48 - 120*	*12/12/17 08:17*	*12/13/17 22:18*	*10*
2-Fluorophenol	*61*		*35 - 120*	*12/12/17 08:17*	*12/13/17 22:18*	*10*
Nitrobenzene-d5	*99*		*46 - 120*	*12/12/17 08:17*	*12/13/17 22:18*	*10*
Phenol-d5	*38*		*22 - 120*	*12/12/17 08:17*	*12/13/17 22:18*	*10*
p-Terphenyl-d14	*80*		*59 - 136*	*12/12/17 08:17*	*12/13/17 22:18*	*10*

Client Sample ID: MW-8
Date Collected: 12/07/17 12:19
Date Received: 12/08/17 13:00

Lab Sample ID: 480-128697-2
Matrix: Water

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.050	0.0092	ug/L		12/11/17 14:36	12/12/17 15:35	1
4,4'-DDE	ND		0.050	0.012	ug/L		12/11/17 14:36	12/12/17 15:35	1
4,4'-DDT	ND		0.050	0.011	ug/L		12/11/17 14:36	12/12/17 15:35	1
Aldrin	ND		0.050	0.0081	ug/L		12/11/17 14:36	12/12/17 15:35	1
alpha-BHC	ND		0.050	0.0077	ug/L		12/11/17 14:36	12/12/17 15:35	1
alpha-Chlordane	ND		0.050	0.015	ug/L		12/11/17 14:36	12/12/17 15:35	1
beta-BHC	ND		0.050	0.025	ug/L		12/11/17 14:36	12/12/17 15:35	1
delta-BHC	0.013	J	0.050	0.010	ug/L		12/11/17 14:36	12/12/17 15:35	1
Dieldrin	ND		0.050	0.0098	ug/L		12/11/17 14:36	12/12/17 15:35	1
Endosulfan I	ND		0.050	0.011	ug/L		12/11/17 14:36	12/12/17 15:35	1
Endosulfan II	ND		0.050	0.012	ug/L		12/11/17 14:36	12/12/17 15:35	1
Endosulfan sulfate	ND		0.050	0.016	ug/L		12/11/17 14:36	12/12/17 15:35	1
Endrin	ND		0.050	0.014	ug/L		12/11/17 14:36	12/12/17 15:35	1
Endrin aldehyde	ND		0.050	0.016	ug/L		12/11/17 14:36	12/12/17 15:35	1
Endrin ketone	ND		0.050	0.012	ug/L		12/11/17 14:36	12/12/17 15:35	1
gamma-BHC (Lindane)	ND		0.050	0.0080	ug/L		12/11/17 14:36	12/12/17 15:35	1
gamma-Chlordane	ND		0.050	0.011	ug/L		12/11/17 14:36	12/12/17 15:35	1
Heptachlor	ND		0.050	0.0085	ug/L		12/11/17 14:36	12/12/17 15:35	1
Heptachlor epoxide	ND		0.050	0.0074	ug/L		12/11/17 14:36	12/12/17 15:35	1
Methoxychlor	ND		0.050	0.014	ug/L		12/11/17 14:36	12/12/17 15:35	1
Toxaphene	ND		0.50	0.12	ug/L		12/11/17 14:36	12/12/17 15:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*27*		*20 - 120*	*12/11/17 14:36*	*12/12/17 15:35*	*1*
DCB Decachlorobiphenyl	*25*		*20 - 120*	*12/11/17 14:36*	*12/12/17 15:35*	*1*
Tetrachloro-m-xylene	*90*		*44 - 120*	*12/11/17 14:36*	*12/12/17 15:35*	*1*
Tetrachloro-m-xylene	*72*		*44 - 120*	*12/11/17 14:36*	*12/12/17 15:35*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		12/11/17 14:13	12/12/17 15:07	1
PCB-1221	ND		0.50	0.18	ug/L		12/11/17 14:13	12/12/17 15:07	1
PCB-1232	ND		0.50	0.18	ug/L		12/11/17 14:13	12/12/17 15:07	1
PCB-1242	ND		0.50	0.18	ug/L		12/11/17 14:13	12/12/17 15:07	1
PCB-1248	ND		0.50	0.18	ug/L		12/11/17 14:13	12/12/17 15:07	1
PCB-1254	ND		0.50	0.25	ug/L		12/11/17 14:13	12/12/17 15:07	1
PCB-1260	ND		0.50	0.25	ug/L		12/11/17 14:13	12/12/17 15:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*25*		*19 - 120*	*12/11/17 14:13*	*12/12/17 15:07*	*1*
DCB Decachlorobiphenyl	*26*		*19 - 120*	*12/11/17 14:13*	*12/12/17 15:07*	*1*
Tetrachloro-m-xylene	*67*		*39 - 121*	*12/11/17 14:13*	*12/12/17 15:07*	*1*
Tetrachloro-m-xylene	*62*		*39 - 121*	*12/11/17 14:13*	*12/12/17 15:07*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		0.51	0.069	ug/L		12/11/17 08:00	12/12/17 19:46	1
Silvex (2,4,5-TP)	ND		0.51	0.051	ug/L		12/11/17 08:00	12/12/17 19:46	1
2,4-D	ND	*	0.51	0.18	ug/L		12/11/17 08:00	12/12/17 19:46	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128697-1

Client Sample ID: MW-8
Date Collected: 12/07/17 12:19
Date Received: 12/08/17 13:00

Lab Sample ID: 480-128697-2
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	77		48 - 132	12/11/17 08:00	12/12/17 19:46	1
2,4-Dichlorophenylacetic acid	69		48 - 132	12/11/17 08:00	12/12/17 19:46	1

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		12/13/17 10:56	12/14/17 16:29	1
Antimony	ND		0.020	0.0068	mg/L		12/13/17 10:56	12/14/17 16:29	1
Arsenic	ND		0.015	0.0056	mg/L		12/13/17 10:56	12/14/17 16:29	1
Barium	**0.17**		0.0020	0.00070	mg/L		12/13/17 10:56	12/14/17 16:29	1
Beryllium	ND		0.0020	0.00030	mg/L		12/13/17 10:56	12/14/17 16:29	1
Cadmium	ND		0.0020	0.00050	mg/L		12/13/17 10:56	12/14/17 16:29	1
Calcium	**115**		0.50	0.10	mg/L		12/13/17 10:56	12/14/17 16:29	1
Chromium	ND		0.0040	0.0010	mg/L		12/13/17 10:56	12/14/17 16:29	1
Cobalt	**0.0022**	**J**	0.0040	0.00063	mg/L		12/13/17 10:56	12/14/17 16:29	1
Copper	ND		0.010	0.0016	mg/L		12/13/17 10:56	12/14/17 16:29	1
Iron	**0.19**		0.050	0.019	mg/L		12/13/17 10:56	12/14/17 16:29	1
Lead	**0.0034**	**J**	0.010	0.0030	mg/L		12/13/17 10:56	12/14/17 16:29	1
Magnesium	**29.3**		0.20	0.043	mg/L		12/13/17 10:56	12/14/17 16:29	1
Manganese	**0.30**		0.0030	0.00040	mg/L		12/13/17 10:56	12/14/17 16:29	1
Nickel	**0.0027**	**J**	0.010	0.0013	mg/L		12/13/17 10:56	12/14/17 16:29	1
Potassium	**15.9**		0.50	0.10	mg/L		12/13/17 10:56	12/14/17 16:29	1
Selenium	ND		0.025	0.0087	mg/L		12/13/17 10:56	12/14/17 16:29	1
Silver	ND		0.0060	0.0017	mg/L		12/13/17 10:56	12/14/17 16:29	1
Sodium	**31.2**		1.0	0.32	mg/L		12/13/17 10:56	12/14/17 16:29	1
Thallium	ND		0.020	0.010	mg/L		12/13/17 10:56	12/14/17 16:29	1
Vanadium	ND		0.0050	0.0015	mg/L		12/13/17 10:56	12/14/17 16:29	1
Zinc	**0.0080**	**J**	0.010	0.0015	mg/L		12/13/17 10:56	12/14/17 16:29	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		12/13/17 13:30	12/13/17 16:18	1

Client Sample ID: MW-6
Date Collected: 12/07/17 10:10
Date Received: 12/08/17 13:00

Lab Sample ID: 480-128697-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			12/13/17 02:44	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/13/17 02:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/13/17 02:44	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/13/17 02:44	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/13/17 02:44	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/13/17 02:44	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/13/17 02:44	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			12/13/17 02:44	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/13/17 02:44	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/13/17 02:44	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/13/17 02:44	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/13/17 02:44	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			12/13/17 02:44	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/13/17 02:44	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/13/17 02:44	1
2-Butanone (MEK)	ND		10	1.3	ug/L			12/13/17 02:44	1
2-Hexanone	ND		5.0	1.2	ug/L			12/13/17 02:44	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			12/13/17 02:44	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/13/17 02:44	1
Acetone	**4.6**	**J**	10	3.0	ug/L			12/13/17 02:44	1
Benzene	ND		1.0	0.41	ug/L			12/13/17 02:44	1
Bromoform	ND		1.0	0.26	ug/L			12/13/17 02:44	1
Bromomethane	ND		1.0	0.69	ug/L			12/13/17 02:44	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/13/17 02:44	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/13/17 02:44	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/13/17 02:44	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/13/17 02:44	1
Chloroethane	ND		1.0	0.32	ug/L			12/13/17 02:44	1
Chloroform	ND		1.0	0.34	ug/L			12/13/17 02:44	1
Chloromethane	ND		1.0	0.35	ug/L			12/13/17 02:44	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			12/13/17 02:44	1
Cyclohexane	ND		1.0	0.18	ug/L			12/13/17 02:44	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/13/17 02:44	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/13/17 02:44	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/13/17 02:44	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			12/13/17 02:44	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/13/17 02:44	1
Methyl acetate	ND		2.5	1.3	ug/L			12/13/17 02:44	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/13/17 02:44	1
Methylcyclohexane	ND		1.0	0.16	ug/L			12/13/17 02:44	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/13/17 02:44	1
m,p-Xylene	ND		2.0	0.66	ug/L			12/13/17 02:44	1
n-Butylbenzene	ND		1.0	0.64	ug/L			12/13/17 02:44	1
N-Propylbenzene	ND		1.0	0.69	ug/L			12/13/17 02:44	1
o-Xylene	ND		1.0	0.76	ug/L			12/13/17 02:44	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			12/13/17 02:44	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/13/17 02:44	1
Toluene	ND		1.0	0.51	ug/L			12/13/17 02:44	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/13/17 02:44	1

Client Sample ID: MW-6
Date Collected: 12/07/17 10:10
Date Received: 12/08/17 13:00

Lab Sample ID: 480-128697-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/13/17 02:44	1
Trichloroethene	ND		1.0	0.46	ug/L			12/13/17 02:44	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/13/17 02:44	1
Vinyl chloride	ND		1.0	0.90	ug/L			12/13/17 02:44	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/13/17 02:44	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/13/17 02:44	1
Styrene	ND		1.0	0.73	ug/L			12/13/17 02:44	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			12/13/17 02:44	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*12/13/17 02:44*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*77 - 120*		*12/13/17 02:44*	*1*
4-Bromofluorobenzene (Surr)	*108*		*73 - 120*		*12/13/17 02:44*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*12/13/17 02:44*	*1*
Dibromofluoromethane (Surr)	*106*		*75 - 123*		*12/13/17 02:44*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.2	0.50	ug/L		12/12/17 08:17	12/13/17 20:52	1
2,4,6-Trichlorophenol	ND		5.2	0.64	ug/L		12/12/17 08:17	12/13/17 20:52	1
2,4-Dichlorophenol	ND		5.2	0.53	ug/L		12/12/17 08:17	12/13/17 20:52	1
2,4-Dimethylphenol	ND		5.2	0.52	ug/L		12/12/17 08:17	12/13/17 20:52	1
2,4-Dinitrophenol	ND		10	2.3	ug/L		12/12/17 08:17	12/13/17 20:52	1
2,4-Dinitrotoluene	ND		5.2	0.47	ug/L		12/12/17 08:17	12/13/17 20:52	1
2,6-Dinitrotoluene	ND		5.2	0.42	ug/L		12/12/17 08:17	12/13/17 20:52	1
2-Chloronaphthalene	ND		5.2	0.48	ug/L		12/12/17 08:17	12/13/17 20:52	1
2-Chlorophenol	ND		5.2	0.55	ug/L		12/12/17 08:17	12/13/17 20:52	1
2-Methylnaphthalene	ND		5.2	0.63	ug/L		12/12/17 08:17	12/13/17 20:52	1
2-Methylphenol	ND		5.2	0.42	ug/L		12/12/17 08:17	12/13/17 20:52	1
2-Nitroaniline	ND		10	0.44	ug/L		12/12/17 08:17	12/13/17 20:52	1
2-Nitrophenol	ND		5.2	0.50	ug/L		12/12/17 08:17	12/13/17 20:52	1
3,3'-Dichlorobenzidine	ND	*	5.2	0.42	ug/L		12/12/17 08:17	12/13/17 20:52	1
3-Nitroaniline	ND		10	0.50	ug/L		12/12/17 08:17	12/13/17 20:52	1
4,6-Dinitro-2-methylphenol	ND		10	2.3	ug/L		12/12/17 08:17	12/13/17 20:52	1
4-Bromophenyl phenyl ether	ND		5.2	0.47	ug/L		12/12/17 08:17	12/13/17 20:52	1
4-Chloro-3-methylphenol	ND		5.2	0.47	ug/L		12/12/17 08:17	12/13/17 20:52	1
4-Chloroaniline	ND		5.2	0.61	ug/L		12/12/17 08:17	12/13/17 20:52	1
4-Chlorophenyl phenyl ether	ND		5.2	0.36	ug/L		12/12/17 08:17	12/13/17 20:52	1
4-Methylphenol	ND		10	0.38	ug/L		12/12/17 08:17	12/13/17 20:52	1
4-Nitroaniline	ND		10	0.26	ug/L		12/12/17 08:17	12/13/17 20:52	1
4-Nitrophenol	ND		10	1.6	ug/L		12/12/17 08:17	12/13/17 20:52	1
Acenaphthene	ND		5.2	0.43	ug/L		12/12/17 08:17	12/13/17 20:52	1
Acenaphthylene	ND		5.2	0.40	ug/L		12/12/17 08:17	12/13/17 20:52	1
Acetophenone	ND		5.2	0.56	ug/L		12/12/17 08:17	12/13/17 20:52	1
Anthracene	ND		5.2	0.29	ug/L		12/12/17 08:17	12/13/17 20:52	1
Atrazine	ND		5.2	0.48	ug/L		12/12/17 08:17	12/13/17 20:52	1
Benzaldehyde	ND		5.2	0.28	ug/L		12/12/17 08:17	12/13/17 20:52	1
Benzo(a)anthracene	ND		5.2	0.38	ug/L		12/12/17 08:17	12/13/17 20:52	1

Client Sample ID: MW-6
Date Collected: 12/07/17 10:10
Date Received: 12/08/17 13:00

Lab Sample ID: 480-128697-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo(a)pyrene	ND		5.2	0.49	ug/L		12/12/17 08:17	12/13/17 20:52	1
Benzo(b)fluoranthene	ND		5.2	0.35	ug/L		12/12/17 08:17	12/13/17 20:52	1
Benzo(g,h,i)perylene	ND		5.2	0.36	ug/L		12/12/17 08:17	12/13/17 20:52	1
Benzo(k)fluoranthene	ND		5.2	0.76	ug/L		12/12/17 08:17	12/13/17 20:52	1
Biphenyl	ND		5.2	0.68	ug/L		12/12/17 08:17	12/13/17 20:52	1
bis (2-chloroisopropyl) ether	ND		5.2	0.54	ug/L		12/12/17 08:17	12/13/17 20:52	1
Bis(2-chloroethoxy)methane	ND		5.2	0.36	ug/L		12/12/17 08:17	12/13/17 20:52	1
Bis(2-chloroethyl)ether	ND		5.2	0.42	ug/L		12/12/17 08:17	12/13/17 20:52	1
Bis(2-ethylhexyl) phthalate	ND		5.2	2.3	ug/L		12/12/17 08:17	12/13/17 20:52	1
Butyl benzyl phthalate	ND		5.2	1.0	ug/L		12/12/17 08:17	12/13/17 20:52	1
Caprolactam	ND		5.2	2.3	ug/L		12/12/17 08:17	12/13/17 20:52	1
Carbazole	ND		5.2	0.31	ug/L		12/12/17 08:17	12/13/17 20:52	1
Chrysene	ND		5.2	0.34	ug/L		12/12/17 08:17	12/13/17 20:52	1
Dibenz(a,h)anthracene	ND		5.2	0.44	ug/L		12/12/17 08:17	12/13/17 20:52	1
Dibenzofuran	ND		10	0.53	ug/L		12/12/17 08:17	12/13/17 20:52	1
Diethyl phthalate	ND		5.2	0.23	ug/L		12/12/17 08:17	12/13/17 20:52	1
Dimethyl phthalate	ND		5.2	0.38	ug/L		12/12/17 08:17	12/13/17 20:52	1
Di-n-butyl phthalate	ND		5.2	0.32	ug/L		12/12/17 08:17	12/13/17 20:52	1
Di-n-octyl phthalate	ND		5.2	0.49	ug/L		12/12/17 08:17	12/13/17 20:52	1
Fluoranthene	**0.48**	**J**	5.2	0.42	ug/L		12/12/17 08:17	12/13/17 20:52	1
Fluorene	ND		5.2	0.38	ug/L		12/12/17 08:17	12/13/17 20:52	1
Hexachlorobenzene	ND		5.2	0.53	ug/L		12/12/17 08:17	12/13/17 20:52	1
Hexachlorobutadiene	ND		5.2	0.71	ug/L		12/12/17 08:17	12/13/17 20:52	1
Hexachlorocyclopentadiene	ND		5.2	0.61	ug/L		12/12/17 08:17	12/13/17 20:52	1
Hexachloroethane	ND		5.2	0.61	ug/L		12/12/17 08:17	12/13/17 20:52	1
Indeno(1,2,3-cd)pyrene	ND		5.2	0.49	ug/L		12/12/17 08:17	12/13/17 20:52	1
Isophorone	ND		5.2	0.45	ug/L		12/12/17 08:17	12/13/17 20:52	1
Naphthalene	ND		5.2	0.79	ug/L		12/12/17 08:17	12/13/17 20:52	1
Nitrobenzene	ND		5.2	0.30	ug/L		12/12/17 08:17	12/13/17 20:52	1
N-Nitrosodi-n-propylamine	ND		5.2	0.56	ug/L		12/12/17 08:17	12/13/17 20:52	1
N-Nitrosodiphenylamine	ND		5.2	0.53	ug/L		12/12/17 08:17	12/13/17 20:52	1
Pentachlorophenol	ND		10	2.3	ug/L		12/12/17 08:17	12/13/17 20:52	1
Phenanthrene	**0.99**	**J**	5.2	0.46	ug/L		12/12/17 08:17	12/13/17 20:52	1
Phenol	ND		5.2	0.41	ug/L		12/12/17 08:17	12/13/17 20:52	1
Pyrene	ND		5.2	0.35	ug/L		12/12/17 08:17	12/13/17 20:52	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*180*	*T J*	*ug/L*		*1.75*		*12/12/17 08:17*	*12/13/17 20:52*	*1*
Unknown	*1.9*	*T J*	*ug/L*		*2.50*		*12/12/17 08:17*	*12/13/17 20:52*	*1*
Unknown	*37*	*T J*	*ug/L*		*3.58*		*12/12/17 08:17*	*12/13/17 20:52*	*1*
Unknown	*2.7*	*T J*	*ug/L*		*3.95*		*12/12/17 08:17*	*12/13/17 20:52*	*1*
Cyclopentasiloxane, decamethyl-	*2.7*	*T J N*	*ug/L*		*6.03*	*541-02-6*	*12/12/17 08:17*	*12/13/17 20:52*	*1*
Cyclohexasiloxane, dodecamethyl-	*2.2*	*T J N*	*ug/L*		*6.90*	*540-97-6*	*12/12/17 08:17*	*12/13/17 20:52*	*1*
Unknown	*2.0*	*T J*	*ug/L*		*7.65*		*12/12/17 08:17*	*12/13/17 20:52*	*1*
Cyclic octaatomic sulfur	*2.8*	*T J N*	*ug/L*		*10.05*	*10544-50-0*	*12/12/17 08:17*	*12/13/17 20:52*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*106*		*41 - 120*	*12/12/17 08:17*	*12/13/17 20:52*	*1*
2-Fluorobiphenyl	*99*		*48 - 120*	*12/12/17 08:17*	*12/13/17 20:52*	*1*
2-Fluorophenol	*76*		*35 - 120*	*12/12/17 08:17*	*12/13/17 20:52*	*1*

Client Sample ID: MW-6
Date Collected: 12/07/17 10:10
Date Received: 12/08/17 13:00

Lab Sample ID: 480-128697-3
Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*98*		*46 - 120*	*12/12/17 08:17*	*12/13/17 20:52*	*1*
Phenol-d5	*59*		*22 - 120*	*12/12/17 08:17*	*12/13/17 20:52*	*1*
p-Terphenyl-d14	*94*		*59 - 136*	*12/12/17 08:17*	*12/13/17 20:52*	*1*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.050	0.0092	ug/L		12/11/17 14:36	12/12/17 13:37	1
4,4'-DDE	ND		0.050	0.012	ug/L		12/11/17 14:36	12/12/17 13:37	1
4,4'-DDT	ND		0.050	0.011	ug/L		12/11/17 14:36	12/12/17 13:37	1
Aldrin	ND		0.050	0.0081	ug/L		12/11/17 14:36	12/12/17 13:37	1
alpha-BHC	ND		0.050	0.0077	ug/L		12/11/17 14:36	12/12/17 13:37	1
alpha-Chlordane	ND		0.050	0.015	ug/L		12/11/17 14:36	12/12/17 13:37	1
beta-BHC	ND		0.050	0.025	ug/L		12/11/17 14:36	12/12/17 13:37	1
delta-BHC	ND		0.050	0.010	ug/L		12/11/17 14:36	12/12/17 13:37	1
Dieldrin	ND		0.050	0.0098	ug/L		12/11/17 14:36	12/12/17 13:37	1
Endosulfan I	ND		0.050	0.011	ug/L		12/11/17 14:36	12/12/17 13:37	1
Endosulfan II	ND		0.050	0.012	ug/L		12/11/17 14:36	12/12/17 13:37	1
Endosulfan sulfate	ND		0.050	0.016	ug/L		12/11/17 14:36	12/12/17 13:37	1
Endrin	ND		0.050	0.014	ug/L		12/11/17 14:36	12/12/17 13:37	1
Endrin aldehyde	ND		0.050	0.016	ug/L		12/11/17 14:36	12/12/17 13:37	1
Endrin ketone	ND		0.050	0.012	ug/L		12/11/17 14:36	12/12/17 13:37	1
gamma-BHC (Lindane)	ND		0.050	0.0080	ug/L		12/11/17 14:36	12/12/17 13:37	1
gamma-Chlordane	ND		0.050	0.011	ug/L		12/11/17 14:36	12/12/17 13:37	1
Heptachlor	ND		0.050	0.0085	ug/L		12/11/17 14:36	12/12/17 13:37	1
Heptachlor epoxide	ND		0.050	0.0074	ug/L		12/11/17 14:36	12/12/17 13:37	1
Methoxychlor	ND		0.050	0.014	ug/L		12/11/17 14:36	12/12/17 13:37	1
Toxaphene	ND		0.50	0.12	ug/L		12/11/17 14:36	12/12/17 13:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*41*		*20 - 120*	*12/11/17 14:36*	*12/12/17 13:37*	*1*
DCB Decachlorobiphenyl	*53*		*20 - 120*	*12/11/17 14:36*	*12/12/17 13:37*	*1*
Tetrachloro-m-xylene	*83*		*44 - 120*	*12/11/17 14:36*	*12/12/17 13:37*	*1*
Tetrachloro-m-xylene	*74*		*44 - 120*	*12/11/17 14:36*	*12/12/17 13:37*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		12/11/17 14:13	12/12/17 13:47	1
PCB-1221	ND		0.50	0.18	ug/L		12/11/17 14:13	12/12/17 13:47	1
PCB-1232	ND		0.50	0.18	ug/L		12/11/17 14:13	12/12/17 13:47	1
PCB-1242	ND		0.50	0.18	ug/L		12/11/17 14:13	12/12/17 13:47	1
PCB-1248	ND		0.50	0.18	ug/L		12/11/17 14:13	12/12/17 13:47	1
PCB-1254	ND		0.50	0.25	ug/L		12/11/17 14:13	12/12/17 13:47	1
PCB-1260	ND		0.50	0.25	ug/L		12/11/17 14:13	12/12/17 13:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*47*		*19 - 120*	*12/11/17 14:13*	*12/12/17 13:47*	*1*
DCB Decachlorobiphenyl	*49*		*19 - 120*	*12/11/17 14:13*	*12/12/17 13:47*	*1*
Tetrachloro-m-xylene	*115*		*39 - 121*	*12/11/17 14:13*	*12/12/17 13:47*	*1*
Tetrachloro-m-xylene	*109*		*39 - 121*	*12/11/17 14:13*	*12/12/17 13:47*	*1*

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128697-1

Client Sample ID: MW-6
Date Collected: 12/07/17 10:10
Date Received: 12/08/17 13:00

Lab Sample ID: 480-128697-3
Matrix: Water

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		0.51	0.069	ug/L		12/11/17 08:00	12/12/17 18:46	1
Silvex (2,4,5-TP)	ND		0.51	0.051	ug/L		12/11/17 08:00	12/12/17 18:46	1
2,4-D	ND	* F1	0.51	0.18	ug/L		12/11/17 08:00	12/12/17 18:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*57*		*48 - 132*	*12/11/17 08:00*	*12/12/17 18:46*	*1*
2,4-Dichlorophenylacetic acid	*99*		*48 - 132*	*12/11/17 08:00*	*12/12/17 18:46*	*1*

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		12/13/17 10:56	12/14/17 16:32	1
Antimony	ND		0.020	0.0068	mg/L		12/13/17 10:56	12/14/17 16:32	1
Arsenic	ND		0.015	0.0056	mg/L		12/13/17 10:56	12/14/17 16:32	1
Barium	**0.34**		0.0020	0.00070	mg/L		12/13/17 10:56	12/14/17 16:32	1
Beryllium	ND		0.0020	0.00030	mg/L		12/13/17 10:56	12/14/17 16:32	1
Cadmium	ND		0.0020	0.00050	mg/L		12/13/17 10:56	12/14/17 16:32	1
Calcium	**109**		0.50	0.10	mg/L		12/13/17 10:56	12/14/17 16:32	1
Chromium	ND		0.0040	0.0010	mg/L		12/13/17 10:56	12/14/17 16:32	1
Cobalt	ND		0.0040	0.00063	mg/L		12/13/17 10:56	12/14/17 16:32	1
Copper	ND		0.010	0.0016	mg/L		12/13/17 10:56	12/14/17 16:32	1
Iron	**0.26**		0.050	0.019	mg/L		12/13/17 10:56	12/14/17 16:32	1
Lead	**0.0099**	**J**	0.010	0.0030	mg/L		12/13/17 10:56	12/14/17 16:32	1
Magnesium	**12.1**		0.20	0.043	mg/L		12/13/17 10:56	12/14/17 16:32	1
Manganese	**0.36**		0.0030	0.00040	mg/L		12/13/17 10:56	12/14/17 16:32	1
Nickel	ND		0.010	0.0013	mg/L		12/13/17 10:56	12/14/17 16:32	1
Potassium	**7.7**		0.50	0.10	mg/L		12/13/17 10:56	12/14/17 16:32	1
Selenium	ND		0.025	0.0087	mg/L		12/13/17 10:56	12/14/17 16:32	1
Silver	ND		0.0060	0.0017	mg/L		12/13/17 10:56	12/14/17 16:32	1
Sodium	**96.6**		1.0	0.32	mg/L		12/13/17 10:56	12/14/17 16:32	1
Thallium	ND		0.020	0.010	mg/L		12/13/17 10:56	12/14/17 16:32	1
Vanadium	ND		0.0050	0.0015	mg/L		12/13/17 10:56	12/14/17 16:32	1
Zinc	**0.026**		0.010	0.0015	mg/L		12/13/17 10:56	12/14/17 16:32	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		12/13/17 13:30	12/13/17 16:19	1

Client Sample ID: MW-7
Date Collected: 12/07/17 11:23
Date Received: 12/08/17 13:00

Lab Sample ID: 480-128697-4
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			12/13/17 03:07	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/13/17 03:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/13/17 03:07	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/13/17 03:07	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/13/17 03:07	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/13/17 03:07	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/13/17 03:07	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			12/13/17 03:07	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/13/17 03:07	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/13/17 03:07	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/13/17 03:07	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/13/17 03:07	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			12/13/17 03:07	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/13/17 03:07	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/13/17 03:07	1
2-Butanone (MEK)	**2.1**	**J**	10	1.3	ug/L			12/13/17 03:07	1
2-Hexanone	ND		5.0	1.2	ug/L			12/13/17 03:07	1
4-Isopropyltoluene	**1.4**		1.0	0.31	ug/L			12/13/17 03:07	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/13/17 03:07	1
Acetone	**11**		10	3.0	ug/L			12/13/17 03:07	1
Benzene	ND		1.0	0.41	ug/L			12/13/17 03:07	1
Bromoform	ND		1.0	0.26	ug/L			12/13/17 03:07	1
Bromomethane	ND		1.0	0.69	ug/L			12/13/17 03:07	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/13/17 03:07	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/13/17 03:07	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/13/17 03:07	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/13/17 03:07	1
Chloroethane	ND		1.0	0.32	ug/L			12/13/17 03:07	1
Chloroform	ND		1.0	0.34	ug/L			12/13/17 03:07	1
Chloromethane	ND		1.0	0.35	ug/L			12/13/17 03:07	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			12/13/17 03:07	1
Cyclohexane	ND		1.0	0.18	ug/L			12/13/17 03:07	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/13/17 03:07	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/13/17 03:07	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/13/17 03:07	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			12/13/17 03:07	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/13/17 03:07	1
Methyl acetate	ND		2.5	1.3	ug/L			12/13/17 03:07	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/13/17 03:07	1
Methylcyclohexane	ND		1.0	0.16	ug/L			12/13/17 03:07	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/13/17 03:07	1
m,p-Xylene	ND		2.0	0.66	ug/L			12/13/17 03:07	1
n-Butylbenzene	ND		1.0	0.64	ug/L			12/13/17 03:07	1
N-Propylbenzene	ND		1.0	0.69	ug/L			12/13/17 03:07	1
o-Xylene	ND		1.0	0.76	ug/L			12/13/17 03:07	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			12/13/17 03:07	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/13/17 03:07	1
Toluene	ND		1.0	0.51	ug/L			12/13/17 03:07	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/13/17 03:07	1

Client Sample ID: MW-7
Date Collected: 12/07/17 11:23
Date Received: 12/08/17 13:00

Lab Sample ID: 480-128697-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/13/17 03:07	1
Trichloroethene	ND		1.0	0.46	ug/L			12/13/17 03:07	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/13/17 03:07	1
Vinyl chloride	ND		1.0	0.90	ug/L			12/13/17 03:07	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/13/17 03:07	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/13/17 03:07	1
Styrene	ND		1.0	0.73	ug/L			12/13/17 03:07	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			12/13/17 03:07	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*12/13/17 03:07*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*77 - 120*		*12/13/17 03:07*	*1*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*		*12/13/17 03:07*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*12/13/17 03:07*	*1*
Dibromofluoromethane (Surr)	*108*		*75 - 123*		*12/13/17 03:07*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		12/12/17 08:17	12/13/17 22:47	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		12/12/17 08:17	12/13/17 22:47	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		12/12/17 08:17	12/13/17 22:47	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		12/12/17 08:17	12/13/17 22:47	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		12/12/17 08:17	12/13/17 22:47	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		12/12/17 08:17	12/13/17 22:47	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		12/12/17 08:17	12/13/17 22:47	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		12/12/17 08:17	12/13/17 22:47	1
2-Chlorophenol	ND		5.0	0.53	ug/L		12/12/17 08:17	12/13/17 22:47	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		12/12/17 08:17	12/13/17 22:47	1
2-Methylphenol	ND		5.0	0.40	ug/L		12/12/17 08:17	12/13/17 22:47	1
2-Nitroaniline	ND		10	0.42	ug/L		12/12/17 08:17	12/13/17 22:47	1
2-Nitrophenol	ND		5.0	0.48	ug/L		12/12/17 08:17	12/13/17 22:47	1
3,3'-Dichlorobenzidine	ND	*	5.0	0.40	ug/L		12/12/17 08:17	12/13/17 22:47	1
3-Nitroaniline	ND		10	0.48	ug/L		12/12/17 08:17	12/13/17 22:47	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		12/12/17 08:17	12/13/17 22:47	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		12/12/17 08:17	12/13/17 22:47	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		12/12/17 08:17	12/13/17 22:47	1
4-Chloroaniline	ND		5.0	0.59	ug/L		12/12/17 08:17	12/13/17 22:47	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		12/12/17 08:17	12/13/17 22:47	1
4-Methylphenol	**0.89**	**J**	10	0.36	ug/L		12/12/17 08:17	12/13/17 22:47	1
4-Nitroaniline	ND		10	0.25	ug/L		12/12/17 08:17	12/13/17 22:47	1
4-Nitrophenol	ND		10	1.5	ug/L		12/12/17 08:17	12/13/17 22:47	1
Acenaphthene	**0.59**	**J**	5.0	0.41	ug/L		12/12/17 08:17	12/13/17 22:47	1
Acenaphthylene	ND		5.0	0.38	ug/L		12/12/17 08:17	12/13/17 22:47	1
Acetophenone	ND		5.0	0.54	ug/L		12/12/17 08:17	12/13/17 22:47	1
Anthracene	ND		5.0	0.28	ug/L		12/12/17 08:17	12/13/17 22:47	1
Atrazine	ND		5.0	0.46	ug/L		12/12/17 08:17	12/13/17 22:47	1
Benzaldehyde	ND		5.0	0.27	ug/L		12/12/17 08:17	12/13/17 22:47	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		12/12/17 08:17	12/13/17 22:47	1

Client Sample ID: MW-7
Date Collected: 12/07/17 11:23
Date Received: 12/08/17 13:00

Lab Sample ID: 480-128697-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo(a)pyrene	ND		5.0	0.47	ug/L		12/12/17 08:17	12/13/17 22:47	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		12/12/17 08:17	12/13/17 22:47	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		12/12/17 08:17	12/13/17 22:47	1
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		12/12/17 08:17	12/13/17 22:47	1
Biphenyl	ND		5.0	0.65	ug/L		12/12/17 08:17	12/13/17 22:47	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		12/12/17 08:17	12/13/17 22:47	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		12/12/17 08:17	12/13/17 22:47	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		12/12/17 08:17	12/13/17 22:47	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		12/12/17 08:17	12/13/17 22:47	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		12/12/17 08:17	12/13/17 22:47	1
Caprolactam	ND		5.0	2.2	ug/L		12/12/17 08:17	12/13/17 22:47	1
Carbazole	ND		5.0	0.30	ug/L		12/12/17 08:17	12/13/17 22:47	1
Chrysene	ND		5.0	0.33	ug/L		12/12/17 08:17	12/13/17 22:47	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		12/12/17 08:17	12/13/17 22:47	1
Dibenzofuran	ND		10	0.51	ug/L		12/12/17 08:17	12/13/17 22:47	1
Diethyl phthalate	ND		5.0	0.22	ug/L		12/12/17 08:17	12/13/17 22:47	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		12/12/17 08:17	12/13/17 22:47	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		12/12/17 08:17	12/13/17 22:47	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		12/12/17 08:17	12/13/17 22:47	1
Fluoranthene	**0.57**	**J**	5.0	0.40	ug/L		12/12/17 08:17	12/13/17 22:47	1
Fluorene	**0.62**	**J**	5.0	0.36	ug/L		12/12/17 08:17	12/13/17 22:47	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		12/12/17 08:17	12/13/17 22:47	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		12/12/17 08:17	12/13/17 22:47	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		12/12/17 08:17	12/13/17 22:47	1
Hexachloroethane	ND		5.0	0.59	ug/L		12/12/17 08:17	12/13/17 22:47	1
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		12/12/17 08:17	12/13/17 22:47	1
Isophorone	ND		5.0	0.43	ug/L		12/12/17 08:17	12/13/17 22:47	1
Naphthalene	ND		5.0	0.76	ug/L		12/12/17 08:17	12/13/17 22:47	1
Nitrobenzene	ND		5.0	0.29	ug/L		12/12/17 08:17	12/13/17 22:47	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		12/12/17 08:17	12/13/17 22:47	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		12/12/17 08:17	12/13/17 22:47	1
Pentachlorophenol	ND		10	2.2	ug/L		12/12/17 08:17	12/13/17 22:47	1
Phenanthrene	**2.2**	**J**	5.0	0.44	ug/L		12/12/17 08:17	12/13/17 22:47	1
Phenol	ND		5.0	0.39	ug/L		12/12/17 08:17	12/13/17 22:47	1
Pyrene	ND		5.0	0.34	ug/L		12/12/17 08:17	12/13/17 22:47	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*180*	*T J*	*ug/L*		*1.74*		*12/12/17 08:17*	*12/13/17 22:47*	*1*
Unknown	*20*	*T J*	*ug/L*		*3.58*		*12/12/17 08:17*	*12/13/17 22:47*	*1*
Unknown	*2.3*	*T J*	*ug/L*		*3.75*		*12/12/17 08:17*	*12/13/17 22:47*	*1*
Benzene, 1,2-dimethyl-	*3.1*	*T J N*	*ug/L*		*3.95*	*95-47-6*	*12/12/17 08:17*	*12/13/17 22:47*	*1*
Unknown	*3.5*	*T J*	*ug/L*		*5.04*		*12/12/17 08:17*	*12/13/17 22:47*	*1*
Cyclopentasiloxane, decamethyl-	*2.4*	*T J N*	*ug/L*		*6.03*	*541-02-6*	*12/12/17 08:17*	*12/13/17 22:47*	*1*
Benzoic Acid	*3.7*	*T J N*	*ug/L*		*6.27*	*65-85-0*	*12/12/17 08:17*	*12/13/17 22:47*	*1*
Benzeneacetic acid	*6.9*	*T J N*	*ug/L*		*6.70*	*103-82-2*	*12/12/17 08:17*	*12/13/17 22:47*	*1*
Unknown	*2.2*	*T J*	*ug/L*		*6.90*		*12/12/17 08:17*	*12/13/17 22:47*	*1*
Unknown	*2.0*	*T J*	*ug/L*		*7.65*		*12/12/17 08:17*	*12/13/17 22:47*	*1*
Cyclic octaatomic sulfur	*1.7*	*T J N*	*ug/L*		*10.05*	*10544-50-0*	*12/12/17 08:17*	*12/13/17 22:47*	*1*
1,1'-Biphenyl, bis(1-methylethyl)-	*2.2*	*T J N*	*ug/L*		*10.07*	*69009-90-1*	*12/12/17 08:17*	*12/13/17 22:47*	*1*

Client Sample ID: MW-7
Date Collected: 12/07/17 11:23
Date Received: 12/08/17 13:00

Lab Sample ID: 480-128697-4
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	108		41 - 120	12/12/17 08:17	12/13/17 22:47	1
2-Fluorobiphenyl	94		48 - 120	12/12/17 08:17	12/13/17 22:47	1
2-Fluorophenol	70		35 - 120	12/12/17 08:17	12/13/17 22:47	1
Nitrobenzene-d5	93		46 - 120	12/12/17 08:17	12/13/17 22:47	1
Phenol-d5	53		22 - 120	12/12/17 08:17	12/13/17 22:47	1
p-Terphenyl-d14	79		59 - 136	12/12/17 08:17	12/13/17 22:47	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.050	0.0092	ug/L		12/11/17 14:36	12/12/17 15:55	1
4,4'-DDE	ND		0.050	0.012	ug/L		12/11/17 14:36	12/12/17 15:55	1
4,4'-DDT	**0.019**	**J**	0.050	0.011	ug/L		12/11/17 14:36	12/12/17 15:55	1
Aldrin	ND		0.050	0.0081	ug/L		12/11/17 14:36	12/12/17 15:55	1
alpha-BHC	ND		0.050	0.0077	ug/L		12/11/17 14:36	12/12/17 15:55	1
alpha-Chlordane	ND		0.050	0.015	ug/L		12/11/17 14:36	12/12/17 15:55	1
beta-BHC	ND		0.050	0.025	ug/L		12/11/17 14:36	12/12/17 15:55	1
delta-BHC	ND		0.050	0.010	ug/L		12/11/17 14:36	12/12/17 15:55	1
Dieldrin	ND		0.050	0.0098	ug/L		12/11/17 14:36	12/12/17 15:55	1
Endosulfan I	ND		0.050	0.011	ug/L		12/11/17 14:36	12/12/17 15:55	1
Endosulfan II	ND		0.050	0.012	ug/L		12/11/17 14:36	12/12/17 15:55	1
Endosulfan sulfate	ND		0.050	0.016	ug/L		12/11/17 14:36	12/12/17 15:55	1
Endrin	ND		0.050	0.014	ug/L		12/11/17 14:36	12/12/17 15:55	1
Endrin aldehyde	ND		0.050	0.016	ug/L		12/11/17 14:36	12/12/17 15:55	1
Endrin ketone	ND		0.050	0.012	ug/L		12/11/17 14:36	12/12/17 15:55	1
gamma-BHC (Lindane)	ND		0.050	0.0080	ug/L		12/11/17 14:36	12/12/17 15:55	1
gamma-Chlordane	ND		0.050	0.011	ug/L		12/11/17 14:36	12/12/17 15:55	1
Heptachlor	ND		0.050	0.0085	ug/L		12/11/17 14:36	12/12/17 15:55	1
Heptachlor epoxide	ND		0.050	0.0074	ug/L		12/11/17 14:36	12/12/17 15:55	1
Methoxychlor	ND		0.050	0.014	ug/L		12/11/17 14:36	12/12/17 15:55	1
Toxaphene	ND		0.50	0.12	ug/L		12/11/17 14:36	12/12/17 15:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	46		20 - 120	12/11/17 14:36	12/12/17 15:55	1
DCB Decachlorobiphenyl	40		20 - 120	12/11/17 14:36	12/12/17 15:55	1
Tetrachloro-m-xylene	80		44 - 120	12/11/17 14:36	12/12/17 15:55	1
Tetrachloro-m-xylene	75		44 - 120	12/11/17 14:36	12/12/17 15:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		12/11/17 14:13	12/12/17 15:23	1
PCB-1221	ND		0.50	0.18	ug/L		12/11/17 14:13	12/12/17 15:23	1
PCB-1232	ND		0.50	0.18	ug/L		12/11/17 14:13	12/12/17 15:23	1
PCB-1242	ND		0.50	0.18	ug/L		12/11/17 14:13	12/12/17 15:23	1
PCB-1248	ND		0.50	0.18	ug/L		12/11/17 14:13	12/12/17 15:23	1
PCB-1254	ND		0.50	0.25	ug/L		12/11/17 14:13	12/12/17 15:23	1
PCB-1260	ND		0.50	0.25	ug/L		12/11/17 14:13	12/12/17 15:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	35		19 - 120	12/11/17 14:13	12/12/17 15:23	1
DCB Decachlorobiphenyl	35		19 - 120	12/11/17 14:13	12/12/17 15:23	1
Tetrachloro-m-xylene	86		39 - 121	12/11/17 14:13	12/12/17 15:23	1

Client Sample ID: MW-7

Date Collected: 12/07/17 11:23
Date Received: 12/08/17 13:00

Lab Sample ID: 480-128697-4

Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*77*		*39 - 121*	*12/11/17 14:13*	*12/12/17 15:23*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		0.53	0.072	ug/L		12/11/17 08:00	12/12/17 20:16	1
Silvex (2,4,5-TP)	ND		0.53	0.053	ug/L		12/11/17 08:00	12/12/17 20:16	1
2,4-D	ND	*	0.53	0.18	ug/L		12/11/17 08:00	12/12/17 20:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*80*		*48 - 132*	*12/11/17 08:00*	*12/12/17 20:16*	*1*
2,4-Dichlorophenylacetic acid	*89*		*48 - 132*	*12/11/17 08:00*	*12/12/17 20:16*	*1*

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		12/13/17 10:56	12/14/17 17:00	1
Antimony	ND		0.020	0.0068	mg/L		12/13/17 10:56	12/14/17 17:00	1
Arsenic	ND		0.015	0.0056	mg/L		12/13/17 10:56	12/14/17 17:00	1
Barium	**0.24**		0.0020	0.00070	mg/L		12/13/17 10:56	12/14/17 17:00	1
Beryllium	ND		0.0020	0.00030	mg/L		12/13/17 10:56	12/14/17 17:00	1
Cadmium	ND		0.0020	0.00050	mg/L		12/13/17 10:56	12/14/17 17:00	1
Calcium	**212**		0.50	0.10	mg/L		12/13/17 10:56	12/14/17 17:00	1
Chromium	ND		0.0040	0.0010	mg/L		12/13/17 10:56	12/14/17 17:00	1
Cobalt	**0.0022**	**J**	0.0040	0.00063	mg/L		12/13/17 10:56	12/14/17 17:00	1
Copper	ND		0.010	0.0016	mg/L		12/13/17 10:56	12/14/17 17:00	1
Iron	ND		0.050	0.019	mg/L		12/13/17 10:56	12/14/17 17:00	1
Lead	**0.0043**	**J**	0.010	0.0030	mg/L		12/13/17 10:56	12/14/17 17:00	1
Magnesium	**45.0**		0.20	0.043	mg/L		12/13/17 10:56	12/14/17 17:00	1
Manganese	**0.38**		0.0030	0.00040	mg/L		12/13/17 10:56	12/14/17 17:00	1
Nickel	**0.0060**	**J**	0.010	0.0013	mg/L		12/13/17 10:56	12/14/17 17:00	1
Potassium	**17.2**		0.50	0.10	mg/L		12/13/17 10:56	12/14/17 17:00	1
Selenium	ND		0.025	0.0087	mg/L		12/13/17 10:56	12/14/17 17:00	1
Silver	ND		0.0060	0.0017	mg/L		12/13/17 10:56	12/14/17 17:00	1
Sodium	**13.6**		1.0	0.32	mg/L		12/13/17 10:56	12/14/17 17:00	1
Thallium	ND		0.020	0.010	mg/L		12/13/17 10:56	12/14/17 17:00	1
Vanadium	ND		0.0050	0.0015	mg/L		12/13/17 10:56	12/14/17 17:00	1
Zinc	**0.019**		0.010	0.0015	mg/L		12/13/17 10:56	12/14/17 17:00	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		12/13/17 13:30	12/13/17 16:28	1

Client Sample ID: BLIND DUP
Date Collected: 12/07/17 00:00
Date Received: 12/08/17 13:00

Lab Sample ID: 480-128697-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			12/13/17 03:31	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/13/17 03:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/13/17 03:31	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/13/17 03:31	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/13/17 03:31	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/13/17 03:31	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/13/17 03:31	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			12/13/17 03:31	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/13/17 03:31	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/13/17 03:31	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/13/17 03:31	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/13/17 03:31	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			12/13/17 03:31	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/13/17 03:31	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/13/17 03:31	1
2-Butanone (MEK)	**1.9**	**J**	10	1.3	ug/L			12/13/17 03:31	1
2-Hexanone	ND		5.0	1.2	ug/L			12/13/17 03:31	1
4-Isopropyltoluene	**1.3**		1.0	0.31	ug/L			12/13/17 03:31	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/13/17 03:31	1
Acetone	**9.6**	**J**	10	3.0	ug/L			12/13/17 03:31	1
Benzene	ND		1.0	0.41	ug/L			12/13/17 03:31	1
Bromoform	ND		1.0	0.26	ug/L			12/13/17 03:31	1
Bromomethane	ND		1.0	0.69	ug/L			12/13/17 03:31	1
Carbon disulfide	**0.20**	**J**	1.0	0.19	ug/L			12/13/17 03:31	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/13/17 03:31	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/13/17 03:31	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/13/17 03:31	1
Chloroethane	ND		1.0	0.32	ug/L			12/13/17 03:31	1
Chloroform	ND		1.0	0.34	ug/L			12/13/17 03:31	1
Chloromethane	ND		1.0	0.35	ug/L			12/13/17 03:31	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			12/13/17 03:31	1
Cyclohexane	ND		1.0	0.18	ug/L			12/13/17 03:31	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/13/17 03:31	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/13/17 03:31	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/13/17 03:31	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			12/13/17 03:31	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/13/17 03:31	1
Methyl acetate	ND		2.5	1.3	ug/L			12/13/17 03:31	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/13/17 03:31	1
Methylcyclohexane	ND		1.0	0.16	ug/L			12/13/17 03:31	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/13/17 03:31	1
m,p-Xylene	ND		2.0	0.66	ug/L			12/13/17 03:31	1
n-Butylbenzene	ND		1.0	0.64	ug/L			12/13/17 03:31	1
N-Propylbenzene	ND		1.0	0.69	ug/L			12/13/17 03:31	1
o-Xylene	ND		1.0	0.76	ug/L			12/13/17 03:31	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			12/13/17 03:31	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/13/17 03:31	1
Toluene	ND		1.0	0.51	ug/L			12/13/17 03:31	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/13/17 03:31	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128697-1

Client Sample ID: BLIND DUP
Date Collected: 12/07/17 00:00
Date Received: 12/08/17 13:00

Lab Sample ID: 480-128697-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/13/17 03:31	1
Trichloroethene	ND		1.0	0.46	ug/L			12/13/17 03:31	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/13/17 03:31	1
Vinyl chloride	ND		1.0	0.90	ug/L			12/13/17 03:31	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/13/17 03:31	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/13/17 03:31	1
Styrene	ND		1.0	0.73	ug/L			12/13/17 03:31	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			12/13/17 03:31	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*12/13/17 03:31*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*12/13/17 03:31*	*1*
4-Bromofluorobenzene (Surr)	*106*		*73 - 120*		*12/13/17 03:31*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*12/13/17 03:31*	*1*
Dibromofluoromethane (Surr)	*96*		*75 - 123*		*12/13/17 03:31*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		100	9.6	ug/L		12/12/17 08:17	12/13/17 23:15	20
2,4,6-Trichlorophenol	ND		100	12	ug/L		12/12/17 08:17	12/13/17 23:15	20
2,4-Dichlorophenol	ND		100	10	ug/L		12/12/17 08:17	12/13/17 23:15	20
2,4-Dimethylphenol	ND		100	10	ug/L		12/12/17 08:17	12/13/17 23:15	20
2,4-Dinitrophenol	ND		200	44	ug/L		12/12/17 08:17	12/13/17 23:15	20
2,4-Dinitrotoluene	ND		100	8.9	ug/L		12/12/17 08:17	12/13/17 23:15	20
2,6-Dinitrotoluene	ND		100	8.0	ug/L		12/12/17 08:17	12/13/17 23:15	20
2-Chloronaphthalene	ND		100	9.2	ug/L		12/12/17 08:17	12/13/17 23:15	20
2-Chlorophenol	ND		100	11	ug/L		12/12/17 08:17	12/13/17 23:15	20
2-Methylnaphthalene	ND		100	12	ug/L		12/12/17 08:17	12/13/17 23:15	20
2-Methylphenol	ND		100	8.0	ug/L		12/12/17 08:17	12/13/17 23:15	20
2-Nitroaniline	ND		200	8.4	ug/L		12/12/17 08:17	12/13/17 23:15	20
2-Nitrophenol	ND		100	9.6	ug/L		12/12/17 08:17	12/13/17 23:15	20
3,3'-Dichlorobenzidine	ND	*	100	8.0	ug/L		12/12/17 08:17	12/13/17 23:15	20
3-Nitroaniline	ND		200	9.6	ug/L		12/12/17 08:17	12/13/17 23:15	20
4,6-Dinitro-2-methylphenol	ND		200	44	ug/L		12/12/17 08:17	12/13/17 23:15	20
4-Bromophenyl phenyl ether	ND		100	9.0	ug/L		12/12/17 08:17	12/13/17 23:15	20
4-Chloro-3-methylphenol	ND		100	9.0	ug/L		12/12/17 08:17	12/13/17 23:15	20
4-Chloroaniline	ND		100	12	ug/L		12/12/17 08:17	12/13/17 23:15	20
4-Chlorophenyl phenyl ether	ND		100	7.0	ug/L		12/12/17 08:17	12/13/17 23:15	20
4-Methylphenol	ND		200	7.2	ug/L		12/12/17 08:17	12/13/17 23:15	20
4-Nitroaniline	ND		200	5.0	ug/L		12/12/17 08:17	12/13/17 23:15	20
4-Nitrophenol	ND		200	30	ug/L		12/12/17 08:17	12/13/17 23:15	20
Acenaphthene	ND		100	8.2	ug/L		12/12/17 08:17	12/13/17 23:15	20
Acenaphthylene	ND		100	7.6	ug/L		12/12/17 08:17	12/13/17 23:15	20
Acetophenone	ND		100	11	ug/L		12/12/17 08:17	12/13/17 23:15	20
Anthracene	ND		100	5.6	ug/L		12/12/17 08:17	12/13/17 23:15	20
Atrazine	ND		100	9.2	ug/L		12/12/17 08:17	12/13/17 23:15	20
Benzaldehyde	ND		100	5.3	ug/L		12/12/17 08:17	12/13/17 23:15	20
Benzo(a)anthracene	ND		100	7.2	ug/L		12/12/17 08:17	12/13/17 23:15	20

Client Sample ID: BLIND DUP
Date Collected: 12/07/17 00:00
Date Received: 12/08/17 13:00

Lab Sample ID: 480-128697-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo(a)pyrene	ND		100	9.4	ug/L		12/12/17 08:17	12/13/17 23:15	20
Benzo(b)fluoranthene	ND		100	6.8	ug/L		12/12/17 08:17	12/13/17 23:15	20
Benzo(g,h,i)perylene	ND		100	7.0	ug/L		12/12/17 08:17	12/13/17 23:15	20
Benzo(k)fluoranthene	ND		100	15	ug/L		12/12/17 08:17	12/13/17 23:15	20
Biphenyl	ND		100	13	ug/L		12/12/17 08:17	12/13/17 23:15	20
bis (2-chloroisopropyl) ether	ND		100	10	ug/L		12/12/17 08:17	12/13/17 23:15	20
Bis(2-chloroethoxy)methane	ND		100	7.0	ug/L		12/12/17 08:17	12/13/17 23:15	20
Bis(2-chloroethyl)ether	ND		100	8.0	ug/L		12/12/17 08:17	12/13/17 23:15	20
Bis(2-ethylhexyl) phthalate	ND		100	44	ug/L		12/12/17 08:17	12/13/17 23:15	20
Butyl benzyl phthalate	ND		100	20	ug/L		12/12/17 08:17	12/13/17 23:15	20
Caprolactam	ND		100	44	ug/L		12/12/17 08:17	12/13/17 23:15	20
Carbazole	ND		100	6.0	ug/L		12/12/17 08:17	12/13/17 23:15	20
Chrysene	ND		100	6.6	ug/L		12/12/17 08:17	12/13/17 23:15	20
Dibenz(a,h)anthracene	ND		100	8.4	ug/L		12/12/17 08:17	12/13/17 23:15	20
Dibenzofuran	ND		200	10	ug/L		12/12/17 08:17	12/13/17 23:15	20
Diethyl phthalate	ND		100	4.4	ug/L		12/12/17 08:17	12/13/17 23:15	20
Dimethyl phthalate	ND		100	7.2	ug/L		12/12/17 08:17	12/13/17 23:15	20
Di-n-butyl phthalate	ND		100	6.2	ug/L		12/12/17 08:17	12/13/17 23:15	20
Di-n-octyl phthalate	ND		100	9.4	ug/L		12/12/17 08:17	12/13/17 23:15	20
Fluoranthene	ND		100	8.0	ug/L		12/12/17 08:17	12/13/17 23:15	20
Fluorene	ND		100	7.2	ug/L		12/12/17 08:17	12/13/17 23:15	20
Hexachlorobenzene	ND		100	10	ug/L		12/12/17 08:17	12/13/17 23:15	20
Hexachlorobutadiene	ND		100	14	ug/L		12/12/17 08:17	12/13/17 23:15	20
Hexachlorocyclopentadiene	ND		100	12	ug/L		12/12/17 08:17	12/13/17 23:15	20
Hexachloroethane	ND		100	12	ug/L		12/12/17 08:17	12/13/17 23:15	20
Indeno(1,2,3-cd)pyrene	ND		100	9.4	ug/L		12/12/17 08:17	12/13/17 23:15	20
Isophorone	ND		100	8.6	ug/L		12/12/17 08:17	12/13/17 23:15	20
Naphthalene	ND		100	15	ug/L		12/12/17 08:17	12/13/17 23:15	20
Nitrobenzene	ND		100	5.8	ug/L		12/12/17 08:17	12/13/17 23:15	20
N-Nitrosodi-n-propylamine	ND		100	11	ug/L		12/12/17 08:17	12/13/17 23:15	20
N-Nitrosodiphenylamine	ND		100	10	ug/L		12/12/17 08:17	12/13/17 23:15	20
Pentachlorophenol	ND		200	44	ug/L		12/12/17 08:17	12/13/17 23:15	20
Phenanthrene	ND		100	8.8	ug/L		12/12/17 08:17	12/13/17 23:15	20
Phenol	ND		100	7.8	ug/L		12/12/17 08:17	12/13/17 23:15	20
Pyrene	ND		100	6.8	ug/L		12/12/17 08:17	12/13/17 23:15	20

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*81*	*T J*	*ug/L*		*10.05*		*12/12/17 08:17*	*12/13/17 23:15*	*20*
1,1'-Biphenyl, bis(1-methylethyl)-	*64*	*T J N*	*ug/L*		*10.07*	*69009-90-1*	*12/12/17 08:17*	*12/13/17 23:15*	*20*
Unknown	*33*	*T J*	*ug/L*		*10.44*		*12/12/17 08:17*	*12/13/17 23:15*	*20*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*77*		*41 - 120*	*12/12/17 08:17*	*12/13/17 23:15*	*20*
2-Fluorobiphenyl	*92*		*48 - 120*	*12/12/17 08:17*	*12/13/17 23:15*	*20*
2-Fluorophenol	*59*		*35 - 120*	*12/12/17 08:17*	*12/13/17 23:15*	*20*
Nitrobenzene-d5	*79*		*46 - 120*	*12/12/17 08:17*	*12/13/17 23:15*	*20*
Phenol-d5	*45*		*22 - 120*	*12/12/17 08:17*	*12/13/17 23:15*	*20*
p-Terphenyl-d14	*77*		*59 - 136*	*12/12/17 08:17*	*12/13/17 23:15*	*20*

Client Sample ID: BLIND DUP
Date Collected: 12/07/17 00:00
Date Received: 12/08/17 13:00

Lab Sample ID: 480-128697-5
Matrix: Water

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.25	0.046	ug/L		12/11/17 14:36	12/12/17 16:15	1
4,4'-DDE	ND		0.25	0.058	ug/L		12/11/17 14:36	12/12/17 16:15	1
4,4'-DDT	ND		0.25	0.055	ug/L		12/11/17 14:36	12/12/17 16:15	1
Aldrin	ND		0.25	0.041	ug/L		12/11/17 14:36	12/12/17 16:15	1
alpha-BHC	ND		0.25	0.039	ug/L		12/11/17 14:36	12/12/17 16:15	1
alpha-Chlordane	ND		0.25	0.074	ug/L		12/11/17 14:36	12/12/17 16:15	1
beta-BHC	ND		0.25	0.12	ug/L		12/11/17 14:36	12/12/17 16:15	1
delta-BHC	ND		0.25	0.050	ug/L		12/11/17 14:36	12/12/17 16:15	1
Dieldrin	ND		0.25	0.049	ug/L		12/11/17 14:36	12/12/17 16:15	1
Endosulfan I	ND		0.25	0.055	ug/L		12/11/17 14:36	12/12/17 16:15	1
Endosulfan II	ND		0.25	0.060	ug/L		12/11/17 14:36	12/12/17 16:15	1
Endosulfan sulfate	ND		0.25	0.079	ug/L		12/11/17 14:36	12/12/17 16:15	1
Endrin	ND		0.25	0.069	ug/L		12/11/17 14:36	12/12/17 16:15	1
Endrin aldehyde	ND		0.25	0.082	ug/L		12/11/17 14:36	12/12/17 16:15	1
Endrin ketone	ND		0.25	0.060	ug/L		12/11/17 14:36	12/12/17 16:15	1
gamma-BHC (Lindane)	ND		0.25	0.040	ug/L		12/11/17 14:36	12/12/17 16:15	1
gamma-Chlordane	ND		0.25	0.055	ug/L		12/11/17 14:36	12/12/17 16:15	1
Heptachlor	ND		0.25	0.043	ug/L		12/11/17 14:36	12/12/17 16:15	1
Heptachlor epoxide	ND		0.25	0.037	ug/L		12/11/17 14:36	12/12/17 16:15	1
Methoxychlor	ND		0.25	0.071	ug/L		12/11/17 14:36	12/12/17 16:15	1
Toxaphene	ND		2.5	0.60	ug/L		12/11/17 14:36	12/12/17 16:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*44*		*20 - 120*	*12/11/17 14:36*	*12/12/17 16:15*	*1*
DCB Decachlorobiphenyl	*45*		*20 - 120*	*12/11/17 14:36*	*12/12/17 16:15*	*1*
Tetrachloro-m-xylene	*64*		*44 - 120*	*12/11/17 14:36*	*12/12/17 16:15*	*1*
Tetrachloro-m-xylene	*56*		*44 - 120*	*12/11/17 14:36*	*12/12/17 16:15*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		2.5	0.88	ug/L		12/11/17 14:13	12/12/17 15:39	1
PCB-1221	ND		2.5	0.88	ug/L		12/11/17 14:13	12/12/17 15:39	1
PCB-1232	ND		2.5	0.88	ug/L		12/11/17 14:13	12/12/17 15:39	1
PCB-1242	ND		2.5	0.88	ug/L		12/11/17 14:13	12/12/17 15:39	1
PCB-1248	ND		2.5	0.88	ug/L		12/11/17 14:13	12/12/17 15:39	1
PCB-1254	ND		2.5	1.3	ug/L		12/11/17 14:13	12/12/17 15:39	1
PCB-1260	ND		2.5	1.3	ug/L		12/11/17 14:13	12/12/17 15:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*36*		*19 - 120*	*12/11/17 14:13*	*12/12/17 15:39*	*1*
DCB Decachlorobiphenyl	*38*		*19 - 120*	*12/11/17 14:13*	*12/12/17 15:39*	*1*
Tetrachloro-m-xylene	*81*		*39 - 121*	*12/11/17 14:13*	*12/12/17 15:39*	*1*
Tetrachloro-m-xylene	*73*		*39 - 121*	*12/11/17 14:13*	*12/12/17 15:39*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		0.50	0.068	ug/L		12/11/17 08:00	12/12/17 20:46	1
Silvex (2,4,5-TP)	ND		0.50	0.050	ug/L		12/11/17 08:00	12/12/17 20:46	1
2,4-D	ND	*	0.50	0.17	ug/L		12/11/17 08:00	12/12/17 20:46	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128697-1

Client Sample ID: BLIND DUP
Date Collected: 12/07/17 00:00
Date Received: 12/08/17 13:00

Lab Sample ID: 480-128697-5
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*74*		*48 - 132*	*12/11/17 08:00*	*12/12/17 20:46*	*1*
2,4-Dichlorophenylacetic acid	*83*		*48 - 132*	*12/11/17 08:00*	*12/12/17 20:46*	*1*

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		12/13/17 10:56	12/14/17 16:22	1
Antimony	ND		0.020	0.0068	mg/L		12/13/17 10:56	12/14/17 16:22	1
Arsenic	ND		0.015	0.0056	mg/L		12/13/17 10:56	12/14/17 16:22	1
Barium	**0.24**		0.0020	0.00070	mg/L		12/13/17 10:56	12/14/17 16:22	1
Beryllium	ND		0.0020	0.00030	mg/L		12/13/17 10:56	12/14/17 16:22	1
Cadmium	ND		0.0020	0.00050	mg/L		12/13/17 10:56	12/14/17 16:22	1
Calcium	**212**		0.50	0.10	mg/L		12/13/17 10:56	12/14/17 16:22	1
Chromium	ND		0.0040	0.0010	mg/L		12/13/17 10:56	12/14/17 16:22	1
Cobalt	**0.0015**	**J**	0.0040	0.00063	mg/L		12/13/17 10:56	12/14/17 16:22	1
Copper	ND		0.010	0.0016	mg/L		12/13/17 10:56	12/14/17 16:22	1
Iron	ND		0.050	0.019	mg/L		12/13/17 10:56	12/14/17 16:22	1
Lead	**0.0038**	**J**	0.010	0.0030	mg/L		12/13/17 10:56	12/14/17 16:22	1
Magnesium	**44.5**		0.20	0.043	mg/L		12/13/17 10:56	12/14/17 16:22	1
Manganese	**0.38**		0.0030	0.00040	mg/L		12/13/17 10:56	12/14/17 16:22	1
Nickel	**0.0042**	**J**	0.010	0.0013	mg/L		12/13/17 10:56	12/14/17 16:22	1
Potassium	**17.0**		0.50	0.10	mg/L		12/13/17 10:56	12/14/17 16:22	1
Selenium	ND		0.025	0.0087	mg/L		12/13/17 10:56	12/14/17 16:22	1
Silver	ND		0.0060	0.0017	mg/L		12/13/17 10:56	12/14/17 16:22	1
Sodium	**13.5**		1.0	0.32	mg/L		12/13/17 10:56	12/14/17 16:22	1
Thallium	ND		0.020	0.010	mg/L		12/13/17 10:56	12/14/17 16:22	1
Vanadium	ND		0.0050	0.0015	mg/L		12/13/17 10:56	12/14/17 16:22	1
Zinc	**0.016**		0.010	0.0015	mg/L		12/13/17 10:56	12/14/17 16:22	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		12/13/17 13:30	12/13/17 16:30	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128697-1

Client Sample ID: TRIP BLANK
Date Collected: 12/07/17 00:00
Date Received: 12/08/17 13:00

Lab Sample ID: 480-128697-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			12/13/17 03:54	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/13/17 03:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/13/17 03:54	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/13/17 03:54	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/13/17 03:54	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/13/17 03:54	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/13/17 03:54	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			12/13/17 03:54	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/13/17 03:54	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/13/17 03:54	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/13/17 03:54	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/13/17 03:54	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			12/13/17 03:54	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/13/17 03:54	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/13/17 03:54	1
2-Butanone (MEK)	ND		10	1.3	ug/L			12/13/17 03:54	1
2-Hexanone	ND		5.0	1.2	ug/L			12/13/17 03:54	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			12/13/17 03:54	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/13/17 03:54	1
Acetone	ND		10	3.0	ug/L			12/13/17 03:54	1
Benzene	ND		1.0	0.41	ug/L			12/13/17 03:54	1
Bromoform	ND		1.0	0.26	ug/L			12/13/17 03:54	1
Bromomethane	ND		1.0	0.69	ug/L			12/13/17 03:54	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/13/17 03:54	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/13/17 03:54	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/13/17 03:54	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/13/17 03:54	1
Chloroethane	ND		1.0	0.32	ug/L			12/13/17 03:54	1
Chloroform	ND		1.0	0.34	ug/L			12/13/17 03:54	1
Chloromethane	ND		1.0	0.35	ug/L			12/13/17 03:54	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			12/13/17 03:54	1
Cyclohexane	ND		1.0	0.18	ug/L			12/13/17 03:54	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/13/17 03:54	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/13/17 03:54	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/13/17 03:54	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			12/13/17 03:54	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/13/17 03:54	1
Methyl acetate	ND		2.5	1.3	ug/L			12/13/17 03:54	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/13/17 03:54	1
Methylcyclohexane	ND		1.0	0.16	ug/L			12/13/17 03:54	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/13/17 03:54	1
m,p-Xylene	ND		2.0	0.66	ug/L			12/13/17 03:54	1
n-Butylbenzene	ND		1.0	0.64	ug/L			12/13/17 03:54	1
N-Propylbenzene	ND		1.0	0.69	ug/L			12/13/17 03:54	1
o-Xylene	ND		1.0	0.76	ug/L			12/13/17 03:54	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			12/13/17 03:54	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/13/17 03:54	1
Toluene	ND		1.0	0.51	ug/L			12/13/17 03:54	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/13/17 03:54	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128697-1

Client Sample ID: TRIP BLANK
Date Collected: 12/07/17 00:00
Date Received: 12/08/17 13:00

Lab Sample ID: 480-128697-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/13/17 03:54	1
Trichloroethene	ND		1.0	0.46	ug/L			12/13/17 03:54	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/13/17 03:54	1
Vinyl chloride	ND		1.0	0.90	ug/L			12/13/17 03:54	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/13/17 03:54	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/13/17 03:54	1
Styrene	ND		1.0	0.73	ug/L			12/13/17 03:54	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			12/13/17 03:54	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*12/13/17 03:54*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*12/13/17 03:54*	*1*
4-Bromofluorobenzene (Surr)	*106*		*73 - 120*		*12/13/17 03:54*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*12/13/17 03:54*	*1*
Dibromofluoromethane (Surr)	*105*		*75 - 123*		*12/13/17 03:54*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(80-120)	(75-123)
480-128697-2	MW-8	104	104	95	103
480-128697-3	MW-6	108	108	99	106
480-128697-3 MS	MW-6	101	105	96	103
480-128697-3 MSD	MW-6	104	107	99	103
480-128697-4	MW-7	105	104	96	108
480-128697-5	BLIND DUP	99	106	94	96
480-128697-6	TRIP BLANK	104	106	94	105
LCS 480-391711/4	Lab Control Sample	105	104	96	105
MB 480-391711/6	Method Blank	106	103	94	105

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

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

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPHd14
Lab Sample ID	Client Sample ID	(41-120)	(48-120)	(35-120)	(46-120)	(22-120)	(59-136)
480-128697-1	MW-5	108	96	74	93	55	81
480-128697-2	MW-8	88	99	61	99	38	80
480-128697-3	MW-6	106	99	76	98	59	94
480-128697-3 MS	MW-6	111	97	78	98	60	80
480-128697-3 MSD	MW-6	107	92	70	90	57	76
480-128697-4	MW-7	108	94	70	93	53	79
480-128697-5	BLIND DUP	77	92	59	79	45	77
LCS 480-391561/2-A	Lab Control Sample	111	98	80	96	66	112
MB 480-391561/1-A	Method Blank	79	90	66	89	52	111

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHd14 = p-Terphenyl-d14

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(20-120)	(20-120)	(44-120)	(44-120)
480-128697-1	MW-5	51	71	96	87
480-128697-2	MW-8	27	25	90	72
480-128697-3	MW-6	41	53	83	74
480-128697-3 MS	MW-6	21	23	82	73

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(20-120)	(20-120)	(44-120)	(44-120)
480-128697-3 MSD	MW-6	31	38	78	73
480-128697-4	MW-7	46	40	80	75
480-128697-5	BLIND DUP	44	45	64	56
LCS 480-391499/2-A	Lab Control Sample	50	51	79	68
MB 480-391499/1-A	Method Blank	54	53	75	64

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

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

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(19-120)	(19-120)	(39-121)	(39-121)
480-128697-1	MW-5	52	53	94	87
480-128697-2	MW-8	25	26	67	62
480-128697-3	MW-6	47	49	115	109
480-128697-3 MS	MW-6	60	62	97	83
480-128697-3 MSD	MW-6	37	41	105	93
480-128697-4	MW-7	35	35	86	77
480-128697-5	BLIND DUP	36	38	81	73
LCS 480-391486/2-A	Lab Control Sample	58	58	110	100
MB 480-391486/1-A	Method Blank	44	44	75	65

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8151A - Herbicides (GC)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCPAA1	DCPAA2
Lab Sample ID	Client Sample ID	(48-132)	(48-132)
480-128697-1	MW-5	94	63
480-128697-2	MW-8	77	69
480-128697-3	MW-6	57	99
480-128697-3 MS	MW-6	48	NaN
480-128697-3 MSD	MW-6	72	89
480-128697-4	MW-7	80	89
480-128697-5	BLIND DUP	74	83
LCS 480-391367/2-A	Lab Control Sample	119	79
MB 480-391367/1-A	Method Blank	100	109

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128697-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-391711/6
Matrix: Water
Analysis Batch: 391711

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			12/12/17 21:23	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/12/17 21:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/12/17 21:23	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/12/17 21:23	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/12/17 21:23	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/12/17 21:23	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/12/17 21:23	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			12/12/17 21:23	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/12/17 21:23	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/12/17 21:23	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/12/17 21:23	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/12/17 21:23	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			12/12/17 21:23	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/12/17 21:23	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/12/17 21:23	1
2-Butanone (MEK)	ND		10	1.3	ug/L			12/12/17 21:23	1
2-Hexanone	ND		5.0	1.2	ug/L			12/12/17 21:23	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			12/12/17 21:23	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/12/17 21:23	1
Acetone	ND		10	3.0	ug/L			12/12/17 21:23	1
Benzene	ND		1.0	0.41	ug/L			12/12/17 21:23	1
Bromoform	ND		1.0	0.26	ug/L			12/12/17 21:23	1
Bromomethane	ND		1.0	0.69	ug/L			12/12/17 21:23	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/12/17 21:23	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/12/17 21:23	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/12/17 21:23	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/12/17 21:23	1
Chloroethane	ND		1.0	0.32	ug/L			12/12/17 21:23	1
Chloroform	ND		1.0	0.34	ug/L			12/12/17 21:23	1
Chloromethane	ND		1.0	0.35	ug/L			12/12/17 21:23	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			12/12/17 21:23	1
Cyclohexane	ND		1.0	0.18	ug/L			12/12/17 21:23	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/12/17 21:23	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/12/17 21:23	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/12/17 21:23	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			12/12/17 21:23	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/12/17 21:23	1
Methyl acetate	ND		2.5	1.3	ug/L			12/12/17 21:23	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/12/17 21:23	1
Methylcyclohexane	ND		1.0	0.16	ug/L			12/12/17 21:23	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/12/17 21:23	1
m,p-Xylene	ND		2.0	0.66	ug/L			12/12/17 21:23	1
n-Butylbenzene	ND		1.0	0.64	ug/L			12/12/17 21:23	1
N-Propylbenzene	ND		1.0	0.69	ug/L			12/12/17 21:23	1
o-Xylene	ND		1.0	0.76	ug/L			12/12/17 21:23	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			12/12/17 21:23	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/12/17 21:23	1
Toluene	ND		1.0	0.51	ug/L			12/12/17 21:23	1

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

Lab Sample ID: MB 480-391711/6
Matrix: Water
Analysis Batch: 391711

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/12/17 21:23	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/12/17 21:23	1
Trichloroethene	ND		1.0	0.46	ug/L			12/12/17 21:23	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/12/17 21:23	1
Vinyl chloride	ND		1.0	0.90	ug/L			12/12/17 21:23	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/12/17 21:23	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/12/17 21:23	1
Styrene	ND		1.0	0.73	ug/L			12/12/17 21:23	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			12/12/17 21:23	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*12/12/17 21:23*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*12/12/17 21:23*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*12/12/17 21:23*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*12/12/17 21:23*	*1*
Dibromofluoromethane (Surr)	*105*		*75 - 123*		*12/12/17 21:23*	*1*

Lab Sample ID: LCS 480-391711/4
Matrix: Water
Analysis Batch: 391711

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	25.2		ug/L		101	73 - 126
1,1,2,2-Tetrachloroethane	25.0	21.1		ug/L		84	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	23.1		ug/L		92	61 - 148
1,1,2-Trichloroethane	25.0	22.8		ug/L		91	76 - 122
1,1-Dichloroethane	25.0	22.2		ug/L		89	77 - 120
1,1-Dichloroethene	25.0	22.4		ug/L		90	66 - 127
1,2,4-Trichlorobenzene	25.0	23.5		ug/L		94	79 - 122
1,2,4-Trimethylbenzene	25.0	22.1		ug/L		89	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	22.7		ug/L		91	56 - 134
1,2-Dichlorobenzene	25.0	23.9		ug/L		95	80 - 124
1,2-Dichloroethane	25.0	24.2		ug/L		97	75 - 120
1,2-Dichloropropane	25.0	22.3		ug/L		89	76 - 120
1,3,5-Trimethylbenzene	25.0	21.7		ug/L		87	77 - 121
1,3-Dichlorobenzene	25.0	23.0		ug/L		92	77 - 120
1,4-Dichlorobenzene	25.0	23.7		ug/L		95	80 - 120
2-Butanone (MEK)	125	125		ug/L		100	57 - 140
2-Hexanone	125	110		ug/L		88	65 - 127
4-Isopropyltoluene	25.0	23.4		ug/L		93	73 - 120
4-Methyl-2-pentanone (MIBK)	125	107		ug/L		85	71 - 125
Acetone	125	159		ug/L		127	56 - 142
Benzene	25.0	23.0		ug/L		92	71 - 124
Bromoform	25.0	23.1		ug/L		92	61 - 132
Bromomethane	25.0	23.7		ug/L		95	55 - 144

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

Lab Sample ID: LCS 480-391711/4
Matrix: Water
Analysis Batch: 391711

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbon disulfide	25.0	20.6		ug/L		83	59 - 134
Carbon tetrachloride	25.0	26.3		ug/L		105	72 - 134
Chlorobenzene	25.0	22.7		ug/L		91	80 - 120
Dibromochloromethane	25.0	23.4		ug/L		93	75 - 125
Chloroethane	25.0	24.1		ug/L		96	69 - 136
Chloroform	25.0	23.9		ug/L		96	73 - 127
Chloromethane	25.0	22.3		ug/L		89	68 - 124
cis-1,2-Dichloroethene	25.0	23.9		ug/L		96	74 - 124
Cyclohexane	25.0	21.9		ug/L		88	59 - 135
Bromodichloromethane	25.0	23.6		ug/L		95	80 - 122
Dichlorodifluoromethane	25.0	22.4		ug/L		90	59 - 135
Ethylbenzene	25.0	22.0		ug/L		88	77 - 123
1,2-Dibromoethane	25.0	24.2		ug/L		97	77 - 120
Isopropylbenzene	25.0	22.2		ug/L		89	77 - 122
Methyl acetate	50.0	47.7		ug/L		95	74 - 133
Methyl tert-butyl ether	25.0	24.2		ug/L		97	77 - 120
Methylcyclohexane	25.0	23.0		ug/L		92	68 - 134
Methylene Chloride	25.0	22.4		ug/L		89	75 - 124
m,p-Xylene	25.0	22.8		ug/L		91	76 - 122
Naphthalene	25.0	22.3		ug/L		89	66 - 125
n-Butylbenzene	25.0	21.8		ug/L		87	71 - 128
N-Propylbenzene	25.0	21.3		ug/L		85	75 - 127
o-Xylene	25.0	22.7		ug/L		91	76 - 122
sec-Butylbenzene	25.0	23.2		ug/L		93	74 - 127
Tetrachloroethene	25.0	25.3		ug/L		101	74 - 122
Toluene	25.0	22.6		ug/L		90	80 - 122
trans-1,2-Dichloroethene	25.0	23.8		ug/L		95	73 - 127
trans-1,3-Dichloropropene	25.0	22.3		ug/L		89	80 - 120
Trichloroethene	25.0	24.8		ug/L		99	74 - 123
Trichlorofluoromethane	25.0	24.1		ug/L		96	62 - 150
Vinyl chloride	25.0	21.7		ug/L		87	65 - 133
cis-1,3-Dichloropropene	25.0	23.0		ug/L		92	74 - 124
Styrene	25.0	22.4		ug/L		90	80 - 120
tert-Butylbenzene	25.0	22.3		ug/L		89	75 - 123

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*77 - 120*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*
Toluene-d8 (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*105*		*75 - 123*

Lab Sample ID: 480-128697-3 MS
Matrix: Water
Analysis Batch: 391711

Client Sample ID: MW-6
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	ND		25.0	27.9		ug/L		111	73 - 126
1,1,2,2-Tetrachloroethane	ND		25.0	24.4		ug/L		98	76 - 120

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

Lab Sample ID: 480-128697-3 MS
Matrix: Water
Analysis Batch: 391711

Client Sample ID: MW-6
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	28.1		ug/L		112	61 - 148
1,1,2-Trichloroethane	ND		25.0	25.5		ug/L		102	76 - 122
1,1-Dichloroethane	ND		25.0	23.6		ug/L		94	77 - 120
1,1-Dichloroethene	ND		25.0	25.7		ug/L		103	66 - 127
1,2,4-Trichlorobenzene	ND		25.0	23.9		ug/L		95	79 - 122
1,2,4-Trimethylbenzene	ND		25.0	23.2		ug/L		93	76 - 121
1,2-Dibromo-3-Chloropropane	ND		25.0	23.9		ug/L		96	56 - 134
1,2-Dichlorobenzene	ND		25.0	24.8		ug/L		99	80 - 124
1,2-Dichloroethane	ND		25.0	25.3		ug/L		101	75 - 120
1,2-Dichloropropane	ND		25.0	24.7		ug/L		99	76 - 120
1,3,5-Trimethylbenzene	ND		25.0	23.3		ug/L		93	77 - 121
1,3-Dichlorobenzene	ND		25.0	23.8		ug/L		95	77 - 120
1,4-Dichlorobenzene	ND		25.0	24.4		ug/L		97	78 - 124
2-Butanone (MEK)	ND		125	122		ug/L		97	57 - 140
2-Hexanone	ND		125	117		ug/L		94	65 - 127
4-Isopropyltoluene	ND		25.0	26.4		ug/L		106	73 - 120
4-Methyl-2-pentanone (MIBK)	ND		125	124		ug/L		99	71 - 125
Acetone	4.6	J	125	126		ug/L		97	56 - 142
Benzene	ND		25.0	25.2		ug/L		101	71 - 124
Bromoform	ND		25.0	24.0		ug/L		96	61 - 132
Bromomethane	ND		25.0	27.7		ug/L		111	55 - 144
Carbon disulfide	ND		25.0	23.2		ug/L		93	59 - 134
Carbon tetrachloride	ND		25.0	28.8		ug/L		115	72 - 134
Chlorobenzene	ND		25.0	24.7		ug/L		99	80 - 120
Dibromochloromethane	ND		25.0	25.2		ug/L		101	75 - 125
Chloroethane	ND		25.0	28.3		ug/L		113	69 - 136
Chloroform	ND		25.0	24.2		ug/L		97	73 - 127
Chloromethane	ND		25.0	26.0		ug/L		104	68 - 124
cis-1,2-Dichloroethene	ND		25.0	26.7		ug/L		107	74 - 124
Cyclohexane	ND		25.0	25.3		ug/L		101	59 - 135
Bromodichloromethane	ND		25.0	24.4		ug/L		98	80 - 122
Dichlorodifluoromethane	ND		25.0	29.1		ug/L		116	59 - 135
Ethylbenzene	ND		25.0	25.2		ug/L		101	77 - 123
1,2-Dibromoethane	ND		25.0	25.6		ug/L		102	77 - 120
Isopropylbenzene	ND		25.0	25.1		ug/L		100	77 - 122
Methyl acetate	ND		50.0	48.7		ug/L		97	74 - 133
Methyl tert-butyl ether	ND		25.0	25.0		ug/L		100	77 - 120
Methylcyclohexane	ND		25.0	26.7		ug/L		107	68 - 134
Methylene Chloride	ND		25.0	24.5		ug/L		98	75 - 124
m,p-Xylene	ND		25.0	26.9		ug/L		108	76 - 122
Naphthalene	ND		25.0	24.0		ug/L		96	66 - 125
n-Butylbenzene	ND		25.0	23.7		ug/L		95	71 - 128
N-Propylbenzene	ND		25.0	23.4		ug/L		94	75 - 127
o-Xylene	ND		25.0	25.1		ug/L		100	76 - 122
sec-Butylbenzene	ND		25.0	25.3		ug/L		101	74 - 127
Tetrachloroethene	ND		25.0	27.9		ug/L		112	74 - 122
Toluene	ND		25.0	26.0		ug/L		104	80 - 122

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

Lab Sample ID: 480-128697-3 MS
Matrix: Water
Analysis Batch: 391711

Client Sample ID: MW-6
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,2-Dichloroethene	ND		25.0	27.7		ug/L		111	73 - 127
trans-1,3-Dichloropropene	ND		25.0	21.7		ug/L		87	80 - 120
Trichloroethene	ND		25.0	26.8		ug/L		107	74 - 123
Trichlorofluoromethane	ND		25.0	30.8		ug/L		123	62 - 150
Vinyl chloride	ND		25.0	26.5		ug/L		106	65 - 133
cis-1,3-Dichloropropene	ND		25.0	23.6		ug/L		94	74 - 124
Styrene	ND		25.0	22.9		ug/L		92	80 - 120
tert-Butylbenzene	ND		25.0	25.2		ug/L		101	75 - 123

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 120*
4-Bromofluorobenzene (Surr)	*105*		*73 - 120*
Toluene-d8 (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*75 - 123*

Lab Sample ID: 480-128697-3 MSD
Matrix: Water
Analysis Batch: 391711

Client Sample ID: MW-6
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		25.0	29.6		ug/L		118	73 - 126	6	15
1,1,2,2-Tetrachloroethane	ND		25.0	24.1		ug/L		96	76 - 120	1	15
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	28.9		ug/L		116	61 - 148	3	20
1,1,2-Trichloroethane	ND		25.0	25.3		ug/L		101	76 - 122	1	15
1,1-Dichloroethane	ND		25.0	26.0		ug/L		104	77 - 120	10	20
1,1-Dichloroethene	ND		25.0	27.8		ug/L		111	66 - 127	8	16
1,2,4-Trichlorobenzene	ND		25.0	24.5		ug/L		98	79 - 122	3	20
1,2,4-Trimethylbenzene	ND		25.0	23.9		ug/L		96	76 - 121	3	20
1,2-Dibromo-3-Chloropropane	ND		25.0	24.8		ug/L		99	56 - 134	3	15
1,2-Dichlorobenzene	ND		25.0	25.5		ug/L		102	80 - 124	3	20
1,2-Dichloroethane	ND		25.0	26.8		ug/L		107	75 - 120	6	20
1,2-Dichloropropane	ND		25.0	26.1		ug/L		104	76 - 120	5	20
1,3,5-Trimethylbenzene	ND		25.0	24.2		ug/L		97	77 - 121	4	20
1,3-Dichlorobenzene	ND		25.0	25.4		ug/L		102	77 - 120	7	20
1,4-Dichlorobenzene	ND		25.0	25.4		ug/L		102	78 - 124	4	20
2-Butanone (MEK)	ND		125	133		ug/L		106	57 - 140	9	20
2-Hexanone	ND		125	124		ug/L		99	65 - 127	6	15
4-Isopropyltoluene	ND		25.0	26.7		ug/L		107	73 - 120	1	20
4-Methyl-2-pentanone (MIBK)	ND		125	126		ug/L		101	71 - 125	2	35
Acetone	4.6	J	125	130		ug/L		100	56 - 142	3	15
Benzene	ND		25.0	27.0		ug/L		108	71 - 124	7	13
Bromoform	ND		25.0	24.6		ug/L		99	61 - 132	2	15
Bromomethane	ND		25.0	29.3		ug/L		117	55 - 144	5	15
Carbon disulfide	ND		25.0	24.1		ug/L		96	59 - 134	4	15
Carbon tetrachloride	ND		25.0	30.1		ug/L		120	72 - 134	4	15
Chlorobenzene	ND		25.0	26.7		ug/L		107	80 - 120	8	25
Dibromochloromethane	ND		25.0	25.8		ug/L		103	75 - 125	2	15

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

Lab Sample ID: 480-128697-3 MSD
Matrix: Water
Analysis Batch: 391711

Client Sample ID: MW-6
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloroethane	ND		25.0	28.3		ug/L		113	69 - 136	0	15
Chloroform	ND		25.0	26.3		ug/L		105	73 - 127	8	20
Chloromethane	ND		25.0	27.4		ug/L		110	68 - 124	5	15
cis-1,2-Dichloroethene	ND		25.0	27.8		ug/L		111	74 - 124	4	15
Cyclohexane	ND		25.0	26.6		ug/L		106	59 - 135	5	20
Bromodichloromethane	ND		25.0	26.9		ug/L		108	80 - 122	10	15
Dichlorodifluoromethane	ND		25.0	30.7		ug/L		123	59 - 135	5	20
Ethylbenzene	ND		25.0	27.1		ug/L		108	77 - 123	7	15
1,2-Dibromoethane	ND		25.0	27.2		ug/L		109	77 - 120	6	15
Isopropylbenzene	ND		25.0	25.0		ug/L		100	77 - 122	0	20
Methyl acetate	ND		50.0	51.3		ug/L		103	74 - 133	5	20
Methyl tert-butyl ether	ND		25.0	26.9		ug/L		108	77 - 120	8	37
Methylcyclohexane	ND		25.0	28.4		ug/L		113	68 - 134	6	20
Methylene Chloride	ND		25.0	25.5		ug/L		102	75 - 124	4	15
m,p-Xylene	ND		25.0	26.3		ug/L		105	76 - 122	2	16
Naphthalene	ND		25.0	24.8		ug/L		99	66 - 125	3	20
n-Butylbenzene	ND		25.0	24.5		ug/L		98	71 - 128	3	15
N-Propylbenzene	ND		25.0	24.0		ug/L		96	75 - 127	2	15
o-Xylene	ND		25.0	26.6		ug/L		106	76 - 122	6	16
sec-Butylbenzene	ND		25.0	25.9		ug/L		104	74 - 127	3	15
Tetrachloroethene	ND		25.0	30.0		ug/L		120	74 - 122	7	20
Toluene	ND		25.0	27.5		ug/L		110	80 - 122	6	15
trans-1,2-Dichloroethene	ND		25.0	29.5		ug/L		118	73 - 127	7	20
trans-1,3-Dichloropropene	ND		25.0	22.5		ug/L		90	80 - 120	4	15
Trichloroethene	ND		25.0	28.7		ug/L		115	74 - 123	7	16
Trichlorofluoromethane	ND		25.0	31.9		ug/L		128	62 - 150	4	20
Vinyl chloride	ND		25.0	27.7		ug/L		111	65 - 133	4	15
cis-1,3-Dichloropropene	ND		25.0	24.4		ug/L		98	74 - 124	3	15
Styrene	ND		25.0	24.1		ug/L		96	80 - 120	5	20
tert-Butylbenzene	ND		25.0	25.1		ug/L		101	75 - 123	0	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*
4-Bromofluorobenzene (Surr)	*107*		*73 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*75 - 123*

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

Lab Sample ID: MB 480-391561/1-A
Matrix: Water
Analysis Batch: 391870

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 391561

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		12/12/17 08:17	12/13/17 18:58	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		12/12/17 08:17	12/13/17 18:58	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		12/12/17 08:17	12/13/17 18:58	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		12/12/17 08:17	12/13/17 18:58	1

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

Lab Sample ID: MB 480-391561/1-A
Matrix: Water
Analysis Batch: 391870

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 391561

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	ND		10	2.2	ug/L		12/12/17 08:17	12/13/17 18:58	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		12/12/17 08:17	12/13/17 18:58	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		12/12/17 08:17	12/13/17 18:58	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		12/12/17 08:17	12/13/17 18:58	1
2-Chlorophenol	ND		5.0	0.53	ug/L		12/12/17 08:17	12/13/17 18:58	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		12/12/17 08:17	12/13/17 18:58	1
2-Methylphenol	ND		5.0	0.40	ug/L		12/12/17 08:17	12/13/17 18:58	1
2-Nitroaniline	ND		10	0.42	ug/L		12/12/17 08:17	12/13/17 18:58	1
2-Nitrophenol	ND		5.0	0.48	ug/L		12/12/17 08:17	12/13/17 18:58	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		12/12/17 08:17	12/13/17 18:58	1
3-Nitroaniline	ND		10	0.48	ug/L		12/12/17 08:17	12/13/17 18:58	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		12/12/17 08:17	12/13/17 18:58	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		12/12/17 08:17	12/13/17 18:58	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		12/12/17 08:17	12/13/17 18:58	1
4-Chloroaniline	ND		5.0	0.59	ug/L		12/12/17 08:17	12/13/17 18:58	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		12/12/17 08:17	12/13/17 18:58	1
4-Methylphenol	ND		10	0.36	ug/L		12/12/17 08:17	12/13/17 18:58	1
4-Nitroaniline	ND		10	0.25	ug/L		12/12/17 08:17	12/13/17 18:58	1
4-Nitrophenol	ND		10	1.5	ug/L		12/12/17 08:17	12/13/17 18:58	1
Acenaphthene	ND		5.0	0.41	ug/L		12/12/17 08:17	12/13/17 18:58	1
Acenaphthylene	ND		5.0	0.38	ug/L		12/12/17 08:17	12/13/17 18:58	1
Acetophenone	ND		5.0	0.54	ug/L		12/12/17 08:17	12/13/17 18:58	1
Anthracene	ND		5.0	0.28	ug/L		12/12/17 08:17	12/13/17 18:58	1
Atrazine	ND		5.0	0.46	ug/L		12/12/17 08:17	12/13/17 18:58	1
Benzaldehyde	ND		5.0	0.27	ug/L		12/12/17 08:17	12/13/17 18:58	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		12/12/17 08:17	12/13/17 18:58	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		12/12/17 08:17	12/13/17 18:58	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		12/12/17 08:17	12/13/17 18:58	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		12/12/17 08:17	12/13/17 18:58	1
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		12/12/17 08:17	12/13/17 18:58	1
Biphenyl	ND		5.0	0.65	ug/L		12/12/17 08:17	12/13/17 18:58	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		12/12/17 08:17	12/13/17 18:58	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		12/12/17 08:17	12/13/17 18:58	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		12/12/17 08:17	12/13/17 18:58	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		12/12/17 08:17	12/13/17 18:58	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		12/12/17 08:17	12/13/17 18:58	1
Caprolactam	ND		5.0	2.2	ug/L		12/12/17 08:17	12/13/17 18:58	1
Carbazole	ND		5.0	0.30	ug/L		12/12/17 08:17	12/13/17 18:58	1
Chrysene	ND		5.0	0.33	ug/L		12/12/17 08:17	12/13/17 18:58	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		12/12/17 08:17	12/13/17 18:58	1
Dibenzofuran	ND		10	0.51	ug/L		12/12/17 08:17	12/13/17 18:58	1
Diethyl phthalate	ND		5.0	0.22	ug/L		12/12/17 08:17	12/13/17 18:58	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		12/12/17 08:17	12/13/17 18:58	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		12/12/17 08:17	12/13/17 18:58	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		12/12/17 08:17	12/13/17 18:58	1
Fluoranthene	ND		5.0	0.40	ug/L		12/12/17 08:17	12/13/17 18:58	1
Fluorene	ND		5.0	0.36	ug/L		12/12/17 08:17	12/13/17 18:58	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		12/12/17 08:17	12/13/17 18:58	1

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

Lab Sample ID: MB 480-391561/1-A
Matrix: Water
Analysis Batch: 391870

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 391561

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		5.0	0.68	ug/L		12/12/17 08:17	12/13/17 18:58	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		12/12/17 08:17	12/13/17 18:58	1
Hexachloroethane	ND		5.0	0.59	ug/L		12/12/17 08:17	12/13/17 18:58	1
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		12/12/17 08:17	12/13/17 18:58	1
Isophorone	ND		5.0	0.43	ug/L		12/12/17 08:17	12/13/17 18:58	1
Naphthalene	ND		5.0	0.76	ug/L		12/12/17 08:17	12/13/17 18:58	1
Nitrobenzene	ND		5.0	0.29	ug/L		12/12/17 08:17	12/13/17 18:58	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		12/12/17 08:17	12/13/17 18:58	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		12/12/17 08:17	12/13/17 18:58	1
Pentachlorophenol	ND		10	2.2	ug/L		12/12/17 08:17	12/13/17 18:58	1
Phenanthrene	ND		5.0	0.44	ug/L		12/12/17 08:17	12/13/17 18:58	1
Phenol	ND		5.0	0.39	ug/L		12/12/17 08:17	12/13/17 18:58	1
Pyrene	ND		5.0	0.34	ug/L		12/12/17 08:17	12/13/17 18:58	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*168*	*T J*	*ug/L*		*1.73*		*12/12/17 08:17*	*12/13/17 18:58*	*1*
1,3,5-Cycloheptatriene	*1.66*	*T J N*	*ug/L*		*2.48*	*544-25-2*	*12/12/17 08:17*	*12/13/17 18:58*	*1*
Benzene, 1,2-dimethyl-	*2.99*	*T J N*	*ug/L*		*3.95*	*95-47-6*	*12/12/17 08:17*	*12/13/17 18:58*	*1*
Unknown	*2.33*	*T J*	*ug/L*		*6.03*		*12/12/17 08:17*	*12/13/17 18:58*	*1*
Cyclohexasiloxane, dodecamethyl-	*2.30*	*T J N*	*ug/L*		*6.90*	*540-97-6*	*12/12/17 08:17*	*12/13/17 18:58*	*1*
Unknown	*1.99*	*T J*	*ug/L*		*7.65*		*12/12/17 08:17*	*12/13/17 18:58*	*1*
Unknown	*2.55*	*T J*	*ug/L*		*8.43*		*12/12/17 08:17*	*12/13/17 18:58*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*79*		*41 - 120*	*12/12/17 08:17*	*12/13/17 18:58*	*1*
2-Fluorobiphenyl	*90*		*48 - 120*	*12/12/17 08:17*	*12/13/17 18:58*	*1*
2-Fluorophenol	*66*		*35 - 120*	*12/12/17 08:17*	*12/13/17 18:58*	*1*
Nitrobenzene-d5	*89*		*46 - 120*	*12/12/17 08:17*	*12/13/17 18:58*	*1*
Phenol-d5	*52*		*22 - 120*	*12/12/17 08:17*	*12/13/17 18:58*	*1*
p-Terphenyl-d14	*111*		*59 - 136*	*12/12/17 08:17*	*12/13/17 18:58*	*1*

Lab Sample ID: LCS 480-391561/2-A
Matrix: Water
Analysis Batch: 391870

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 391561

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-Trichlorophenol	32.0	33.4		ug/L		105	65 - 126
2,4,6-Trichlorophenol	32.0	31.5		ug/L		98	64 - 120
2,4-Dichlorophenol	32.0	32.2		ug/L		101	63 - 120
2,4-Dimethylphenol	32.0	31.9		ug/L		100	47 - 120
2,4-Dinitrophenol	64.0	62.6		ug/L		98	31 - 137
2,4-Dinitrotoluene	32.0	32.0		ug/L		100	69 - 120
2,6-Dinitrotoluene	32.0	32.3		ug/L		101	68 - 120
2-Chloronaphthalene	32.0	29.6		ug/L		92	58 - 120
2-Chlorophenol	32.0	30.3		ug/L		95	48 - 120
2-Methylnaphthalene	32.0	30.5		ug/L		95	59 - 120
2-Methylphenol	32.0	30.4		ug/L		95	39 - 120

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

Lab Sample ID: LCS 480-391561/2-A
Matrix: Water
Analysis Batch: 391870

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 391561

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Nitroaniline	32.0	30.6		ug/L		96	54 - 127
2-Nitrophenol	32.0	31.1		ug/L		97	52 - 125
3,3'-Dichlorobenzidine	64.0	88.4	E *	ug/L		138	49 - 135
3-Nitroaniline	32.0	26.9		ug/L		84	51 - 120
4,6-Dinitro-2-methylphenol	64.0	66.1		ug/L		103	46 - 136
4-Bromophenyl phenyl ether	32.0	33.6		ug/L		105	65 - 120
4-Chloro-3-methylphenol	32.0	31.8		ug/L		99	61 - 123
4-Chloroaniline	32.0	22.6		ug/L		71	30 - 120
4-Chlorophenyl phenyl ether	32.0	30.4		ug/L		95	62 - 120
4-Methylphenol	32.0	29.9		ug/L		93	29 - 131
4-Nitroaniline	32.0	35.7		ug/L		112	65 - 120
4-Nitrophenol	64.0	53.5		ug/L		84	45 - 120
Acenaphthene	32.0	29.7		ug/L		93	60 - 120
Acenaphthylene	32.0	31.0		ug/L		97	63 - 120
Acetophenone	32.0	31.9		ug/L		100	45 - 120
Anthracene	32.0	34.2		ug/L		107	67 - 120
Atrazine	64.0	72.4		ug/L		113	71 - 130
Benzaldehyde	64.0	48.5		ug/L		76	10 - 140
Benzo(a)anthracene	32.0	34.4		ug/L		108	70 - 121
Benzo(a)pyrene	32.0	33.9		ug/L		106	60 - 123
Benzo(b)fluoranthene	32.0	35.5		ug/L		111	66 - 126
Benzo(g,h,i)perylene	32.0	34.6		ug/L		108	66 - 150
Benzo(k)fluoranthene	32.0	35.7		ug/L		111	65 - 124
Biphenyl	32.0	29.9		ug/L		93	59 - 120
bis (2-chloroisopropyl) ether	32.0	30.9		ug/L		96	21 - 136
Bis(2-chloroethoxy)methane	32.0	31.1		ug/L		97	50 - 128
Bis(2-chloroethyl)ether	32.0	30.1		ug/L		94	44 - 120
Bis(2-ethylhexyl) phthalate	32.0	33.7		ug/L		105	63 - 139
Butyl benzyl phthalate	32.0	34.5		ug/L		108	70 - 129
Caprolactam	64.0	27.9		ug/L		44	22 - 120
Carbazole	32.0	38.1		ug/L		119	66 - 123
Chrysene	32.0	34.4		ug/L		108	69 - 120
Dibenz(a,h)anthracene	32.0	33.9		ug/L		106	65 - 135
Dibenzofuran	32.0	31.0		ug/L		97	66 - 120
Diethyl phthalate	32.0	33.6		ug/L		105	59 - 127
Dimethyl phthalate	32.0	33.2		ug/L		104	68 - 120
Di-n-butyl phthalate	32.0	35.2		ug/L		110	69 - 131
Di-n-octyl phthalate	32.0	32.9		ug/L		103	63 - 140
Fluoranthene	32.0	34.8		ug/L		109	69 - 126
Fluorene	32.0	31.0		ug/L		97	66 - 120
Hexachlorobenzene	32.0	33.4		ug/L		104	61 - 120
Hexachlorobutadiene	32.0	26.9		ug/L		84	35 - 120
Hexachlorocyclopentadiene	32.0	19.1		ug/L		60	31 - 120
Hexachloroethane	32.0	25.7		ug/L		80	43 - 120
Indeno(1,2,3-cd)pyrene	32.0	34.4		ug/L		108	69 - 146
Isophorone	32.0	32.0		ug/L		100	55 - 120
Naphthalene	32.0	30.1		ug/L		94	57 - 120
Nitrobenzene	32.0	30.6		ug/L		96	53 - 123

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

Lab Sample ID: LCS 480-391561/2-A
Matrix: Water
Analysis Batch: 391870

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 391561

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
N-Nitrosodi-n-propylamine	32.0	31.9		ug/L		100	32 - 140
Pentachlorophenol	64.0	57.4		ug/L		90	29 - 136
Phenanthrene	32.0	34.5		ug/L		108	68 - 120
Phenol	32.0	20.2		ug/L		63	17 - 120
Pyrene	32.0	35.1		ug/L		110	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*111*		*41 - 120*
2-Fluorobiphenyl	*98*		*48 - 120*
2-Fluorophenol	*80*		*35 - 120*
Nitrobenzene-d5	*96*		*46 - 120*
Phenol-d5	*66*		*22 - 120*
p-Terphenyl-d14	*112*		*59 - 136*

Lab Sample ID: 480-128697-3 MS
Matrix: Water
Analysis Batch: 391870

Client Sample ID: MW-6
Prep Type: Total/NA
Prep Batch: 391561

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-Trichlorophenol	ND		32.0	33.8		ug/L		106	65 - 126
2,4,6-Trichlorophenol	ND		32.0	33.1		ug/L		104	64 - 120
2,4-Dichlorophenol	ND		32.0	32.8		ug/L		103	48 - 132
2,4-Dimethylphenol	ND		32.0	32.5		ug/L		101	39 - 130
2,4-Dinitrophenol	ND		64.0	65.2		ug/L		102	21 - 150
2,4-Dinitrotoluene	ND		32.0	33.2		ug/L		104	54 - 138
2,6-Dinitrotoluene	ND		32.0	32.9		ug/L		103	17 - 150
2-Chloronaphthalene	ND		32.0	31.1		ug/L		97	52 - 124
2-Chlorophenol	ND		32.0	30.8		ug/L		96	48 - 120
2-Methylnaphthalene	ND		32.0	31.6		ug/L		99	34 - 140
2-Methylphenol	ND		32.0	30.1		ug/L		94	46 - 120
2-Nitroaniline	ND		32.0	31.3		ug/L		98	44 - 136
2-Nitrophenol	ND		32.0	30.5		ug/L		95	38 - 141
3,3'-Dichlorobenzidine	ND	*	64.0	75.8	E	ug/L		118	10 - 150
3-Nitroaniline	ND		32.0	24.2		ug/L		76	32 - 150
4,6-Dinitro-2-methylphenol	ND		64.0	67.8		ug/L		106	38 - 150
4-Bromophenyl phenyl ether	ND		32.0	33.9		ug/L		106	63 - 126
4-Chloro-3-methylphenol	ND		32.0	31.3		ug/L		98	64 - 127
4-Chloroaniline	ND		32.0	19.6		ug/L		61	16 - 124
4-Chlorophenyl phenyl ether	ND		32.0	31.8		ug/L		99	61 - 120
4-Methylphenol	ND		32.0	29.1		ug/L		91	36 - 120
4-Nitroaniline	ND		32.0	36.0		ug/L		112	32 - 150
4-Nitrophenol	ND		64.0	53.8		ug/L		84	23 - 132
Acenaphthene	ND		32.0	31.6		ug/L		99	48 - 120
Acenaphthylene	ND		32.0	31.9		ug/L		100	63 - 120
Acetophenone	ND		32.0	31.8		ug/L		99	53 - 120
Anthracene	ND		32.0	34.6		ug/L		108	65 - 122
Atrazine	ND		64.0	73.4		ug/L		115	50 - 150
Benzaldehyde	ND		64.0	46.3		ug/L		72	10 - 150

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

Lab Sample ID: 480-128697-3 MS
Matrix: Water
Analysis Batch: 391870

Client Sample ID: MW-6
Prep Type: Total/NA
Prep Batch: 391561

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo(a)anthracene	ND		32.0	28.7		ug/L		90	43 - 124
Benzo(a)pyrene	ND		32.0	24.3		ug/L		76	23 - 125
Benzo(b)fluoranthene	ND		32.0	26.6		ug/L		83	27 - 127
Benzo(g,h,i)perylene	ND		32.0	23.8		ug/L		74	16 - 147
Benzo(k)fluoranthene	ND		32.0	24.1		ug/L		75	20 - 124
Biphenyl	ND		32.0	31.6		ug/L		99	57 - 120
bis (2-chloroisopropyl) ether	ND		32.0	31.0		ug/L		97	28 - 121
Bis(2-chloroethoxy)methane	ND		32.0	31.3		ug/L		98	44 - 128
Bis(2-chloroethyl)ether	ND		32.0	30.8		ug/L		96	45 - 120
Bis(2-ethylhexyl) phthalate	ND		32.0	21.8		ug/L		68	16 - 150
Butyl benzyl phthalate	ND		32.0	31.3		ug/L		98	51 - 140
Caprolactam	ND		64.0	24.2		ug/L		38	10 - 120
Carbazole	ND		32.0	39.6		ug/L		124	16 - 148
Chrysene	ND		32.0	28.2		ug/L		88	44 - 122
Dibenz(a,h)anthracene	ND		32.0	22.0		ug/L		69	16 - 139
Dibenzofuran	ND		32.0	31.4		ug/L		98	60 - 120
Diethyl phthalate	ND		32.0	34.0		ug/L		106	53 - 133
Dimethyl phthalate	ND		32.0	33.4		ug/L		104	59 - 123
Di-n-butyl phthalate	ND		32.0	33.7		ug/L		105	65 - 129
Di-n-octyl phthalate	ND		32.0	21.5		ug/L		67	16 - 150
Fluoranthene	0.48	J	32.0	34.8		ug/L		107	63 - 129
Fluorene	ND		32.0	32.8		ug/L		103	62 - 120
Hexachlorobenzene	ND		32.0	32.3		ug/L		101	57 - 121
Hexachlorobutadiene	ND		32.0	28.5		ug/L		89	37 - 120
Hexachlorocyclopentadiene	ND		32.0	20.5		ug/L		64	21 - 120
Hexachloroethane	ND		32.0	27.2		ug/L		85	16 - 130
Indeno(1,2,3-cd)pyrene	ND		32.0	23.1		ug/L		72	16 - 140
Isophorone	ND		32.0	32.2		ug/L		101	48 - 133
Naphthalene	ND		32.0	30.7		ug/L		96	45 - 120
Nitrobenzene	ND		32.0	31.4		ug/L		98	45 - 123
N-Nitrosodi-n-propylamine	ND		32.0	31.7		ug/L		99	49 - 120
Pentachlorophenol	ND		64.0	63.2		ug/L		99	23 - 149
Phenanthrene	0.99	J	32.0	35.7		ug/L		109	65 - 122
Phenol	ND		32.0	19.6		ug/L		61	16 - 120
Pyrene	ND		32.0	34.3		ug/L		107	58 - 128

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol	*111*		*41 - 120*
2-Fluorobiphenyl	*97*		*48 - 120*
2-Fluorophenol	*78*		*35 - 120*
Nitrobenzene-d5	*98*		*46 - 120*
Phenol-d5	*60*		*22 - 120*
p-Terphenyl-d14	*80*		*59 - 136*

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

Lab Sample ID: 480-128697-3 MSD
Matrix: Water
Analysis Batch: 391870

Client Sample ID: MW-6
Prep Type: Total/NA
Prep Batch: 391561

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,5-Trichlorophenol	ND		32.0	31.7		ug/L		99	65 - 126	7	18
2,4,6-Trichlorophenol	ND		32.0	29.7		ug/L		93	64 - 120	11	19
2,4-Dichlorophenol	ND		32.0	30.0		ug/L		94	48 - 132	9	19
2,4-Dimethylphenol	ND		32.0	29.5		ug/L		92	39 - 130	9	42
2,4-Dinitrophenol	ND		64.0	59.8		ug/L		93	21 - 150	9	22
2,4-Dinitrotoluene	ND		32.0	30.8		ug/L		96	54 - 138	7	20
2,6-Dinitrotoluene	ND		32.0	30.7		ug/L		96	17 - 150	7	15
2-Chloronaphthalene	ND		32.0	28.6		ug/L		89	52 - 124	8	21
2-Chlorophenol	ND		32.0	27.7		ug/L		87	48 - 120	11	25
2-Methylnaphthalene	ND		32.0	29.2		ug/L		91	34 - 140	8	21
2-Methylphenol	ND		32.0	26.9		ug/L		84	46 - 120	11	27
2-Nitroaniline	ND		32.0	29.0		ug/L		91	44 - 136	8	15
2-Nitrophenol	ND		32.0	29.8		ug/L		93	38 - 141	3	18
3,3'-Dichlorobenzidine	ND	*	64.0	79.5	E	ug/L		124	10 - 150	5	25
3-Nitroaniline	ND		32.0	23.3		ug/L		73	32 - 150	4	19
4,6-Dinitro-2-methylphenol	ND		64.0	64.5		ug/L		101	38 - 150	5	15
4-Bromophenyl phenyl ether	ND		32.0	31.7		ug/L		99	63 - 126	7	15
4-Chloro-3-methylphenol	ND		32.0	30.6		ug/L		96	64 - 127	2	27
4-Chloroaniline	ND		32.0	20.4		ug/L		64	16 - 124	4	22
4-Chlorophenyl phenyl ether	ND		32.0	29.4		ug/L		92	61 - 120	8	16
4-Methylphenol	ND		32.0	25.9		ug/L		81	36 - 120	11	24
4-Nitroaniline	ND		32.0	35.0		ug/L		109	32 - 150	3	24
4-Nitrophenol	ND		64.0	49.6		ug/L		77	23 - 132	8	48
Acenaphthene	ND		32.0	29.1		ug/L		91	48 - 120	8	24
Acenaphthylene	ND		32.0	29.7		ug/L		93	63 - 120	7	18
Acetophenone	ND		32.0	28.5		ug/L		89	53 - 120	11	20
Anthracene	ND		32.0	33.2		ug/L		104	65 - 122	4	15
Atrazine	ND		64.0	68.3		ug/L		107	50 - 150	7	20
Benzaldehyde	ND		64.0	41.7		ug/L		65	10 - 150	10	20
Benzo(a)anthracene	ND		32.0	27.7		ug/L		87	43 - 124	4	15
Benzo(a)pyrene	ND		32.0	22.8		ug/L		71	23 - 125	6	15
Benzo(b)fluoranthene	ND		32.0	25.5		ug/L		80	27 - 127	4	15
Benzo(g,h,i)perylene	ND		32.0	22.7		ug/L		71	16 - 147	5	15
Benzo(k)fluoranthene	ND		32.0	23.0		ug/L		72	20 - 124	5	22
Biphenyl	ND		32.0	28.2		ug/L		88	57 - 120	11	20
bis (2-chloroisopropyl) ether	ND		32.0	27.0		ug/L		84	28 - 121	14	24
Bis(2-chloroethoxy)methane	ND		32.0	29.0		ug/L		91	44 - 128	7	17
Bis(2-chloroethyl)ether	ND		32.0	26.4		ug/L		83	45 - 120	15	21
Bis(2-ethylhexyl) phthalate	ND		32.0	21.9		ug/L		68	16 - 150	0	15
Butyl benzyl phthalate	ND		32.0	29.7		ug/L		93	51 - 140	5	16
Caprolactam	ND		64.0	25.9		ug/L		40	10 - 120	7	20
Carbazole	ND		32.0	37.0		ug/L		115	16 - 148	7	20
Chrysene	ND		32.0	26.7		ug/L		84	44 - 122	5	15
Dibenz(a,h)anthracene	ND		32.0	21.7		ug/L		68	16 - 139	1	15
Dibenzofuran	ND		32.0	29.4		ug/L		92	60 - 120	7	15
Diethyl phthalate	ND		32.0	31.7		ug/L		99	53 - 133	7	15
Dimethyl phthalate	ND		32.0	31.0		ug/L		97	59 - 123	8	15
Di-n-butyl phthalate	ND		32.0	32.3		ug/L		101	65 - 129	4	15

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

Lab Sample ID: 480-128697-3 MSD
Matrix: Water
Analysis Batch: 391870

Client Sample ID: MW-6
Prep Type: Total/NA
Prep Batch: 391561

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Di-n-octyl phthalate	ND		32.0	21.5		ug/L		67	16 - 150	0	16
Fluoranthene	0.48	J	32.0	32.7		ug/L		101	63 - 129	6	15
Fluorene	ND		32.0	30.5		ug/L		95	62 - 120	7	15
Hexachlorobenzene	ND		32.0	30.2		ug/L		94	57 - 121	7	15
Hexachlorobutadiene	ND		32.0	25.7		ug/L		80	37 - 120	10	44
Hexachlorocyclopentadiene	ND		32.0	18.4		ug/L		57	21 - 120	11	49
Hexachloroethane	ND		32.0	24.7		ug/L		77	16 - 130	10	46
Indeno(1,2,3-cd)pyrene	ND		32.0	22.1		ug/L		69	16 - 140	4	15
Isophorone	ND		32.0	30.2		ug/L		94	48 - 133	6	17
Naphthalene	ND		32.0	28.4		ug/L		89	45 - 120	8	29
Nitrobenzene	ND		32.0	28.5		ug/L		89	45 - 123	10	24
N-Nitrosodi-n-propylamine	ND		32.0	29.0		ug/L		91	49 - 120	9	31
Pentachlorophenol	ND		64.0	59.4		ug/L		93	23 - 149	6	37
Phenanthrene	0.99	J	32.0	33.8		ug/L		103	65 - 122	6	15
Phenol	ND		32.0	18.0		ug/L		56	16 - 120	8	34
Pyrene	ND		32.0	32.6		ug/L		102	58 - 128	5	19

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*107*		*41 - 120*
2-Fluorobiphenyl	*92*		*48 - 120*
2-Fluorophenol	*70*		*35 - 120*
Nitrobenzene-d5	*90*		*46 - 120*
Phenol-d5	*57*		*22 - 120*
p-Terphenyl-d14	*76*		*59 - 136*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-391499/1-A
Matrix: Water
Analysis Batch: 391568

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 391499

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.050	0.0092	ug/L		12/11/17 14:36	12/12/17 12:18	1
4,4'-DDE	ND		0.050	0.012	ug/L		12/11/17 14:36	12/12/17 12:18	1
4,4'-DDT	ND		0.050	0.011	ug/L		12/11/17 14:36	12/12/17 12:18	1
Aldrin	ND		0.050	0.0081	ug/L		12/11/17 14:36	12/12/17 12:18	1
alpha-BHC	ND		0.050	0.0077	ug/L		12/11/17 14:36	12/12/17 12:18	1
alpha-Chlordane	ND		0.050	0.015	ug/L		12/11/17 14:36	12/12/17 12:18	1
beta-BHC	ND		0.050	0.025	ug/L		12/11/17 14:36	12/12/17 12:18	1
delta-BHC	ND		0.050	0.010	ug/L		12/11/17 14:36	12/12/17 12:18	1
Dieldrin	ND		0.050	0.0098	ug/L		12/11/17 14:36	12/12/17 12:18	1
Endosulfan I	ND		0.050	0.011	ug/L		12/11/17 14:36	12/12/17 12:18	1
Endosulfan II	ND		0.050	0.012	ug/L		12/11/17 14:36	12/12/17 12:18	1
Endosulfan sulfate	ND		0.050	0.016	ug/L		12/11/17 14:36	12/12/17 12:18	1
Endrin	ND		0.050	0.014	ug/L		12/11/17 14:36	12/12/17 12:18	1
Endrin aldehyde	ND		0.050	0.016	ug/L		12/11/17 14:36	12/12/17 12:18	1
Endrin ketone	ND		0.050	0.012	ug/L		12/11/17 14:36	12/12/17 12:18	1
gamma-BHC (Lindane)	ND		0.050	0.0080	ug/L		12/11/17 14:36	12/12/17 12:18	1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 480-391499/1-A
Matrix: Water
Analysis Batch: 391568

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 391499

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
gamma-Chlordane	ND		0.050	0.011	ug/L		12/11/17 14:36	12/12/17 12:18	1
Heptachlor	ND		0.050	0.0085	ug/L		12/11/17 14:36	12/12/17 12:18	1
Heptachlor epoxide	ND		0.050	0.0074	ug/L		12/11/17 14:36	12/12/17 12:18	1
Methoxychlor	ND		0.050	0.014	ug/L		12/11/17 14:36	12/12/17 12:18	1
Toxaphene	ND		0.50	0.12	ug/L		12/11/17 14:36	12/12/17 12:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*54*		*20 - 120*	*12/11/17 14:36*	*12/12/17 12:18*	*1*
DCB Decachlorobiphenyl	*53*		*20 - 120*	*12/11/17 14:36*	*12/12/17 12:18*	*1*
Tetrachloro-m-xylene	*75*		*44 - 120*	*12/11/17 14:36*	*12/12/17 12:18*	*1*
Tetrachloro-m-xylene	*64*		*44 - 120*	*12/11/17 14:36*	*12/12/17 12:18*	*1*

Lab Sample ID: LCS 480-391499/2-A
Matrix: Water
Analysis Batch: 391568

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 391499

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	0.400	0.407		ug/L		102	64 - 129
4,4'-DDE	0.400	0.363		ug/L		91	50 - 120
4,4'-DDT	0.400	0.426		ug/L		107	59 - 120
Aldrin	0.400	0.303		ug/L		76	40 - 125
alpha-BHC	0.400	0.308		ug/L		77	52 - 125
alpha-Chlordane	0.400	0.347		ug/L		87	52 - 120
beta-BHC	0.400	0.337		ug/L		84	51 - 120
delta-BHC	0.400	0.380		ug/L		95	51 - 120
Dieldrin	0.400	0.410		ug/L		103	66 - 128
Endosulfan I	0.400	0.322		ug/L		80	57 - 120
Endosulfan II	0.400	0.353		ug/L		88	66 - 131
Endosulfan sulfate	0.400	0.378		ug/L		94	66 - 136
Endrin	0.400	0.424		ug/L		106	65 - 135
Endrin aldehyde	0.400	0.332		ug/L		83	61 - 134
Endrin ketone	0.400	0.426		ug/L		106	71 - 133
gamma-BHC (Lindane)	0.400	0.339		ug/L		85	56 - 120
gamma-Chlordane	0.400	0.349		ug/L		87	54 - 120
Heptachlor	0.400	0.373		ug/L		93	58 - 120
Heptachlor epoxide	0.400	0.390		ug/L		98	65 - 125
Methoxychlor	0.400	0.451		ug/L		113	50 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*50*		*20 - 120*
DCB Decachlorobiphenyl	*51*		*20 - 120*
Tetrachloro-m-xylene	*79*		*44 - 120*
Tetrachloro-m-xylene	*68*		*44 - 120*

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 480-128697-3 MS
Matrix: Water
Analysis Batch: 391568

Client Sample ID: MW-6
Prep Type: Total/NA
Prep Batch: 391499

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	ND		0.400	0.359		ug/L		90	57 - 130
4,4'-DDE	ND		0.400	0.251		ug/L		63	39 - 120
4,4'-DDT	ND		0.400	0.326		ug/L		82	37 - 130
Aldrin	ND		0.400	0.258		ug/L		64	39 - 125
alpha-BHC	ND		0.400	0.308		ug/L		77	48 - 120
alpha-Chlordane	ND		0.400	0.300		ug/L		75	44 - 120
beta-BHC	ND		0.400	0.325		ug/L		81	49 - 120
delta-BHC	ND		0.400	0.381		ug/L		95	50 - 120
Dieldrin	ND		0.400	0.395		ug/L		99	56 - 130
Endosulfan I	ND		0.400	0.303		ug/L		76	40 - 126
Endosulfan II	ND		0.400	0.336		ug/L		84	59 - 140
Endosulfan sulfate	ND		0.400	0.396		ug/L		99	60 - 134
Endrin	ND		0.400	0.396		ug/L		99	54 - 135
Endrin aldehyde	ND		0.400	0.363		ug/L		91	50 - 142
Endrin ketone	ND		0.400	0.415		ug/L		104	57 - 138
gamma-BHC (Lindane)	ND		0.400	0.339		ug/L		85	50 - 120
gamma-Chlordane	ND		0.400	0.305		ug/L		76	42 - 120
Heptachlor	ND		0.400	0.342		ug/L		85	56 - 120
Heptachlor epoxide	ND		0.400	0.380		ug/L		95	58 - 125
Methoxychlor	ND		0.400	0.412		ug/L		103	40 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*21*		*20 - 120*
DCB Decachlorobiphenyl	*23*		*20 - 120*
Tetrachloro-m-xylene	*82*		*44 - 120*
Tetrachloro-m-xylene	*73*		*44 - 120*

Lab Sample ID: 480-128697-3 MSD
Matrix: Water
Analysis Batch: 391568

Client Sample ID: MW-6
Prep Type: Total/NA
Prep Batch: 391499

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	ND		0.400	0.380		ug/L		95	57 - 130	6	23
4,4'-DDE	ND		0.400	0.303		ug/L		76	39 - 120	18	22
4,4'-DDT	ND		0.400	0.372		ug/L		93	37 - 130	13	24
Aldrin	ND		0.400	0.282		ug/L		71	39 - 125	9	25
alpha-BHC	ND		0.400	0.302		ug/L		75	48 - 120	2	24
alpha-Chlordane	ND		0.400	0.319		ug/L		80	44 - 120	6	23
beta-BHC	ND		0.400	0.318		ug/L		79	49 - 120	2	24
delta-BHC	ND		0.400	0.375		ug/L		94	50 - 120	2	24
Dieldrin	ND		0.400	0.394		ug/L		99	56 - 130	0	24
Endosulfan I	ND		0.400	0.304		ug/L		76	40 - 126	0	30
Endosulfan II	ND		0.400	0.332		ug/L		83	59 - 140	1	40
Endosulfan sulfate	ND		0.400	0.390		ug/L		97	60 - 134	2	24
Endrin	ND		0.400	0.396		ug/L		99	54 - 135	0	24
Endrin aldehyde	ND		0.400	0.338		ug/L		84	50 - 142	7	28
Endrin ketone	ND		0.400	0.415		ug/L		104	57 - 138	0	26
gamma-BHC (Lindane)	ND		0.400	0.332		ug/L		83	50 - 120	2	24

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 480-128697-3 MSD
Matrix: Water
Analysis Batch: 391568

Client Sample ID: MW-6
Prep Type: Total/NA
Prep Batch: 391499

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
gamma-Chlordane	ND		0.400	0.334		ug/L		84	42 - 120	9	24
Heptachlor	ND		0.400	0.356		ug/L		89	56 - 120	4	25
Heptachlor epoxide	ND		0.400	0.388		ug/L		97	58 - 125	2	23
Methoxychlor	ND		0.400	0.419		ug/L		105	40 - 150	1	26

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*31*		*20 - 120*
DCB Decachlorobiphenyl	*38*		*20 - 120*
Tetrachloro-m-xylene	*78*		*44 - 120*
Tetrachloro-m-xylene	*73*		*44 - 120*

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

Lab Sample ID: MB 480-391486/1-A
Matrix: Water
Analysis Batch: 391610

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 391486

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		12/11/17 14:13	12/12/17 12:43	1
PCB-1221	ND		0.50	0.18	ug/L		12/11/17 14:13	12/12/17 12:43	1
PCB-1232	ND		0.50	0.18	ug/L		12/11/17 14:13	12/12/17 12:43	1
PCB-1242	ND		0.50	0.18	ug/L		12/11/17 14:13	12/12/17 12:43	1
PCB-1248	ND		0.50	0.18	ug/L		12/11/17 14:13	12/12/17 12:43	1
PCB-1254	ND		0.50	0.25	ug/L		12/11/17 14:13	12/12/17 12:43	1
PCB-1260	ND		0.50	0.25	ug/L		12/11/17 14:13	12/12/17 12:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*44*		*19 - 120*	*12/11/17 14:13*	*12/12/17 12:43*	*1*
DCB Decachlorobiphenyl	*44*		*19 - 120*	*12/11/17 14:13*	*12/12/17 12:43*	*1*
Tetrachloro-m-xylene	*75*		*39 - 121*	*12/11/17 14:13*	*12/12/17 12:43*	*1*
Tetrachloro-m-xylene	*65*		*39 - 121*	*12/11/17 14:13*	*12/12/17 12:43*	*1*

Lab Sample ID: LCS 480-391486/2-A
Matrix: Water
Analysis Batch: 391610

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 391486

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016			4.00	5.16		ug/L		129	62 - 130		
PCB-1260			4.00	4.80		ug/L		120	56 - 123		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*58*		*19 - 120*
DCB Decachlorobiphenyl	*58*		*19 - 120*
Tetrachloro-m-xylene	*110*		*39 - 121*
Tetrachloro-m-xylene	*100*		*39 - 121*

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

Lab Sample ID: 480-128697-3 MS
Matrix: Water
Analysis Batch: 391610

Client Sample ID: MW-6
Prep Type: Total/NA
Prep Batch: 391486

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	ND		4.00	4.40		ug/L		110	28 - 150
PCB-1260	ND		4.00	3.50		ug/L		88	25 - 131

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*60*		*19 - 120*
DCB Decachlorobiphenyl	*62*		*19 - 120*
Tetrachloro-m-xylene	*97*		*39 - 121*
Tetrachloro-m-xylene	*83*		*39 - 121*

Lab Sample ID: 480-128697-3 MSD
Matrix: Water
Analysis Batch: 391610

Client Sample ID: MW-6
Prep Type: Total/NA
Prep Batch: 391486

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	ND		4.00	4.80		ug/L		120	28 - 150	9	50
PCB-1260	ND		4.00	4.02		ug/L		100	25 - 131	14	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*37*		*19 - 120*
DCB Decachlorobiphenyl	*41*		*19 - 120*
Tetrachloro-m-xylene	*105*		*39 - 121*
Tetrachloro-m-xylene	*93*		*39 - 121*

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 480-391367/1-A
Matrix: Water
Analysis Batch: 391678

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 391367

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		0.50	0.068	ug/L		12/11/17 08:00	12/12/17 16:47	1
Silvex (2,4,5-TP)	ND		0.50	0.050	ug/L		12/11/17 08:00	12/12/17 16:47	1
2,4-D	ND		0.50	0.17	ug/L		12/11/17 08:00	12/12/17 16:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*100*		*48 - 132*	*12/11/17 08:00*	*12/12/17 16:47*	*1*
2,4-Dichlorophenylacetic acid	*109*		*48 - 132*	*12/11/17 08:00*	*12/12/17 16:47*	*1*

Lab Sample ID: LCS 480-391367/2-A
Matrix: Water
Analysis Batch: 391678

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 391367

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-T	2.00	1.86		ug/L		93	41 - 150
Silvex (2,4,5-TP)	2.00	1.55		ug/L		78	49 - 150
2,4-D	2.00	4.63	*	ug/L		231	36 - 150

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCS 480-391367/2-A
Matrix: Water
Analysis Batch: 391678

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 391367

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*119*		*48 - 132*
2,4-Dichlorophenylacetic acid	*79*		*48 - 132*

Lab Sample ID: 480-128697-3 MS
Matrix: Water
Analysis Batch: 391678

Client Sample ID: MW-6
Prep Type: Total/NA
Prep Batch: 391367

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-T	ND		2.08	1.47		ug/L		70	34 - 138
Silvex (2,4,5-TP)	ND		2.08	1.33		ug/L		64	25 - 146
2,4-D	ND	* F1	2.08	10.1	E F1	ug/L		483	31 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*48*		*48 - 132*
2,4-Dichlorophenylacetic acid	*NaN*		*48 - 132*

Lab Sample ID: 480-128697-3 MSD
Matrix: Water
Analysis Batch: 391678

Client Sample ID: MW-6
Prep Type: Total/NA
Prep Batch: 391367

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,5-T	ND		2.06	2.14		ug/L		104	34 - 138	37	50
Silvex (2,4,5-TP)	ND		2.06	1.84		ug/L		89	25 - 146	32	50
2,4-D	ND	* F1	2.06	7.27	E F1	ug/L		353	31 - 150	32	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*72*		*48 - 132*
2,4-Dichlorophenylacetic acid	*89*		*48 - 132*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-391424/1-B
Matrix: Water
Analysis Batch: 392219

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 391795

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		12/13/17 10:56	12/14/17 16:15	1
Antimony	ND		0.020	0.0068	mg/L		12/13/17 10:56	12/14/17 16:15	1
Arsenic	ND		0.015	0.0056	mg/L		12/13/17 10:56	12/14/17 16:15	1
Barium	ND		0.0020	0.00070	mg/L		12/13/17 10:56	12/14/17 16:15	1
Beryllium	ND		0.0020	0.00030	mg/L		12/13/17 10:56	12/14/17 16:15	1
Cadmium	ND		0.0020	0.00050	mg/L		12/13/17 10:56	12/14/17 16:15	1
Calcium	ND		0.50	0.10	mg/L		12/13/17 10:56	12/14/17 16:15	1
Chromium	ND		0.0040	0.0010	mg/L		12/13/17 10:56	12/14/17 16:15	1
Cobalt	ND		0.0040	0.00063	mg/L		12/13/17 10:56	12/14/17 16:15	1
Copper	ND		0.010	0.0016	mg/L		12/13/17 10:56	12/14/17 16:15	1
Iron	ND		0.050	0.019	mg/L		12/13/17 10:56	12/14/17 16:15	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 480-391424/1-B
Matrix: Water
Analysis Batch: 392219

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 391795

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.010	0.0030	mg/L		12/13/17 10:56	12/14/17 16:15	1
Magnesium	ND		0.20	0.043	mg/L		12/13/17 10:56	12/14/17 16:15	1
Manganese	ND		0.0030	0.00040	mg/L		12/13/17 10:56	12/14/17 16:15	1
Nickel	ND		0.010	0.0013	mg/L		12/13/17 10:56	12/14/17 16:15	1
Potassium	ND		0.50	0.10	mg/L		12/13/17 10:56	12/14/17 16:15	1
Selenium	ND		0.025	0.0087	mg/L		12/13/17 10:56	12/14/17 16:15	1
Silver	ND		0.0060	0.0017	mg/L		12/13/17 10:56	12/14/17 16:15	1
Sodium	ND		1.0	0.32	mg/L		12/13/17 10:56	12/14/17 16:15	1
Thallium	ND		0.020	0.010	mg/L		12/13/17 10:56	12/14/17 16:15	1
Vanadium	ND		0.0050	0.0015	mg/L		12/13/17 10:56	12/14/17 16:15	1

Lab Sample ID: MB 480-391424/1-B
Matrix: Water
Analysis Batch: 392526

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 391795

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		0.010	0.0015	mg/L		12/13/17 10:56	12/15/17 09:46	1

Lab Sample ID: LCS 480-391424/2-B
Matrix: Water
Analysis Batch: 392219

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 391795

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	10.0	10.26		mg/L		103	80 - 120
Antimony	0.200	0.198		mg/L		99	80 - 120
Arsenic	0.200	0.202		mg/L		101	80 - 120
Barium	0.200	0.200		mg/L		100	80 - 120
Beryllium	0.200	0.213		mg/L		107	80 - 120
Cadmium	0.200	0.194		mg/L		97	80 - 120
Calcium	10.0	10.16		mg/L		102	80 - 120
Chromium	0.200	0.201		mg/L		101	80 - 120
Cobalt	0.200	0.192		mg/L		96	80 - 120
Copper	0.200	0.202		mg/L		101	80 - 120
Iron	10.0	10.38		mg/L		104	80 - 120
Lead	0.200	0.203		mg/L		102	80 - 120
Magnesium	10.0	10.26		mg/L		103	80 - 120
Manganese	0.200	0.212		mg/L		106	80 - 120
Nickel	0.200	0.202		mg/L		101	80 - 120
Potassium	10.0	10.16		mg/L		102	80 - 120
Selenium	0.200	0.195		mg/L		97	80 - 120
Silver	0.0500	0.0503		mg/L		101	80 - 120
Sodium	10.0	10.15		mg/L		101	80 - 120
Thallium	0.200	0.197		mg/L		99	80 - 120
Vanadium	0.200	0.204		mg/L		102	80 - 120
Zinc	0.200	0.209		mg/L		105	80 - 120

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-128697-3 MS
Matrix: Water
Analysis Batch: 392219

Client Sample ID: MW-6
Prep Type: Dissolved
Prep Batch: 391795

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	ND		10.0	10.29		mg/L		103	75 - 125
Antimony	ND		0.200	0.203		mg/L		101	75 - 125
Arsenic	ND		0.200	0.206		mg/L		103	75 - 125
Barium	0.34		0.200	0.534		mg/L		96	75 - 125
Beryllium	ND		0.200	0.215		mg/L		108	75 - 125
Cadmium	ND		0.200	0.198		mg/L		99	75 - 125
Calcium	109		10.0	118.0	4	mg/L		87	75 - 125
Chromium	ND		0.200	0.199		mg/L		100	75 - 125
Cobalt	ND		0.200	0.198		mg/L		99	75 - 125
Copper	ND		0.200	0.203		mg/L		101	75 - 125
Iron	0.26		10.0	10.20		mg/L		99	75 - 125
Lead	0.0099	J	0.200	0.210		mg/L		100	75 - 125
Magnesium	12.1		10.0	22.01		mg/L		99	75 - 125
Manganese	0.36		0.200	0.557		mg/L		99	75 - 125
Nickel	ND		0.200	0.207		mg/L		104	75 - 125
Potassium	7.7		10.0	18.04		mg/L		103	75 - 125
Selenium	ND		0.200	0.200		mg/L		100	75 - 125
Silver	ND		0.0500	0.0517		mg/L		103	75 - 125
Sodium	96.6		10.0	107.5	4	mg/L		109	75 - 125
Thallium	ND		0.200	0.197		mg/L		98	75 - 125
Vanadium	ND		0.200	0.207		mg/L		103	75 - 125
Zinc	0.026		0.200	0.222		mg/L		98	75 - 125

Lab Sample ID: 480-128697-3 MSD
Matrix: Water
Analysis Batch: 392219

Client Sample ID: MW-6
Prep Type: Dissolved
Prep Batch: 391795

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	ND		10.0	10.59		mg/L		106	75 - 125	3	20
Antimony	ND		0.200	0.207		mg/L		104	75 - 125	2	20
Arsenic	ND		0.200	0.211		mg/L		106	75 - 125	2	20
Barium	0.34		0.200	0.543		mg/L		100	75 - 125	2	20
Beryllium	ND		0.200	0.223		mg/L		112	75 - 125	4	20
Cadmium	ND		0.200	0.201		mg/L		101	75 - 125	2	20
Calcium	109		10.0	122.4	4	mg/L		132	75 - 125	4	20
Chromium	ND		0.200	0.204		mg/L		102	75 - 125	2	20
Cobalt	ND		0.200	0.202		mg/L		101	75 - 125	2	20
Copper	ND		0.200	0.205		mg/L		103	75 - 125	1	20
Iron	0.26		10.0	10.51		mg/L		103	75 - 125	3	20
Lead	0.0099	J	0.200	0.213		mg/L		102	75 - 125	2	20
Magnesium	12.1		10.0	22.37		mg/L		103	75 - 125	2	20
Manganese	0.36		0.200	0.573		mg/L		107	75 - 125	3	20
Nickel	ND		0.200	0.211		mg/L		105	75 - 125	2	20
Potassium	7.7		10.0	18.51		mg/L		108	75 - 125	3	20
Selenium	ND		0.200	0.200		mg/L		100	75 - 125	0	20
Silver	ND		0.0500	0.0523		mg/L		105	75 - 125	1	20
Sodium	96.6		10.0	109.4	4	mg/L		128	75 - 125	2	20
Thallium	ND		0.200	0.200		mg/L		100	75 - 125	1	20

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-128697-3 MSD
Matrix: Water
Analysis Batch: 392219

Client Sample ID: MW-6
Prep Type: Dissolved
Prep Batch: 391795

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vanadium	ND		0.200	0.211		mg/L		105	75 - 125	2	20
Zinc	0.026		0.200	0.231		mg/L		102	75 - 125	4	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-391424/1-E
Matrix: Water
Analysis Batch: 392022

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 391850

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		12/13/17 13:30	12/13/17 16:12	1

Lab Sample ID: LCS 480-391424/2-E
Matrix: Water
Analysis Batch: 392022

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 391850

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00680		mg/L		102	80 - 120

Lab Sample ID: 480-128697-3 MS
Matrix: Water
Analysis Batch: 392022

Client Sample ID: MW-6
Prep Type: Dissolved
Prep Batch: 391850

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		0.00667	0.00722		mg/L		108	80 - 120

Lab Sample ID: 480-128697-3 MSD
Matrix: Water
Analysis Batch: 392022

Client Sample ID: MW-6
Prep Type: Dissolved
Prep Batch: 391850

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.00667	0.00710		mg/L		106	80 - 120	2	20

GC/MS VOA

Analysis Batch: 391711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128697-2	MW-8	Total/NA	Water	8260C	
480-128697-3	MW-6	Total/NA	Water	8260C	
480-128697-4	MW-7	Total/NA	Water	8260C	
480-128697-5	BLIND DUP	Total/NA	Water	8260C	
480-128697-6	TRIP BLANK	Total/NA	Water	8260C	
MB 480-391711/6	Method Blank	Total/NA	Water	8260C	
LCS 480-391711/4	Lab Control Sample	Total/NA	Water	8260C	
480-128697-3 MS	MW-6	Total/NA	Water	8260C	
480-128697-3 MSD	MW-6	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 391561

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128697-1	MW-5	Total/NA	Water	3510C	
480-128697-2	MW-8	Total/NA	Water	3510C	
480-128697-3	MW-6	Total/NA	Water	3510C	
480-128697-4	MW-7	Total/NA	Water	3510C	
480-128697-5	BLIND DUP	Total/NA	Water	3510C	
MB 480-391561/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-391561/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-128697-3 MS	MW-6	Total/NA	Water	3510C	
480-128697-3 MSD	MW-6	Total/NA	Water	3510C	

Analysis Batch: 391870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128697-1	MW-5	Total/NA	Water	8270D	391561
480-128697-2	MW-8	Total/NA	Water	8270D	391561
480-128697-3	MW-6	Total/NA	Water	8270D	391561
480-128697-4	MW-7	Total/NA	Water	8270D	391561
480-128697-5	BLIND DUP	Total/NA	Water	8270D	391561
MB 480-391561/1-A	Method Blank	Total/NA	Water	8270D	391561
LCS 480-391561/2-A	Lab Control Sample	Total/NA	Water	8270D	391561
480-128697-3 MS	MW-6	Total/NA	Water	8270D	391561
480-128697-3 MSD	MW-6	Total/NA	Water	8270D	391561

GC Semi VOA

Prep Batch: 391367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128697-1	MW-5	Total/NA	Water	8151A	
480-128697-2	MW-8	Total/NA	Water	8151A	
480-128697-3	MW-6	Total/NA	Water	8151A	
480-128697-4	MW-7	Total/NA	Water	8151A	
480-128697-5	BLIND DUP	Total/NA	Water	8151A	
MB 480-391367/1-A	Method Blank	Total/NA	Water	8151A	
LCS 480-391367/2-A	Lab Control Sample	Total/NA	Water	8151A	
480-128697-3 MS	MW-6	Total/NA	Water	8151A	
480-128697-3 MSD	MW-6	Total/NA	Water	8151A	

GC Semi VOA (Continued)

Prep Batch: 391486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128697-1	MW-5	Total/NA	Water	3510C	
480-128697-2	MW-8	Total/NA	Water	3510C	
480-128697-3	MW-6	Total/NA	Water	3510C	
480-128697-4	MW-7	Total/NA	Water	3510C	
480-128697-5	BLIND DUP	Total/NA	Water	3510C	
MB 480-391486/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-391486/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-128697-3 MS	MW-6	Total/NA	Water	3510C	
480-128697-3 MSD	MW-6	Total/NA	Water	3510C	

Prep Batch: 391499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128697-1	MW-5	Total/NA	Water	3510C	
480-128697-2	MW-8	Total/NA	Water	3510C	
480-128697-3	MW-6	Total/NA	Water	3510C	
480-128697-4	MW-7	Total/NA	Water	3510C	
480-128697-5	BLIND DUP	Total/NA	Water	3510C	
MB 480-391499/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-391499/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-128697-3 MS	MW-6	Total/NA	Water	3510C	
480-128697-3 MSD	MW-6	Total/NA	Water	3510C	

Analysis Batch: 391568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128697-1	MW-5	Total/NA	Water	8081B	391499
480-128697-2	MW-8	Total/NA	Water	8081B	391499
480-128697-3	MW-6	Total/NA	Water	8081B	391499
480-128697-4	MW-7	Total/NA	Water	8081B	391499
480-128697-5	BLIND DUP	Total/NA	Water	8081B	391499
MB 480-391499/1-A	Method Blank	Total/NA	Water	8081B	391499
LCS 480-391499/2-A	Lab Control Sample	Total/NA	Water	8081B	391499
480-128697-3 MS	MW-6	Total/NA	Water	8081B	391499
480-128697-3 MSD	MW-6	Total/NA	Water	8081B	391499

Analysis Batch: 391610

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128697-1	MW-5	Total/NA	Water	8082A	391486
480-128697-2	MW-8	Total/NA	Water	8082A	391486
480-128697-3	MW-6	Total/NA	Water	8082A	391486
480-128697-4	MW-7	Total/NA	Water	8082A	391486
480-128697-5	BLIND DUP	Total/NA	Water	8082A	391486
MB 480-391486/1-A	Method Blank	Total/NA	Water	8082A	391486
LCS 480-391486/2-A	Lab Control Sample	Total/NA	Water	8082A	391486
480-128697-3 MS	MW-6	Total/NA	Water	8082A	391486
480-128697-3 MSD	MW-6	Total/NA	Water	8082A	391486

Analysis Batch: 391678

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128697-1	MW-5	Total/NA	Water	8151A	391367
480-128697-2	MW-8	Total/NA	Water	8151A	391367
480-128697-3	MW-6	Total/NA	Water	8151A	391367

GC Semi VOA (Continued)

Analysis Batch: 391678 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128697-4	MW-7	Total/NA	Water	8151A	391367
480-128697-5	BLIND DUP	Total/NA	Water	8151A	391367
MB 480-391367/1-A	Method Blank	Total/NA	Water	8151A	391367
LCS 480-391367/2-A	Lab Control Sample	Total/NA	Water	8151A	391367
480-128697-3 MS	MW-6	Total/NA	Water	8151A	391367
480-128697-3 MSD	MW-6	Total/NA	Water	8151A	391367

Metals

Filtration Batch: 391424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128697-1	MW-5	Dissolved	Water	FILTRATION	
480-128697-2	MW-8	Dissolved	Water	FILTRATION	
480-128697-3	MW-6	Dissolved	Water	FILTRATION	
480-128697-4	MW-7	Dissolved	Water	FILTRATION	
480-128697-5	BLIND DUP	Dissolved	Water	FILTRATION	
MB 480-391424/1-B	Method Blank	Dissolved	Water	FILTRATION	
MB 480-391424/1-E	Method Blank	Dissolved	Water	FILTRATION	
LCS 480-391424/2-B	Lab Control Sample	Dissolved	Water	FILTRATION	
LCS 480-391424/2-E	Lab Control Sample	Dissolved	Water	FILTRATION	
480-128697-3 MS	MW-6	Dissolved	Water	FILTRATION	
480-128697-3 MSD	MW-6	Dissolved	Water	FILTRATION	

Prep Batch: 391795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128697-1	MW-5	Dissolved	Water	3005A	391424
480-128697-2	MW-8	Dissolved	Water	3005A	391424
480-128697-3	MW-6	Dissolved	Water	3005A	391424
480-128697-4	MW-7	Dissolved	Water	3005A	391424
480-128697-5	BLIND DUP	Dissolved	Water	3005A	391424
MB 480-391424/1-B	Method Blank	Dissolved	Water	3005A	391424
LCS 480-391424/2-B	Lab Control Sample	Dissolved	Water	3005A	391424
480-128697-3 MS	MW-6	Dissolved	Water	3005A	391424
480-128697-3 MSD	MW-6	Dissolved	Water	3005A	391424

Prep Batch: 391850

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128697-1	MW-5	Dissolved	Water	7470A	391424
480-128697-2	MW-8	Dissolved	Water	7470A	391424
480-128697-3	MW-6	Dissolved	Water	7470A	391424
480-128697-4	MW-7	Dissolved	Water	7470A	391424
480-128697-5	BLIND DUP	Dissolved	Water	7470A	391424
MB 480-391424/1-E	Method Blank	Dissolved	Water	7470A	391424
LCS 480-391424/2-E	Lab Control Sample	Dissolved	Water	7470A	391424
480-128697-3 MS	MW-6	Dissolved	Water	7470A	391424
480-128697-3 MSD	MW-6	Dissolved	Water	7470A	391424

Analysis Batch: 392022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128697-1	MW-5	Dissolved	Water	7470A	391850

Metals (Continued)

Analysis Batch: 392022 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128697-2	MW-8	Dissolved	Water	7470A	391850
480-128697-3	MW-6	Dissolved	Water	7470A	391850
480-128697-4	MW-7	Dissolved	Water	7470A	391850
480-128697-5	BLIND DUP	Dissolved	Water	7470A	391850
MB 480-391424/1-E	Method Blank	Dissolved	Water	7470A	391850
LCS 480-391424/2-E	Lab Control Sample	Dissolved	Water	7470A	391850
480-128697-3 MS	MW-6	Dissolved	Water	7470A	391850
480-128697-3 MSD	MW-6	Dissolved	Water	7470A	391850

Analysis Batch: 392219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128697-1	MW-5	Dissolved	Water	6010C	391795
480-128697-2	MW-8	Dissolved	Water	6010C	391795
480-128697-3	MW-6	Dissolved	Water	6010C	391795
480-128697-4	MW-7	Dissolved	Water	6010C	391795
480-128697-5	BLIND DUP	Dissolved	Water	6010C	391795
MB 480-391424/1-B	Method Blank	Dissolved	Water	6010C	391795
LCS 480-391424/2-B	Lab Control Sample	Dissolved	Water	6010C	391795
480-128697-3 MS	MW-6	Dissolved	Water	6010C	391795
480-128697-3 MSD	MW-6	Dissolved	Water	6010C	391795

Analysis Batch: 392526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-391424/1-B	Method Blank	Dissolved	Water	6010C	391795

Client Sample ID: MW-5

Lab Sample ID: 480-128697-1

Date Collected: 12/07/17 12:47

Matrix: Water

Date Received: 12/08/17 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			391561	12/12/17 08:17	JMP	TAL BUF
Total/NA	Analysis	8270D		1	391870	12/13/17 21:49	PJQ	TAL BUF
Total/NA	Prep	3510C			391499	12/11/17 14:36	ATG	TAL BUF
Total/NA	Analysis	8081B		1	391568	12/12/17 15:15	JLS	TAL BUF
Total/NA	Prep	3510C			391486	12/11/17 14:13	ATG	TAL BUF
Total/NA	Analysis	8082A		1	391610	12/12/17 14:51	JMO	TAL BUF
Total/NA	Prep	8151A			391367	12/11/17 08:00	JMP	TAL BUF
Total/NA	Analysis	8151A		1	391678	12/12/17 19:16	JMO	TAL BUF
Dissolved	Filtration	FILTRATION			391424	12/11/17 10:58	EMB	TAL BUF
Dissolved	Prep	3005A			391795	12/13/17 10:56	EMB	TAL BUF
Dissolved	Analysis	6010C		1	392219	12/14/17 16:25	AMH	TAL BUF
Dissolved	Filtration	FILTRATION			391424	12/11/17 10:58	EMB	TAL BUF
Dissolved	Prep	7470A			391850	12/13/17 13:30	BMB	TAL BUF
Dissolved	Analysis	7470A		1	392022	12/13/17 16:16	BMB	TAL BUF

Client Sample ID: MW-8

Lab Sample ID: 480-128697-2

Date Collected: 12/07/17 12:19

Matrix: Water

Date Received: 12/08/17 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	391711	12/13/17 02:20	RRS	TAL BUF
Total/NA	Prep	3510C			391561	12/12/17 08:17	JMP	TAL BUF
Total/NA	Analysis	8270D		10	391870	12/13/17 22:18	PJQ	TAL BUF
Total/NA	Prep	3510C			391499	12/11/17 14:36	ATG	TAL BUF
Total/NA	Analysis	8081B		1	391568	12/12/17 15:35	JLS	TAL BUF
Total/NA	Prep	3510C			391486	12/11/17 14:13	ATG	TAL BUF
Total/NA	Analysis	8082A		1	391610	12/12/17 15:07	JMO	TAL BUF
Total/NA	Prep	8151A			391367	12/11/17 08:00	JMP	TAL BUF
Total/NA	Analysis	8151A		1	391678	12/12/17 19:46	JMO	TAL BUF
Dissolved	Filtration	FILTRATION			391424	12/11/17 10:58	EMB	TAL BUF
Dissolved	Prep	3005A			391795	12/13/17 10:56	EMB	TAL BUF
Dissolved	Analysis	6010C		1	392219	12/14/17 16:29	AMH	TAL BUF
Dissolved	Filtration	FILTRATION			391424	12/11/17 10:58	EMB	TAL BUF
Dissolved	Prep	7470A			391850	12/13/17 13:30	BMB	TAL BUF
Dissolved	Analysis	7470A		1	392022	12/13/17 16:18	BMB	TAL BUF

Client Sample ID: MW-6

Lab Sample ID: 480-128697-3

Date Collected: 12/07/17 10:10

Matrix: Water

Date Received: 12/08/17 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	391711	12/13/17 02:44	RRS	TAL BUF
Total/NA	Prep	3510C			391561	12/12/17 08:17	JMP	TAL BUF

Client Sample ID: MW-6

Lab Sample ID: 480-128697-3

Date Collected: 12/07/17 10:10

Matrix: Water

Date Received: 12/08/17 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270D		1	391870	12/13/17 20:52	PJQ	TAL BUF
Total/NA	Prep	3510C			391499	12/11/17 14:36	ATG	TAL BUF
Total/NA	Analysis	8081B		1	391568	12/12/17 13:37	JLS	TAL BUF
Total/NA	Prep	3510C			391486	12/11/17 14:13	ATG	TAL BUF
Total/NA	Analysis	8082A		1	391610	12/12/17 13:47	JMO	TAL BUF
Total/NA	Prep	8151A			391367	12/11/17 08:00	JMP	TAL BUF
Total/NA	Analysis	8151A		1	391678	12/12/17 18:46	JMO	TAL BUF
Dissolved	Filtration	FILTRATION			391424	12/11/17 10:58	EMB	TAL BUF
Dissolved	Prep	3005A			391795	12/13/17 10:56	EMB	TAL BUF
Dissolved	Analysis	6010C		1	392219	12/14/17 16:32	AMH	TAL BUF
Dissolved	Filtration	FILTRATION			391424	12/11/17 10:58	EMB	TAL BUF
Dissolved	Prep	7470A			391850	12/13/17 13:30	BMB	TAL BUF
Dissolved	Analysis	7470A		1	392022	12/13/17 16:19	BMB	TAL BUF

Client Sample ID: MW-7

Lab Sample ID: 480-128697-4

Date Collected: 12/07/17 11:23

Matrix: Water

Date Received: 12/08/17 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	391711	12/13/17 03:07	RRS	TAL BUF
Total/NA	Prep	3510C			391561	12/12/17 08:17	JMP	TAL BUF
Total/NA	Analysis	8270D		1	391870	12/13/17 22:47	PJQ	TAL BUF
Total/NA	Prep	3510C			391499	12/11/17 14:36	ATG	TAL BUF
Total/NA	Analysis	8081B		1	391568	12/12/17 15:55	JLS	TAL BUF
Total/NA	Prep	3510C			391486	12/11/17 14:13	ATG	TAL BUF
Total/NA	Analysis	8082A		1	391610	12/12/17 15:23	JMO	TAL BUF
Total/NA	Prep	8151A			391367	12/11/17 08:00	JMP	TAL BUF
Total/NA	Analysis	8151A		1	391678	12/12/17 20:16	JMO	TAL BUF
Dissolved	Filtration	FILTRATION			391424	12/11/17 10:58	EMB	TAL BUF
Dissolved	Prep	3005A			391795	12/13/17 10:56	EMB	TAL BUF
Dissolved	Analysis	6010C		1	392219	12/14/17 17:00	AMH	TAL BUF
Dissolved	Filtration	FILTRATION			391424	12/11/17 10:58	EMB	TAL BUF
Dissolved	Prep	7470A			391850	12/13/17 13:30	BMB	TAL BUF
Dissolved	Analysis	7470A		1	392022	12/13/17 16:28	BMB	TAL BUF

Client Sample ID: BLIND DUP

Lab Sample ID: 480-128697-5

Date Collected: 12/07/17 00:00

Matrix: Water

Date Received: 12/08/17 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	391711	12/13/17 03:31	RRS	TAL BUF
Total/NA	Prep	3510C			391561	12/12/17 08:17	JMP	TAL BUF
Total/NA	Analysis	8270D		20	391870	12/13/17 23:15	PJQ	TAL BUF

Lab Chronicle

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128697-1

Client Sample ID: BLIND DUP

Lab Sample ID: 480-128697-5

Date Collected: 12/07/17 00:00
Matrix: Water
Date Received: 12/08/17 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			391499	12/11/17 14:36	ATG	TAL BUF
Total/NA	Analysis	8081B		1	391568	12/12/17 16:15	JLS	TAL BUF
Total/NA	Prep	3510C			391486	12/11/17 14:13	ATG	TAL BUF
Total/NA	Analysis	8082A		1	391610	12/12/17 15:39	JMO	TAL BUF
Total/NA	Prep	8151A			391367	12/11/17 08:00	JMP	TAL BUF
Total/NA	Analysis	8151A		1	391678	12/12/17 20:46	JMO	TAL BUF
Dissolved	Filtration	FILTRATION			391424	12/11/17 10:58	EMB	TAL BUF
Dissolved	Prep	3005A			391795	12/13/17 10:56	EMB	TAL BUF
Dissolved	Analysis	6010C		1	392219	12/14/17 16:22	AMH	TAL BUF
Dissolved	Filtration	FILTRATION			391424	12/11/17 10:58	EMB	TAL BUF
Dissolved	Prep	7470A			391850	12/13/17 13:30	BMB	TAL BUF
Dissolved	Analysis	7470A		1	392022	12/13/17 16:30	BMB	TAL BUF

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-128697-6

Date Collected: 12/07/17 00:00
Matrix: Water
Date Received: 12/08/17 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	391711	12/13/17 03:54	RRS	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Benchmark Env. Eng. & Science, PLLC
TestAmerica Job ID: 480-128697-1
Project/Site: 1827 Fillmore Avenue Site

Laboratory: TestAmerica Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-18

Method Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128697-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
8081B	Organochlorine Pesticides (GC)	SW846	TAL BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL BUF
8151A	Herbicides (GC)	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
7470A	Mercury (CVAA)	SW846	TAL BUF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128697-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-128697-1	MW-5	Water	12/07/17 12:47	12/08/17 13:00
480-128697-2	MW-8	Water	12/07/17 12:19	12/08/17 13:00
480-128697-3	MW-6	Water	12/07/17 10:10	12/08/17 13:00
480-128697-4	MW-7	Water	12/07/17 11:23	12/08/17 13:00
480-128697-5	BLIND DUP	Water	12/07/17 00:00	12/08/17 13:00
480-128697-6	TRIP BLANK	Water	12/07/17 00:00	12/08/17 13:00

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: T. Behrendt	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-105117-24833.1
Client Contact: Bryan Mayback	Phone: (716) 818-8358	E-Mail: brian.fischer@testamericainc.com		Page: Page 1 of 2
Company: Benchmark Env. Eng. & Science, PLLC				Job #:
Address: 2558 Hamburg Turnpike	Due Date Requested:			
City: Lackawanna	TAT Requested (days): STD			
State, Zip: NY, 14218				
Phone: 716-856-0599(Tel)	PO #: B0421-017-001			
Email: bmayback@turnkeyllc.com	WO #:			
Project Name: 1827 Fillmore Avenue Site - water	Project #: 48017094			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL
B - NaOH
C - Zn Acetate
D - Ni
E - N
F - Me
G - An
H - Asc
I - Ice
J - DI W
K - EDT
L - EDA
M - Hexane
N - None
Other:
480-128697 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D - (MOD) TCL SVOA - OLM04.2+TICs	8260C - (MOD) TCL list OLM04.2+CP-51(Stars)+TIC	6010C, 7470A	8082A - TCL PCBs - OLM04.2	8081B - TCL Pesticides - OLM04.2	8151A - Local Method	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	A	N	N	N	N		
MW-5	12/7/17	1247	G	Water			2	3	1	2	2	2	12	
MW-8	"	1219	"	Water			2	3	1	2	2	2	12	
MW-6 (MS/MSD)	"	1010	"	Water			6	9	3	6	6	6	36	
MW-7	"	1123	"	Water			2	3	1	2	2	2	12	
Blind Dup	"		"	Water			2	3	1	2	2	2	12	
Trip Blank				Water			1							
				Water										
				Water										
				Water										
				Water										
				Water										

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) CAT B

Special Instructions/QC Requirements: Filter and Preserve metals In Lab

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	12/7/17 1530	BM	[signature]	12/08/17 1220	TA
2	[signature]	12/08/17 1300	TA	[signature]	12/8/17 1300	
3						

28, 26, 20, 25 #1

Login Sample Receipt Checklist

Client: Benchmark Env. Eng. & Science, PLLC

Job Number: 480-128697-1

Login Number: 128697

List Source: TestAmerica Buffalo

List Number: 1

Creator: Janish, Carl M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	False	No VOA vials for MW-5
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	BM
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-129088-1
Client Project/Site: 1827 Fillmore Avenue Site

For:
Benchmark Env. Eng. & Science, PLLC
2558 Hamburg Turnpike
Suite 300
Lackawanna, New York 14218

Attn: Mr. Michael Lesakowski

Joseph V. Giacomazza

Authorized for release by:
12/21/2017 12:25:13 PM
Joe Giacomazza, Project Management Assistant II
joe.giacomazza@testamericainc.com

Designee for

Brian Fischer, Manager of Project Management
(716)504-9835
brian.fischer@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Job ID: 480-129088-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-129088-1

Comments
No additional comments.

Receipt
The samples were received on 12/15/2017 12:50 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.0º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-392834 recovered above the upper control limit for Chloromethane. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The following samples are impacted: MW-5 (480-129088-1) and Trip Blank (480-129088-2).

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

Detection Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-129088-1

Client Sample ID: MW-5 — Lab Sample ID: 480-129088-1

No Detections.

Client Sample ID: Trip Blank — Lab Sample ID: 480-129088-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.44	J	1.0	0.44	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-129088-1

Client Sample ID: MW-5
Date Collected: 12/13/17 11:00
Date Received: 12/15/17 12:50

Lab Sample ID: 480-129088-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			12/20/17 01:01	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/20/17 01:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/20/17 01:01	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/20/17 01:01	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/20/17 01:01	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/20/17 01:01	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/20/17 01:01	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			12/20/17 01:01	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/20/17 01:01	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/20/17 01:01	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/20/17 01:01	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/20/17 01:01	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			12/20/17 01:01	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/20/17 01:01	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/20/17 01:01	1
2-Butanone (MEK)	ND		10	1.3	ug/L			12/20/17 01:01	1
2-Hexanone	ND		5.0	1.2	ug/L			12/20/17 01:01	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			12/20/17 01:01	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/20/17 01:01	1
Acetone	ND		10	3.0	ug/L			12/20/17 01:01	1
Benzene	ND		1.0	0.41	ug/L			12/20/17 01:01	1
Bromoform	ND		1.0	0.26	ug/L			12/20/17 01:01	1
Bromomethane	ND		1.0	0.69	ug/L			12/20/17 01:01	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/20/17 01:01	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/20/17 01:01	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/20/17 01:01	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/20/17 01:01	1
Chloroethane	ND		1.0	0.32	ug/L			12/20/17 01:01	1
Chloroform	ND		1.0	0.34	ug/L			12/20/17 01:01	1
Chloromethane	ND		1.0	0.35	ug/L			12/20/17 01:01	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			12/20/17 01:01	1
Cyclohexane	ND		1.0	0.18	ug/L			12/20/17 01:01	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/20/17 01:01	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/20/17 01:01	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/20/17 01:01	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			12/20/17 01:01	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/20/17 01:01	1
Methyl acetate	ND		2.5	1.3	ug/L			12/20/17 01:01	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/20/17 01:01	1
Methylcyclohexane	ND		1.0	0.16	ug/L			12/20/17 01:01	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/20/17 01:01	1
m,p-Xylene	ND		2.0	0.66	ug/L			12/20/17 01:01	1
n-Butylbenzene	ND		1.0	0.64	ug/L			12/20/17 01:01	1
N-Propylbenzene	ND		1.0	0.69	ug/L			12/20/17 01:01	1
o-Xylene	ND		1.0	0.76	ug/L			12/20/17 01:01	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			12/20/17 01:01	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/20/17 01:01	1
Toluene	ND		1.0	0.51	ug/L			12/20/17 01:01	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/20/17 01:01	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-129088-1

Client Sample ID: MW-5
Date Collected: 12/13/17 11:00
Date Received: 12/15/17 12:50

Lab Sample ID: 480-129088-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/20/17 01:01	1
Trichloroethene	ND		1.0	0.46	ug/L			12/20/17 01:01	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/20/17 01:01	1
Vinyl chloride	ND		1.0	0.90	ug/L			12/20/17 01:01	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/20/17 01:01	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/20/17 01:01	1
Styrene	ND		1.0	0.73	ug/L			12/20/17 01:01	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			12/20/17 01:01	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*12/20/17 01:01*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*		*12/20/17 01:01*	*1*
4-Bromofluorobenzene (Surr)	*94*		*73 - 120*		*12/20/17 01:01*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*12/20/17 01:01*	*1*
Dibromofluoromethane (Surr)	*99*		*75 - 123*		*12/20/17 01:01*	*1*

Client Sample ID: Trip Blank
Date Collected: 12/13/17 00:00
Date Received: 12/15/17 12:50

Lab Sample ID: 480-129088-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			12/20/17 01:25	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/20/17 01:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/20/17 01:25	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/20/17 01:25	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/20/17 01:25	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/20/17 01:25	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/20/17 01:25	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			12/20/17 01:25	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/20/17 01:25	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/20/17 01:25	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/20/17 01:25	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/20/17 01:25	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			12/20/17 01:25	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/20/17 01:25	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/20/17 01:25	1
2-Butanone (MEK)	ND		10	1.3	ug/L			12/20/17 01:25	1
2-Hexanone	ND		5.0	1.2	ug/L			12/20/17 01:25	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			12/20/17 01:25	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/20/17 01:25	1
Acetone	ND		10	3.0	ug/L			12/20/17 01:25	1
Benzene	ND		1.0	0.41	ug/L			12/20/17 01:25	1
Bromoform	ND		1.0	0.26	ug/L			12/20/17 01:25	1
Bromomethane	ND		1.0	0.69	ug/L			12/20/17 01:25	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/20/17 01:25	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/20/17 01:25	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/20/17 01:25	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/20/17 01:25	1
Chloroethane	ND		1.0	0.32	ug/L			12/20/17 01:25	1
Chloroform	ND		1.0	0.34	ug/L			12/20/17 01:25	1
Chloromethane	ND		1.0	0.35	ug/L			12/20/17 01:25	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			12/20/17 01:25	1
Cyclohexane	ND		1.0	0.18	ug/L			12/20/17 01:25	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/20/17 01:25	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/20/17 01:25	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/20/17 01:25	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			12/20/17 01:25	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/20/17 01:25	1
Methyl acetate	ND		2.5	1.3	ug/L			12/20/17 01:25	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/20/17 01:25	1
Methylcyclohexane	ND		1.0	0.16	ug/L			12/20/17 01:25	1
Methylene Chloride	**0.44**	**J**	1.0	0.44	ug/L			12/20/17 01:25	1
m,p-Xylene	ND		2.0	0.66	ug/L			12/20/17 01:25	1
n-Butylbenzene	ND		1.0	0.64	ug/L			12/20/17 01:25	1
N-Propylbenzene	ND		1.0	0.69	ug/L			12/20/17 01:25	1
o-Xylene	ND		1.0	0.76	ug/L			12/20/17 01:25	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			12/20/17 01:25	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/20/17 01:25	1
Toluene	ND		1.0	0.51	ug/L			12/20/17 01:25	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/20/17 01:25	1

Client Sample ID: Trip Blank
Date Collected: 12/13/17 00:00
Date Received: 12/15/17 12:50

Lab Sample ID: 480-129088-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/20/17 01:25	1
Trichloroethene	ND		1.0	0.46	ug/L			12/20/17 01:25	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/20/17 01:25	1
Vinyl chloride	ND		1.0	0.90	ug/L			12/20/17 01:25	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/20/17 01:25	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/20/17 01:25	1
Styrene	ND		1.0	0.73	ug/L			12/20/17 01:25	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			12/20/17 01:25	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*12/20/17 01:25*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*		*12/20/17 01:25*	*1*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*		*12/20/17 01:25*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*12/20/17 01:25*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*12/20/17 01:25*	*1*

Surrogate Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-129088-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(80-120)	(75-123)
480-129088-1	MW-5	103	94	96	99
480-129088-2	Trip Blank	103	95	97	101
LCS 480-392834/4	Lab Control Sample	96	99	98	100
MB 480-392834/6	Method Blank	99	97	98	99

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-392834/6
Matrix: Water
Analysis Batch: 392834

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			12/19/17 22:01	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/19/17 22:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/19/17 22:01	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/19/17 22:01	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/19/17 22:01	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/19/17 22:01	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/19/17 22:01	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			12/19/17 22:01	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/19/17 22:01	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/19/17 22:01	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/19/17 22:01	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/19/17 22:01	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			12/19/17 22:01	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/19/17 22:01	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/19/17 22:01	1
2-Butanone (MEK)	ND		10	1.3	ug/L			12/19/17 22:01	1
2-Hexanone	ND		5.0	1.2	ug/L			12/19/17 22:01	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			12/19/17 22:01	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/19/17 22:01	1
Acetone	ND		10	3.0	ug/L			12/19/17 22:01	1
Benzene	ND		1.0	0.41	ug/L			12/19/17 22:01	1
Bromoform	ND		1.0	0.26	ug/L			12/19/17 22:01	1
Bromomethane	ND		1.0	0.69	ug/L			12/19/17 22:01	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/19/17 22:01	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/19/17 22:01	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/19/17 22:01	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/19/17 22:01	1
Chloroethane	ND		1.0	0.32	ug/L			12/19/17 22:01	1
Chloroform	ND		1.0	0.34	ug/L			12/19/17 22:01	1
Chloromethane	ND		1.0	0.35	ug/L			12/19/17 22:01	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			12/19/17 22:01	1
Cyclohexane	ND		1.0	0.18	ug/L			12/19/17 22:01	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/19/17 22:01	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/19/17 22:01	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/19/17 22:01	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			12/19/17 22:01	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/19/17 22:01	1
Methyl acetate	ND		2.5	1.3	ug/L			12/19/17 22:01	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/19/17 22:01	1
Methylcyclohexane	ND		1.0	0.16	ug/L			12/19/17 22:01	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/19/17 22:01	1
m,p-Xylene	ND		2.0	0.66	ug/L			12/19/17 22:01	1
n-Butylbenzene	ND		1.0	0.64	ug/L			12/19/17 22:01	1
N-Propylbenzene	ND		1.0	0.69	ug/L			12/19/17 22:01	1
o-Xylene	ND		1.0	0.76	ug/L			12/19/17 22:01	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			12/19/17 22:01	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/19/17 22:01	1
Toluene	ND		1.0	0.51	ug/L			12/19/17 22:01	1

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

Lab Sample ID: MB 480-392834/6
Matrix: Water
Analysis Batch: 392834

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/19/17 22:01	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/19/17 22:01	1
Trichloroethene	ND		1.0	0.46	ug/L			12/19/17 22:01	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/19/17 22:01	1
Vinyl chloride	ND		1.0	0.90	ug/L			12/19/17 22:01	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/19/17 22:01	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/19/17 22:01	1
Styrene	ND		1.0	0.73	ug/L			12/19/17 22:01	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			12/19/17 22:01	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*12/19/17 22:01*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*12/19/17 22:01*	*1*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*12/19/17 22:01*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*12/19/17 22:01*	*1*
Dibromofluoromethane (Surr)	*99*		*75 - 123*		*12/19/17 22:01*	*1*

Lab Sample ID: LCS 480-392834/4
Matrix: Water
Analysis Batch: 392834

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	25.5		ug/L		102	73 - 126
1,1,2,2-Tetrachloroethane	25.0	26.7		ug/L		107	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	22.1		ug/L		88	61 - 148
1,1,2-Trichloroethane	25.0	27.0		ug/L		108	76 - 122
1,1-Dichloroethane	25.0	26.0		ug/L		104	77 - 120
1,1-Dichloroethene	25.0	22.0		ug/L		88	66 - 127
1,2,4-Trichlorobenzene	25.0	28.4		ug/L		114	79 - 122
1,2,4-Trimethylbenzene	25.0	26.0		ug/L		104	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	20.7		ug/L		83	56 - 134
1,2-Dichlorobenzene	25.0	27.6		ug/L		111	80 - 124
1,2-Dichloroethane	25.0	26.0		ug/L		104	75 - 120
1,2-Dichloropropane	25.0	24.3		ug/L		97	76 - 120
1,3,5-Trimethylbenzene	25.0	26.1		ug/L		104	77 - 121
1,3-Dichlorobenzene	25.0	27.4		ug/L		110	77 - 120
1,4-Dichlorobenzene	25.0	27.3		ug/L		109	80 - 120
2-Butanone (MEK)	125	135		ug/L		108	57 - 140
2-Hexanone	125	133		ug/L		107	65 - 127
4-Isopropyltoluene	25.0	26.4		ug/L		105	73 - 120
4-Methyl-2-pentanone (MIBK)	125	127		ug/L		102	71 - 125
Acetone	125	144		ug/L		115	56 - 142
Benzene	25.0	26.1		ug/L		104	71 - 124
Bromoform	25.0	24.5		ug/L		98	61 - 132
Bromomethane	25.0	28.7		ug/L		115	55 - 144

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

Lab Sample ID: LCS 480-392834/4
Matrix: Water
Analysis Batch: 392834

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbon disulfide	25.0	23.2		ug/L		93	59 - 134
Carbon tetrachloride	25.0	24.8		ug/L		99	72 - 134
Chlorobenzene	25.0	27.0		ug/L		108	80 - 120
Dibromochloromethane	25.0	25.0		ug/L		100	75 - 125
Chloroethane	25.0	28.1		ug/L		112	69 - 136
Chloroform	25.0	26.0		ug/L		104	73 - 127
Chloromethane	25.0	26.1		ug/L		104	68 - 124
cis-1,2-Dichloroethene	25.0	26.1		ug/L		104	74 - 124
Cyclohexane	25.0	23.6		ug/L		94	59 - 135
Bromodichloromethane	25.0	24.9		ug/L		99	80 - 122
Dichlorodifluoromethane	25.0	24.9		ug/L		99	59 - 135
Ethylbenzene	25.0	25.7		ug/L		103	77 - 123
1,2-Dibromoethane	25.0	26.9		ug/L		107	77 - 120
Isopropylbenzene	25.0	25.3		ug/L		101	77 - 122
Methyl acetate	50.0	44.9		ug/L		90	74 - 133
Methyl tert-butyl ether	25.0	25.5		ug/L		102	77 - 120
Methylcyclohexane	25.0	25.5		ug/L		102	68 - 134
Methylene Chloride	25.0	24.4		ug/L		98	75 - 124
m,p-Xylene	25.0	25.8		ug/L		103	76 - 122
Naphthalene	25.0	26.7		ug/L		107	66 - 125
n-Butylbenzene	25.0	26.6		ug/L		106	71 - 128
N-Propylbenzene	25.0	25.9		ug/L		104	75 - 127
o-Xylene	25.0	25.9		ug/L		103	76 - 122
sec-Butylbenzene	25.0	26.0		ug/L		104	74 - 127
Tetrachloroethene	25.0	27.8		ug/L		111	74 - 122
Toluene	25.0	26.5		ug/L		106	80 - 122
trans-1,2-Dichloroethene	25.0	25.1		ug/L		100	73 - 127
trans-1,3-Dichloropropene	25.0	24.2		ug/L		97	80 - 120
Trichloroethene	25.0	26.9		ug/L		108	74 - 123
Trichlorofluoromethane	25.0	21.2		ug/L		85	62 - 150
Vinyl chloride	25.0	25.6		ug/L		102	65 - 133
cis-1,3-Dichloropropene	25.0	23.7		ug/L		95	74 - 124
Styrene	25.0	27.0		ug/L		108	80 - 120
tert-Butylbenzene	25.0	26.1		ug/L		104	75 - 123

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*77 - 120*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*
Toluene-d8 (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*100*		*75 - 123*

QC Association Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-129088-1

GC/MS VOA

Analysis Batch: 392834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129088-1	MW-5	Total/NA	Water	8260C	
480-129088-2	Trip Blank	Total/NA	Water	8260C	
MB 480-392834/6	Method Blank	Total/NA	Water	8260C	
LCS 480-392834/4	Lab Control Sample	Total/NA	Water	8260C	

Lab Chronicle

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-129088-1

Client Sample ID: MW-5

Lab Sample ID: 480-129088-1

Date Collected: 12/13/17 11:00

Matrix: Water

Date Received: 12/15/17 12:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	392834	12/20/17 01:01	RJF	TAL BUF

Client Sample ID: Trip Blank

Lab Sample ID: 480-129088-2

Date Collected: 12/13/17 00:00

Matrix: Water

Date Received: 12/15/17 12:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	392834	12/20/17 01:25	RJF	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Benchmark Env. Eng. & Science, PLLC
TestAmerica Job ID: 480-129088-1
Project/Site: 1827 Fillmore Avenue Site

Laboratory: TestAmerica Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-18

Method Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-129088-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-129088-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-129088-1	MW-5	Water	12/13/17 11:00	12/15/17 12:50
480-129088-2	Trip Blank	Water	12/13/17 00:00	12/15/17 12:50

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228

Phone: 716.691.2600 Fax: 716.691.7991

Chain of Custody Record

201730

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: M. Leaxkowski	Site Contact: T. Belwaski	Date: 12/13/17	COC No:
Company Name: Benchmark Env.	Tel/Fax:	Lab Contact:	Carrier:	1 of 1 COCs
Address: 2558 Hamburg Turnpik	Analysis Turnaround Time			Sampler:
City/State/Zip: Lackawanna NY 14218	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: (716) 818-8358	TAT if different from Below STP			Walk-in Client:
Fax: (716) 856-0583	☐ 2 weeks			Lab Sampling:
Project Name: 1827 Fillmore Ave	☐ 1 week			
Site: 0421-017-160	☐ 2 days			Job / SDG No.:
PO#	☐ 1 day			

480-129088 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	TCLTCP-51 VOC 8260	Sample Specific Notes:
MW-5	12/13/17	1100	Grab	water	3			X	
Trip Blank									

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

CAT B

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	Benchmark			TAL	12-15-17/0905
Relinquished by:	Company: TAL	Date/Time: 12-15-17/1250	Received by:	Company: TAL	Date/Time: 12/15/17 1250
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

3.0 #1

Page 19 of 20

12/21/2017

Login Sample Receipt Checklist

Client: Benchmark Env. Eng. & Science, PLLC

Job Number: 480-129088-1

Login Number: 129088

List Source: TestAmerica Buffalo

List Number: 1

Creator: Kinecki, Kenneth P

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	Benchmark
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-135783-1
Client Project/Site: 1827 Fillmore Avenue Site

For:
Benchmark Env. Eng. & Science, PLLC
2558 Hamburg Turnpike
Suite 300
Lackawanna, New York 14218

Attn: Mr. Michael Lesakowski

Joseph V. Giacomazza

Authorized for release by:
6/6/2018 2:14:04 PM
Joe Giacomazza, Project Management Assistant II
joe.giacomazza@testamericainc.com

Designee for

Brian Fischer, Manager of Project Management
(716)504-9835
brian.fischer@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

LCMS

Qualifier	Qualifier Description
*	Isotope Dilution analyte is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-135783-1

Job ID: 480-135783-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-135783-1

Comments
No additional comments.

Receipt
The samples were received on 5/11/2018 4:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 4.2º C and 4.9º C.

GC/MS Semi VOA
Method(s) 8270D SIM ID: The following samples were diluted due to color: MW-7 (480-135783-1) and MW-8 (480-135783-2). Elevated reporting limits (RL) are provided.

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

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

Organic Prep
Method(s) 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-225042.

Method(s) 3535: The following samples: MW-7 (480-135783-1) and MW-8 (480-135783-2) was/were decanted prior to extraction, due to containing an excess amount of sediment which had the potential to clog the solid-phase column.

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

Detection Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-135783-1

Client Sample ID: MW-7 — Lab Sample ID: 480-135783-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	2.1	B	2.0	0.35	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.87	J	2.0	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.29	J B	2.0	0.17	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-8 — Lab Sample ID: 480-135783-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	11	B	2.0	0.35	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	22		2.0	0.49	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	16		2.0	0.57	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.8	J	2.0	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.3	J	2.0	0.84	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.36	J	2.0	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.46	J B	2.0	0.17	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.1		2.0	0.53	ng/L	1		537 (modified)	Total/NA

Client Sample ID: Equipment Blank — Lab Sample ID: 480-135783-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.67	J B	2.0	0.34	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.30	J B	2.0	0.17	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-7

Date Collected: 05/09/18 12:04
Date Received: 05/11/18 16:00

Lab Sample ID: 480-135783-1

Matrix: Water

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		1.0	0.51	ug/L		05/15/18 07:45	05/16/18 17:46	5

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*43*		*15 - 110*	*05/15/18 07:45*	*05/16/18 17:46*	*5*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**2.1**	**B**	2.0	0.35	ng/L		05/23/18 11:15	06/01/18 17:04	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.48	ng/L		05/23/18 11:15	06/01/18 17:04	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.57	ng/L		05/23/18 11:15	06/01/18 17:04	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.25	ng/L		05/23/18 11:15	06/01/18 17:04	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.84	ng/L		05/23/18 11:15	06/01/18 17:04	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.27	ng/L		05/23/18 11:15	06/01/18 17:04	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.31	ng/L		05/23/18 11:15	06/01/18 17:04	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		05/23/18 11:15	06/01/18 17:04	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.54	ng/L		05/23/18 11:15	06/01/18 17:04	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.0	1.3	ng/L		05/23/18 11:15	06/01/18 17:04	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		05/23/18 11:15	06/01/18 17:04	1
Perfluorobutanesulfonic acid (PFBS)	**0.87**	**J**	2.0	0.20	ng/L		05/23/18 11:15	06/01/18 17:04	1
Perfluorohexanesulfonic acid (PFHxS)	**0.29**	**J B**	2.0	0.17	ng/L		05/23/18 11:15	06/01/18 17:04	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.19	ng/L		05/23/18 11:15	06/01/18 17:04	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.53	ng/L		05/23/18 11:15	06/01/18 17:04	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		05/23/18 11:15	06/01/18 17:04	1
Perfluorooctane Sulfonamide (FOSA)	ND		2.0	0.35	ng/L		05/23/18 11:15	06/01/18 17:04	1
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	ND		20	3.1	ng/L		05/23/18 11:15	06/01/18 17:04	1
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	ND		20	1.9	ng/L		05/23/18 11:15	06/01/18 17:04	1
6:2FTS	ND		20	2.0	ng/L		05/23/18 11:15	06/01/18 17:04	1
8:2FTS	ND		20	2.0	ng/L		05/23/18 11:15	06/01/18 17:04	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*58*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:04*	*1*
13C5 PFPeA	*73*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:04*	*1*
13C2 PFHxA	*75*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:04*	*1*
13C4-PFHpA	*79*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:04*	*1*
13C4 PFOA	*89*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:04*	*1*
13C5 PFNA	*89*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:04*	*1*
13C2 PFDA	*85*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:04*	*1*
13C2 PFUnA	*85*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:04*	*1*
13C2 PFDoA	*75*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:04*	*1*
13C2-PFTeDA	*70*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:04*	*1*
13C3-PFBS	*72*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:04*	*1*
18O2 PFHxS	*80*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:04*	*1*
13C4 PFOS	*79*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:04*	*1*
13C8 FOSA	*76*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:04*	*1*
d3-NMeFOSAA	*95*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:04*	*1*
d5-NEtFOSAA	*99*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:04*	*1*
M2-6:2FTS	*226*	*	*25 - 150*	*05/23/18 11:15*	*06/01/18 17:04*	*1*

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-135783-1

Client Sample ID: MW-7
Date Collected: 05/09/18 12:04
Date Received: 05/11/18 16:00

Lab Sample ID: 480-135783-1
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2FTS	167	*	25 - 150	05/23/18 11:15	06/01/18 17:04	1

Client Sample ID: MW-8
Date Collected: 05/09/18 12:59
Date Received: 05/11/18 16:00

Lab Sample ID: 480-135783-2
Matrix: Water

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		1.0	0.50	ug/L		05/15/18 07:45	05/16/18 18:10	5

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*50*		*15 - 110*	*05/15/18 07:45*	*05/16/18 18:10*	*5*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**11**	**B**	2.0	0.35	ng/L		05/23/18 11:15	06/01/18 17:12	1
Perfluoropentanoic acid (PFPeA)	**22**		2.0	0.49	ng/L		05/23/18 11:15	06/01/18 17:12	1
Perfluorohexanoic acid (PFHxA)	**16**		2.0	0.57	ng/L		05/23/18 11:15	06/01/18 17:12	1
Perfluoroheptanoic acid (PFHpA)	**1.8**	**J**	2.0	0.25	ng/L		05/23/18 11:15	06/01/18 17:12	1
Perfluorooctanoic acid (PFOA)	**1.3**	**J**	2.0	0.84	ng/L		05/23/18 11:15	06/01/18 17:12	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.27	ng/L		05/23/18 11:15	06/01/18 17:12	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.31	ng/L		05/23/18 11:15	06/01/18 17:12	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		05/23/18 11:15	06/01/18 17:12	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.54	ng/L		05/23/18 11:15	06/01/18 17:12	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.0	1.3	ng/L		05/23/18 11:15	06/01/18 17:12	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		05/23/18 11:15	06/01/18 17:12	1
Perfluorobutanesulfonic acid (PFBS)	**0.36**	**J**	2.0	0.20	ng/L		05/23/18 11:15	06/01/18 17:12	1
Perfluorohexanesulfonic acid (PFHxS)	**0.46**	**J B**	2.0	0.17	ng/L		05/23/18 11:15	06/01/18 17:12	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.19	ng/L		05/23/18 11:15	06/01/18 17:12	1
Perfluorooctanesulfonic acid (PFOS)	**2.1**		2.0	0.53	ng/L		05/23/18 11:15	06/01/18 17:12	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		05/23/18 11:15	06/01/18 17:12	1
Perfluorooctane Sulfonamide (FOSA)	ND		2.0	0.35	ng/L		05/23/18 11:15	06/01/18 17:12	1
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	ND		20	3.1	ng/L		05/23/18 11:15	06/01/18 17:12	1
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	ND		20	1.9	ng/L		05/23/18 11:15	06/01/18 17:12	1
6:2FTS	ND		20	2.0	ng/L		05/23/18 11:15	06/01/18 17:12	1
8:2FTS	ND		20	2.0	ng/L		05/23/18 11:15	06/01/18 17:12	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*45*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:12*	*1*
13C5 PFPeA	*63*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:12*	*1*
13C2 PFHxA	*71*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:12*	*1*
13C4-PFHpA	*76*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:12*	*1*
13C4 PFOA	*88*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:12*	*1*
13C5 PFNA	*97*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:12*	*1*
13C2 PFDA	*101*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:12*	*1*
13C2 PFUnA	*105*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:12*	*1*
13C2 PFDoA	*91*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:12*	*1*
13C2-PFTeDA	*80*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:12*	*1*
13C3-PFBS	*73*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:12*	*1*
18O2 PFHxS	*84*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:12*	*1*
13C4 PFOS	*86*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:12*	*1*
13C8 FOSA	*78*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:12*	*1*
d3-NMeFOSAA	*117*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:12*	*1*
d5-NEtFOSAA	*132*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:12*	*1*

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-135783-1

Client Sample ID: MW-8
Date Collected: 05/09/18 12:59
Date Received: 05/11/18 16:00

Lab Sample ID: 480-135783-2
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2FTS	305	*	25 - 150	05/23/18 11:15	06/01/18 17:12	1
M2-8:2FTS	282	*	25 - 150	05/23/18 11:15	06/01/18 17:12	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-135783-1

Client Sample ID: Equipment Blank
Date Collected: 05/09/18 00:00
Date Received: 05/11/18 16:00

Lab Sample ID: 480-135783-4
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**0.67**	**J B**	2.0	0.34	ng/L		05/23/18 11:15	06/01/18 17:20	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.48	ng/L		05/23/18 11:15	06/01/18 17:20	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.57	ng/L		05/23/18 11:15	06/01/18 17:20	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.24	ng/L		05/23/18 11:15	06/01/18 17:20	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.83	ng/L		05/23/18 11:15	06/01/18 17:20	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.26	ng/L		05/23/18 11:15	06/01/18 17:20	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.30	ng/L		05/23/18 11:15	06/01/18 17:20	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		05/23/18 11:15	06/01/18 17:20	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.54	ng/L		05/23/18 11:15	06/01/18 17:20	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.0	1.3	ng/L		05/23/18 11:15	06/01/18 17:20	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.28	ng/L		05/23/18 11:15	06/01/18 17:20	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.20	ng/L		05/23/18 11:15	06/01/18 17:20	1
Perfluorohexanesulfonic acid (PFHxS)	**0.30**	**J B**	2.0	0.17	ng/L		05/23/18 11:15	06/01/18 17:20	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.19	ng/L		05/23/18 11:15	06/01/18 17:20	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.53	ng/L		05/23/18 11:15	06/01/18 17:20	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.31	ng/L		05/23/18 11:15	06/01/18 17:20	1
Perfluorooctane Sulfonamide (FOSA)	ND		2.0	0.34	ng/L		05/23/18 11:15	06/01/18 17:20	1
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	ND		20	3.0	ng/L		05/23/18 11:15	06/01/18 17:20	1
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	ND		20	1.9	ng/L		05/23/18 11:15	06/01/18 17:20	1
6:2FTS	ND		20	2.0	ng/L		05/23/18 11:15	06/01/18 17:20	1
8:2FTS	ND		20	2.0	ng/L		05/23/18 11:15	06/01/18 17:20	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*75*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:20*	*1*
13C5 PFPeA	*78*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:20*	*1*
13C2 PFHxA	*80*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:20*	*1*
13C4-PFHpA	*83*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:20*	*1*
13C4 PFOA	*92*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:20*	*1*
13C5 PFNA	*87*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:20*	*1*
13C2 PFDA	*77*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:20*	*1*
13C2 PFUnA	*86*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:20*	*1*
13C2 PFDoA	*83*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:20*	*1*
13C2-PFTeDA	*81*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:20*	*1*
13C3-PFBS	*72*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:20*	*1*
18O2 PFHxS	*79*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:20*	*1*
13C4 PFOS	*76*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:20*	*1*
13C8 FOSA	*66*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:20*	*1*
d3-NMeFOSAA	*91*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:20*	*1*
d5-NEtFOSAA	*96*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:20*	*1*
M2-6:2FTS	*240*	*	*25 - 150*	*05/23/18 11:15*	*06/01/18 17:20*	*1*
M2-8:2FTS	*100*		*25 - 150*	*05/23/18 11:15*	*06/01/18 17:20*	*1*

Isotope Dilution Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-135783-1

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)
		DXE
Lab Sample ID	Client Sample ID	(15-110)
480-135783-1	MW-7	43
480-135783-2	MW-8	50
LCS 480-414292/2-A	Lab Control Sample	57
MB 480-414292/1-A	Method Blank	45

Surrogate Legend

DXE = 1,4-Dioxane-d8

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFNA	PFDA	PFUnA
Lab Sample ID	Client Sample ID	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)
480-135783-1	MW-7	58	73	75	79	89	89	85	85
480-135783-2	MW-8	45	63	71	76	88	97	101	105
480-135783-4	Equipment Blank	75	78	80	83	92	87	77	86
LCS 320-225042/2-A	Lab Control Sample	80	82	81	79	86	85	82	79
LCSD 320-225042/3-A	Lab Control Sample Dup	74	75	74	75	79	80	75	75
MB 320-225042/1-A	Method Blank	79	79	79	79	89	87	77	81

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFDoA	PFTDA	13C3-PFBS	PFHxS	PFOS	PFOSA	I-NMeFOSA	5-NEtFOSA
Lab Sample ID	Client Sample ID	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)
480-135783-1	MW-7	75	70	72	80	79	76	95	99
480-135783-2	MW-8	91	80	73	84	86	78	117	132
480-135783-4	Equipment Blank	83	81	72	79	76	66	91	96
LCS 320-225042/2-A	Lab Control Sample	82	81	80	83	81	71	84	87
LCSD 320-225042/3-A	Lab Control Sample Dup	74	79	72	75	73	66	79	78
MB 320-225042/1-A	Method Blank	76	78	77	82	79	68	83	84

		Percent Isotope Dilution Recovery (Acceptance Limits)	
		M262FTS	M282FTS
Lab Sample ID	Client Sample ID	(25-150)	(25-150)
480-135783-1	MW-7	226 *	167 *
480-135783-2	MW-8	305 *	282 *
480-135783-4	Equipment Blank	240 *	100
LCS 320-225042/2-A	Lab Control Sample	96	93
LCSD 320-225042/3-A	Lab Control Sample Dup	88	86
MB 320-225042/1-A	Method Blank	97	87

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
PFHxA = 13C2 PFHxA
PFHpA = 13C4-PFHpA
PFOA = 13C4 PFOA
PFNA = 13C5 PFNA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA

Isotope Dilution Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-135783-1

PFTDA = 13C2-PFTeDA
13C3-PFBS = 13C3-PFBS
PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS
PFOSA = 13C8 FOSA
d3-NMeFOSAA = d3-NMeFOSAA
d5-NEtFOSAA = d5-NEtFOSAA
M262FTS = M2-6:2FTS
M282FTS = M2-8:2FTS

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 480-414292/1-A
Matrix: Water
Analysis Batch: 414735

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 414292

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		05/15/18 07:45	05/16/18 15:46	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*45*		*15 - 110*	*05/15/18 07:45*	*05/16/18 15:46*	*1*

Lab Sample ID: LCS 480-414292/2-A
Matrix: Water
Analysis Batch: 414735

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 414292

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	1.00	1.09		ug/L		109	40 - 140

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*57*		*15 - 110*

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-225042/1-A
Matrix: Water
Analysis Batch: 226697

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 225042

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.571	J	2.0	0.35	ng/L		05/23/18 11:15	06/01/18 13:33	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.49	ng/L		05/23/18 11:15	06/01/18 13:33	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.58	ng/L		05/23/18 11:15	06/01/18 13:33	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.25	ng/L		05/23/18 11:15	06/01/18 13:33	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.85	ng/L		05/23/18 11:15	06/01/18 13:33	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.27	ng/L		05/23/18 11:15	06/01/18 13:33	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.31	ng/L		05/23/18 11:15	06/01/18 13:33	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		05/23/18 11:15	06/01/18 13:33	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.55	ng/L		05/23/18 11:15	06/01/18 13:33	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.0	1.3	ng/L		05/23/18 11:15	06/01/18 13:33	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		05/23/18 11:15	06/01/18 13:33	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.20	ng/L		05/23/18 11:15	06/01/18 13:33	1
Perfluorohexanesulfonic acid (PFHxS)	0.286	J	2.0	0.17	ng/L		05/23/18 11:15	06/01/18 13:33	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.19	ng/L		05/23/18 11:15	06/01/18 13:33	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.54	ng/L		05/23/18 11:15	06/01/18 13:33	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		05/23/18 11:15	06/01/18 13:33	1
Perfluorooctane Sulfonamide (FOSA)	ND		2.0	0.35	ng/L		05/23/18 11:15	06/01/18 13:33	1
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	ND		20	3.1	ng/L		05/23/18 11:15	06/01/18 13:33	1
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	ND		20	1.9	ng/L		05/23/18 11:15	06/01/18 13:33	1
6:2FTS	ND		20	2.0	ng/L		05/23/18 11:15	06/01/18 13:33	1
8:2FTS	ND		20	2.0	ng/L		05/23/18 11:15	06/01/18 13:33	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*79*		*25 - 150*	*05/23/18 11:15*	*06/01/18 13:33*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-225042/1-A
Matrix: Water
Analysis Batch: 226697

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 225042

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFPeA	79		25 - 150	05/23/18 11:15	06/01/18 13:33	1
13C2 PFHxA	79		25 - 150	05/23/18 11:15	06/01/18 13:33	1
13C4-PFHpA	79		25 - 150	05/23/18 11:15	06/01/18 13:33	1
13C4 PFOA	89		25 - 150	05/23/18 11:15	06/01/18 13:33	1
13C5 PFNA	87		25 - 150	05/23/18 11:15	06/01/18 13:33	1
13C2 PFDA	77		25 - 150	05/23/18 11:15	06/01/18 13:33	1
13C2 PFUnA	81		25 - 150	05/23/18 11:15	06/01/18 13:33	1
13C2 PFDoA	76		25 - 150	05/23/18 11:15	06/01/18 13:33	1
13C2-PFTeDA	78		25 - 150	05/23/18 11:15	06/01/18 13:33	1
13C3-PFBS	77		25 - 150	05/23/18 11:15	06/01/18 13:33	1
18O2 PFHxS	82		25 - 150	05/23/18 11:15	06/01/18 13:33	1
13C4 PFOS	79		25 - 150	05/23/18 11:15	06/01/18 13:33	1
13C8 FOSA	68		25 - 150	05/23/18 11:15	06/01/18 13:33	1
d3-NMeFOSAA	83		25 - 150	05/23/18 11:15	06/01/18 13:33	1
d5-NEtFOSAA	84		25 - 150	05/23/18 11:15	06/01/18 13:33	1
M2-6:2FTS	97		25 - 150	05/23/18 11:15	06/01/18 13:33	1
M2-8:2FTS	87		25 - 150	05/23/18 11:15	06/01/18 13:33	1

Lab Sample ID: LCS 320-225042/2-A
Matrix: Water
Analysis Batch: 226697

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 225042

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	42.5		ng/L		106	70 - 130
Perfluoropentanoic acid (PFPeA)	40.0	38.1		ng/L		95	66 - 126
Perfluorohexanoic acid (PFHxA)	40.0	41.7		ng/L		104	66 - 126
Perfluoroheptanoic acid (PFHpA)	40.0	44.2		ng/L		111	66 - 126
Perfluorooctanoic acid (PFOA)	40.0	39.1		ng/L		98	64 - 124
Perfluorononanoic acid (PFNA)	40.0	39.1		ng/L		98	68 - 128
Perfluorodecanoic acid (PFDA)	40.0	42.2		ng/L		105	69 - 129
Perfluoroundecanoic acid (PFUnA)	40.0	39.1		ng/L		98	60 - 120
Perfluorododecanoic acid (PFDoA)	40.0	40.5		ng/L		101	71 - 131
Perfluorotridecanoic Acid (PFTriA)	40.0	38.6		ng/L		97	72 - 132
Perfluorotetradecanoic acid (PFTeA)	40.0	40.5		ng/L		101	68 - 128
Perfluorobutanesulfonic acid (PFBS)	35.4	35.2		ng/L		100	73 - 133
Perfluorohexanesulfonic acid (PFHxS)	36.4	34.6		ng/L		95	63 - 123
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	36.4		ng/L		96	68 - 128
Perfluorooctanesulfonic acid (PFOS)	37.1	34.5		ng/L		93	67 - 127
Perfluorodecanesulfonic acid (PFDS)	38.6	37.8		ng/L		98	68 - 128
Perfluorooctane Sulfonamide (FOSA)	40.0	41.3		ng/L		103	70 - 130

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-225042/2-A
Matrix: Water
Analysis Batch: 226697

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 225042

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)			40.0	39.4		ng/L		99	67 - 127		
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)			40.0	35.6		ng/L		89	65 - 125		
6:2FTS			37.9	36.2		ng/L		95	66 - 126		
8:2FTS			38.3	36.7		ng/L		96	67 - 127		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*80*		*25 - 150*
13C5 PFPeA	*82*		*25 - 150*
13C2 PFHxA	*81*		*25 - 150*
13C4-PFHpA	*79*		*25 - 150*
13C4 PFOA	*86*		*25 - 150*
13C5 PFNA	*85*		*25 - 150*
13C2 PFDA	*82*		*25 - 150*
13C2 PFUnA	*79*		*25 - 150*
13C2 PFDoA	*82*		*25 - 150*
13C2-PFTeDA	*81*		*25 - 150*
13C3-PFBS	*80*		*25 - 150*
18O2 PFHxS	*83*		*25 - 150*
13C4 PFOS	*81*		*25 - 150*
13C8 FOSA	*71*		*25 - 150*
d3-NMeFOSAA	*84*		*25 - 150*
d5-NEtFOSAA	*87*		*25 - 150*
M2-6:2FTS	*96*		*25 - 150*
M2-8:2FTS	*93*		*25 - 150*

Lab Sample ID: LCSD 320-225042/3-A
Matrix: Water
Analysis Batch: 226697

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 225042

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			40.0	42.1		ng/L		105	70 - 130	1	30
Perfluoropentanoic acid (PFPeA)			40.0	40.1		ng/L		100	66 - 126	5	30
Perfluorohexanoic acid (PFHxA)			40.0	42.7		ng/L		107	66 - 126	2	30
Perfluoroheptanoic acid (PFHpA)			40.0	41.5		ng/L		104	66 - 126	6	30
Perfluorooctanoic acid (PFOA)			40.0	38.0		ng/L		95	64 - 124	3	30
Perfluorononanoic acid (PFNA)			40.0	39.0		ng/L		97	68 - 128	0	30
Perfluorodecanoic acid (PFDA)			40.0	42.5		ng/L		106	69 - 129	1	30
Perfluoroundecanoic acid (PFUnA)			40.0	37.0		ng/L		93	60 - 120	5	30
Perfluorododecanoic acid (PFDoA)			40.0	41.8		ng/L		104	71 - 131	3	30
Perfluorotridecanoic Acid (PFTriA)			40.0	43.1		ng/L		108	72 - 132	11	30
Perfluorotetradecanoic acid (PFTeA)			40.0	40.1		ng/L		100	68 - 128	1	30

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 320-225042/3-A
Matrix: Water
Analysis Batch: 226697

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 225042

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanesulfonic acid (PFBS)			35.4	35.8		ng/L		101	73 - 133	2	30
Perfluorohexanesulfonic acid (PFHxS)			36.4	35.0		ng/L		96	63 - 123	1	30
Perfluoroheptanesulfonic Acid (PFHpS)			38.1	37.5		ng/L		98	68 - 128	3	30
Perfluorooctanesulfonic acid (PFOS)			37.1	35.2		ng/L		95	67 - 127	2	30
Perfluorodecanesulfonic acid (PFDS)			38.6	37.2		ng/L		96	68 - 128	2	30
Perfluorooctane Sulfonamide (FOSA)			40.0	39.2		ng/L		98	70 - 130	5	30
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)			40.0	39.2		ng/L		98	67 - 127	0	30
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)			40.0	36.7		ng/L		92	65 - 125	3	30
6:2FTS			37.9	37.4		ng/L		99	66 - 126	3	30
8:2FTS			38.3	37.0		ng/L		97	67 - 127	1	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*74*		*25 - 150*
13C5 PFPeA	*75*		*25 - 150*
13C2 PFHxA	*74*		*25 - 150*
13C4-PFHpA	*75*		*25 - 150*
13C4 PFOA	*79*		*25 - 150*
13C5 PFNA	*80*		*25 - 150*
13C2 PFDA	*75*		*25 - 150*
13C2 PFUnA	*75*		*25 - 150*
13C2 PFDoA	*74*		*25 - 150*
13C2-PFTeDA	*79*		*25 - 150*
13C3-PFBS	*72*		*25 - 150*
18O2 PFHxS	*75*		*25 - 150*
13C4 PFOS	*73*		*25 - 150*
13C8 FOSA	*66*		*25 - 150*
d3-NMeFOSAA	*79*		*25 - 150*
d5-NEtFOSAA	*78*		*25 - 150*
M2-6:2FTS	*88*		*25 - 150*
M2-8:2FTS	*86*		*25 - 150*

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-135783-1

GC/MS Semi VOA

Prep Batch: 414292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-135783-1	MW-7	Total/NA	Water	3510C	
480-135783-2	MW-8	Total/NA	Water	3510C	
MB 480-414292/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-414292/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 414735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-135783-1	MW-7	Total/NA	Water	8270D SIM ID	414292
480-135783-2	MW-8	Total/NA	Water	8270D SIM ID	414292
MB 480-414292/1-A	Method Blank	Total/NA	Water	8270D SIM ID	414292
LCS 480-414292/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	414292

LCMS

Prep Batch: 225042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-135783-1	MW-7	Total/NA	Water	3535	
480-135783-2	MW-8	Total/NA	Water	3535	
480-135783-4	Equipment Blank	Total/NA	Water	3535	
MB 320-225042/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-225042/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-225042/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 226697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 320-225042/1-A	Method Blank	Total/NA	Water	537 (modified)	225042
LCS 320-225042/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	225042
LCSD 320-225042/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	225042

Analysis Batch: 226735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-135783-1	MW-7	Total/NA	Water	537 (modified)	225042
480-135783-2	MW-8	Total/NA	Water	537 (modified)	225042
480-135783-4	Equipment Blank	Total/NA	Water	537 (modified)	225042

Lab Chronicle

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-135783-1

Client Sample ID: MW-7

Lab Sample ID: 480-135783-1

Date Collected: 05/09/18 12:04

Matrix: Water

Date Received: 05/11/18 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			414292	05/15/18 07:45	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		5	414735	05/16/18 17:46	DMR	TAL BUF
Total/NA	Prep	3535			225042	05/23/18 11:15	KMK	TAL SAC
Total/NA	Analysis	537 (modified)		1	226735	06/01/18 17:04	JRB	TAL SAC

Client Sample ID: MW-8

Lab Sample ID: 480-135783-2

Date Collected: 05/09/18 12:59

Matrix: Water

Date Received: 05/11/18 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			414292	05/15/18 07:45	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		5	414735	05/16/18 18:10	DMR	TAL BUF
Total/NA	Prep	3535			225042	05/23/18 11:15	KMK	TAL SAC
Total/NA	Analysis	537 (modified)		1	226735	06/01/18 17:12	JRB	TAL SAC

Client Sample ID: Equipment Blank

Lab Sample ID: 480-135783-4

Date Collected: 05/09/18 00:00

Matrix: Water

Date Received: 05/11/18 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			225042	05/23/18 11:15	KMK	TAL SAC
Total/NA	Analysis	537 (modified)		1	226735	06/01/18 17:20	JRB	TAL SAC

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-135783-1

Laboratory: TestAmerica Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-18 *

Laboratory: TestAmerica Sacramento

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	17-020	01-20-21
Arizona	State Program	9	AZ0708	08-11-18
Arkansas DEQ	State Program	6	88-0691	06-17-19
California	State Program	9	2897	01-31-19
Colorado	State Program	8	CA00044	08-31-18
Connecticut	State Program	1	PH-0691	06-30-19
Florida	NELAP	4	E87570	06-30-18
Georgia	State Program	4	N/A	01-28-19
Hawaii	State Program	9	N/A	01-29-19
Illinois	NELAP	5	200060	03-17-19
Kansas	NELAP	7	E-10375	10-31-18
L-A-B	DoD ELAP		L2468	01-20-21
Louisiana	NELAP	6	30612	06-30-18
Maine	State Program	1	CA0004	04-14-20
Michigan	State Program	5	9947	01-31-20
Nevada	State Program	9	CA00044	07-31-18
New Hampshire	NELAP	1	2997	04-18-19
New Jersey	NELAP	2	CA005	06-30-18
New York	NELAP	2	11666	03-31-19
Oregon	NELAP	10	4040	01-29-19
Pennsylvania	NELAP	3	68-01272	03-31-19
Texas	NELAP	6	T104704399	05-31-19
US Fish & Wildlife	Federal		LE148388-0	07-31-18
USDA	Federal		P330-11-00436	01-17-21
USEPA UCMR	Federal	1	CA00044	11-06-18
Utah	NELAP	8	CA00044	02-28-19
Vermont	State Program	1	VT-4040	04-30-19
Virginia	NELAP	3	460278	03-14-19
Washington	State Program	10	C581	05-05-19
West Virginia (DW)	State Program	3	9930C	12-31-18
Wyoming	State Program	8	8TMS-L	01-28-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-135783-1

Method	Method Description	Protocol	Laboratory
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	TAL BUF
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
3535	Solid-Phase Extraction (SPE)	SW846	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-135783-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-135783-1	MW-7	Water	05/09/18 12:04	05/11/18 16:00
480-135783-2	MW-8	Water	05/09/18 12:59	05/11/18 16:00
480-135783-4	Equipment Blank	Water	05/09/18 00:00	05/11/18 16:00

TestAmerica Amherst
10 Hazelwood Drive
Amherst, NY 14228
Phone: 716.691.2600 Fax: 716.691.7991

Chain of Custody Record

253406

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Bryan Mayhew	Site Contact: T. Bertrand	Date: 5/9/18	COC No:
Company Name: Benchmark Eng	Tel/Fax:	Lab Contact: B. Fischer	Carrier:	1 of 1 COCs
Address: 255 Hamburg Turnpike	Analysis Turnaround Time			Sampler:
City/State/Zip: Lackawanna NY 14218	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: (716) 815-8358	TAT if different from Below STD			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: 1427 Fillmore Ave	☐ 1 week			
Site: B04210-017-001-004-024	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			

480-135783 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PFOA+PFOS	1,4 Dioxane	Sample Specific Notes:
MW-7 (MS/MSD)	5/9/18	1204	Grab	water	12			X	X	please Hold (MS/MSD)
MW-8	↓	1259	↓	↓	4			X	X	
Blind Dup	↓	1200	↓	↓	4			X	X	please Hold
Equipment Blnk	5/9/18		Grab	↓	2			X		

Preservation Used: (1= Ice) 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Cat B

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: 4.2, 4.9 Corr'd:	Therm ID No.: #4

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Benchmark	5/9/18	[signature]	TAL	5/9/18 1300
Relinquished by: [signature]	Company: TAL	Date/Time: 5/9/18 1600	Received by: [signature]	Company: TAS	Date/Time: 5/9/18 1600
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-42241.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: brian.fischer@testamericainc.com	State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 480-135783-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 5/17/2018			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: 1827 Fillmore Avenue Site	Project #: 48017094			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/3535_PFC PFAS, Standard List (21 Analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-7 (480-135783-1)	5/9/18	12:04 Eastern		Water			X	2	
MW-8 (480-135783-2)	5/9/18	12:59 Eastern		Water			X	2	
Equipment Blank (480-135783-4)	5/9/18	Eastern		Water			X	2	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		5/14/18 1400			5/15/18 900	TAS
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.4c

Ver: 09/20/2016

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

S

480-135783 Field Sheet

Job:_____

Tracking #4926 0716 9210 SO / PO / FO

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations. File in the job folder with the COC.

Notes:_____

Therm. ID: AK-2 / AK-3 / AK-4 / AK-5 / HACCP / Other_____

Ice X Wet X Gel _____ Other _____

Cooler Custody Seal: _____

Sample Custody Seal: _____

Cooler ID: GHC

Temp: Observed GHC

From: Temp Blank ☐ Sample ☐

NCM Filed: Yes ☐ No ☐

	Yes	No	NA
Perchlorate has headspace?	☐	☐	☐
CoC is complete w/o discrepancies?	☐	☐	☐
Samples received within holding time?	☐	☐	☐
Sample preservatives verified?	☐	☐	☐
Cooler compromised/tampered with?	☐	☐	☐
Samples compromised/tampered with?	☐	☐	☐
Samples w/o discrepancies?	☐	☐	☐
Sample containers have legible labels?	☐	☐	☐
Containers are not broken or leaking?	☐	☐	☐
Sample date/times are provided.	☐	☐	☐
Appropriate containers are used?	☐	☐	☐
Sample bottles are completely filled?	☐	☐	☐
Zero headspace?*	☐	☐	☐
Multiphasic samples are not present?	☐	☐	☐
Sample temp OK?	☐	☐	☐
Sample out of temp?	☐	☐	☐

Initials: DH Date: 5/15/18 Time GHC DH 900

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

Login Sample Receipt Checklist

Client: Benchmark Env. Eng. & Science, PLLC

Job Number: 480-135783-1

Login Number: 135783

List Source: TestAmerica Buffalo

List Number: 1

Creator: Kinecki, Kenneth P

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	Benchmark
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: Benchmark Env. Eng. & Science, PLLC

Job Number: 480-135783-1

Login Number: 135783
List Number: 2
Creator: Turpen, Troy

List Source: TestAmerica Sacramento
List Creation: 05/16/18 11:44 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.4 C, AK-2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077
Tel/Fax: (800) 220-3675 / (856) 786-5974
http://www.EMSL.com / cinnasblab@EMSL.com

EMSL Order:	041800245
Customer ID:	ENVT50
Customer PO:	
Project ID:	

Attention:	Jeff Haynes	**Phone:**	(716) 876-4080
	Fibertech Environmental Services	**Fax:**	(716) 876-4293
	149 Gunnville Rd.	**Received Date:**	01/05/2018 10:05 AM
	Lancaster, NY 14086	**Analysis Date:**	01/11/2018
		Collected Date:	
Project:	1827 Fillmore / B0421-017-001		

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
1767P1 *041800245-0001* *Sample milled prior to analysis.*	1827 Fillmore Soil	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
1767P2 *041800245-0002* *Sample milled prior to analysis.*	1827 Fillmore Soil	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
1767P3 *041800245-0003* *Sample milled prior to analysis.*	1827 Fillmore Soil	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
1767P4 *041800245-0004* *Sample milled prior to analysis.*	1827 Fillmore Soil	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s)
Andrew Castellano (4)

Benjamin Ellis, Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036, PA ID# 68-00367

Initial report from: 01/11/2018 16:32:25

APPENDIX D

GROUNDWATER FIELD FORMS

GROUNDWATER FIELD FORM

Project Name: 1827 Fillmore Ave Date: 7/10/18 - 7/12/18
Location: Project No.: B0421-017-001 Field Team: CCB

Well No. MW-1	Diameter (inches): 2"	Sample Date / Time: 7/12/18 1500
Product Depth (fbTOR):	Water Column (ft): 2.37	DTW when sampled: 9.50
DTW (static) (fbTOR): 9.15	One Well Volume (gal): 0.38	Purpose: ☒ Development ☒ Sample ☐ Purge & Sample
Total Depth (fbTOR): 11.87	Total Volume Purged (gal):	Purge Method: PVC bailer / peristaltic pump

	Time		Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
7/10/18	1344	0	Initial	0	7.90	24.2	873	574	4.56	-83	clear / no odor
	1435	1	DRY	0.5	7.40	23.1	859	318	6.50	-67	"
	1547	2	11.65	0.75	7.38	23.0	933	>1000	5.54	-99	"
7/11/18	815	3	9.45	1.0	6.81	16.6	873	521	7.42	141	"
	832	4	DRY	1.15	7.15	18.3	863	—	6.62	98	"
	1150	5	10.90	1.30	6.71	19.0	844	76.4	8.08	89	"
7/12/18	715	6	9.45	1.55	7.27	16.1	867	49.5	8.72	139	"
		7									
		8									
		9									
		10									
Sample Information:											
Did not collect pre-due to lack of volume	1500	S1	9.50	1.75	6.95	18.8	865	20.8	7.76	172	"
		S2									

Well No.	Diameter (inches):	Sample Date / Time:
Product Depth (fbTOR):	Water Column (ft):	DTW when sampled:
DTW (static) (fbTOR):	One Well Volume (gal):	Purpose: ☐ Development ☐ Sample ☐ Purge & Sample
Total Depth (fbTOR):	Total Volume Purged (gal):	Purge Method:

Time		Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
	0	Initial								
	1									
	2									
	3									
	4									
	5									
	6									
	7									
	8									
	9									
	10									
Sample Information:										
	S1									
	S2									

REMARKS: 7/10/18 bailed w/ PVC bailer - very slow recharge.
7/11/18 pulled out volume in the morning w/ bailer came back at 1200 w/ peristaltic pump. well did not recharge. pulled out 0.15 gal. Recharge time ≈ 7.5 hrs

Note: All measurements are in feet, distance from top of riser.

Volume Calculation

Diam.	Vol. (g/ft)
1"	0.041
2"	0.163
4"	0.653
6"	1.469

Stabilization Criteria

Parameter	Criteria
pH	± 0.1 unit
SC	± 3%
Turbidity	± 10%
DO	± 0.3 mg/L
ORP	± 10 mV

PREPARED BY: CCB

600 gallons lost → 55 gallons removed by drillers

TurnKey Environmental Restoration, LLC

GROUNDWATER FIELD FORM

Project Name: 1827 Fillmore Ave Date: 7/10/18

Location: Project No.: B0421-017-001 Field Team: CCB

Well No. MW-2			Diameter (inches): 2"			Sample Date / Time:			
Product Depth (fbTOR): —			Water Column (ft):			DTW when sampled:			
DTW (static) (fbTOR): 22.0			One Well Volume (gal):			Purpose: ☒ Development ☐ Sample ☐ Purge & Sample			
Total Depth (fbTOR): 29.25			Total Volume Purged (gal): 82			Purge Method: pump / bailer			
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
1036	0 Initial	2.0	6.58	18.9	2247	13.3	1.35	-111	Clear / no odor
1203	1 25.45	12	6.86	16.4	2207	22.6	2.02	-102	" "
1310	2 23.90	18.0	6.90	17.1	2227	15.0	1.83	-93	" "
1404	3	27.0	6.95	16.9	2221	13.6	1.76	-94	
	4	+55 from drillers							
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:									
	S1								
	S2								

Well No. MW-2			Diameter (inches): 2"			Sample Date / Time: 7/10/18 1520			
Product Depth (fbTOR): —			Water Column (ft): 4.5			DTW when sampled: 25.1			
DTW (static) (fbTOR): 24.75			One Well Volume (gal): 0.73			Purpose: ☐ Development ☐ Sample ☒ Purge & Sample			
Total Depth (fbTOR): 29.25			Total Volume Purged (gal):			Purge Method: low flow pump			
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
1420	0 Initial	0	6.85	16.0	2255	106	3.05	-102	Clear / no odor
1424	1 24.95	1.25	6.83	15.1	2236	>1000	4.89	-93	brown / turbid / no odor
1427	2 26.9	2.25	6.84	14.5	2209	>1000	5.27	-89	" "
1443	3 25.3	3.5	7.08	15.40	2173	>1000	5.72	-113	" "
1457	4 25.65	4.5	6.93	15.46	2211	>1000	6.63	-91	" "
1502	5 26.10	5.5	6.96	15.3	2210	>1000	6.10	-84	" "
1506	6 26.80	7.0	6.97	14.2	2194	>1000	7.67	-91	" "
	7								
	8								
	9								
	10								
Sample Information:									
1520	S1 25.1	8.0	6.98	17.2	2161	489	3.05	-74	" "
1530	S2 24.57	9.0	6.80	15.5	2183	75.8	1.45	-86	" "

REMARKS: ∑ after 40 hrs of install = 20.1

Removed 55 / 600 gals - info from drillers

7/10/18 → pumping water @ 0.25 gal / min. W/ constant head

Note: All measurements are in feet, distance from top of riser.

Volume Calculation

Diam.	Vol. (g/ft)
1"	0.041
2"	0.163
4"	0.653
6"	1.469

Stabilization Criteria

Parameter	Criteria
pH	± 0.1 unit
SC	± 3%
Turbidity	± 10%
DO	± 0.3 mg/L
ORP	± 10 mV

PREPARED BY: CCB

7/12/18 - ∑ 22.10

GROUNDWATER FIELD FORM

Project Name: 1827 Fillmore Ave Date: 7/10/18
Location: Project No.: 30421-017-01 Field Team: CCB

Well No. MW-3	Diameter (inches): 2"	Sample Date / Time: 7/10/18
Product Depth (fbTOR): —	Water Column (ft): 6.67	DTW when sampled: 21.15
DTW (static) (fbTOR): 21.1	One Well Volume (gal): 1.0	Purpose: ☒ Development ☐ Sample ☐ Purge & Sample
Total Depth (fbTOR): 27.77	Total Volume Purged (gal): 10.0	Purge Method: PVC bailer

Time		Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
11:23	0	Initial	0	7.03	16.0	1705	47.7	2.23	-10	clear/no odor
11:30	1	21.15	2.0	6.85	17.9	1656	>1000	3.96	-42	milky/turbid/no odor
1136	2	21.15	4.0	6.82	14.6	1521	>1000	3.74	-65	" " / light brown
1143	3	21.15	6.0	6.83	14.4	1519	>1000	4.30	-68	" "
1148	4	21.15	8.0	6.82	13.8	1483	>1000	5.25	-72	" "
1154	5	21.15	10	6.83	14.6	1466	>1000	4.08	-75	" "
	6									
	7									
	8									
	9									
	10									
Sample Information:										
	S1									
	S2									

Well No. MW-3	Diameter (inches): 2"	Sample Date / Time: 7/10/18 1245
Product Depth (fbTOR): —	Water Column (ft): 6.67	DTW when sampled: 21.15
DTW (static) (fbTOR): 21.1	One Well Volume (gal): 1.0	Purpose: ☐ Development ☐ Sample ☒ Purge & Sample
Total Depth (fbTOR): 27.7	Total Volume Purged (gal): 3.5	Purge Method: designated bailer

Time		Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
1235	0	Initial	0	7.05	16.0	1674	111	1.71	-11	Clear/no odor
1239	1	21.15	1.0	6.81	14.9	1636	210	1.77	-55	" "
1241	2	21.15	2.0	6.81	14.5	1604	140	1.75	-55	" "
	3									
	4									
	5									
	6									
	7									
	8									
	9									
	10									
Sample Information:										
1245	S1	21.15	3.0	6.78	14.9	1602	192	2.77	-74	" "
1247	S2	21.15	3.5	6.80	14.1	1656	78	1.76	-60	" "

REMARKS: retrieved all 4100 gal lost from drilling.
7/12/18 ▽ 21.1

Note: All measurements are in feet, distance from top of riser.

Volume Calculation

Diam.	Vol. (g/ft)
1"	0.041
2"	0.163
4"	0.653
6"	1.469

Stabilization Criteria

Parameter	Criteria
pH	± 0.1 unit
SC	± 3%
Turbidity	± 10%
DO	± 0.3 mg/L
ORP	± 10 mV

PREPARED BY: CCB

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

GROUNDWATER FIELD FORM

Project Name: 1827 Fillmore Date: 12/7/17

Location: Buffalo Project No.: 0421-017-001 Field Team: TH TB

Well No. MW-6 | Diameter (inches): 2 | Sample Date / Time: 12/7/17 1010

Product Depth (fbTOR): 20.28 | Water Column (ft): 1.48 | DTW when sampled: 18.80

DTW (static) (fbTOR): 18.80 | One Well Volume (gal): .24 | Purpose: ☐ Development ☐ Sample ☒ Purge & Sample

Total Depth (fbTOR): | Total Volume Purged (gal): 0.75 | Purge Method: Bailer

Time		Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
9.55	0	Initial	.25	6.87	10.7	770.3	>1000	1.42	-63	TURBID
9:57	1	1902	.50	6.78	12.5	843.6	>1000	1.52	-68	SLIGHT
9.59	2	1903	.75	6.52	13.1	954.8	>1000	1.64	-80	ODOR MUSTY
	3									
	4									
	5									
	6									
	7									
	8									
	9									
	10									
Sample Information:										
1010	S1	1880	.80	6.59	11.4	949.6	695	1.59	-73	
1047	S2	1896	2.50	6.55	10.4	1344	283	2.20	-82	

Well No. MW-7 | Diameter (inches): 2" | Sample Date / Time: 12/7/17

Product Depth (fbTOR): 26.83 | Water Column (ft): 1.58 | DTW when sampled: 2530

DTW (static) (fbTOR): 25.24 | One Well Volume (gal): .26 | Purpose: ☐ Development ☐ Sample ☒ Purge & Sample

Total Depth (fbTOR): | Total Volume Purged (gal): 0.75 | Purge Method: Bailer

Time		Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
11:10	0	Initial	.25	6.55	9.9	1447	>1000	1.00	-93	BLACK, TURBID
11:12	1	2547	.50	6.82	11.3	1427	>1000	1.14	-93	SLIGHT MUSTY
11:14	2	2560	.75	6.83	11.4	1430	>1000	1.12	-96	ODOR
	3	~~2560~~								
	4									
	5									
	6									
	7									
	8									
	9									
	10									
Sample Information:										
7123	S1	2550	.50	6.56	10.0	1454	>1000	1.25	-72	
1145	S2	2556	2.20	6.81	10.6	1442	>1000	1.64	-81	

REMARKS: MS/MSD @ MW-6
BLIND @ MW-7

Volume Calculation

Diam.	Vol. (g/ft)
1"	0.041
2"	0.163
4"	0.653
6"	1.469

Stabilization Criteria

Parameter	Criteria
pH	± 0.1 unit
SC	± 3%
Turbidity	± 10%
DO	± 0.3 mg/L
ORP	± 10 mV

Note: All water level measurements are in feet, distance from top of riser.

PREPARED BY: TH TB

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

GROUNDWATER FIELD FORM

Project Name: 1827 Fillmore Date: 12/7/17
Location: Buffalo Project No.: 0421-017-001 Field Team: TAB

Well No. MW-5	Diameter (inches): 2	Sample Date / Time: 12/7/17 1247
Product Depth (fbTOR): –	Water Column (ft): 1.19	DTW when sampled: 1711
DTW (static) (fbTOR): 17.11	One Well Volume (gal): .19	Purpose: ☐ Development ☐ Sample ☒ Purge & Sample
Total Depth (fbTOR): 18.30	Total Volume Purged (gal): 0.40	Purge Method: Bailer

Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
910	0 Initial	.20	6.54	11.7	1166	>1000	2.55	18	TURBID, NO
915	1 17.60	.40 (DRY)	6.55	12.8	1168	>1000	3.42	8	ODOR
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:									
1247	S1 1711	.50	6.81	11.4	1262	136	2.54	-26	
1337	S2 1764	1.50	6.87	10.0	1494	424	3.54	-47	

Well No. MW-8	Diameter (inches): 2"	Sample Date / Time: 12/7/17 1219
Product Depth (fbTOR): –	Water Column (ft): 3.92	DTW when sampled: 19.00
DTW (static) (fbTOR): 18.61	One Well Volume (gal): 0.63	Purpose: ☐ Development ☐ Sample ☒ Purge & Sample
Total Depth (fbTOR): 22.53	Total Volume Purged (gal): 1.30	Purge Method: Bailer

Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
935	0 Initial	0.65	6.76	10.7	1088	269	1.94	-49	SLIGHT
DRY 9:38	1 20.11	1.30	6.74	11.8	1072	>1000	2.74	-58	TURBID, NO
	2								ODOR
	3								
	4								
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:									
1219	S1 1900	1.40	6.92	11.6	1043	23.8	1.55	-83	CLEAR, NO
1231	S2 2170	2.40	6.79	11.4	1133	551	2.06	-73	ODOR. TURBID

REMARKS:

Note: All water level measurements are in feet, distance from top of riser.

Volume Calculation

Diam.	Vol. (g/ft)
1"	0.041
2"	0.163
4"	0.653
6"	1.469

Stabilization Criteria @ LAST READING

Parameter	Criteria
pH	± 0.1 unit
SC	± 3%
Turbidity	± 10%
DO	± 0.3 mg/L
ORP	± 10 mV

PREPARED BY: THB

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

EQUIPMENT CALIBRATION LOG

PROJECT INFORMATION:

Project Name: 1827 Filmore Ave

Project No.: B0421-017-001

Client:

Date: 7/10/18

Instrument Source: ☒ BM ☐ Rental

METER TYPE	UNITS	TIME	MAKE/MODEL	SERIAL NUMBER	CAL. BY	STANDARD	POST CAL. READING	SETTINGS
☒ pH meter	units	1000	Myron L Company Ultra Meter 6P	6213516 ☐ 6243084 ☒ 6212375 ☐ 6243003 ☐ 6223973 ☐	CCB	4.00 7.00 10.01	4.04 7.00 9.98	
☒ Turbidity meter	NTU	1000	Hach 2100P or 2100Q Turbidimeter	06120C020523 (P) ☐ 13120C030432 (Q) ☐ 17110C062619 (Q) ☐	CCB	10 NTU verification < 0.4 20 100 800	10.5 19.8 97.8 767	
☐ Turbidity meter	NTU		LaMotte 2020	6523-1816 (La) ☐		0.0 NTU 1.0 NTU 10.0 NTU		
☒ Sp. Cond. meter	uS mS	1000	Myron L Company Ultra Meter 6P	6213516 ☐ 6243084 ☐ 6212375 ☐ 6243003 ☐ 6223973 ☐	CCB	1413 mS @ 25 °C	1418	
☐ PID	ppm		MinRAE 2000			open air zero ____ ppm Iso. Gas		MIBK response factor = 1.0
☒ Dissolved Oxygen	ppm	1500	HACH Model HQ30d	080700023281 ☐ 100500041867 ☐ 140200100319 ☐	CCB	100% Satuartion		
☐ Particulate meter	mg/m^3					zero air		
☐ Radiation Meter	uR/H					background area		

ADDITIONAL REMARKS:

PREPARED BY: CCB **DATE:** 7/10/18

BENCHMARK
ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

EQUIPMENT CALIBRATION LOG

PROJECT INFORMATION:

Project Name: 1827 Fillmore Ave
Project No.: 130421-017-001
Client:

Date: 7/11/18

Instrument Source: ☒ BM ☐ Rental

METER TYPE	UNITS	TIME	MAKE/MODEL	SERIAL NUMBER	CAL. BY	STANDARD	POST CAL. READING	SETTINGS
☒ pH meter	units	800	Myron L Company Ultra Meter 6P	6213516 ☐ 6243084 ☒ 6212375 ☐ 6243003 ☐ 6223973 ☐	CCB	4.00	3.97	
						7.00	7.01	
						10.01	10.02	
☒ Turbidity meter	NTU	800	Hach 2100P or 2100Q Turbidimeter	06120C020523 (P) ☐ 13120C030432 (Q) ☐ 17110C062619 (Q) ☐	CCB	10 NTU verification	9.92	
						< 0.4		
						20	19.8	
						100	97.4	
						800	777	
☐ Turbidity meter	NTU		LaMotte 2020	6523-1816 (La) ☐		0.0 NTU 1.0 NTU 10.0 NTU		
☒ Sp. Cond. meter	uS mS	800	Myron L Company Ultra Meter 6P	6213516 ☐ 6243084 ☐ 6212375 ☐ 6243003 ☐ 6223973 ☐	CCB	1413 mS @ 25 °C	1428	
☐ PID	ppm		MinRAE 2000			open air zero		MIBK response factor = 1.0
						____ ppm Iso. Gas		
☒ Dissolved Oxygen	ppm	800	HACH Model HQ30d	080700023281 ☐ 100500041867 ☐ 140200100319 ☐	CCB	100% Satuartion	160.1	
☐ Particulate meter	mg/m^3					zero air		
☐ Radiation Meter	uR/H					background area		

ADDITIONAL REMARKS:

PREPARED BY: CCB **DATE:** 7/11/18

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

EQUIPMENT CALIBRATION LOG

PROJECT INFORMATION:

Project Name: 1827 Fillmore Ave
Project No.: B0421-017-001
Client:

Date: 7/12/18

Instrument Source: ☒ BM ☐ Rental

METER TYPE	UNITS	TIME	MAKE/MODEL	SERIAL NUMBER	CAL. BY	STANDARD	POST CAL. READING	SETTINGS
☒ pH meter	units	700	Myron L Company Ultra Meter 6P	6213516 ☐ 6243084 ☒ 6212375 ☐ 6243003 ☐ 6223973 ☐	CCB	4.00	3.95	
						7.00	6.97	
						10.01	10.01	
☒ Turbidity meter	NTU	700	Hach 2100P or 2100Q Turbidimeter	06120C020523 (P) ☐ 13120C030432 (Q) ☐ 17110C062619 (Q) ☐	CCB	10 NTU verification	10.1	
						< 0.4		
						20	19.8	
						100	97.5	
						800	784	
☐ Turbidity meter	NTU		LaMotte 2020	6523-1816 (La) ☐		0.0 NTU 1.0 NTU 10.0 NTU		
☒ Sp. Cond. meter	uS mS	700	Myron L Company Ultra Meter 6P	6213516 ☐ 6243084 ☐ 6212375 ☐ 6243003 ☐ 6223973 ☐	CCB	1413 mS @ 25 °C	1424	
☐ PID	ppm		MinRAE 2000			open air zero		MIBK response factor = 1.0
						____ ppm Iso. Gas		
☒ Dissolved Oxygen	ppm	700	HACH Model HQ30d	080700023281 ☐ 100500041867 ☐ 140200100319 ☐	CCB	100% Satuartion	100%	
☐ Particulate meter	mg/m^3					zero air		
☐ Radiation Meter	uR/H					background area		

ADDITIONAL REMARKS:

PREPARED BY: CB **DATE:** 7/12/18

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

EQUIPMENT CALIBRATION LOG

PROJECT INFORMATION:

Project Name: 1827 Fillmore

Project No.: 0421-017-001

Client: Ruby

Date: 12/7/17

Instrument Source: ☐ BM ☐ Rental

METER TYPE	UNITS	TIME	MAKE/MODEL	SERIAL NUMBER	CAL. BY	STANDARD	POST CAL. READING	SETTINGS
☒ pH meter	units	9:07	Myron L Company Ultra Meter 6P	6213516 ☐ 6243084 ☒ 6212375 ☐ 6223973 ☐	CMS	4.00 7.00 10.01	4.00 7.00 10.01	
☒ Turbidity meter	NTU	9:07	Hach 2100P or 2100Q Turbidimeter	06120C020523 (P) ☒ 13120C030432 (Q) ☐	TAS	< 0.4 or 10 for 2100 Q 20 100 800	0.4 21.4 99.5 793	
☐ Turbidity meter	NTU		LaMotte 2020	6523-1816 (La) ☐		0.0 NTU 1.0 NTU 10.0 NTU		
☒ Sp. Cond. meter	uS mS	9:07	Myron L Company Ultra Meter 6P	6213516 ☐ 6243084 ☒ 6212375 ☐ 6223973 ☐	CMS	1413 mS @ 25 °C	1415	
☐ PID	ppm		MinRAE 2000			open air zero ____ ppm Iso. Gas		MIBK response factor = 1.0
☒ Dissolved Oxygen	ppm	9:07	HACH Model HQ30d	080700023281 ☐ 100500041867 ☐ 140200100319 ☒	CMS	100% Satuartion	100% 99.5 SURE	
☐ Particulate meter	mg/m^3					zero air		
☐ Oxygen	%					open air		
☐ Hydrogen sulfide	ppm					open air		
☐ Carbon monoxide	ppm					open air		
☐ LEL	%					open air		
☐ Radiation Meter	uR/H					background area		

ADDITIONAL REMARKS:

PREPARED BY: TAS

DATE: 12/7/17

APPENDIX E

DATA USABILITY SUMMARY REPORTS

Data Validation Services

120 Cobble Creek Road P.O. Box 208
North Creek, NY 12853

Phone 518-251-4429
harry@frontiernet.net

January 9, 2018

Bryan Mayback
Turnkey Environmental Restoration
2558 Hamburg Turnpike Suite 300
Buffalo, NY 14218

RE: Validation of the 1827 Fillmore Avenue Analytical Data Packages
Data Usability Summary Report (DUSR)
TestAmerica SDG Nos. 480-127874, 480-128098, 480-128303, 480-128367, 480-128697, 480-128941, and 480-129145

Dear Mr. Mayback:

Review has been completed for the data packages generated by TestAmerica Laboratories, Inc. that pertain to samples collected between 11/20/17 and 12/13/17 at the 1857 Fillmore Avenue site. Thirty soil samples and two field duplicates were processed for TCL volatiles and TAL metals. Six soil samples were processed for TCL and CP-51 volatiles, TCL semivolatiles, TCL pesticides, Aroclor PCBs, TCL herbicides, and TAL metals. Four aqueous samples and a field duplicate were processed for TCL and CP-51 volatiles, TCL semivolatiles, TCL pesticides, Aroclor PCBs, TCL herbicides, and dissolved TAL metals. Thirteen soil samples and a field duplicate were processed for TCL semivolatiles, TCL pesticides, Aroclor PCBs, TCL herbicides, and TAL metals. Four soil samples and a field duplicate were processed for TCL and CP-51 volatiles. Seven other soil samples were processed for various combinations of the above-mentioned analytical fractions. Some of the samples were processed for Tentatively Identified Compounds. Analytical methodologies utilized are USEPA SW846.

The data packages submitted by the laboratory contain full deliverables for validation, and this usability report is generated from review of the QC summary form information, with full review of sample raw data and limited review of associated QC raw data. The reported QC summary forms and sample raw data have been reviewed for application of validation qualifiers, with guidance from the USEPA national and regional validation documents, and in consideration for the specific requirements of the analytical methodology. The following items were reviewed:

The following items were reviewed:

* Data Completeness
* Case Narrative
* Custody Documentation
* Holding Times
* Surrogate and Internal Standard Recoveries
* Method and Preparation Blanks
* Matrix Spike Recoveries/Duplicate Correlations
* Blind Field Duplicate Correlations
* Laboratory Control Sample (LCS)
* Instrumental Tunes

* Initial and Continuing Calibration Standards
* ICP Serial Dilution Evaluation
* Method Compliance
* Sample Result Verification

Those items listed above which show deficiencies are discussed within the text of this narrative. All of the other items were determined to be acceptable for the DUSR level review, as discussed in NYS DER-10 Appendix B Section 2.0 (c). Documentation of the outlying parameters cited in this report can be found in the laboratory data package.

In summary, results for the samples are usable either as reported or with minor qualification or edit.

Data completeness, representativeness, accuracy, reproducibility, sensitivity, and comparability are acceptable, with the following exceptions:

- certain of the metals evaluations show poor precision and outlying accuracy for isolated elements
- there is a potential matrix effect on accuracy and precision shown by volatile matrix spike evaluation
- many of the semivolatile and pesticide reporting limits/sensitivities are elevated due to dilution during analysis

Copies of the client sample identifications are attached to this text. Also included in this report are TestAmerica EQuIS EDDs with recommended qualifiers/edits applied in red.

Chain-of-Custody/Sample Receipt

Edits to the custody forms should have been initialed and dated.

Requested analyses for semivolatiles and metals were added to TP-6(10-11.5) after laboratory receipt.

The relinquish entries were missing on two of the custody forms pertaining to soil samples collected 11/28/17 and the custody pertaining to the volatile fraction of MW-5. The date and time were omitted from the relinquish entry on the third of the soil custody forms.

Blind Field Duplicates

The blind field duplicate evaluations of MW-7, SS-12, TP-10(0-4), TP-10(1-3), and TP-18(5-9) show correlations within validation guidelines, with the following exceptions, the results for which should be qualified as estimated in the indicated parent samples and their duplicates:

- detected semivolatile concentrations in SS-12 are only about one half those in its field duplicate
- chromium, nickel, copper, iron, and mercury in TP-10(0-4); chromium and nickel show particularly poor correlations, with chromium showing a concentration of 1300 mg/kg in the parent sample and 78 mg/kg in the duplicate. Raw data confirm the variances, with that parent sample having been analyzed twice with similar results.
- calcium and magnesium in TP-18(5-9)

TCL and CP-51 Volatile Analyses by EPA 8260C

The matrix spike/duplicate evaluation performed on TP-8(6-9) show outlying recoveries and/or correlations for all of the analytes. Although this is typically due to matrix effect, the surrogate standards did not show the same variance (i.e. toluene and surrogate d8-toluene, which should behave identically, recover at 176% and 120%, respectively). Additionally, many of the spike recoveries in the matrix spike are elevated, and the disparity between the matrix spike and the duplicate imply either a variance affecting the mathematics (such as difference in solids/moisture content of the aliquots) or laboratory spike error. Results for that parent sample have been qualified as estimated in value.

The matrix spikes of MW-6 show recoveries and correlations within laboratory acceptance ranges/validation guidelines.

The detection of 2-butanone in MW-7 is edited to reflect non-detection due to poor mass spectral quality.

Results for cyclohexane, 4-isopropyltoluene, and methylene chloride in MW-8(14-16) are qualified as estimated, due to outlying recoveries in the associated LCS.

Calibration standards showed acceptable responses, with the exception of that for 1,1-dichloroethene (27%D) in the calibration associated with MW-8(14-16). That result is qualified as estimated in that sample.

The Tentatively Identified Compound (TIC) identified as chlorodifluoromethane is a contaminant, as shown by its presence in the associated method blank, and is not to be considered as a sample component.

Some of the TICs in MW-8(14-16) could have been better characterized as conjugated/ substituted hydrocarbons.

MW-8 was processed at dilution, with subsequent elevated reporting limits, due to foaming of the undiluted matrix.

TCL and CP-51 Semivolatile Analyses by EPA8270D

Results for analytes initially reported with the laboratory "E" flag are derived from the dilution analyses of the samples.

Surrogate and internal standard responses are compliant or diluted beyond applicable application. Instrument tunes meet fragmentation requirements. Calibration standards show responses within validation action levels.

The matrix spike evaluations were performed on MW-6, TP-19(3-6), TP-13(10-15), SS-7, TP-6(10-11.5), MW-3(6-8), MW-7(2-4), and TP-11(6-8). Recoveries and duplicate correlations are within validation guidelines.

Numerous samples were diluted prior to analysis due to color and/or viscosity. This results in proportionally elevated reporting limits. Matrix interferences were not always evident chromategraphically.

Some of the reported TICs are extraction artifacts (acetone, methylene chloride, toluene, xylenes, siloxanes, and aldol condensates), not noted by the analyst. They have been removed from consideration as sample components. Many should have been flagged by the laboratory as "B", as they were also present in the associated method blanks. These have been removed from consideration as sample components.

TCL Pesticide, TCL Herbicides, and Aroclor PCBs by EPA 8081B, 8151A and 8082A

Those pesticide analytes showing elevated dual column quantitative correlations have been qualified as either estimated in value, tentative in identification and estimated in value, or edited to non-detection, depending on the degree of variance.

The following reported detections are considered external contamination and edited to reflect non-detection due to presence in the associated blanks:

- a-BHC, 4,4'-DDT, g-BHC and b-BHC in samples reported in SDG 480-127874
- a-BHC, b-BHC, and d-BHC in samples reported in SDG 480-128098
- a-BHC in TP-16(8-10)

Results for PCBs in TP-25(0-2) are qualified as estimated, with a low bias, due to low surrogate DCB recoveries.

The pesticide matrix spikes (MS/MSD) on MW-6, SS-7, MW-3(6-8), and TP-23(13-15.5), herbicides on MW-6, SS-7 and MW-2(2-4), and PCBs on MW-6, TP-24(10-15), SS-7, MW-5(6-8), TP-10(0-4), and MW-7(2-4) show acceptable accuracy and precision or are diluted beyond applicable evaluation.

The detected pesticide results in TP-6(10-11.5), TP-4(1-3), and TP-16(8-10) have been qualified as estimated in value, with a high bias, due to elevated surrogate standard recoveries.

Holding times were met. Calibration standards are compliant, or show elevated responses for analytes not detected in the associated samples.

Numerous samples were diluted prior to pesticide analysis due to color and/or viscosity. This results in proportionally elevated reporting limits. Matrix interferences were not always evident chromatographically.

TAL Metals Analyses and TCLP Lead by EPA 6010C, 6020A, 7470, and 7471B

Results for the dissolved fractions of the aqueous samples have been qualified as estimated due to the fact that they were not filtered and subsequently preserved until laboratory receipt.

Matrix spikes/duplicates were performed on MW-6, TP-11(5-8), MW-7(2-4), MW-1(4-5.4), SS-7, TP-6(10-11.5), TP-19(3-6), TP-13(10-15), on the TCLP leachate of TP-9(10-12), and for mercury only on MW-4(12-14), and show recoveries and correlations within validation guidelines, with the following exceptions, results for which are qualified as estimated in the indicated parent samples:

Parent Sample	Element	Outlying % Recoveries	Outlying % RPD
MW-1 (4-5.4)	aluminum	195,250	
	potassium	157,180	

Parent Sample	Element	Outlying % Recoveries	Outlying % RPD
MW-7(2-4)	aluminum	395,339	
	antimony	57,61	
	barium	259,206	
	copper	71,63	
	potassium	160,157	
	lead	274	57
TP-11 (5-8)	aluminum	157,229	
	antimony	71,69	
	barium	141,163	
	calcium	185,496	50
	potassium	132,143	
SS-7	antimony	54,63	
	barium	29,-51	
	lead	10891,-55	188
	zinc	55,49	
TP-6 (10-11.5)	aluminum	147,171	
	calcium	193	34
TP-19 (3-6)	copper	142	27
	calcium	59	
	iron		49
	manganese		47
TP-13 (10-15)	aluminum	350,229	
	antimony	62,65	
	calcium		70
	copper	15	35
	lead		80
	magnesium	359,160	41
	potassium	191,127	25
	sodium	43,71	
	zinc		43

The lead in the matrix spike of SS-7 shows an extremely high concentration, confirmed by the raw data, but not observed in the parent sample and matrix spike duplicate. None of the other elements exhibited similar abnormal variance. Calcium and iron show significant variance (about two fold) in TP-19(3-6).

The ICP serial dilution evaluations of MW-6, SS-7, TP-6(10-11.5), TP-11(5-8), MW-7(2-4), MW-1(4-5.4), TP-19(3-6), TP-13(10-15), and on the TCLP leachate of TP-9(10-12, show acceptable correlations, with the following exceptions. The results for those elements in the indicated parent sample have been qualified as estimated, with a possible low bias, due to matrix interferences:

Parent Sample	Element	%Difference
MW-1 (4-5.4)	chromium	27
	manganese	18
	zinc	21

Parent Sample	Element	%Difference
SS-7	beryllium	16
	calcium	17
	manganese	18
	zinc	18
TP-13(10-15)	Beryllium	16

Instrument performance is compliant.

Some of the samples were processed at dilution due to elevated chromium content.

Please do not hesitate to contact me if questions or comments arise during your review of this report.

Very truly yours,

Judy Harry

VALIDATION DATA QUALIFIER DEFINITIONS

U	The analyte was analyzed for, but was not detected above the level of the associated reported quantitation limit.
J	The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
J-	The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.
J+	The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.
UJ	The analyte was analyzed for, but was not detected. The associated reported quantitation limit is approximate and may be inaccurate or imprecise.
NJ	The detection is tentative in identification and estimated in value. Although there is presumptive evidence of the analyte, the result should be used with caution as a potential false positive and/or elevated quantitative value.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control limits. The analyte may or may not be present.
EMPC	The results do not meet all criteria for a confirmed identification. The quantitative value represents the Estimated Maximum Possible Concentration of the analyte in the sample.

Client and Laboratory Sample IDs

Sample Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-127874-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-127874-1	MW-5 (6-8)	Solid	11/20/17 11:50	11/21/17 11:05
480-127874-2	MW-8 (14-16)	Solid	11/20/17 14:49	11/21/17 11:05
480-127922-1	MW-6 (8-10)	Solid	11/21/17 10:19	11/22/17 09:37
480-127922-2	MW-2 (2-4)	Solid	11/21/17 13:42	11/22/17 09:37
480-127922-3	MW-3 (6-8)	Solid	11/21/17 15:04	11/22/17 09:37
480-127922-4	MW-3 (0.5-2.0)	Solid	11/21/17 15:15	11/22/17 09:37
480-127950-1	MW-4 (12-14)	Solid	11/22/17 11:02	11/22/17 12:39
480-128053-1	MW-7 (2-4)	Solid	11/27/17 10:04	11/28/17 12:10
480-128053-2	MW-7 (10-12)	Solid	11/27/17 10:08	11/28/17 12:10
480-128053-3	MW-1 (4-5.4)	Solid	11/27/17 13:12	11/28/17 12:10
480-128189-1	TP-10 (0-4)	Solid	11/29/17 09:12	11/30/17 11:05
480-128189-2	BLIND DUP #2	Solid	11/29/17 12:02	11/30/17 11:05
480-128189-3	BLIND DUP #3	Solid	11/29/17 12:00	11/30/17 11:05
480-128189-4	TP-14 (10-15)	Solid	11/29/17 10:30	11/30/17 11:05
480-128189-5	TP-15 (8-10)	Solid	11/29/17 11:04	11/30/17 11:05
480-128189-6	TP-11 (5-8)	Solid	11/29/17 12:05	11/30/17 11:05
480-128189-7	TP-8 (6-9)	Solid	11/29/17 13:03	11/30/17 11:05
480-128189-8	TP-12 (10-12)	Solid	11/29/17 14:00	11/30/17 11:05
480-128189-10	TP-9 (10-12)	Solid	11/29/17 14:49	11/30/17 11:05

Sample Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128098-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-128098-1	SS-1	Solid	11/28/17 09:06	11/29/17 12:15
480-128098-2	SS-2	Solid	11/28/17 09:38	11/29/17 12:15
480-128098-3	SS-3	Solid	11/28/17 09:28	11/29/17 12:15
480-128098-4	SS-4	Solid	11/28/17 09:55	11/29/17 12:15
480-128098-5	SS-5	Solid	11/28/17 10:12	11/29/17 12:15
480-128098-6	SS-6	Solid	11/28/17 12:38	11/29/17 12:15
480-128098-7	SS-7	Solid	11/28/17 10:32	11/29/17 12:15
480-128098-8	SS-8	Solid	11/28/17 12:46	11/29/17 12:15
480-128098-9	SS-9	Solid	11/28/17 10:48	11/29/17 12:15
480-128098-10	SS-10	Solid	11/28/17 10:58	11/29/17 12:15
480-128098-11	SS-11	Solid	11/28/17 12:19	11/29/17 12:15
480-128098-12	SS-12	Solid	11/28/17 11:06	11/29/17 12:15
480-128098-13	SS-13	Solid	11/28/17 12:29	11/29/17 12:15
480-128098-14	SS-14	Solid	11/28/17 11:37	11/29/17 12:15
480-128098-15	SS-15	Solid	11/28/17 11:24	11/29/17 12:15
480-128098-16	BLIND DUP #1	Solid	11/28/17 12:00	11/29/17 12:15
480-128098-17	TP-1 (4-6)	Solid	11/28/17 09:23	11/29/17 12:15
480-128098-18	TP-2 (6-8)	Solid	11/28/17 09:56	11/29/17 12:15
480-128098-19	TP-3 (10-14.5)	Solid	11/28/17 10:45	11/29/17 12:15
480-128098-20	TP-4 (1-3)	Solid	11/28/17 11:38	11/29/17 12:15
480-128098-21	TP-5 (6-8)	Solid	11/28/17 14:27	11/29/17 12:15
480-128098-22	TP-6 (10-11.5)	Solid	11/28/17 12:45	11/29/17 12:15
480-128098-23	TP-7 (8-10)	Solid	11/28/17 13:38	11/29/17 12:15

Sample Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128303-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-128303-1	TP-19 (3-6)	Solid	12/01/17 00:00	12/01/17 16:45
480-128303-2	TP-20 (5-10)	Solid	12/01/17 10:30	12/01/17 16:45
480-128303-3	TP-25 (0-2)	Solid	12/01/17 09:40	12/01/17 16:45
480-128303-4	TP-24 (10-15)	Solid	12/01/17 11:30	12/01/17 16:45
480-128303-5	TP-28 (2-4)	Solid	12/01/17 12:08	12/01/17 16:45
480-128303-6	TP-26 (12-15)	Solid	12/01/17 13:17	12/01/17 16:45
480-128303-7	TP-29 (5-8)	Solid	12/01/17 13:55	12/01/17 16:45
480-128303-8	TP-30 (10-15)	Solid	12/01/17 14:46	12/01/17 16:45
480-128303-9	TP-24 (10-12)	Solid	12/01/17 11:25	12/01/17 16:45
480-128422-1	TP-13 (10-15)	Solid	12/04/17 09:04	12/05/17 12:30
480-128422-2	TP-18 (5-9)	Solid	12/04/17 09:45	12/05/17 12:30
480-128422-3	BLIND DUP #4	Solid	12/04/17 12:00	12/05/17 12:30
480-128422-4	TP-17 (2.5-4.0)	Solid	12/04/17 10:30	12/05/17 12:30
480-128422-5	TP-16 (8-10)	Solid	12/04/17 10:58	12/05/17 12:30
480-128422-6	TP-22 (9-12)	Solid	12/04/17 12:30	12/05/17 12:30
480-128422-7	TP-23 (13-15.5)	Solid	12/04/17 13:45	12/05/17 12:30
480-128422-8	TP-27 (7-9)	Solid	12/04/17 14:28	12/05/17 12:30
480-128422-9	TP-21 (8-10)	Solid	12/04/17 11:32	12/05/17 12:30

Sample Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128367-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-128367-1	MW-6 (8-10)	Solid	11/21/17 10:19	11/22/17 09:35

Sample Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128697-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-128697-1	MW-5	Water	12/07/17 12:47	12/08/17 13:00
480-128697-2	MW-8	Water	12/07/17 12:19	12/08/17 13:00
480-128697-3	MW-6	Water	12/07/17 10:10	12/08/17 13:00
480-128697-4	MW-7	Water	12/07/17 11:23	12/08/17 13:00
480-128697-5	BLIND DUP	Water	12/07/17 00:00	12/08/17 13:00
480-128697-6	TRIP BLANK	Water	12/07/17 00:00	12/08/17 13:00

Sample Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-128941-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-128941-1	TP-10 (0-4)	Solid	11/29/17 09:12	12/12/17 09:53
480-128941-2	TP-8 (6-9)	Solid	11/29/17 13:03	12/12/17 09:53
480-128941-3	TP-9 (10-12)	Solid	11/29/17 14:49	12/12/17 09:53

Sample Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-129145-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-129145-1	TP-13 (10-15)	Solid	12/04/17 09:04	12/05/17 12:30

Data Validation Services

120 Cobble Creek Road P.O. Box 208
North Creek, NY 12853

Phone 518-251-4429
harry@frontiernet.net

July 17, 2018

Bryan Mayback
Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike Suite 300
Buffalo, NY 14218

RE: Validation of the 1827 Fillmore Analytical Laboratory Data
TestAmerica SDG No. 480-135783-1
Data Usability Summary Report (DUSR)

Dear Mr. Mayback:

Review has been completed for the data package generated by TestAmerica Laboratories, Inc. that pertains to samples collected 05/09/18 at the 1827 Fillmore Avenue site. Two aqueous samples were processed for per- and polyfluoroalkyl substances (PFAS) by a modified method 537 and 1,4-dioxane by USEPA SW846 method 8270D.

The data packages submitted by the laboratory contain full deliverables for validation, and this usability report is generated from review of the QC summary form information, with full review of sample raw data and limited review of associated QC raw data. The reported QC summary forms and sample raw data have been reviewed for application of validation qualifiers, with guidance from the USEPA national and regional validation documents, and in consideration for the specific requirements of the analytical methodology and the laboratory modifications. The following items were reviewed:

* Data Completeness
* Case Narrative
* Custody Documentation
* Holding Times
* Surrogate and Internal Standard Recoveries
* Isotopic Standard Recoveries
* Preparation and Field Blanks
* Laboratory Control Samples (LCSs)
* Instrumental Tunes
* Initial and Continuing Calibration Standards
* Method Compliance
* Sample Result Verification

The data review includes evaluation of the specific items noted in The NYS DER-10 Appendix B section 2.0 (c) DUSR description. The items listed above that show deficiencies are discussed within the text of this narrative. The laboratory QC forms illustrating the excursions can be found within the laboratory data package.

Those items showing deficiencies are discussed in the following sections of this report. All others were found to be acceptable as outlined in the above-mentioned validation procedures, and as applicable for the methodology. Unless noted specifically in the following text, reported results are substantiated by the raw data, and generated in compliance with project requirements.

In summary, sample results are usable either as reported or with minor edit.

Data completeness, reproducibility, sensitivity, and comparability are acceptable. Accuracy and precision of the matrix has not been evaluated by the field duplicate or matrix spikes.

The laboratory modifications to the USEPA method 537 are significant, including acceptance ranges, consistent in many respects to the advances in the available monitoring compounds. Validation actions are based on the laboratory procedures, in consideration that the laboratory undergoes NYS DOH certifications and NYS SOP review.

The client and laboratory sample identifications are attached to this text, and should be reviewed in conjunction with this report. Also included in this report is the client EDD file, qualified to reflect the qualifications/edits recommended in this report.

1,4-Dioxane Analyses by USEPA Method 8270D SIM

Holding time requirements were met. Sample surrogate and internal standard recoveries are compliant. Calibration standards show responses within the validation guidelines. Blanks show no contamination.

PFAS by Modified EPA Method 537

PFAS compounds are at times identified by their common acronyms in this report. The data package report forms reference both the technical names and the acronyms.

Due to responses in the associated method blank, all of the detections of PFBA and PFHxS in the field samples and equipment blank are considered external contamination and edited to reflect non-detection, with the exception of the detection of PFBA in MW-8, the concentration of which is above the validation action level.

Internal and isotopic standards recoveries are within the laboratory acceptance ranges, with the exception of elevated recoveries for analytes not detected in the affected samples; no qualification is applicable.

LCS recoveries and calibration standard responses are compliant.

Please do not hesitate to contact me if questions or comments arise during your review of this report.

Very truly yours,

Judy Harry

VALIDATION DATA QUALIFIER DEFINITIONS

U	The analyte was analyzed for, but was not detected above the level of the associated reported quantitation limit.
J	The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
J-	The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.
J+	The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.
UJ	The analyte was analyzed for, but was not detected. The associated reported quantitation limit is approximate and may be inaccurate or imprecise.
NJ	The detection is tentative in identification and estimated in value. Although there is presumptive evidence of the analyte, the result should be used with caution as a potential false positive and/or elevated quantitative value.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control limits. The analyte may or may not be present.
EMPC	The results do not meet all criteria for a confirmed identification. The quantitative value represents the Estimated Maximum Possible Concentration of the analyte in the sample.

Client and Laboratory Sample Identifications

Sample Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-135783-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-135783-1	MW-7	Water	05/09/18 12:04	05/11/18 16:00
480-135783-2	MW-8	Water	05/09/18 12:59	05/11/18 16:00
480-135783-4	Equipment Blank	Water	05/09/18 00:00	05/11/18 16:00

Data Validation Services

120 Cobble Creek Road P.O. Box 208
North Creek, NY 12853

Phone 518-251-4429
harry@frontiernet.net

August 17, 2018

Charlotte Clark
Turnkey Environmental Restoration
2558 Hamburg Turnpike Suite 300
Buffalo, NY 14218

RE: Validation of the 1827 Fillmore Site Analytical Laboratory Data
TestAmerica Laboratories SDG Nos. 480-138687-1 and 480-138888-1
Data Usability Summary Report (DUSR)

Dear Mr. Clark:

Review has been completed for the data packages generated by TestAmerica Laboratories that pertain to samples collected 07/10/18 and 07/12/18 at the 1827 Fillmore Avenue site. Three aqueous samples were processed for TCL volatiles, TCL semivolatiles, and dissolved TAL metals. Analytical methodologies utilized are USEPA SW846.

The data packages submitted by the laboratory contain full deliverables for validation, and this usability report is generated from review of the QC summary form information, with full review of sample raw data and limited review of associated QC raw data. The reported QC summary forms and sample raw data have been reviewed for application of validation qualifiers, with guidance from the USEPA national and regional validation documents, and in consideration for the specific requirements of the analytical methodology. The following items were reviewed:

* Data Completeness
* Case Narrative
* Custody Documentation
* Holding Times
* Surrogate and Internal Standard Recoveries
* Method/ Preparation Blanks
* Matrix Spike Recoveries/Duplicate Correlations (Metals Only)
* Laboratory Control Sample (LCS)
* Instrumental Tunes
* Initial and Continuing Calibration Standards
* ICP Serial Dilution Evaluation
* Method Compliance
* Sample Result Verification

Those items listed above which show deficiencies are discussed within the text of this narrative. All of the other items were determined to be acceptable for the DUSR level review, as discussed in NYS DER-10 Appendix B Section 2.0 (c). Documentation of the outlying parameters cited in this report can be found in the laboratory data package.

In summary, results for the samples are usable either as reported or with minor qualification or edit. All metals results are qualified as estimated due to delayed preservation.

Data completeness, representativeness, reproducibility, sensitivity, comparability, and metals' accuracy and precision are acceptable.

Validation qualifier definitions and the client sample identification summaries are attached to this text. Also submitted are Alpha EQuIS EDDs with recommended qualifiers/edits applied in red.

Chain-of-Custody/Sample Receipt

The custody form for samples collected 07/10/18 states IDs of RW-2 and RW-3. The samples were reported as MW-2 and MW-3. This was not noted or discussed in the data package.

Scratchouts should have been dated and initialed.

The preservation should have been noted on the custody form for MW-1.

TCL Volatile Analyses by EPA 8260C

Holding times were met, and blanks show no contamination. Surrogate and internal standard responses are acceptable.

LCS recoveries are within validation guidelines. The effect of the matrix has not been evaluated by matrix spikes.

TCL Semivolatile Analyses by EPA 8270D

The result for benzaldehyde in MW-2 is considered external contamination and edited to reflect non-detection due to presence in the associated method blank.

The method blanks also show numerous Tentatively Identified Compounds (TICs) that are also present in the associated samples. They have been removed from consideration as sample components in those project samples. Those detections should have been flagged as "B" by the laboratory. The TICs that are identified as volatile target analyte are also removed, as they are extraction artifacts.

Holding times were met. Surrogate and internal standard responses are acceptable.

LCS recoveries are within validation guidelines. The effect of the matrix has not been evaluated by matrix spikes.

TAL Metals Analyses by EPA 6010C, and 7471B

The results for the metals are qualified as estimated due to the delayed preservation that is associated with filtration at the laboratory.

The matrix spikes of MW-2 show recoveries and correlations within validation guidelines. The ICP serial dilution evaluation of MW-2 shows acceptable correlations.

Instrument performance was compliant.

Please do not hesitate to contact me if questions or comments arise during your review of this report.

Very truly yours,

Judy Harry

Attachments: Validation Qualifier Definitions
Sample Identifications
Qualified Laboratory EQuIS EDDs

VALIDATION DATA QUALIFIER DEFINITIONS

U	The analyte was analyzed for, but was not detected above the level of the associated reported quantitation limit.
J	The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
J-	The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.
J+	The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.
UJ	The analyte was analyzed for, but was not detected. The associated reported quantitation limit is approximate and may be inaccurate or imprecise.
NJ	The detection is tentative in identification and estimated in value. Although there is presumptive evidence of the analyte, the result should be used with caution as a potential false positive and/or elevated quantitative value.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control limits. The analyte may or may not be present.
EMPC	The results do not meet all criteria for a confirmed identification. The quantitative value represents the Estimated Maximum Possible Concentration of the analyte in the sample.

Client and Laboratory Sample Identifications

Sample Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-138687-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-138687-1	MW-2	Water	07/10/18 15:20	07/11/18 16:50
480-138687-2	MW-3	Water	07/10/18 12:45	07/11/18 16:50

Sample Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: 1827 Fillmore Avenue Site

TestAmerica Job ID: 480-138888-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-138888-1	MW-1	Water	07/12/18 15:00	07/13/18 09:50

Data Validation Services

120 Cobble Creek Road P.O. Box 208
North Creek, NY 12853

Phone 518-251-4429
harry@frontiernet.net

November 13, 2018

Charlotte Clark
Turnkey Environmental Restoration
2558 Hamburg Turnpike Suite 300
Buffalo, NY 14218

RE: Validation of the 1827 Fillmore Avenue Analytical Data Packages
Data Usability Summary Report (DUSR)
Alpha SDG No. L1835442

Dear Ms. Clark:

Review has been completed for the data packages generated by Alpha Analytical that pertain to samples collected 09/07/18 at the 1857 Fillmore Avenue site. Twenty two soil samples were processed for TCL and NYCRR 6 Part 375 CP-51 volatiles. Nine soil samples were processed for NYCRR 6 Part 375 CP-51 semivolatiles, pesticides, Aroclor PCBs, 2,4,5-TP, NYCRR 6 Part 375 CP-51 metals, total cyanide, and hexavalent and trivalent chromium. Analytical methodologies utilized are USEPA SW846.

The data packages submitted by the laboratory contain full deliverables for validation, and this usability report is generated from review of the QC summary form information, with full review of sample raw data and limited review of associated QC raw data. The reported QC summary forms and sample raw data have been reviewed for application of validation qualifiers, with guidance from the USEPA national and regional validation documents, and in consideration for the specific requirements of the analytical methodology. The following items were reviewed:

The following items were reviewed:

* Data Completeness
* Case Narrative
* Custody Documentation
* Holding Times
* Surrogate and Internal Standard Recoveries
* Method and Preparation Blanks
* Matrix Spike Recovery/Duplicate Correlation (Total cyanide and hexavalent chromium only)
* Blind Field Duplicate Correlations
* Laboratory Control Samples (LCSs)
* Instrumental Tunes
* Initial and Continuing Calibration Standards
* ICP Serial Dilution Evaluation
* Method Compliance
* Sample Result Verification

Those items listed above which show deficiencies are discussed within the text of this narrative. All of the other items were determined to be acceptable for the DUSR level review, as discussed in NYS DER-10 Appendix B Section 2.0 (c). Documentation of the outlying parameters cited in this report can be found in the laboratory data package.

In summary, results for the samples are usable either as reported or with minor qualification or Edit, with the exception that the results for 1,4-dioxane are not usable due to poor performance inherent in the methodology.

Data completeness, representativeness, reproducibility, sensitivity, and comparability are acceptable. No sample matrix spikes or field duplicates were submitted with these samples, and therefore the effect of the matrix on accuracy and precision on organic and metals analytes has not been evaluated.

Client sample identifications are attached to this text. Also included with this report is the laboratory EQuIS EDD, with recommended qualifiers/edits applied in red.

TCL and CP-51 Volatile Analyses by EPA 8260C

The results for detected analytes in PILE 2 VOC-1, PILE 2 VOC-3, and PILE 2 VOC-5 have been qualified as estimated, with a high bias, due to elevated surrogate standard recoveries.

Due to very low response factors inherent in the methodology, the results for 1,4-dioxane in the samples are rejected and not usable. Other calibration standards showed responses within validation guidelines, with the following exceptions, the results for which are qualified as estimated, with a low bias, as indicated:

- Bromomethane (23%D and 30%D) in nine samples
- Dichlorofluoromethane (59%D) in eight samples

PILE 2 VOC-3 exhibited repeated low recoveries of internal standard d4-1,2-dichlorobenzene. The results for the fourteen associated analytes in that sample have been qualified as estimated in value.

Although not detected in associated blanks, methylene chloride and acetone concentrations in the samples at levels typical of external contamination.

CP-51 Semivolatile Analyses by EPA8270D

Surrogate and internal standard responses are compliant, and calibration standards show responses within validation action levels.

LCS recoveries are within validation guidelines, and the blank shows no contamination.

Per analytical protocol, the laboratory should process the method blank on the same instrument as the project samples.

TCL Pesticide, 2,4,5-TP, and Aroclor PCBs by EPA 8081B, 8151A and 8082A

Those pesticide analytes showing elevated dual column quantitative correlations have been qualified as either estimated in value, tentative in identification and estimated in value, or edited to non-detection, depending on the degree of variance. This indicates the uncertainty in the reported identification and/or quantitative values.

The results for Aroclors 1254 and 1260 in PILE 2 COMP-2 have been qualified as tentative in identification and estimated in value due to poor pattern match. The total PCB results have been qualified as estimated.

The result for heptachlor in PILE 1 COMP-4 is considered external contamination and edited to non-detection, due to presence of that compound in the associated method blank.

The results for analytes initially reported with the "E" flag are derived from the dilution analyses of the samples.

Holding times were met. Calibration standards are compliant, or show elevated responses for analytes not detected in the associated samples.

CP-51 Metals Analyses EPA 6010C and 7471B

Because no matrix spikes were performed, a serial dilution determination that further evaluates matrix effects was not performed.

Instrument performance is compliant. Blanks show no contamination affecting sample reported results.

Total Cyanide and Hexavalent Chromium Analyses by 9012 and 7196A

Review was conducted for method compliance, holding times, transcription, calculations, standard and blank acceptability, accuracy and precision.

Due to low recoveries (45%D and 48%) in the LCSs, the results for total cyanide in the samples have been qualified as estimated, with a low bias.

Matrix spikes of total cyanide in PILE 1 COMP-1 show acceptable recoveries and correlations.

The matrix spike of hexavalent chromium in PILE 1 COMP-5 shows a low recovery (48%), and the results for hexavalent and trivalent chromium in that parent sample are therefore qualified as estimated in value.

Please do not hesitate to contact me if questions or comments arise during your review of this report.

Very truly yours,

Judy Harry

VALIDATION DATA QUALIFIER DEFINITIONS

U	The analyte was analyzed for, but was not detected above the level of the associated reported quantitation limit.
J	The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
J-	The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.
J+	The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.
UJ	The analyte was analyzed for, but was not detected. The associated reported quantitation limit is approximate and may be inaccurate or imprecise.
NJ	The detection is tentative in identification and estimated in value. Although there is presumptive evidence of the analyte, the result should be used with caution as a potential false positive and/or elevated quantitative value.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control limits. The analyte may or may not be present.
EMPC	The results do not meet all criteria for a confirmed identification. The quantitative value represents the Estimated Maximum Possible Concentration of the analyte in the sample.

Client and Laboratory Sample Identifications

Project Name: 1827 FILLMORE AVE.
Project Number: B0421-017-001

Lab Number: L1835442
Report Date: 09/14/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1835442-01	PILE 1 VOC-1	SOIL	1827 FILLMORE AVE.	09/07/18 06:15	09/07/18
L1835442-02	PILE 1 VOC-2	SOIL	1827 FILLMORE AVE.	09/07/18 06:30	09/07/18
L1835442-03	PILE 1 VOC-3	SOIL	1827 FILLMORE AVE.	09/07/18 07:15	09/07/18
L1835442-04	PILE 1 VOC-4	SOIL	1827 FILLMORE AVE.	09/07/18 07:20	09/07/18
L1835442-05	PILE 1 VOC-5	SOIL	1827 FILLMORE AVE.	09/07/18 07:25	09/07/18
L1835442-06	PILE 1 VOC-6	SOIL	1827 FILLMORE AVE.	09/07/18 07:35	09/07/18
L1835442-07	PILE 1 VOC-7	SOIL	1827 FILLMORE AVE.	09/07/18 07:45	09/07/18
L1835442-08	PILE 1 VOC-8	SOIL	1827 FILLMORE AVE.	09/07/18 07:55	09/07/18
L1835442-09	PILE 1 VOC-9	SOIL	1827 FILLMORE AVE.	09/07/18 08:05	09/07/18
L1835442-10	PILE 1 VOC-10	SOIL	1827 FILLMORE AVE.	09/07/18 08:15	09/07/18
L1835442-11	PILE 1 VOC-11	SOIL	1827 FILLMORE AVE.	09/07/18 08:45	09/07/18
L1835442-12	PILE 1 VOC-12	SOIL	1827 FILLMORE AVE.	09/07/18 09:15	09/07/18
L1835442-13	PILE 1 VOC-13	SOIL	1827 FILLMORE AVE.	09/07/18 09:45	09/07/18
L1835442-14	PILE 1 VOC-14	SOIL	1827 FILLMORE AVE.	09/07/18 10:15	09/07/18
L1835442-15	PILE 1 VOC-15	SOIL	1827 FILLMORE AVE.	09/07/18 10:45	09/07/18
L1835442-16	PILE 1 VOC-16	SOIL	1827 FILLMORE AVE.	09/07/18 11:05	09/07/18
L1835442-17	PILE 1 VOC-17	SOIL	1827 FILLMORE AVE.	09/07/18 11:10	09/07/18
L1835442-18	PILE 1 COMP-1	SOIL	1827 FILLMORE AVE.	09/07/18 07:00	09/07/18
L1835442-19	PILE 1 COMP-2	SOIL	1827 FILLMORE AVE.	09/07/18 07:30	09/07/18
L1835442-20	PILE 1 COMP-3	SOIL	1827 FILLMORE AVE.	09/07/18 08:00	09/07/18
L1835442-21	PILE 1 COMP-4	SOIL	1827 FILLMORE AVE.	09/07/18 08:30	09/07/18
L1835442-22	PILE 1 COMP-5	SOIL	1827 FILLMORE AVE.	09/07/18 09:00	09/07/18
L1835442-23	PILE 1 COMP-6	SOIL	1827 FILLMORE AVE.	09/07/18 10:00	09/07/18
L1835442-24	PILE 1 COMP-7	SOIL	1827 FILLMORE AVE.	09/07/18 11:00	09/07/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1835442-25	PILE 2 VOC-1	SOIL	1827 FILLMORE AVE.	09/07/18 11:15	09/07/18
L1835442-26	PILE 2 VOC-2	SOIL	1827 FILLMORE AVE.	09/07/18 11:20	09/07/18
L1835442-27	PILE 2 VOC-3	SOIL	1827 FILLMORE AVE.	09/07/18 11:25	09/07/18
L1835442-28	PILE 2 VOC-4	SOIL	1827 FILLMORE AVE.	09/07/18 11:35	09/07/18
L1835442-29	PILE 2 VOC-5	SOIL	1827 FILLMORE AVE.	09/07/18 11:45	09/07/18
L1835442-30	PILE 2 COMP-1	SOIL	1827 FILLMORE AVE.	09/07/18 12:00	09/07/18
L1835442-31	PILE 2 COMP-2	SOIL	1827 FILLMORE AVE.	09/07/18 11:30	09/07/18

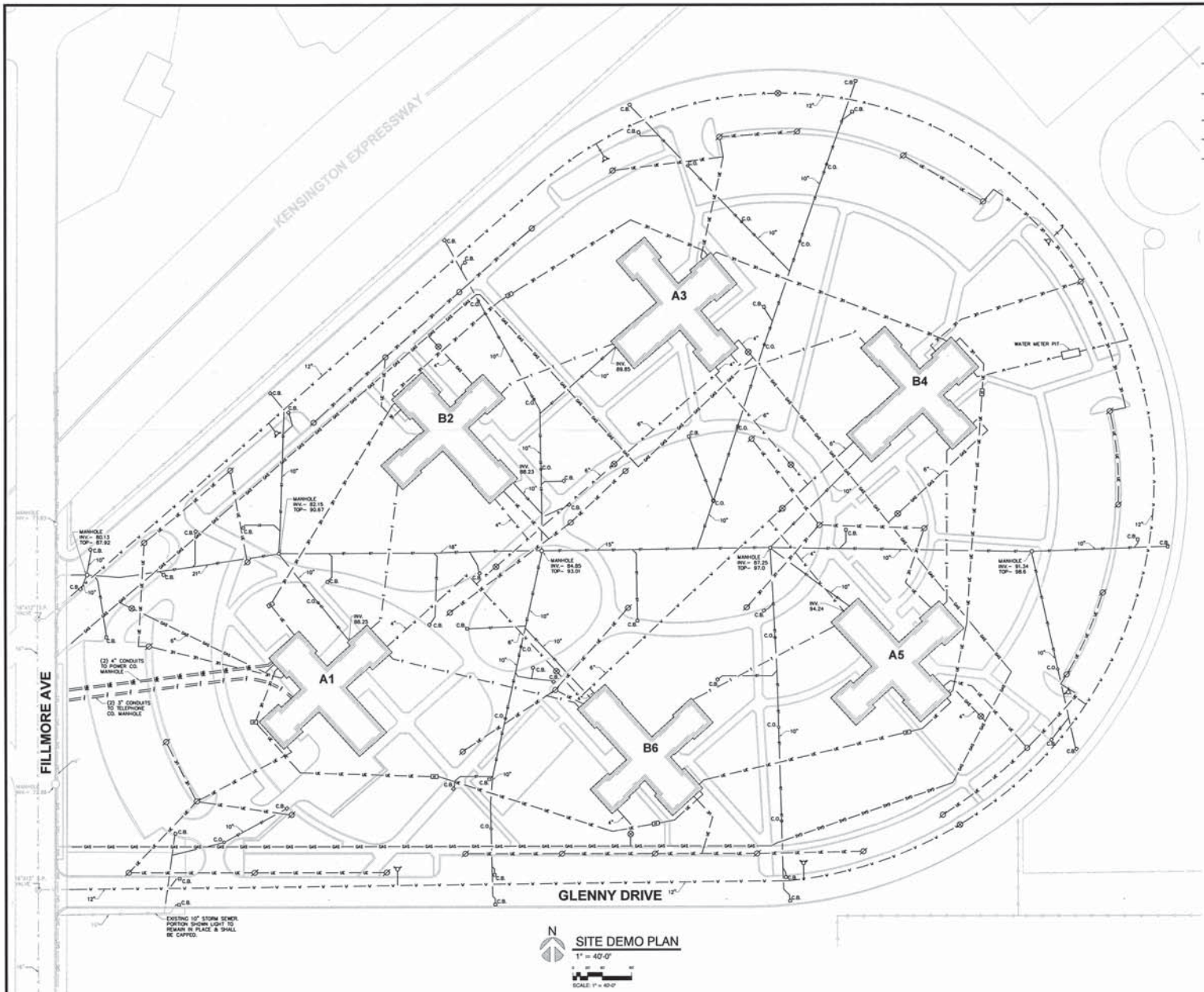
APPENDIX F

FISH AND WILDLIFE RESOURCES IMPACT ANALYSIS

Appendix 3C Fish and Wildlife Resources Impact Analysis Decision Key		If YES Go to:	If NO Go to:
1.	Is the site or area of concern a discharge or spill event?	13	2
2.	Is the site or area of concern a point source of contamination to the groundwater which will be prevented from discharging to surface water? Soil contamination is not widespread, or if widespread, is confined under buildings and paved areas.	13	3
3.	Is the site and all adjacent property a developed area with buildings, paved surfaces and little or no vegetation?	4	9
4.	Does the site contain habitat of an endangered, threatened or special concern species?	Section 3.10.1	5
5.	Has the contamination gone off-site?	6	14
6.	Is there any discharge or erosion of contamination to surface water or the potential for discharge or erosion of contamination?	7	14
7.	Are the site contaminants PCBs, pesticides or other persistent, bioaccumulable substances?	Section 3.10.1	8
8.	Does contamination exist at concentrations that could exceed ecological impact SCGs or be toxic to aquatic life if discharged to surface water?	Section 3.10.1	14
9.	Does the site or any adjacent or downgradient property contain any of the following resources? i. Any endangered, threatened or special concern species or rare plants or their habitat ii. Any DEC designated significant habitats or rare NYS Ecological Communities iii. Tidal or freshwater wetlands iv. Stream, creek or river v. Pond, lake, lagoon vi. Drainage ditch or channel vii. Other surface water feature viii. Other marine or freshwater habitat ix. Forest x. Grassland or grassy field xi. Parkland or woodland xii. Shrubby area xiii. Urban wildlife habitat xiv. Other terrestrial habitat	11	10
10.	Is the lack of resources due to the contamination?	3.10.1	14
11.	Is the contamination a localized source which has not migrated and will not migrate from the source to impact any on-site or off-site resources?	14	12
12.	Does the site have widespread surface soil contamination that is not confined under and around buildings or paved areas?	Section 3.10.1	12
13.	Does the contamination at the site or area of concern have the potential to migrate to, erode into or otherwise impact any on-site or off-site habitat of endangered, threatened or special concern species or other fish and wildlife resource? (See #9 for list of potential resources. Contact DEC for information regarding endangered species.)	Section 3.10.1	14
14.	No Fish and Wildlife Resources Impact Analysis needed.		

APPENDIX G

HISTORIC DOCUMENTS



SITE DEMO PLAN
1" = 40'-0"
SCALE: 1" = 40'-0"

SYMBOLS KEY:

- UNDERGROUND ELECTRIC LINE TO BE REMOVED
- UNDERGROUND TELEPHONE LINE TO BE REMOVED
- UNDERGROUND GAS LINE TO BE REMOVED
- UNDERGROUND WATER LINE TO BE REMOVED
- UNDERGROUND SANITATION/SEWER LINE TO BE REMOVED
- FIRE HYDRANT TO BE REMOVED
- LIGHT STANDARD TO BE REMOVED
- C.B. CATCH BASIN TO BE REMOVED
- C.O. CLEAN OUT TO BE REMOVED
- VALVE TO BE REMOVED
- HAND HOLE TO BE REMOVED

NOTE:

THESE DRAWINGS HAVE BEEN PREPARED BY UTILIZING THE OWNERS ORIGINAL CONSTRUCTION DOCUMENTS IN ORDER TO ILLUSTRATE THE EXISTING CONDITIONS OF THE SITE AND STRUCTURES THEREIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACTUAL VERIFICATION OF ALL EXISTING CONDITIONS IN THE FIELD.

GENERAL NOTES:

- REMOVE COMPLETELY ALL UTILITIES INDICATED. BACKFILL ALL EXCAVATIONS.
- REFER TO PROJECT MANUAL FOR COMPLETE SCOPE OF WORK.

Revision	Drawn by	Approved	Date	Description

Warning: It is a violation of Section 7209, Subdivision 2 of the New York State Educational Law for any person, unless acting under the direction of a Licensed Architect or Professional Engineer to alter in any way, plans, specifications, or reports to which the seal of a Licensed Architect or Professional Engineer has been applied.

NOT FOR CONSTRUCTION

Project: KENSINGTON HEIGHTS ENVIRONMENTAL ABATEMENT & DEMOLITION OF BUILDINGS & SITE

Drawing Title: DEMOLITION CIVIL SITE UTILITY PLAN

Owner: Buffalo Municipal Housing Authority

Owners Agent: HLM Holding, LLC.
Financial Investment & Real Estate Development
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Designed by: DLB	Drawn by: JMS
Checked by: DLB	Approved by: HM
Date: MAY 1, 2008	Scale: SCALE AS NOTED

Project No. 030024.01
Drawing No. DC102

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DRAFT

SECTION 01901

SOILS MANAGEMENT PLAN

DR. LYDIA T. WRIGHT SCHOOL OF EXCELLENCE
CAMPUS EAST SCHOOL #89
106 APPENHEIMER AVENUE
CITY OF BUFFALO, ERIE COUNTY, NEW YORK

Prepared for:

Buffalo Public Schools
Buffalo Board of Education

Prepared by:

Panamerican Environmental, Inc.
2390 Clinton Street
Buffalo, New York 14227-1735
Ph: (716) 821-1650 Fax: (716) 821-1607

AND

URS Corporation
282 Delaware Avenue
Buffalo, New York 14202-1805

March 2002

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APPENDICES

Appendix A	Phase II Environmental Site Assessment Report (Minus Appendix B-D)
Appendix B	Site Health and Safety Plan Requirements

1.0 INTRODUCTION

1.1 General Description of Project

The Dr. Lydia T. Wright School of Excellence (Campus East School - School #89) Site (the "Site") is located at 109 Appenheimer Street in the City of Buffalo. The Site encompasses approximately 9-acres of land see Figure 1-1. As part of a renovation project at the Site, the City of Buffalo Board of Education plans to construct several additions onto the current structure.

Re-development plans include leaving the existing structure in its present form and regrading the Site as necessary to allow for the construction of four (4) new additions which will abut the current school building. As part of the redevelopment, it will be necessary to excavate soil from various areas of the Site for installation of utilities and building foundations. Additionally, onsite soils will be utilized for regrading areas of the Site.

1.2 Objectives of the Soils Management Plan

The primary objective of this Soils Management Plan (SMP) is to provide a description of how environmentally impacted soils/fill materials at the site will be handled during construction/excavation to minimize any potential risks to human health and the environment. Any subsequent additions, expansions or alterations at the Dr. Lydia T. Wright School will result in a new, or revised SMP.

1.3 Organization of the Soils Management Plan

Section 2 of this SMP presents a brief description of the site and site history and a discussion of previous environmental investigations. Section 3 presents an overview of existing site conditions and discusses the nature and extent of contaminants detected in the surface and subsurface materials. Section 4 provides an overview of the proposed site development. The soils management strategies are outlined in Section 5 and the Contractor requirements are outlined in Section 6.



Figure 1-1 **Project Location** *(USGS 7.5' Quadrangle, Buffalo SW, NY 1989 [1965]).*

2.0 SITE DESCRIPTION AND PREVIOUS INVESTIGATIONS

2.1 Site Description and History

The Dr. Lydia T. Wright School of Excellence (Campus East School - School #89) was constructed about 1959 on property that previously was utilized as a limestone quarry from at least 1919 to the 1950's. Filled prior to construction of the school, the quarry extended from near Appenheimer Avenue, north to Kensington Avenue and west almost to Fillmore Avenue.

During recent assessments for planned additions to the school, contractors for the Buffalo Board of Education performed a Phase I Environmental Site Assessment and a series of geotechnical and engineering design studies (*"Geotechnical Engineering Report, Public School 89 Additions, Buffalo, New York. Prepared for Buffalo Board of Education, Prepared by McMahon & Mann Consulting Engineers, P.C. December 2000"*). These studies suggested that the quarry was filled with ash and cinders that are covered by a layer of soil fill/topsoil. The topsoil varies from as much as approximately 6-7 feet to as little as less than 1 foot. The ash and cinders appear to extend from below the cover to the bottom of the quarry which was measured to be as much as 27 feet deep. Limited samples of the ash and cinder collected during these geotechnical/engineering design studies indicated elevated levels of polynuclear aromatic hydrocarbons (PAHs) and metals at concentrations, that in some cases, exceed the New York State Department of Environmental Conservation (NYSDEC) Technical Assistance and Guidance Memorandum #4046 (TAGM #4046, revised 1994) soil cleanup value guidelines. Of particular concern to the NYSDEC was that the investigation identified subsurface lead levels in two samples (24 to 26 feet and 14 to 18 feet bgs, respectively) at 5,030 mg/kg and 1,310 mg/kg.

A Phase II Surface and Subsurface Soil Environmental Assessment (*Phase II Environmental Site Assessment Campus East School #89,106 Appenheimer Avenue, City of Buffalo, Erie County, New York, PEI/URS February 2001*) has been completed on the Site. The Phase II Investigation confirmed that certain surface and subsurface soils at the Site contain low levels of PAHs and metals from historic activities conducted on or in the vicinity of the site such as the development and backfilling of a rock quarry and fossil fuel burning for heat and manufacturing. Many of the compounds found at the Site are widely distributed in the environment, and are typical of older urban environments.

A review of historical records and aerial photographs confirm that the current building was

constructed in the mid-late 1950's. Earlier historical maps and records indicate that the property was used primarily for a rock quarry and an area of discharge for incinerator ash prior to the development of the school.

2.2 Previous Environmental Investigations

2.2.1 Geotechnical Engineering Report

In December 2000, a Geotechnical Engineering Report ("*Geotechnical Engineering Report, Public School 89 Additions, Buffalo, New York. Prepared for Buffalo Board of Education, Prepared by McMahon & Mann Consulting Engineers, P.C. December 2000*") was performed on the site by McMahon and Mann with Earth Dimensions, Inc. The work included:

- Review of subsurface data contained on plans for the existing school;
- A subsurface soil investigation with Earth Dimensions, Inc. to make four test borings and five test pits within the proposed addition limits;
- Testing of selected samples of fill from within the quarry limits to identify the composition of the fill;
- Testing of selected environmental samples from the four test borings;
- Analysis of subsurface conditions relative to the effect of the static loads applied by the proposed buildings;
- Preparation of a report summarizing the subsurface conditions and presenting the recommendations for foundation design.

The Geotechnical Report's review of historical records identified that the current use of the property as a school began in the mid 1950's. Prior to the middle 1950's, the property was used primarily for rock quarrying and disposal of incinerator ash purposes. Analytical testing conducted on ash and cinder samples indicated elevated concentrations of metals, such as lead, and PAHs. Borehole and test pit locations installed during the Geotechnical Program are shown on Figure 2-1.

The report recommended that additional environmental sampling be conducted to plan the requirements for construction worker health and safety during construction and for planning fill disposal requirements.

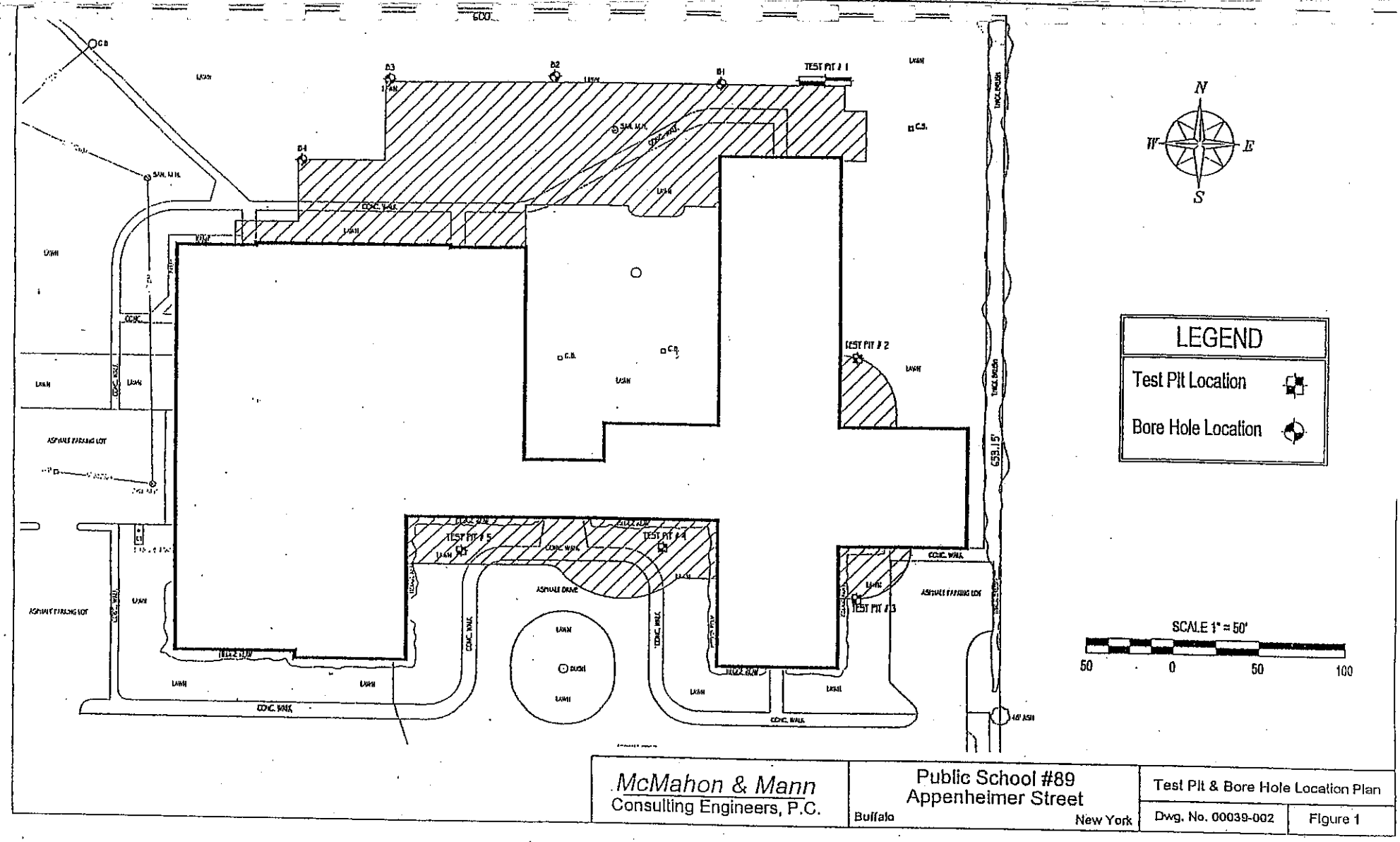
B3
B2
B1
TEST PIT # 1
B4
TEST PIT # 2
TEST PIT # 5
TEST PIT # 4
TEST PIT # 3
CONC. WALK
ASPHALT PARKING LOT
ASPHALT DRIVE
LAWN
659.15'
N
W
E
S
LEGEND
Test Pit Location
Bore Hole Location
SCALE 1" = 50'
50
0
50
100
McMahon & Mann
Consulting Engineers, P.C.
Public School #89
Appenheimer Street
Buffalo
New York
Test Pit & Bore Hole Location Plan
Dwg. No. 00039-002
Figure 1

Figure 2-1

2.2.2 Phase II Environmental Site Assessment

The purpose of the surface and subsurface environmental assessment conducted by PEI/URS (*Phase II Environmental Site Assessment, Campus East School #89, 106 Appenheimer Avenue, City of Buffalo, Erie County, New York, PEI/URS, April - June 2001*) was to further identify potential environmental impairment at the Site and the associated impacts on planned construction activities associated with the additions to the existing school. The work included:

- An investigation of surface soils on school property, adjacent property including the park/ball field and playground area west of the school;
- An assessment of the subsurface soil/fill across the property;
- An assessment of the air quality inside the existing school building;
- The development of a report of findings and recommendations.

The field program consisted of surface and subsurface soil sampling. A total of nineteen (19) test trenches were advanced, at the surveyed locations shown on Figure 2-2, to an average depth of 6 feet below ground surface (range between 2.5 and 8 feet) using a rubber tire backhoe.

A total of thirteen (13) surface samples and five (5) subsurface samples were submitted for laboratory analysis. Soil samples submitted for analysis were selected from the test trenches exhibiting the highest organic vapor readings or based on visual appearance (i.e., stained or discolored fill material). It should be noted, however, in general no elevated organic vapor readings were observed during the subsurface program. Based on the past use of the property (limestone rock quarry filled with miscellaneous debris/ash), the samples were submitted to a laboratory for analysis of the full Target Compound List/Target Analyte List (TCL/TAL) compounds including PCBs.

These Investigations indicated the presence of detectable levels of semi-volatile organic compounds (SVOCs-primarily PAHs) and metals in both the surface soils and the fill materials (see Tables 3-2 and 3-3). With the exception of one location (tar-like materials in subsurface ash in TP-19), no PID readings above ambient levels were recorded on any of the samples and no volatile organic compounds were detected in samples.

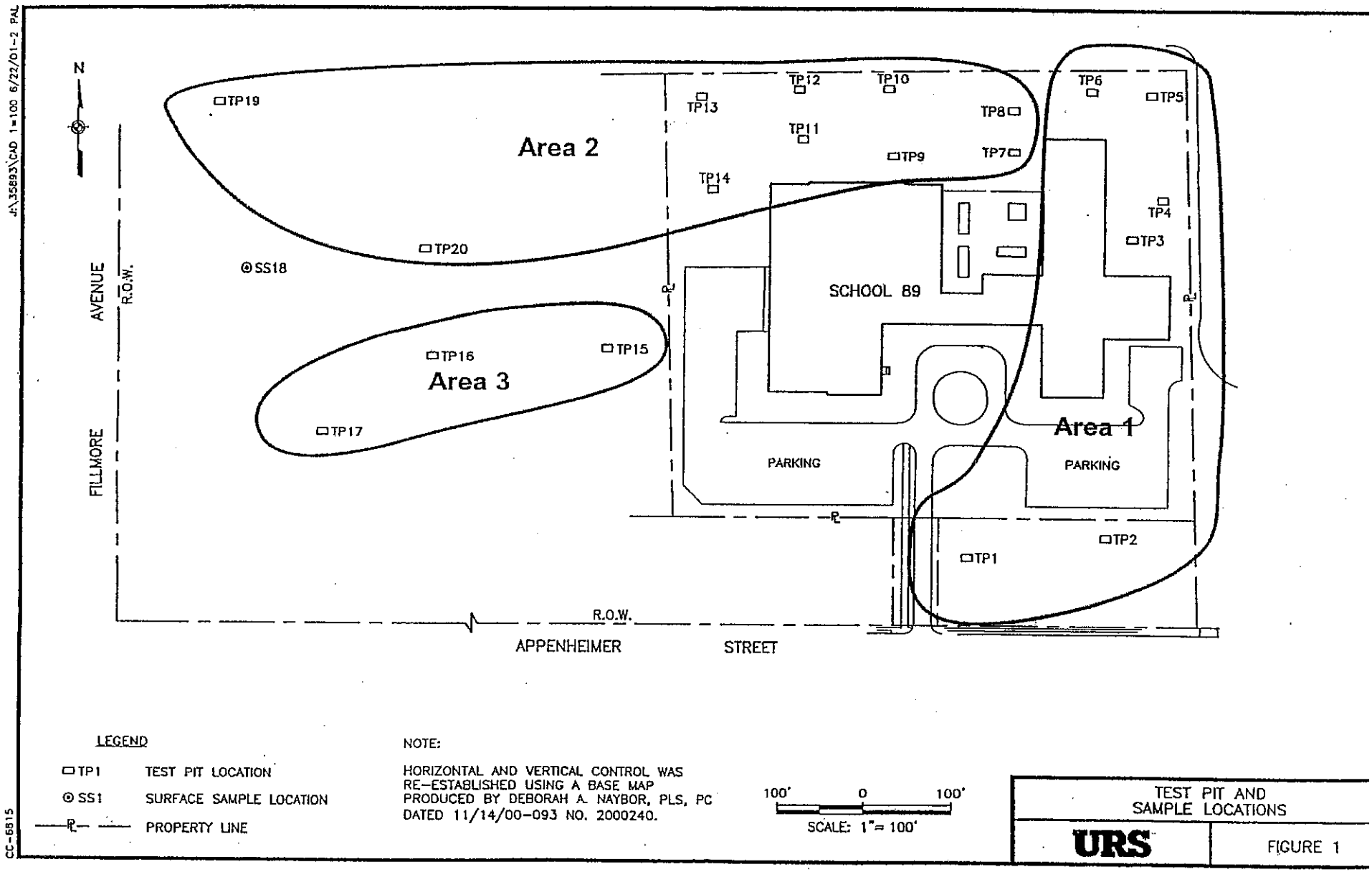
J:\35893\CAD 1=100 6/22/01-2 PAL
N
TP19
TP13
TP12
TP10
TP6
TP5
TP8
TP11
Area 2
TP9
TP7
TP14
TP4
TP3
TP20
SS18
AVENUE
R.O.W.
FILLMORE
SCHOOL 89
TP16
TP15
Area 3
TP17
Area 1
PARKING
PARKING
TP2
TP1
R.O.W.
APPENHEIMER
STREET
LEGEND
TP1 TEST PIT LOCATION
SS1 SURFACE SAMPLE LOCATION
PROPERTY LINE
NOTE:
HORIZONTAL AND VERTICAL CONTROL WAS RE-ESTABLISHED USING A BASE MAP PRODUCED BY DEBORAH A. NAYBOR, PLS, PC DATED 11/14/00-093 NO. 2000240.
100' 0 100'
SCALE: 1"= 100'
TEST PIT AND SAMPLE LOCATIONS
URS
FIGURE 1
CC-6815

Figure 2-2

PAHs and metals can be introduced into the environment by natural (e.g., soil chemistry, forest fires) and human (e.g., automobile, coal or other heating fuel combustion, industry, or stone quarrying) processes. These compounds are typically bound up in the soil/fill materials and are not very mobile. They have low solubilities and do not leach readily to groundwater, even at relatively high concentrations. Chronic exposure to PAHs and metals in surface soils is not likely to occur under current conditions.

Three distinct areas of subsurface conditions were observed at the property as follows (refer to Figure 2-2).

Area 1

The area along the southeast and northeast portion of the property appeared to be outside the former quarry area. This area consists of topsoil, fill and a thin ash layer (note, this is not the same ash found in the quarry areas), and bedrock at a shallow depth (bedrock at depths of less than 3-4 feet). Surface soils (0-2 inch) in this area indicated elevated levels of PAHs and some metals particularly in the southeast portion of the property. Subsurface soils did not appear to be significantly elevated.

Area 2

The area behind and to the north of the school and within the center and northern portions of the park/ball field is within the former quarry. This area consisted of a topsoil layer, a fill layer consisting of soil, brick, pipe, wood and building fragments over an ash layer. Previous studies indicate that the ash fill was found to be at depths down to 26 to 30 feet to the top of bedrock. Surface and subsurface soils in this area had detectable levels of PAHs and metals above regulatory guidelines, but generally at much lower levels then test pits in the southeast and northeast. The exception, however, was Test Pit TP-19 which had levels significantly higher and was associated with a "tar like" material that appeared to be buried roofing materials. This test pit was located along the roadway near the adjacent residential housing complex.

Area 3

The area to the southwest of the school and along the southern end of the park/ball field contained

about ½ foot of topsoil over approximately 8 feet of fill consisting of silt and sand with some clay, wood, and brick fragments. No ash was encountered in the test pits in this area and only surface samples were collected. Although detectable levels of metals and PAHs in surface soil samples were indicated above regulatory guidelines, levels were relatively low. Total SVOCs and carcinogenic PAHS (cPAH) were well below 10ppm and two of the locations were below 1ppm cPAHs.

With the exception of a few isolated samples (i.e. TP-19), the concentrations of the various PAHs and metal compounds detected are slightly above the NYSDEC TAGM 4046 recommended soil cleanup objectives. This would indicate that the associated health risks, assuming workers/students and pedestrians are actually subjected to substantial long-term exposure, are also minimal. Considering the nature of the proposed continued use of the property as a school and park/ball field, the potential exposure of students and residents to surface soil and workers to subsurface fill materials via the above potential exposure routes is low and will be virtually eliminated if engineering and administrative controls are instituted.

The complete results of the Phase II Investigation (minus Appendix B-D) are presented in Appendix A.

3.0 EXISTING SITE CONDITIONS

3.1 Soil and Fill Materials

The surface of the property, including the school area; area adjacent to the asphalt covered playground; and park/ball field, consists primarily of a relatively flat grass lawn with some side walks and asphalt drive areas.

Generally, the fill overburden consists of a mixture of sand and clayey silt with some gravel and miscellaneous building debris including brick, concrete, wood, and glass under a layer of topsoil. The soil fill separates the topsoil from the underlying ash fill in most locations. The ash fill extends from beneath the soil fill to the top of bedrock in the former quarry area.

Top soil covering fill material was observed at all locations across the property and a soil fill separating a ash layer was observed at most locations. However, the depth of topsoil and the type of fill varied across the property (refer to Table 3-1).

3.2 Nature and Extent of Contamination

Investigations conducted at the Site have indicated the presence of detectable levels of SVOCs and metals in the fill materials that comprise the upper 0 to 8 feet of soils. In both the surface (0-2") and subsurface soils the concentrations of several PAHs and metals exceed the NYSDEC TAGM 4046. A summary of the Phase II analytical data is presented in Tables 3-2 and 3-3.

There were no VOCs detected above the detection limits. Low levels of PCB Aroclor 1260 was detected in test pits TP-16 and TP-18 at 0.027 ppm and 0.024 ppm respectively. These levels are well below the NYSDEC TAGM guidelines.

As indicated on Table 3-2, the chemical constituents in the surface soils are generally distributed uniformly across the site, and fall within fairly narrow ranges of concentration. This is most likely a result of wind borne dispersion of chemical constituents from historical industrial and/or residential activities in the area, such as, historic use of coal, fuel oil or other fossil fuel burning for heat.

Table 3-1

Campus School Subsurface Conditions

Test Pit	Location	Cover Thickness (ft.)	Fill Thickness (ft.)	Top of Ash Layer (ft.)	Top of Bedrock Layer (ft.)	Final Depth of Test Pit (ft.)
			AREA 1			
TP-1	Southeast - Front of School	1.5	2.5	1.5*	4	4
TP-2	Southeast - Front of School	0.5	2	0.5*	2.5	2.5
TP-3	East of School	2	2.5	2*	4.5	4.5
TP-4	East of School	1	2	1*	3	3
TP-5	Northeast of School	1.5	1.5	1.5*	2.5	2.5
TP-6	Northeast of School	2	2.6	2*	NA	4.6
			AREA 2			
TP-7	North of School	1	5	6	NA	8
TP-8	North of School	1	5	6	NA	7.5
TP-9	North of School	1	4	4	NA	8
TP-10	North of School	3	0.5	3.5	NA	6
TP-11	North of School	0.5	3.5	4	NA	6
TP-12	North of School	3.5	1	4.5	NA	6
TP-13	Northwest of School	2.5	0.9	3.4	NA	4.5
TP-14	West of School	0.5	5.1	5.6	NA	6.5
TP-19	Northwest corner of Park/Ball field	0.5	3.5	4	NA	5
TP-20	Middle of the Field	0.2	3.8	4	NA	6
			AREA 3			
TP-15	Northeast corner of playground	0.5	7.5	NA	NA	8
TP-16	Northwest of Basketball Court	0.5	3.5	NA	NA	4
TP-17	South side of Park/Ball Field	0.5	4.5	NA	NA	5
SS-18	Middle of the Field	NA	NA	NA	NA	0.5

*TP-1 thru 6 not within quarry area - different type of ash encountered
TP-7 thru 14, 19 and 20 were within the former Quarry and had gray ash and debris
TP-15, 16, and 17 contained different type of fill - no ash
Fill includes soil, brick, wood, building fragments and other miscellaneous construction debris

Table 3-2

SURFACE SOIL SAMPLING ANALYTICAL RESULTS SUMMARY
CAMPUS SCHOOL #89, BUFFALO, NEW YORK

	Surface Soils TP-2	Surface Soils TP-3	Surface Soils TP-4	Surface Soils TP-7	Surface Soils TP-8	Surface Soils TP-9	Surface Soils TP-12	Surface Soils TP-13	Surface Soils TP-15	Surface Soils TP-16	Surface Soils TP-17	Surface Soils TP-18	Surface Soils TP-19	Eastern USA Background	Average Background	Rec. Soil Cleanup Values
Metals	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
Cyanide	U	U	U	U	U	U	U	U	U	U	U	0.782	0.645	N/A	1.52	***
Aluminum	13300	11600	5820	10700	8480	10800	7420	4180	8140	7260	6480	8530	10200	33,000	10,870	SB
Antimony	4.26 B	U	U	U	3.39 B	U	7.44	5.25 B	U	4.19 B	3.64 B	3.21 B	3.46 B	N/A	U	SB
Arsenic	6.6	5.1	3.5	4.7	4	5.5	4.4	4.3	4.8	2.9	3.9	6	18	3 to 12	9.93	7.5 or SB
Barium	72.3	86.6	56.6	79.7	81.7	83.3	91.9	59.2	78.1	60.1	35.4	79.1	231	15 to 600	92.56	300 or SB
Beryllium	0.624 B	0.593 B	0.312 B	0.568 B	0.435 B	0.568 B	0.4 B	0.24 B	0.511 B	0.355 B	0.29 B	0.48 B	0.671	0-1.75	0.573 B	0.16 or SB
Cadmium	U	U	U	0.655 B	0.631	0.518 B	U	U	U	U	U	U	2.86	0.1-1	0.681	10 or SB
Calcium	2080	3850	3950	4700	14900	9870	52800	61400	28000	78300	23700	31900	25300	130 to 35000	29700	SB
Chromium	14.4	17.2	8.92	22.7	11.6	21.6	8.77	6.12	9.68	8.41	8.64	14.4	20.1	1.5 to 40	15.3	50 or SB
Cobalt	9	11.3	5.42 B	9.54	6.13	8.71	5.82	3.01 B	5.27 B	4.56 B	6.69	6.51	7.56	2.5 to 40	7.72	30 or SB
Copper	22.1	30	23.5	28.8	21.1	27.8	25.2	24.4	31.4	22.9	19.8	33	126	1 to 50	25.7	25 or SB
Iron	21800	22700	15000	21400	14800	20500	14200	8280	13300	13500	13800	17400	21500	2000 to 550000	18100	2,000 or SB
Lead	61.9	46	42	71	80.1	59.8	76.4	73.5	125	63	12	234	506	200 to 500	551.3	SB****200-500
Magnesium	2930	4360	2240	4390	7010	7080	19200	7420	7780	11500	7170	13500	8130	100 to 5000	1027.6	SB
Manganese	497	588	367	492	340	460	329	216	449	324	341	409	1600	50 to 5000	427.3	SB
Mercury	0.08	0.27	0.2	0.086	0.17	0.11	0.32	0.14	0.16	0.073	U	0.1	0.9	0.001 to 0.2	0.145	0.1
Nickel	24.3	32.6	17.2	30.4	16.9	26.8	14	9.29	15.3	12.2	16.1	18.3	29.3	0.5 to 25	18.03	13 or SB
Potassium	1080	1280	641	1290	879	1410	1260	727	969	1050	784	1640	1320	8500 to 43000	1633.3	SB
Selenium	UW	UW	UW	U	U	UW	U	UW	U	U	U	UW	0.66	0.1 to 3.9	U	2 or SB
Sodium	56.5 B	42 B	48.2 B	37.7 B	61.4 B	51.3 B	138 B	107 B	84.6 B	142 B	71.6 B	125 B	188 B	6000 to 8000	220.3	SB
Thallium	0.78 B	0.69 B	0.52 B	0.69 B	0.46 B	0.74 B	0.43 B	0.6 B	0.47 B	0.28 B	0.56 B	0.55 B	0.8 B	N/A	0.51 B	SB
Vanadium	23.5	22.2	11.8	21.7	17.4	21.1	19.9	11.1	17.5	16.2	13.2	20.7	24.4	1 to 300	24.83	150 or SB
Zinc	118	114	78.2	126	456	132	108	90.4	111	161	60.6	159	465	9 to 50	239.3	20 or SB
PCB's																
PBB 1260	*	*	*	*	*	*	*	*	*	0.027	*	0.024	*	N/A	N/A	1 Surface
Semi-Volatile Organics																
Naphthalene	3 J	0.77 J	U	U	0.83 J	U	U	U	U	U	U	U	U	N/A	U	13
4-Chloroaniline	12 U	U	U	U	U	U	U	U	U	U	U	U	U	N/A	U	0.22
2-Methylnaphthalene	1.1 J	0.57 J	U	U	0.3 J	U	U	U	U	U	U	U	U	N/A	U	36.4
Acenaphthene	3.9 J	2.3	U	0.12 J	0.58 J	0.081 J	0.056 J	0.065 J	U	U	U	U	0.1 J	N/A	0.05 J	50
Dibenzofuran	2.6 J	1.2 J	U	U	0.55 J	U	U	U	U	U	U	U	U	N/A	U	6.2
Fluorene	4.2 J	2.4	U	0.1 J	0.68 J	U	U	U	U	U	U	U	0.13 J	N/A	U	50
Phenanthrene	26	13	0.19 J	0.91	4.6	0.66	0.54	0.63	0.31 J	0.058 J	0.54 J	0.47 J	1.7	N/A	0.88	50

Key:
TP- Test Pit
U- Not Detected
SB- Site Background
* - No tests done for the sample
****- Lead Range is 200-500 ppm in Urban Areas
B - Analyte Detected in Method or Trip Blank
W - Post Spike recovery is out of limits
N/A - Not Available

Total cPAH value includes: benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo (a)pyrene, indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene

Table 3-2 continued

Semi-Volatile Organics	TP-2 mg/kg	TP-3 mg/kg	TP-4 mg/kg	TP-7 mg/kg	TP-8 mg/kg	TP-9 mg/kg	TP-12 mg/kg	TP-13 mg/kg	TP-15 mg/kg	TP-16 mg/kg	TP-17 mg/kg	TP-18 mg/kg	TP-19 mg/kg	Eastern USA Background	Average Background	NYSDEC TAGM
Anthracene	7.9	3.7	U	0.21 J	1.3	0.15 J	0.13 J	0.15 J	0.07 J	U	U	0.095 J	0.37 J	N/A	0.1499	50
Carbazole	4.1 J	2.1 J	U	0.13 J	0.7 J	0.087 J	0.045 J	0.071 J	U	U	U	0.06 J	0.18 J	N/A	U	N/A
Fluoranthene	24	9.6	0.35 J	1	3.8	0.65	0.76	0.97	0.58	0.11 J	0.12 J	0.75	2.4	N/A	1.19	50
Pyrene	25	11	0.42	1	3.1	1.1	0.98	1.1	0.64	U	U	0.78	3.3	N/A	1.29	50
Benzo(a)anthracene	12	6.6	0.21 J	0.56	1.7	0.4 J	0.46	0.54	0.35 J	0.049 J	0.04 J	0.38 J	1.7	N/A	0.89 J	0.224 / MDL
Chrysene	11	6.5	0.24 J	0.58	1.6	0.46	0.46	0.6	0.38 J	0.062 J	0.06 J	0.45 J	1.7	N/A	2.183 J	0.4
Bis-2-ethylhexyl phthalate	U	U	U	0.17 J	U	0.22 J	0.056 J	0.77 J	0.32 J	U	U	0.09 J	0.081 J	N/A	1.24	50
Benzo(b)fluoranthene	18	9.2	0.51	1.1	2.6	0.68	0.89	1.4	0.67	0.13 J	0.12 J	0.98	3.1	N/A	1.2	1.1
Benzo(k)fluoranthene	8.4	3.4	0.23 J	0.45 J	1.2	0.29 J	0.33 J	0.34 J	0.23 J	0.049 J	0.06 J	0.35 J	0.92	N/A	0.51 J	1.1
Benzo(a)pyrene	14	6.6	0.38 J	0.8	1.9	0.52	0.69	0.76	0.49	0.084 J	0.079 J	0.59	1.9	N/A	0.83 J	0.061 / MDL
Indeno(1,2,3-cd)pyrene	7.4	3	0.29 J	0.3 J	0.74 J	0.36 J	0.29 J	0.33 J	0.26 J	0.046 J	0.045 J	0.26 J	1	N/A	0.64 J	3.2
Dibenzo(a,h)anthracene	U	U	0.083 J	U	0.096 J	U	U	U	U	U	U	0.079 U	0.29 U	N/A	0.055 J	0.014
Benzo(g,h,i)perylene	4.2 J	1.6 J	0.21 J	0.22 J	0.43 J	0.25 J	0.22 J	0.21 J	0.18 J	U	U	0.2 J	0.69	N/A	0.42 J	50
Total cPAH	70.8	35.3	1.943	3.79	9.836	2.93	3.176	3.97	2.38	0.42	0.404	3.289	10.61	N/A	6.308	*
Total SVOC	179	83.54	3.113	7.65	26.706	5.898	5.907	7.936	4.48	0.588	1.064	5.734	19.561	N/A	11.5279	*
Unknown	1.7	0.2	0.19	0.86	0.27	0.16	*	0.11	0.35	0.14	0.25	0.19	0.21	N/A	N/A	N/A
Unknown	2.3	0.3	0.11	2	0.2	0.1	*	0.16	0.23	0.092	0.16	0.16	0.22	N/A	N/A	N/A
Unknown	2.8	0.39	0.081	1.3	1.3	0.14	*	0.16	0.22	0.21	0.097	0.15	0.16	N/A	N/A	N/A
Unknown	1.7	0.19	0.18	*	0.94	0.11	*	0.18	0.16	0.26	0.17	0.3	0.15	N/A	N/A	N/A
Unknown	4.7	0.49	0.28	*	1.6	0.33	*	0.18	0.2	0.098	0.18	0.19	0.15	N/A	N/A	N/A
Unknown	1.5	0.15	0.1	*	0.87	0.26	*	0.17	0.24	0.1	0.12	0.099	0.15	N/A	N/A	N/A
Unknown	2.1	0.21	0.16	*	1.3	1.6	*	0.64	0.58	0.24	0.25	0.12	0.16	N/A	N/A	N/A
Unknown	1.6	0.16	0.31	*	*	0.22	*	0.82	0.81	0.22	0.19	0.17	0.16	N/A	N/A	N/A
Unknown	1.4	0.33	0.14	*	*	0.22	*	0.9	*	0.25	0.24	0.14	0.99	N/A	N/A	N/A
Unknown	2.9	0.2	0.21	*	*	0.23	*	1.3	*	0.45	0.17	0.2	0.97	N/A	N/A	N/A
Unknown	1.7	0.13	0.16	*	*	0.93	*	1.4	*	1.4	0.18	0.72	0.88	N/A	N/A	N/A
Unknown	1.1	0.11	0.41	*	*	0.23	*	*	*	0.55	0.22	0.74	*	N/A	N/A	N/A
Unknown	0.96	0.13	0.13	*	*	0.27	*	*	*	*	0.17	1	*	N/A	N/A	N/A
Unknown	1.5	0.12	0.3	*	*	0.4	*	*	*	*	*	0.4	*	N/A	N/A	N/A
Unknown	1.1	0.59	0.4	*	*	0.23	*	*	*	*	*	0.29	*	N/A	N/A	N/A
Unknown	*	*	0.48	*	*	0.42	*	*	*	*	*	1.3	*	N/A	N/A	N/A
Unknown	*	*	0.97	*	*	0.46	*	*	*	*	*	0.38	*	N/A	N/A	N/A
Unknown	*	*	1	*	*	0.88	*	*	*	*	*	0.39	*	N/A	N/A	N/A
Unknown	*	*	0.42	*	*	0.92	*	*	*	*	*	*	*	N/A	N/A	N/A
Unknown	*	*	0.75	*	*	*	*	*	*	*	*	*	*	N/A	N/A	N/A
Unknown (PAH)	*	*	*	*	0.36	*	*	*	*	*	*	*	0.28	N/A	N/A	N/A
Unknown (PAH)	*	*	*	*	0.44	*	*	*	*	*	*	*	0.39	N/A	N/A	N/A
Unknown (PAH)	*	*	*	*	0.63	*	*	*	*	*	*	*	0.17	N/A	N/A	N/A
Unknown (PAH)	*	*	*	*	0.41	*	*	*	*	*	*	*	0.15	N/A	N/A	N/A
Unknown (PAH)	*	*	*	*	0.19	*	*	*	*	*	*	*	0.15	N/A	N/A	N/A
Unknown (PAH)	*	*	*	*	0.2	*	*	*	*	*	*	*	0.16	N/A	N/A	N/A
Unknown (PAH)	*	*	*	*	0.22	*	*	*	*	*	*	*	0.18	N/A	N/A	N/A
Unknown (PAH)	*	*	*	*	0.18	*	*	*	*	*	*	*	0.14	N/A	N/A	N/A
LBS#9	*	*	*	*	*	*	*	*	0.83	*	*	*	1.1	N/A	N/A	N/A

Key:

TP- Test Pit
U- Not Detected
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* - No tests done for the sample
****- Lead Range Is 200-500 ppm In Urban Areas
B - Analyte Detected in Method or Trip Blank
W - Post Spike recovery is out of limits
N/A - Not Available

Total cPAH value includes: benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo (a)pyrene, indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene

Table 3-3

SUBSURFACE SOIL SAMPLING ANALYTICAL RESULTS SUMMARY
CAMPUS SCHOOL #89, BUFFALO, NEW YORK

	Sub Surface TP-2	Sub Surface TP-7	Sub Surface TP-12	Sub Surface TP-13	Sub Surface TP-19	Eastern USA Background	Average Background	NYSDEC Cleanup Values
Final Depth of TP's	2.5 ft.	8 ft.	6 ft.	4.5 ft.	5 ft.	N/A	N/A	N/A
Compounds	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Metals								
Cyanide	U	U	U	U	0.764	N/A	1.52	Site Specific
Aluminum	11000	5390	6200	11100	9970	33,000	10,870	SB
Antimony	3.85 B	6.51 B	8	U	4 B	N/A	U	SB
Arsenic	11	7	14	9.9	9.5	3 to 12	9.93	7.5 or SB
Barium	160	116	126	169	211	15 to 600	92.56	300 or SB
Beryllium	0.529 B	0.584 B	0.481 B	1.13	0.722	0-1.75	0.573 B	0.16 or SB
Cadmium	0.907	U	1.06	U	1.85	0.1-1	0.681	10 or SB
Calcium	2390	6890	19500	18400	36000	130 to 35000	29700	SB
Chromium	12.1	15	12.9	10.2	18.4	1.5 to 40	15.3	50 or SB
Cobalt	6.69	5.81 B	5.04 B	6.85	5.51 B	2.5 to 40	7.72	30 or SB
Copper	25.5	115	44.4	41.2	147	1 to 50	25.7	25 or SB
Iron	21100	16600	11400	17400	20500	2000 to 550000	18100	2,000 or SB
Lead	233	3810	392	199	425	200 to 500	551.3	SB****200-500
Magnesium	1900	1940	4020	4110	9910	100 to 5000	1027.6	SB
Manganese	482	137	275	293	386	50 to 5000	427.3	SB
Mercury	0.1	0.38	0.15	U	1.4	0.001 to 0.2	0.145	0.1
Nickel	17.4	14.3	16.7	18.2	19.5	0.5 to 25	18.03	13 or SB
Potassium	549 B	507 B	660	1080	1270	8500 to 43000	1633.3	SB
Selenium	0.38 WB	0.67	0.39 B	0.64 B	U	0.1 to 3.9	U	2 or SB
Sodium	105 B	159 B	160 B	280 B	217 B	6000 to 8000	220.3	SB
Thallium	0.81 B	0.46 B	0.63 B	0.75 B	0.65 B	Not Available	0.51 B	SB
Vanadium	21.6	23.6	18.3	46.6	22.1	1 to 300	24.83	150 or SB
Zinc	370	250	186	186	353	9 to 50	239.3	20 or SB

Key:

TP- Test Pit
U- Not Detected
SB- Site Background
Total cPAH value includes: benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo (a)pyrene, indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene

* - No tests done for the sample
****- Lead Range is 200-500 ppm in Urban Areas
B - Analyte Detected in Method or Trip Blank
W - Post Spike recovery is out of limits
N/A - Not Available

Table 3-3 continued

	TP-2	TP-7	TP-12	TP-13	TP-19	East USA Background	Average Background	NYSDEC TAGM
Volatile Organics								
Methylene chloride	0.004 J	0.005 J	0.005 J	0.006 J	0.004 J	N/A	N/A	0.1
Acetone	*	0.011 J	0.006 J	0.01 J	*	N/A	N/A	0.2
Benzene	*	*	*	*	0.035	N/A	N/A	0.06
Toluene	*	*	*	*	0.12	N/A	N/A	1.5
Ethylbenzene	*	*	*	*	0.025	N/A	N/A	5.5
p-Xylene/m-Xylene	*	*	*	*	0.16	N/A	N/A	1.2
o-Xylene	*	*	*	*	0.088	N/A	N/A	1.2
Styrene	*	*	*	*	0.033	N/A	N/A	N/A
Unknowns								
Unknown	0.006	0.009	0.007	0.014	0.087	N/A	N/A	N/A
Unknown	0.008	0.008	0.008	0.013	0.34	N/A	N/A	N/A
Unknown	0.007	0.014	0.026	0.009	0.081	N/A	N/A	N/A
Unknown	0.028	0.013	*	0.008	0.13	N/A	N/A	N/A
Unknown	*	0.048	*	0.032	0.045	N/A	N/A	N/A
Unknown (aromatic)	*	*	*	*	0.061	N/A	N/A	N/A
Unknown (aromatic)	*	*	*	*	0.12	N/A	N/A	N/A
Unknown (aromatic)	*	*	*	*	0.092	N/A	N/A	N/A
Unknown (aromatic)	*	*	*	*	0.05	N/A	N/A	N/A
Unknown (aromatic)	*	*	*	*	0.056	N/A	N/A	N/A

Key:

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* - No tests done for the sample
****- Lead Range is 200-500 ppm in Urban Areas
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W - Post Spike recovery is out of limits
N/A - Not Available

Total cPAH value includes: benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo (a)pyrene, Indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene

Table 3-3 continued

Semi-Volatile Organics	TP-2 mg/kg	TP-7 mg/kg	TP-12 mg/kg	TP-13 mg/kg	TP-19 mg/kg	East USA Background mg/kg	Average Background mg/kg	NYSDEC TAGM mg/kg
4-Methylphenol	U	U	U	U	5.9U	N/A	U	0.9
Naphthalene	U	U	0.079 J	U	75	N/A	U	13
2-Methylnaphthalene	U	U	U	U	26 J	N/A	U	36.4
Acenaphthylene	U	U	U	U	6.3 J	N/A	U	41
Acenaphthene	U	U	0.15 J	U	38 J	N/A	0.05 J	50
Dibenzofuran	U	U	0.098 J	U	28J	N/A	U	6.2
Fluorene	U	U	0.18 J	U	46	N/A	U	50
Phenanthrene	0.13 J	0.17 J	1.6	0.087 J	240	N/A	0.88	50
Anthracene	U	U	0.35 J	U	75	N/A	0.1499	50
Carbazole	U	U	0.22 J	U	27 J	N/A	U	
Fluoranthene	0.23 J	0.22 J	1.8	0.12 J	150	N/A	1.19	50
Pyrene	0.22 J	0.21 J	2.9	U	160	N/A	1.29	50
Benzo(a)anthracene	0.11 J	0.11 J	1.1	0.06 J	72	N/A	0.89 J	0.224 / MDL
Chrysene	0.13 J	0.12 J	1.1	0.063 J	66	N/A	2.183 J	0.4
Bis-2-ethylhexyl phthalate	U	U	0.067 J	U	U	N/A	1.24	50
Benzo(b)fluoranthene	0.27 J	0.22 J	2	0.13 J	97	N/A	1.2	1.1
Benzo(k)fluoranthene	0.12 J	0.098 J	0.69	0.05 J	33 J	N/A	0.51 J	1.1
Benzo(a)pyrene	0.18 J	0.16 J	1.4	0.086 J	87	N/A	0.83 J	0.061 / MDL
Indeno(1,2,3-cd)pyrene	0.12 J	0.081 J	0.88	U	34 J	N/A	0.64 J	3.2
Dibenzo(a,h)anthracene	U	U	0.19 J	U	8.9 U	N/A	0.055 J	0.014
Benzo(g,h,i)perylene	0.075 J	0.051 J	0.61	U	26 J	N/A	0.42 J	50
Total cPAH	**0.93**	**0.789**	**7.36**	**0.389**	**397.9**	**N/A**	**6.308**	*
Total SVOC	**2.515**	**2.229**	**15.414**	**0.568**	**1301.1**	**N/A**	**11.5279**	*
Unknown	0.15	*	0.16	0.92	16	N/A	N/A	N/A
Unknown	0.21	*	0.12	*	9.6	N/A	N/A	N/A
Unknown	0.28	*	0.16	*	13	N/A	N/A	N/A
Unknown	0.19	*	0.16	*	14	N/A	N/A	N/A
Unknown	0.51	*	0.25	*	30	N/A	N/A	N/A
Unknown	0.45	*	0.29	*	32	N/A	N/A	N/A
Unknown	0.58	*	0.48	*	20	N/A	N/A	N/A
Unknown	0.59	*	0.14	*	51	N/A	N/A	N/A
Unknown	0.6	*	0.15	*	20	N/A	N/A	N/A
Unknown	0.5	*	1.2	*	17	N/A	N/A	N/A
Unknown	*	*	0.15	*	15	N/A	N/A	N/A
Unknown	*	*	0.16	*	10	N/A	N/A	N/A
Unknown	*	*	0.21	*	25	N/A	N/A	N/A
Unknown	*	*	0.16	*	17	N/A	N/A	N/A
Unknown	*	*	0.14	*	10	N/A	N/A	N/A
Unknown	*	*	0.76	*	9.9	N/A	N/A	N/A
Unknown	*	*	0.16	*	36	N/A	N/A	N/A
Unknown	*	*	0.2	*	*	N/A	N/A	N/A
Unknown	*	*	*	*	*	N/A	N/A	N/A
Unknown	*	*	*	*	*	N/A	N/A	N/A
Unknown (PAH)	*	*	1.9	*	*	N/A	N/A	N/A
Unknown (PAH)	*	*	2.3	*	*	N/A	N/A	N/A

Key:

TP- Test Pit
U- Not Detected
SB- Site Background
* - No tests done for the sample
****- Lead Range is 200-500 ppm in Urban Areas
B - Analyte Detected in Method or Trip Blank
W - Post Spike recovery is out of limits
N/A - Not Available
Total cPAH value includes: benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo (a)pyrene, Indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene

All five subsurface soil samples analyzed had detectable levels of PAHs (refer to Table 3-3). However, only two locations, TP-12 and TP-19 contained levels consistently above TAGM levels. It should be noted that the sample collected from TP-19 at between 4 and 5-feet included tar and shingle materials within the ash material. In general, subsurface PAH levels were less than surface soil levels with the exception of the sample collected from TP-19. This sample, as noted above, contained shingle and roofing tar-like materials which typically contain PAH compounds.

All other test pit samples had total SVOC's significantly below 100 ppm and total cPAHs below 10 ppm. A number of unknown compounds were also detected in test pit samples TP-2, TP 12, and TP-19. Unknown compounds in TP-19 were at levels significantly higher then the other samples and are most likely due to the tar materials.

Various metals were detected in samples from all test pits. Most results were well below the TAGM criteria. Similar to PAH concentrations, metal concentrations were generally higher in surface samples. The highest metal concentration was for calcium at 78300.0 mg/kg in the surface sample at test pit location TP-16. The highest metal concentration above the TAGM cleanup values was for Iron at 22700.0 mg/kg in the surface sample at test pit TP-3. Lead was detected in surface soil sample TP- 19 slightly above urban background at 506 mg/kg (this location is near a road and near snow piles created from street plowing) and in subsurface sample TP-7 at 3,810 mg/kg. The Geotechnical Investigation conducted in November 2000 identified subsurface lead levels in two samples (24 to 26 feet and 14 to 18 feet bgs respectively) at 5,030 mg/kg and 1,310 mg/kg.

3.3 Risk Assessment

As indicated above, the primary constituents of concern identified at the Site are cPAHs and metals in the surface and subsurface soils.The primary potential exposure routes associated with the PAHs, and metals in the onsite soils include:

- Dermal contact
- Ingestion
- Inhalation

With the exception of a few isolated samples (i.e. TP-19 Tables 3-2 and 3-3), the concentrations of the various PAHs and metal compounds detected were slightly above the NYSDEC TAGM 4046 recommended soil cleanup objectives. This would indicate that the associated health risks, assuming workers/students and pedestrians are actually subjected to substantial long-term exposure, are also minimal. It should be noted that, during the Phase II investigation, lead was detected in two samples above NYSDEC guidance values at 3,810 mg/kg in one subsurface sample and 506 mg/kg in one surface soil sample near a road way and snow piles. Also, elevated lead levels where detected in two of the boreholes sampled during the Geotechnical Investigation (see Table 3-4). These results indicate that lead above NYSDEC guidelines is not widespread across the property and is most likely limited to localized hot spots.

3.3.1 Soils

Samples collected from surface soils best represent the zone to which the public could routinely be exposed under current Site conditions. People could be exposed to surface soils in all areas of the Site by sitting on the ground, playing, mowing the grass, or landscaping activities. People would only be exposed to subsurface soils if they dig below the surface and/or the subsurface soil is left at the surface.

Surface Soils

PAHs and metals can be introduced into the environment by natural (e.g., soil chemistry, forest fires) and human (e.g., automobile, coal or other heating fuel combustion, industry, or stone quarrying) processes. These compounds are typically bound up in the soil/fill materials and are not very mobile. They have low solubilities and do not leach readily to groundwater, even at relatively high concentrations. People using or maintaining the school could be exposure to PAHs and metals in surface soils by sitting on the ground, playing, gardening, landscaping, or other improvement activities. Students or other members of the community using the play areas could be exposed to surface soils through participating in sports or by sitting on the ground. Since large areas of the school property are paved, the public would not be exposed to surface soil in these areas. The grass on most of the rest of the property was observed to be thick and well-established. Well-established and maintained grass cover usually minimizes human exposure to soil by acting as a barrier to direct contact with soil and minimizes generation of wind blown dust and erosion/transport by surface run-off.

Table 3-4 (Geotechnical Engineering Report - Dec. 2000)

School 89 Campus East
Buffalo, New York

Summary of November 1 & 2, 2000
Analytical Test Results

	Concentration (PPM)				NYSDEC Cleanup Objective (PPM)	Eastern U.S.A Background (PPM)
	BH-1 (14'-16')	BH-2 (24'-26')	BH-3 (14'-18')	BH-4 (14'-20)		
Aluminum	7,790	4,580	7,120	4,480	SB	33,000
Antinomy	U (6.94)	8.21	8.13	U (6.03)	SB	N/A
Arsenic	U (16.7)	29.7	28.4	U (14.5)	7.5 or SB	3-12
Barium	150	621	1630	342	300 or SB	15-600
Beryllium	0.96	0.678	0.744	0.651	0.16 (Heast) or SB	0-1.75
Cadmium	1.17	U (13.9)	U (12.8)	0.722	1 or SB	0.1-1
Calcium	6,560	16,600	40,600	8,520	SB	130-35,000*
Chromium	9.83	30.8	23.1	11.6	10 or SB	1.5-40*
Cobalt	8.55	9.05	10.5	4.64	30 or SB	2.5-60*
Copper	63.6	185	132	60.6	25 or SB	1-50
Iron	10,700	75,800	39,500	14,500	2,000 or SB	2,000-550,000
Lead	378	5,030	1,310	436	SB	**
Magnesium	1,040	1,690	7,500	730	SB	100-5,000
Manganese	250	383	329	1,100	SB	50-5,000
Mercury	0.048	0.039	0.49	0.24 E	0.1	0.001-0.2
Nickel	18.6	59.6	33.3	19.8	13 or SB	0.5-25
Potassium	624	341	979	446	SB	8,500-43,000*
Selenium	U (9.72)	U (9.72)	11.1	U (8.45)	2 or SB	0.1-3.9
Sodium	326	333	424	250	SB	6,000-8,000
Vanadium	42.4	28.4	28.2	18	150 or SB	1-300
Zinc	207	501	3,610	290	20 or SB	9-50

	Concentration (PPM)				NYSDEC Cleanup Objective (PPM)	Eastern U.S.A Background (PPM)
	BH-1 (14'-16')	BH-2 (24'-26')	BH-3 (14'-18')	BH-4 (14'-20)		
Acetone	U (0.034)	U (0.037)	U (0.033)	0.045	0.2	-
Methylene chloride	U (0.007)	U (0.007)	0.007	U (0.006)	0.1	-
Benzene	U (0.0009)	U (0.001)	0.001	U (0.0008)	0.06	-
Phenanthrene	U (1.80)	0.11 J	U (0.34)	U (1.60)	50 ***	-
Fluoranthene	1.30 J	0.57	U (0.34)	U (1.60)	50 ***	-
Pyrene	2.00	0.76	0.13 J	0.79 J	50 ***	-
Benzo(a) anthracene	2.30	0.53	U (0.34)	1.10 J	0.224 or MDL	-
Chrysene	2.20	0.46	U (0.34)	1.50 J	0.4	-
Bis-2-ethylhexyl phthalate	U (1.80)	U (0.40)	0.680	U (1.60)	50 ***	-
Benzo(b) fluoranthene	5.30	0.84	U (0.34)	3.60	1.1	-
Benzo(k) fluoranthene	1.80 J	0.32 J	U (0.34)	1.20 J	1.1	-
Benzo(a) pyrene	3.50	0.57	U (0.34)	2.00	0.061 or MDL	-
Indeno (1,2,3-cd) pyrene	2.50	0.25 J	U (0.34)	1.80	3.2	-
Benzo(g,h,i) perylene	2.60	0.28 J	U (0.34)	1.90	50 ***	-

PPM – parts per million or mg/kg
U (#) – compound undetected (detection limit)
N/A – not available
SB – site background
E – estimated result due to poor duplicate recovery
J – result estimated below the quantitation limit
MDL – method detection limit
NYSDEC Cleanup Objectives listed in Technical Administrative Guidance Memorandum # 4046 dated January 1994.
* New York State background
** background levels for lead vary widely. Average levels in undeveloped, rural areas may range from 4-61 ppm. Average background levels in metropolitan or suburban areas or near highways are much higher and typically range from 200-500 ppm.
*** as per TAGM #4046, total VOC's < 10 ppm, total semi-VOC's < 500ppm and individual semi-VOC's < 50ppm

Subsurface Soils

Evaluation of site data indicates that the concentrations of several metals and cPAHs in the subsurface soils exceed the levels that are typically found in native soils, but are similar to the concentrations found in subsurface soils at other Buffalo neighborhoods.

Exposure to the PAHs and metals in the subsurface is not likely to occur under most conditions. Exposure would only occur if excavations occurred below the surface and if the subsurface soil is left at the surface. In general, potential for exposure to the fill materials at the site will be limited to onsite excavations (i.e. piers, utilities, foundations, etc.) and/or fugitive dust generated at the site during excavations.

The concentrations of total cPAHs in the subsurface soil samples from the Site (Table 3-3) range from 0.389 to 397.9 mg/kg, collected at a depths of 4.5 and 5 feet. The highest concentration is associated with the sample from TP-19 which included a tar like substance that appeared to be buried roofing material. The average concentrations of cPAHs in samples with detectable levels (excluding the highest concentration) is 2.367 mg/kg. The average concentration is at the upper end of the range for urban background (1-3 mg/kg) reported by Menzie et. al. (1992).

Most of the metals detected in subsurface soil were within typical background levels, with the exception of arsenic, beryllium, copper, iron, mercury, nickel, lead and zinc. The average concentrations in subsurface soils are very similar to those in the surface soils at the Site and are generally slightly above or well below eastern USA background values with the exception of the isolated pockets of elevated lead concentrations.

Summary

The primary potential exposure routes associated with the PAHs and metals in the onsite fill materials include dermal contact, ingestion and inhalation.

With a few exceptions, all surface and subsurface samples analyzed had concentrations of various PAHs and metal compounds only slightly above the NYSDEC TAGM #4046 recommended soi

cleanup objectives. This would indicate that the associated health risks, assuming workers/students and pedestrians are actually subjected to substantial long-term exposure, are also minimal. It should be noted that lead was detected in four samples at relatively high concentrations above NYSDEC guidance values: 3,810 mg/kg (Phase II ESA, TP-7 subsurface sample); 506 mg/kg (Phase II ESA,TP-19 surface sample); 5,030 mg/kg (Geotechnical Report, BH-2 sample); and 1,310 mg/kg (Geotechnical Report, BH-3 sample). However, these results indicate that lead above NYSDEC guidelines is not widespread across the property and is most likely limited to hot spots.

Considering the nature of the proposed continued use of the property as a school and park/ball field, the potential exposure of students/faculty to surface soil and workers to subsurface fill materials via the above potential exposure routes is low and will be virtually eliminated if engineering and administrative controls are instituted.

The situation at the Site is that the fill materials are typically overlain by 0.5 to 3.5 feet of topsoil. Since the levels of cPAHs and metals in subsurface soils at the Site are below the surface, chronic human contact (e.g., regular, continuous, long-term contact, the kind of exposure that forms the basis for the residential comparison values) to these contaminants is unlikely. Due to their location and that exposure is unlikely, the detected levels of cPAHs and metals in subsurface soils at the Site are not expected to pose a public health hazard. However, if these soils were brought to the surface and the constituents were made available for long-term human contact, risks for adverse health effects for exposure could increase. Consequently, the subsurface soils do not present an apparent health hazard.

3.3.2 Groundwater

There is minimal potential for groundwater contamination at the site due to the low solubility of PAHs and metals in the fill materials. Additionally, there is minimal potential for exposure of workers and/or students/faculty to groundwater, as the groundwater table is estimated to be at least 13 to 16 feet bgs in the non-quarry area of the Site. The four borings installed in the quarry area to the north of the school during the Geotechnical Program indicate groundwater levels between 19.7 and 22.3 feet bgs. Also, all water required for the development, both during and post construction, will be obtained from municipal sources. It should also be noted, that, all water used at the school is from a municipal source.

4.0 PROPOSED SITE DEVELOPMENT

The project consists of the renovation and construction of additions to School #89 and associated site work.

In general, the proposed development incorporates the following items:

- The school building additions will be supported on piles and/or piers with concrete slabs on grade;
- There will be no basements or other subgrade features, with the exception of utility lines;
- The Site will be graded such that the floor slabs of the buildings will be at or above the existing ground elevation. The remainder of the Site will be graded as shown on the bid construction drawings;
- All imported fill materials to be used on Site will be obtained from offsite sources and will be certified "clean";
- Utilities will be bundled and installed in dedicated corridors, as opposed to running them individually;
- Other site improvements include roadways, parking lots, pedestrian paved areas and landscaping;
- Possible underground storage tank replacement (Alternate Item);
- Implementation of stormwater and erosion control measures.

5.0 SOILS MANAGEMENT STRATEGIES

5.1 General

This section presents a discussion of the soil management approaches that will be utilized in conjunction with the construction of the school additions at the Site. Whereas the soils at the Site pose only minimal potential risk to construction workers and/or faculty/students, this potential risk can be further reduced and/or eliminated if proper soil management strategies are employed.

As described in Section 3.3, the primary potential exposure routes associated with the PAHs, and metals in the onsite soils include:

- Dermal contact
- Ingestion
- Inhalation

Considering the nature of the proposed development (i.e., additions to the present school structure), the potential exposure of workers and/or faculty/students to fill materials at the site via the above exposure routes is low. This is primarily due to the fact that the primary chemicals of concern are some metals (lead) at hot spots and cPAHs. These compounds are typically bound up in the soil/fill materials and are not very mobile. They have low solubilities and do not leach readily to groundwater, even at relatively high concentrations. In general, potential for exposure to the fill materials at the site will be limited to onsite excavations (i.e., utilities, foundations, gardens, etc.) and/or fugitive dust generated at the Site.

Consequently, the soils management/handling procedures need to focus on reducing or eliminating the potential for workers and faculty/students to come in contact with the contaminated site soils. Based on a review of the investigation data and the proposed Site development plans, it has been determined that the following general approach will be utilized in managing contaminated soils at the site.

- Existing areas of the Site which are covered with asphalt/concrete or have well established grass should be maintained to the maximum extent practicable. Well-established and maintained grass cover usually minimizes human exposures to soil by acting as a barrier to direct contact with the soil.

- All soil materials excavated at the Site (during and post construction) should be managed as if they are contaminated. This means that any fill materials excavated at the Site should be disposed off-site at a facility permitted to accept non-hazardous contaminated soils or should be utilized in regrading the site in accordance with 6 NYCRR Part 360-1.15 (b)(8) and capped with clean soils and/or concrete asphalt. An exception would be identified hot spots of lead which should be disposed of off-site as discussed above.
- All imported fill materials should be obtained from "virgin" sources and/or be tested to ensure they are clean and free of contaminants.
- No basements or other unnecessary excavations should be incorporated in the development, if possible. Utilities should be "bundled"and run in dedicated corridors to minimize soil excavation. All utility trenches should be backfilled with clean soils.
- Covenants for the school property should incorporate this Soils Management Plan. Additionally, language prohibiting the school from performing any subsurface excavations without managing soils in accordance with the SMP following completion of construction should be included.
- Dust control measures with full-time air monitoring (work areas and site perimeter) should be implemented during all intrusive activities to minimize inhalation exposures and create a public record.
- Full-time oversight should be provided during all intrusive activities to provide air monitoring and to document compliance with the SMP. A final construction monitoring report should be prepared upon project completion.
- Where possible, the existing site grade should be raised rather than lowered. Clean soils from off-site sources should be utilized (approximately twelve inches) in all areas where soil will be left exposed (i.e., not capped with asphalt/concrete) at the surface.

5.2 Soil Management/Handling Procedures

Specific soil management/handling procedures to be implemented at the site are described below. Additionally, prior to the commencement of any construction activities, the Contractor shall develop a Site Health and Safety Plan that meets the requirements outlined in Appendix B.

5.2.1 Building Addition Foundations

The materials to be excavated for the piers/footings will consist of existing fill materials. The fill materials will be managed as if they are non-hazardous contaminated soils. Consequently, the fill materials will be transported and disposed offsite in a permitted disposal facility. Alternatively, the fill materials may be utilized onsite (subsurface only) to re-grade the site. If the fill materials are retained onsite, placement during regrading will be limited to those areas of the site that will be capped with a minimum of 12-inches of clean soil, and/or concrete/asphalt, in order to limit potential exposure to future workers/faculty/students.

5.2.2 Utility Trenches

To ensure worker safety during installation and for future repair of buried Utility services, the following procedures have been established to ensure proper management of the soils:

- Fill/native materials will be excavated to create a minimum two foot wide trench and one foot below the proposed invert elevation of the deepest utility. The fill materials will be utilized onsite for backfilling and/or regrading as applicable and/or disposed offsite;

- The resultant trench will be backfilled and compacted with clean soils imported from offsite;

- The utilities may be installed prior to backfilling and/or through the clean compacted soils, as necessary.

5.2.3 Site Grading

In areas to be re-graded, the existing soils/fill will be excavated and repositioned as necessary to achieve the desired subgrade. The subgrade elevation will be maintained 12-inches below the final design elevations except in areas that will be capped with asphalt and/or concrete. In these areas the subgrade and final grade elevations will be the same. The upper 12-inches in the remaining areas will be filled to final grade with clean soils/topsoil imported from offsite sources.

Under no circumstances will the fill materials occupy the final elevation at the end of construction in any area of the site, except under the asphalt driveways and/or parking lots or concrete building slabs.

5.2.4 Construction Observation

An on-site, independent Environmental Inspector will be provided throughout the excavation and grading activities to evaluate the soil/fill materials encountered, and verify compliance with this SMP. This individual will be experienced with identification and screening of non-hazardous contaminated soils. The primary role will be to examine the fill and soils continuously during the footer installation, utility trench excavation and site grading operations to ensure that conditions are not substantially different than what has been anticipated. Additionally, this individual or a second individual will monitor. air quality to document conditions during construction activities involving movement of soils.

Implementation of a perimeter air quality monitoring program will be required. Perimeter air quality will be measured at upwind and downwind locations to determine the potential offsite impact from onsite construction activities. At a minimum, monitoring for fugitive dust will be required. Real-time fugitive dust monitors should be used continuously throughout the work day. If downwind levels exceed 15.00 mg/m^3 above ambient levels, dust suppression measures shall be implemented.

Throughout the construction, the observer will prepare daily field reports that document activities performed, equipment and manpower onsite, screening and/or testing results, weather conditions, progress, changes or variances from the SMP, etc.

Following completion of the site activities related to the SMP, a brief Engineering Certification Report will be prepared. This report will summarize the construction activities and certify that the work was performed in accordance with the approved SMP. The field reports and other supporting documentation will be appended as necessary. The report will be signed and sealed by an engineer licensed to practice in New York State.

5.2.5 Clean Fill Requirements

It is anticipated that the fill materials and topsoil to be imported from off site will be

obtained from existing commercial suppliers and will be certified "clean" by the suppliers. However, should the contractor propose to import materials from other non-certifiable sources, one representative sample of the material from each proposed source will be obtained and analyzed for TCL Volatile/Semi-Volatile organics, TCL Pesticides/PCBs, Target Analyte List (TAL) metals and Cyanide analysis.

5.2.6 Manifesting of Excavated Fill Materials

The analytical data indicates that the fill materials are slightly impacted by PAHs and metals and are non-hazardous. Consequently, the fill materials will be handled as contaminated, non-hazardous soil. Should it be determined that any of the excavated fill materials are to be disposed off site, each truck will be provided with a "bill of lading" indicating that the soil/fill is non-hazardous.

6.0 CONTRACTOR REQUIREMENTS

During construction, the Contractor will be required to provide an onsite soils manager who will be responsible for the implementation of this SMP. The responsibilities of the onsite soils manager include:

- As a requirement of the SMP, the City of Buffalo Board of Education, will provide a full-time, on-site environmental inspector to oversee the contractor's compliance with the SMP. To that end, the contractor will need to coordinate all soil excavation activities with the inspector.

- Prior to the start of construction, the contractor will be required to prepare a site-specific Health and Safety Plan (HASP) per Appendix D requirements for this project. The HASP must be prepared in accordance with applicable USEPA, Occupational Safety and Health Administration (OSHA), American Council of Government Industrial Hygienists (ACGIH), and National Institute of Occupational Safety and Health (NIOSH) standards. The HASP should focus on reducing or eliminating the potential for workers/residents to come in contact with contaminated soils and/or inhale fugitive dust during construction. The HASP must identify any potential hazards related to excavating, handling and working around soils contaminated with PAHs and metals. The HASP must address all the normal items related to construction activities as well as the environmental issues specific to this project. Additionally, the contractor will need to determine the appropriate level of safety training required for personnel working on this project with respect to the contaminated nature of the materials to be excavated. Although it is not expected that 40-hour HAZWOPER training will be required, it is strongly suggested that the contractor's supervisory personnel, at a minimum, be trained and experienced in working with contaminated soils. The contractor must provide a qualified Health and Safety Officer onsite during all excavation and disposal operations.

- The contractor will be responsible for conducting his own air quality monitoring, or other monitoring, as deemed necessary by the HASP. This will be independent of any monitoring performed by the onsite Environmental Inspector.

- The Contractor must also address erosion and sediment control procedures to be implemented in order to prevent runoff from contaminated areas from impacting adjacent areas.

- The Contractor must develop a work plan which details the excavation, handling, and procedures he will utilize to meet the objectives of this soil management plan. This plan must be reviewed and approved by the City of Buffalo Board of Education prior to implementation of the project.

APPENDIX A

PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT

(MINUS APPENDIX B - D)

PHASE II ENVIRONMENTAL SITE ASSESSMENT
CAMPUS EAST SCHOOL #89
106 APPENHEIMER AVENUE
CITY OF BUFFALO, ERIE COUNTY, NEW YORK

Prepared for:

Buffalo Public Schools
Buffalo Board Of Education

Attention:

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1.0 INTRODUCTION AND BACKGROUND

1.1 INTRODUCTION AND PURPOSE

A surface and subsurface environmental assessment was completed by Panamerican Environmental, Inc. (PEI) and URS Corp. (URS) at the subject property located at 106 Appenheimer Avenue in the City of Buffalo, Erie County, New York. The assessment was conducted in general accordance with the scope of work provided with the proposal dated January 2, 2001 and Project Work Plan dated February 2001. A potion of the property historically was the site of a stone quarry which was filled with incinerator ash most likely from the incineration of household trash (based on the contents of the ash - i.e., bottles, metal cans, porcelain). Currently, a portion of the property contains Campus East School (Public School 89). The northwest portion of the existing school is located over the former quarry. The purpose of the assessment was to identify potential environmental impairment at the property and the associated impacts on planned construction activities associated with additions to the existing school.

1.2 SCOPE

The scope of the assessment focused on the following tasks:

- Investigation of surface soils on school property, adjacent property including the park/ball field and playground area west of the school
- Assessing subsurface soil/fill across the property
- Assessing air quality inside the building
- Developing a report of findings and recommendations

The investigation activities included a review of the proposed school addition footprint, as well as a surface and subsurface soil sampling and analysis program to assess surface and near surface soil conditions and to determine the depth to ash across the property. All work was conducted in general accordance with a site-specific Work Plan dated February 2001. This plan was reviewed and approved by the Buffalo Board of Education and included a Site Investigation Work Plan, Site-Specific Field Sampling Plan, a Quality Assurance/Quality Control Plan, and a Health and Safety Plan. The scope also included surveying sample locations and completion of a map identifying locations on an existing base map in accordance with best engineering practice and prepared under the direct supervision of a NYS licensed land surveyor.

1.3 BACKGROUND

The Campus East School was constructed about 1959 on property that previously was utilized as a limestone quarry from at least 1919 to the 1950s. Filled prior to construction of the school, the quarry extended from near Appenheimer Avenue, north to Kensington Avenue and west almost to Fillmore Avenue.



Figure 1. **Project Location** *(USGS 7.5' Quadrangle, Buffalo SW, NY 1989 [1965]).*

During recent assessments for planned additions to the school, contractors for the Buffalo Board of Education performed a Phase I Environmental Site Assessment and a series of geotechnical and engineering design studies ("*Geotechnical Engineering Report, Public School 89 Additions, Buffalo, New York. Prepared for Buffalo Board of Education, Prepared by McMahon & Mann Consulting Engineers, P.C. December 2000*") These studies suggested that the quarry was filled with ash and cinders that are covered by a layer of soil fill/topsoil. The topsoil varies from as much as approximately 6-7 feet to as little as less than 1 foot. The ash and cinders appear to extend from below the cover to the bottom of the quarry which was measured to be as much as 27 feet deep. Limited samples of the ash and cinder collected during these geotechnical/engineering design studies indicated elevated levels of polynuclear aromatic hydrocarbons (PAHs) and metals at concentrations, that in some cases, exceeded the New York State Department of Environmental Conservation (NYSDEC) Technical Assistance and Guidance Memorandum 4046 (TAGM 4046, revised 1994) soil cleanup value guidelines.

2.0 FIELD INVESTIGATIONS

The Phase II was designed to provide a more detailed assessment of the approximately 9-acre school property, as well as the adjoining park/ball field property, and to further investigate the preliminary findings of the geotechnical/engineering design studies.

PEI/URS performed an assessment of the surface and subsurface environment across the property with a series of subsurface test pits using a tire mounted backhoe with a I-2 foot bucket. Surface soil samples (0-2") were collected as 20 discrete samples at each test trench location. A total of nineteen (19) test trenches were advanced to the top of the bedrock layer or within the upper ash zone. One additional surface sample was collected in the middle of the field.

A soil gas screening and limited soil sampling was performed to investigate surface and subsurface conditions at the property. Excavated soils were screened using an direct reading organic vapor analyzer, as the trench was advanced the soil was placed on 6-mil plastic. Each test pit was then backfilled and compacted prior to moving to the next. During the test pit operations, the top soil fill material was segregated from observable ash fill. The trenches were then backfilled with the excavated materials in reverse order from how they were removed (i.e., ash fill placed on the bottom of the pit and covered with the top soil). Special care was made to prevent the subsurface ash material from remaining on the surface. Soil samples were sent to a laboratory and analyzed for Target Compound List/Target Analyte List (TCL/TAL) compounds including PCBs.

A summary of the field investigation methodology and findings is presented in Sections 2.1 through 2.5 below.

2.1 Soil Sampling and Test Pit Program

Sources of possible soil contamination on the property were investigated by obtaining a series of surface and subsurface soil samples. A total of nineteen (19) test pits were advanced at the approximate locations shown on Figure 2, to an average depth of 5 to 6 feet below ground surface (range between 2½ and 8 feet) using a tire mounted backhoe with a I-2 foot bucket. Additionally, twenty (20) surface soil samples were collected; one at each test pit location prior to excavation, and one in the middle of the open ball field where a test trench was not advanced (refer to Photograph 28). The locations of the test trenches were subject to accessibility and the location of underground utility lines. The final locations and sample frequencies for the soil survey points were chosen based on field conditions and in general compliance with the approved work plan. All test trenches were advanced at a minimum distance of 2.5 feet away from marked utilities, where present, to reduce the possibility of accidentally damaging an underground line.

The test pits were terminated at natural soil/bedrock, or within the top of the ash layer. Soil from each slit-trench was visually described and screened using an organic vapor analyzer (HNu PI-101 with a 10.2 eV Lamp). Stratification of material in the trenches and observations were noted on the trench logs (refer to test pit logs provided in Appendix A). Photographs of field activities and test pits are contained in Appendix C. Prior to conducting the subsurface investigation, all utilities were located and areas identified as noted above. The backhoe bucket was cleaned and decontaminated prior to excavation of each test pit.

A total of thirteen (13) surface samples and five (5) subsurface samples were submitted for laboratory analysis. Soil samples submitted for analysis were selected from the test trenches exhibiting the highest soil gas readings or based on visual appearance (i.e., stained or discolored fill material). Based on the past use of the property (limestone rock quarry filled with miscellaneous debris/ash), the samples were submitted to a laboratory for analysis of the full Target Compound List/Target Analyte List (TCL/TAL)compounds including PCBs.

The surface of the property, including the school area; area adjacent to the asphalt covered playground; and park/ball field, consists primarily of a relatively flat grass lawn with some side walks and asphalt drive areas.

Generally, the fill overburden consists of a mixture of sand and clayey silt with some gravel and miscellaneous building debris including brick, concrete, wood, and glass under a layer of topsoil. The soil fill separates the topsoil from the underlying ash fill in most locations. The ash fill extends from beneath the soil fill to the top of bedrock in the former quarry area.

Top soil covering fill material was observed at all locations across the property and a soil fill separating a ash layer was observed at most locations. However, the depth of topsoil

and the type of fill varied across the property (refer to Table 1). In general, from a soil/fill perspective, the area of property assessed included three distinct subsurface conditions as follows:

Area 1

- The area along the southeast and northeast side of the building, including the areas investigated with test pits TP-1 thru TP-6 included top soil from 0 to between 0.5 and 2 feet, a fill layer containing sandy silt and silty sand with brick and glass and a thin layer of ash from between 0.5 and 6 feet below ground surface (bgs), and bedrock at between 2.5 and 4.6 feet bgs. Some variations existed between excavations (refer to test pit logs)

Area 2

- The area north of the school and central and northern park/field area, including the area investigated by test pits TP-7 thru TP-14 and TP-19 and TP-20 included topsoil from 0 to 3.5-feet bgs (mostly between 0 and 0.5-feet); a fill layer consisting of clay and silt with brick, wood, building fragments, and pipe at between 0.5 and 6.0-feet bgs; and an ash, metal and glass layer at between 6 and 8 feet bgs. Based on previous studies, this ash layer extends to the bottom of the quarry and the top of rock (at least 30-feet). Some variation existed between test pits . Test Pit TP-19, for example, contained some debris including hardened tar and tar shingles.

Area 3

- The southern park/ball field area and adjacent to the playground investigated by test pits TP-15, TP-16, and TP17 included topsoil from 0 to .5 feet bgs and a fill layer consisting of silt and sand with some clay, wood, brick, and building fragments from 0.5 to 8 feet bgs. No ash was found in this fill material.

Included in the fill materials (located below the top soil and above the incinerator ash - when it is present) are varying amounts of the following; wood and brick fragments, metals, concrete and asphalt fragments, glass, and a fine ash material in several of the pits. The ash layer contained complete glassware, clothing items, and metal products. Groundwater was not encountered in any of these test pits.

The bedrock underlying the area is the Onondaga Formation, an undeformed limestone with black chert inclusions, dipping one to two degrees to the south, and striking approximately east-west. Underlying the Onondaga Formation in this area are, in descending order, the Akron Dolostone Formation, and the Bertie Limestone Formation.

Large snow piles were present along the northwest corner of the park/ball field, in the proximity of test pit TP-19 and adjacent to the road that services the Buffalo Municipal

Table 1
Campus School Subsurface Conditions

Test Pit	Location	Cover Thickness (ft.)	Fill Thickness (ft.)	Top of Ash Layer (ft.)	Top of Bedrock Layer (ft.)	Final Depth of Test Pit (ft.)
			AREA 1			
TP-1	Southeast - Front of School	1.5	2.5	1.5*	4	4
TP-2	Southeast - Front of School	0.5	2	0.5*	2.5	2.5
TP-3	East of School	2	2.5	2*	4.5	4.5
TP-4	East of School	1	2	1*	3	3
TP-5	Northeast of School	1.5	1.5	1.5*	2.5	2.5
TP-6	Northeast of School	2	2.6	2*	NA	4.6
			AREA 2			
TP-7	North of School	1	5	6	NA	8
TP-8	North of School	1	5	6	NA	7.5
TP-9	North of School	1	4	4	NA	8
TP-10	North of School	3	0.5	3.5	NA	6
TP-11	North of School	0.5	3.5	4	NA	6
TP-12	North of School	3.5	1	4.5	NA	6
TP-13	Northwest of School	2.5	0.9	3.4	NA	4.5
TP-14	West of School	0.5	5.1	5.6	NA	6.5
TP-19	Northwest corner of Park/Ball field	0.5	3.5	4	NA	5
TP-20	Middle of the Field	0.2	3.8	4	NA	6
			AREA 3			
TP-15	Northeast corner of playground	0.5	7.5	NA	NA	8
TP-16	Northwest of Basketball Court	0.5	3.5	NA	NA	4
TP-17	South side of Park/Ball Field	0.5	4.5	NA	NA	5
SS-18	Middle of the Field	NA	NA	NA	NA	0.5

***TP-1 thru 6 not within quarry area - different type of ash encountered**
TP-7 thru 14, 19 and 20 were within the former Quarry and had gray ash and debris
TP-15, 16, and 17 contained different type of fill - no ash
Fill includes soil, brick, wood, building fragments and other miscellaneous construction debris

proximity of test pit TP-19 and adjacent to the road that services the Buffalo Municipal Housing Authority property. This pile was approximately 8 feet above grade and 50 feet in diameter and included a large amount of snow with dirt and rocks associated with street snow removal process.

2.2 Soil Sampling and Analytical Program

Surface and subsurface samples were collected in accordance with the approved work plan. Surface soil samples were obtained from the upper two inches at the slit trench locations. Subsurface samples were selected from ash layers.

A total of five (5) subsurface soil samples were selected from test pits indicating the highest total volatile organic vapor readings and/or based on visual appearance (i.e., stained or discolored fill material), as well as at selected locations which would provide coverage across the investigation area. Thirteen (13) surface soil samples were selected for analysis. Five of the thirteen were selected at locations which also had subsurface soil samples submitted for analysis. The remaining eight samples were selected at locations which would provide coverage across the investigation area.

Surface soil samples were collected at test pit locations TP-2, TP-3, TP-4, TP-7, TP-8, TP-9, TP-12, TP-13, TP-17, SS-18 and TP-19. Subsurface soil samples were collected from Test Pits TP-2, TP-7, TP-12, TP-13, TP-19. Samples were submitted to a New York State Laboratory for analysis for TCL Volatiles (subsurface samples only), TCL Semi-Volatiles, TCL Pesticides/PCBs, TAL metals, and Cyanide analysis. Analytical results are discussed in Section 3.0.

2.3 Site Map Generation

A site map was generated by URS Corp. (refer to Figure 2). The map was completed in accordance with best engineering practice and was prepared under the direct supervision of a NYS licensed land surveyor. All test pits and sample locations associated with the investigation were surveyed and are shown on the map. The base map was obtained from Kideney Architects. Mapping was prepared using Auto CADD release 14.

2.4 Air Quality Assessment

On March 9, 2001, an air monitoring program was carried out in the basement crawl space below the school, in accordance with the February 2001 Work Plan. The sampling protocol was modified to substitute the use of ultra low-level Summa canisters in lieu of the Tedlar bag method originally proposed. The use of Summa canisters generally allows for more reliable shipping and extremely low (< 1.0 ppb) laboratory detection limits.

Two 6-liter Summa canisters were staged at ground level at the east and west ends of the crawl space (S89-01 east, S89-02 west). At the time of sampling, the basement, which has

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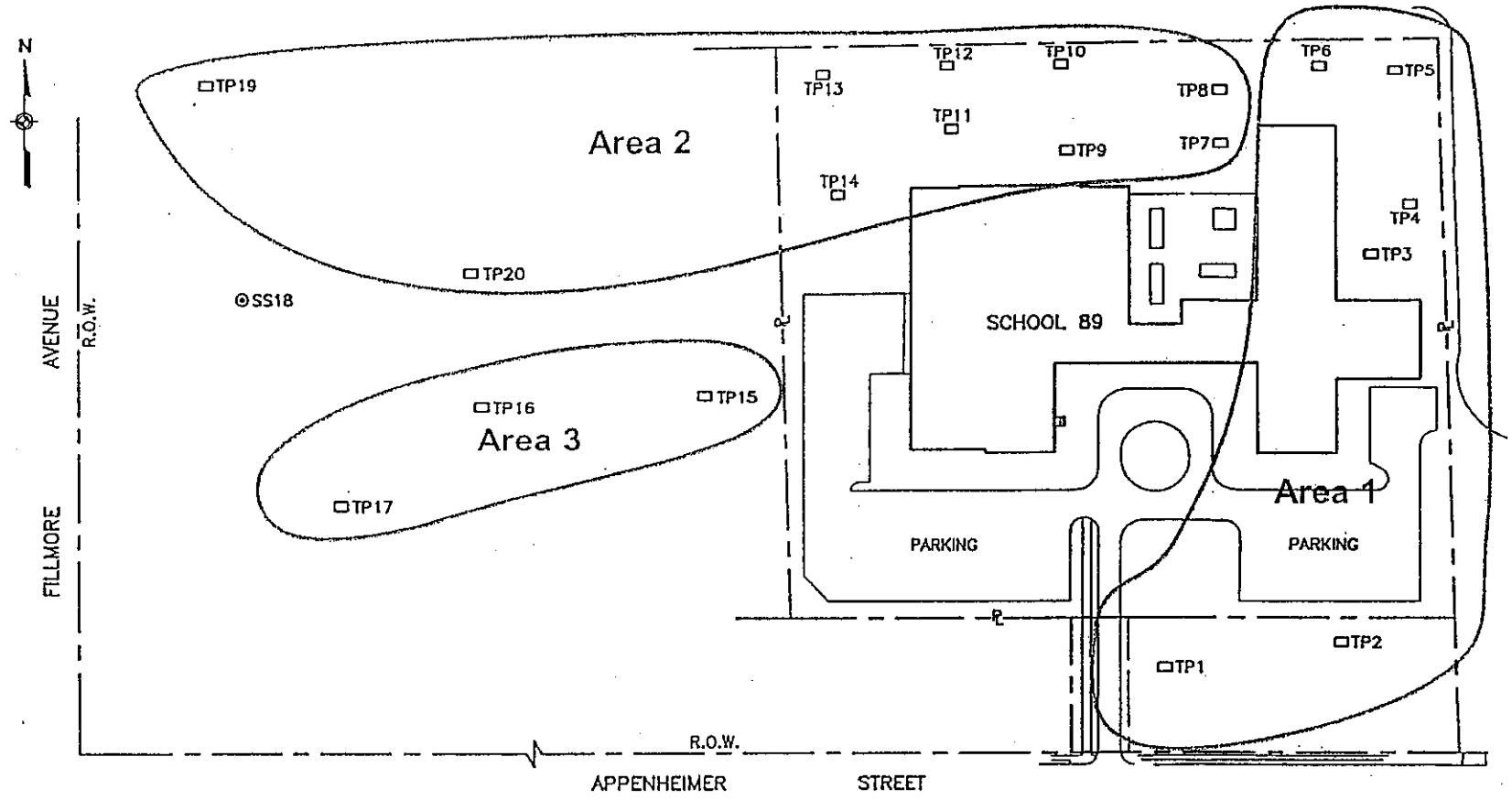

LEGEND

TP1	TEST PIT LOCATION
SS1	SURFACE SAMPLE LOCATION
—℄—	PROPERTY LINE

NOTE:

HORIZONTAL AND VERTICAL CONTROL WAS RE-ESTABLISHED USING A BASE MAP PRODUCED BY DEBORAH A. NAYBOR, PLS, PC DATED 11/14/00-093 NO. 2000240.

100' 0 100'

SCALE: 1"= 100'

TEST PIT AND SAMPLE LOCATIONS

URS

FIGURE 1

CC-5815

a soil floor, was observed to be dry. No notable odors were present except very near to the water treatment equipment for the swimming pool, where a chlorine odor was noted. The sampling collection period was approximately seven hours. Standard chain-of-custody procedures were followed, with FedEx transport of the samples to the laboratory.

During the canister sampling period, real-time sampling throughout the crawl space was also performed using a MiniRAE Model 2000 (10.6 eV) photoionization detector calibrated to a benzene-equivalent. This instrument has a detection limit of 0.1 ppm (benzene-equivalents) for a select group of volatile organic compounds. It cannot measure methane.

Following receipt of the Summa canisters by the analytical laboratory, analysis was performed using USEPA Method TO-14 which uses gas chromatography/mass spectroscopy (GC/MS) in the "full scan" mode. Up to 0.5 liters of air are concentrated, vaporized, dehumidified, and then injected into the analytical instrument. A total of 60 compounds are included in the TO-14 scan.

A second analytical run was made with each canister's contents using the American Society for Testing and Materials (ASTM) Method D-1946. This method measures for eight gases, including methane.

3.0 ANALYTICAL RESULTS

Compounds detected in the soil sampling program are summarized in Tables 2 (subsurface) and 3 (surface). These tables present data from each sample submitted for analysis and provides a comparison with the TAGM 4046 soil cleanup values. Eastern USA background values are also provided for comparison with metal results. Analytical results for background surface soil samples collected at a nearby property investigated recently by the City (Trinidad Place and Kensington Avenue) are provided for comparison purposes only. There are other recent investigations both within the City of Buffalo and other urban areas where typical levels have been established (refer to Section 4). The complete set of analytical data is provided in Appendix B. Analytical results are discussed below.

3.1 Volatile Organic Compounds

There were no volatile organic results detected above the detection limits.

3.2 Semi-Volatile Organic Compounds

Semi-Volatile organic compounds are organic compounds that will slowly and partially evaporate when exposed to the atmosphere at room temperature and pressure. These compounds tend to attach to solid surfaces. Numerous semi-volatile organic compounds (SVOC) consisting primarily of polynuclear aromatic hydrocarbons (PAHs) were detected in the surface and subsurface samples.

gas, garbage or other organic substances and are widely distributed in the environment and particularly in older urban environments where coal, gas, and petroleum were burned for heat and other energy uses. PAH compounds are common constituents of fill material found in urban environments, and are typically associated with both fill material, coal tar and asphalt based materials or ash.

In general, PAHs and metals are not very mobile in soils, in that they have low solubilities with water (these compounds are practically insoluble in water) and tend to adsorb to the soil grains. These compounds do not readily breakdown in the environment and PAHs deposited from combustion of coal or other fuels years ago would most likely still be present today. Based on the low volatility and their association with soil, the primary concern for potential human exposure to PAHs include inhalation or ingestion of contaminated dust as well as dermal contact.

The SVOC results were compared to NYSDEC guideline levels and a total carcinogenic PAH (cPAH) level and total SVOC level was calculated (refer to Tables 2 and 3). The PAH compounds identified as being carcinogenic (given a sufficient dose over a long period of time) include the following seven compounds: benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo (a)pyrene, indeno(1,2,3-cd)pyrene, and dibenzo(a,h)anthracene. As would be expected in an urban environment, results from the soils sampled (both surface and subsurface) indicated that several SVOCs were identified at concentrations above the NYSDEC TAGMs, including PAH's.

Surface Soil

Surface soil samples were collected below the grass surface and within the top two inches of soil (0-2 inch level) at each test pit excavation location prior to excavation. All surface soil samples had detectable levels of PAHs above NYSDEC TAGMs (refer to Table 3), however, only four sample locations contained levels consistently above TAGM levels including TP- 2, TP-3, TP-8, and TP-19. Total SVOCs for the surface samples from Test Trench locations TP-2, TP-3, TP-8, and TP-19 were as follows:

- 179 ppm for TP-2,
- 83.54 ppm for TP-3,
- 26.7 ppm for TP-8, and
- 19.56 ppm for TP-19

Total cPAHs for these four locations were as follows:

- 70.8 ppm for TP-2,
- 35.3 ppm for TP-3,
- 9.8 ppm for TP- 8, and
- 10.61 ppm for TP-19.

Eleven of the thirteen surface soil samples had total detectable cPAH levels above 1 ppm and three had total cPAH level above 10 ppm. Surface soil sample locations TP-2 (70.8 ppm), TP-3 (35.3 ppm), and TP-19 (10.61 ppm) had detected levels of cPAHs above 10 ppm. Surface soil sample locations TP-4 (1.9 ppm), TP-7 (3.8 ppm), TP-8 (9.8 ppm), TP-9 (2.9 ppm), TP-12 (3.1 ppm), TP-13 (4.0 ppm), TP-15 (2.4 ppm), and TP- 18 (3.3 ppm) had detectable total cPAH levels above 1 ppm.

A number of unknown SVOC compounds were also detected in the surface soil samples. Samples taken at locations TP-8 and TP-19 contained unknown PAH compounds at relatively low levels. All other sample locations (except location TP-12) had low levels of unknown non PAH compounds. Levels at TP-2 were at levels a few orders of magnitude above those indicated at other locations.

Subsurface

All five subsurface soil samples analyzed had detectable levels of PAHs (refer to Table 2). However, only two locations, TP-12 and TP-19 contained levels consistently above TAGM levels. It should be noted that the sample collected from TP-19 at between 4 and 5-feet included tar and shingle materials within the ash material. In general, subsurface PAH levels were less than surface soil levels with the exception of the sample collected from TP-19. This sample, as noted above, contained shingle and roofing tar-like materials which typically contain PAH compounds. Total SVOC's for the subsurface samples from test pit TP-12 and TP-19 were as follows:

- 15.41 ppm for TP-12
- 1,301.1 ppm for TP-19

Total cPAH's for these locations were as follows:

- 7.36 ppm for TP-12
- 397.9 ppm for TP-19

All other test pit samples had total SVOC's significantly below 100 ppm and total cPAHs below 10 ppm. A number of unknown compounds were also detected in test pit samples TP-2, TP 12, and TP-19. Unknown compounds in TP-19 were at levels significantly higher then the other samples and are most likely due to the tar materials.

3.3 Pesticides and PCBs

Low levels of PCB Aroclor 1260 was detected in test pits TP-16 and TP-18 at 0.027 ppm and 0.024 ppm respectively. These levels are well below the NYSDEC TAGM guidelines.

3.4 Metals

Various metals were detected in samples from all test pits. Most results were well below

Various metals were detected in samples from all test pits. Most results were well below the TAGM criteria. Similar to PAH concentrations, metal concentrations were generally higher in surface samples. The highest metal concentration was for calcium at 78300.0 mg/kg in the surface sample at test pit location TP-16. The highest metal concentration above the TAGM cleanup values was for Iron at 22700.0 mg/kg in the surface sample at test pit TP-3. Lead was detected in surface soil sample TP- 19 slightly above urban background at 506 mg/kg (this location is near a road and near snow piles created from street plowing) and in subsurface sample TP-7 at 3,810 mg/kg. The previous investigation conducted in November 2000 identified subsurface lead levels in two samples (24 to 26 feet and 14 to 18 feet bgs respectively) at 5,030 mg/kg and 1,310 mg/kg.

The concentrations of most metals were within the cited ranges for Eastern U.S. soils and TAGM values. The exceptions were zinc in test pit TP-2 (surface and subsurface); mercury (surface), nickel (surface), and zinc (surface) in test pit TP-3; mercury (surface) in test pit TP-4; copper (subsurface), mercury (subsurface), nickel (surface), and zinc (surface and subsurface) in test pit TP-7; zinc (surface) in test pit TP-8; nickel (surface) and zinc (surface) in test pit TP-9; arsenic (subsurface), mercury (subsurface), and zinc (surface and subsurface) in test pit TP-12; zinc (surface and subsurface) in test pit TP-13; zinc (surface) in test pit TP-15; zinc (surface) in test pit TP-16; zinc (surface) in test pit TP-17; zinc (surface) in surface soil SS- 18; arsenic (surface), copper (surface and subsurface), lead (surface), mercury (surface and subsurface), nickel (surface), and zinc (surface and subsurface) in test pit TP-19. With the exception of some specific results, the metals were not significantly higher than the eastern US range.

Most metals occur in nature and their concentrations in fill and natural soil will exhibit considerable variability both stratigraphically and spatially. This variability is related to the variable composition of the fill, natural soils' protolith, weathering processes that chemically and physically modify soil, and groundwater interactions that modify the geochemistry.

Section 3.5 Indoor Air Quality

Real-time total VOC measurements made throughout the crawl space showed the concentration to be at or below ambient background levels of 0.0 ppm (benzene equivalents). Of the sixty VOCs screened using EPA Method TO-14, most were not measurable at the detection limits of 0.21-1.0 ppb. Methane was not detectable at a detection limit of 21 ppm. Measurable VOCs were in the range 0.41-56.0 ppb, which is consistent with trace concentrations typically associated with indoor building activities. The crawl space in this building is used as the exhaust for at least one fan on the first floor, therefore activities such as use of photocopiers, office and art supplies, as well as custodial activities, could all be contributors to the observed trace concentrations. All VOC concentrations detectable above the reported detection limits were nonetheless below 10% of the current OSHA PELs or ACGIH TLV®, which is a generally accepted (though not ACGIH-endorsed) action level for the general population.

TABLE 2
SUBSURFACE SOIL SAMPLING ANALYTICAL RESULTS SUMMARY
CAMPUS SCHOOL #89, BUFFALO, NEW YORK

	Sub Surface TP-2	Sub Surface TP-7	Sub Surface TP-12	Sub Surface TP-13	Sub Surface TP-19	Eastern USA Background	Average Background	NYSDEC Cleanup Values
Final Depth of TP's	**2.5 ft.**	**8 ft.**	**6 ft.**	**4.5 ft.**	**5 ft.**	**N/A**	**N/A**	**N/A**
Compounds	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Metals								
Cyanide	U	U	U	U	0.764	N/A	1.52	Site Specific
Aluminum	11000	5390	6200	11100	9970	33,000	10,870	SB
Antimony	3.85 B	6.51 B	8	U	4 B	N/A	U	SB
Arsenic	11	7	14	9.9	9.5	3 to 12	9.93	7.5 or SB
Barium	160	116	126	169	211	15 to 600	92.56	300 or SB
Beryllium	0.529 B	0.584 B	0.481 B	1.13	0.724	0-1.75	0.573 B	0.16 or SB
Cadmium	0.907	U	1.06	U	1.85	0.1-1	0.681	10 or SB
Calcium	2390	6890	19500	18400	36000	130 to 35000	29700	SB
Chromium	12.1	15	12.9	10.2	18.4	1.5 to 40	15.3	50 or SB
Cobalt	6.69	5.81 B	5.04 B	8.85	5.51 B	2.5 to 40	7.72	30 or SB
Copper	25.5	115	44.4	41.2	147	1 to 50	25.7	25 or SB
Iron	21100	16600	11400	17100	20500	2000 to 550000	18100	2,000 or SB
Lead	233	3810	392	199	425	200 to 500	551.3	SB****200-500
Magnesium	1900	1940	4020	4110	9910	100 to 5000	1027.6	SB
Manganese	482	137	275	293	386	50 to 5000	427.3	SB
Mercury	0.1	0.38	0.15	U	0.14	0.001 to 0.2	0.145	0.1
Nickel	17.4	14.3	16.7	18.2	19.5	0.5 to 25	18.03	13 or SB
Potassium	549 B	507 B	660	1080	1270	8500 to 43000	1633.3	SB
Selenium	0.38 WB	0.67	0.39 B	0.64 B	U	0.1 to 3.9	U	2 or SB
Sodium	105 B	159 B	160 B	280 B	217 B	6000 to 8000	220.3	SB
Thallium	0.81 B	0.46 B	0.63 B	0.75 B	0.65 B	Not Available	0.51 B	SB
Vanadium	21.6	23.6	18.3	46.6	22.1	1 to 300	24.83	150 or SB
Zinc	379	230	188	166	353	9 to 50	239.3	20 or SB

Key:

TP- Test Pit
U- Not Detected
SB- Site Background
* - No tests done for the sample
****- Lead Range Is 200-500 ppm in Urban Areas
B - Analyte Detected in Method or Trip Blank
W - Post Spike recovery is out of limits
N/A - Not Available

Total cPAH value includes: benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo (a)pyrene, indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene

Table 2, continued

Semi-Volatile Organics	TP-2 mg/kg	TP-7 mg/kg	TP-12 mg/kg	TP-13 mg/kg	TP-19 mg/kg	East USA Background mg/kg	Average Background mg/kg	NYSDEC TAGM mg/kg
4-Methylphenol	U	U	U	U	5.9 J	N/A	U	0.9
Naphthalene	U	U	0.079 J	U	75	N/A	U	13
2-Methylnaphthalene	U	U	U	U	26 J	N/A	U	36.4
Acenaphthylene	U	U	U	U	6.3 J	N/A	U	41
Acenaphthene	U	U	0.15 J	U	38 J	N/A	0.05 J	50
Dibenzofuran	U	U	0.098 J	U	28 J	N/A	U	6.2
Fluorene	U	U	0.18 J	U	46	N/A	U	50
Phenanthrene	0.13 J	0.17 J	1.6	0.087 J	240	N/A	0.88	50
Anthracene	U	U	0.35 J	U	75	N/A	0.1499	50
Carbazole	U	U	0.22 J	U	27 J	N/A	U	
Fluoranthene	0.23 J	0.22 J	1.8	0.12 J	150	N/A	1.19	50
Pyrene	0.22 J	0.21 J	2.9	U	160	N/A	1.29	50
Benzo(a)anthracene	0.11 J	0.11 J	1.1	0.06 J	72	N/A	0.89 J	0.224 / MDL
Chrysene	0.13 J	0.12 J	1.1	0.063 J	66	N/A	2.183 J	0.4
Bis-2-ethylhexyl phthalate	U	U	0.067 J	U	U	N/A	1.24	50
Benzo(b)fluoranthene	0.27 J	0.22 J	2	0.13 J	97	N/A	1.2	1.1
Benzo(k)fluoranthene	0.12 J	0.098 J	0.69	0.05 J	33 J	N/A	0.51 J	1.1
Benzo(a)pyrene	0.18 J	0.16 J	1.4	0.086 J	87	N/A	0.83 J	0.061 / MDL
Indeno(1,2,3-cd)pyrene	0.12 J	0.081 J	0.88	U	34 J	N/A	0.64 J	3.2
Dibenzo(a,h)anthracene	U	U	0.19 J	U	8.9 J	N/A	0.055 J	0.014
Benzo(g,h,i)perylene	0.075 J	0.051 J	0.61	U	26 J	N/A	0.42 J	50
Total cPAH	**0.93**	**0.789**	**7.36**	**0.389**	**397.9**	N/A	**6.308**	*
Total SVOC	**2.515**	**2.229**	**15.414**	**0.566**	**1301.1**	N/A	**11.5279**	*
Unknown	0.15	*	0.16	0.92	16	N/A	N/A	N/A
Unknown	0.21	*	0.12	*	9.6	N/A	N/A	N/A
Unknown	0.28	*	0.16	*	13	N/A	N/A	N/A
Unknown	0.19	*	0.16	*	14	N/A	N/A	N/A
Unknown	0.51	*	0.25	*	30	N/A	N/A	N/A
Unknown	0.45	*	0.29	*	32	N/A	N/A	N/A
Unknown	0.58	*	0.48	*	20	N/A	N/A	N/A
Unknown	0.59	*	0.14	*	51	N/A	N/A	N/A
Unknown	0.6	*	0.15	*	20	N/A	N/A	N/A
Unknown	0.5	*	1.2	*	17	N/A	N/A	N/A
Unknown	*	*	0.15	*	15	N/A	N/A	N/A
Unknown	*	*	0.16	*	10	N/A	N/A	N/A
Unknown	*	*	0.21	*	25	N/A	N/A	N/A
Unknown	*	*	0.16	*	17	N/A	N/A	N/A
Unknown	*	*	0.14	*	10	N/A	N/A	N/A
Unknown	*	*	0.76	*	9.9	N/A	N/A	N/A
Unknown	*	*	0.16	*	36	N/A	N/A	N/A
Unknown	*	*	0.2	*	*	N/A	N/A	N/A
Unknown	*	*	*	*	*	N/A	N/A	N/A
Unknown	*	*	*	*	*	N/A	N/A	N/A
Unknown (PAH)	*	*	1.9	*	*	N/A	N/A	N/A
Unknown (PAH)	*	*	2.3	*	*	N/A	N/A	N/A

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Total cPAH value includes: benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo (a)pyrene, indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene

Table 2, continued

	TP-2	TP-7	TP-12	TP-13	TP-19	East USA Background	Average Background	NYSDEC TAGM
Volatile Organics								
Methylene chloride	0.004 J	0.005 J	0.005 J	0.006 J	0.004 J	N/A	N/A	0.1
Acetone	*	0.011 J	0.006 J	0.01 J	*	N/A	N/A	0.2
Benzene	*	*	*	*	0.035	N/A	N/A	0.06
Toluene	*	*	*	*	0.12	N/A	N/A	1.5
Ethylbenzene	*	*	*	*	0.025	N/A	N/A	5.5
p-Xylene/m-Xylene	*	*	*	*	0.16	N/A	N/A	1.2
o-Xylene	*	*	*	*	0.088	N/A	N/A	1.2
Styrene	*	*	*	*	0.033	N/A	N/A	N/A
Unknowns								
Unknown	0.006	0.009	0.007	0.014	0.087	N/A	N/A	N/A
Unknown	0.008	0.008	0.008	0.013	0.34	N/A	N/A	N/A
Unknown	0.007	0.014	0.026	0.009	0.081	N/A	N/A	N/A
Unknown	0.028	0.013	*	0.008	0.13	N/A	N/A	N/A
Unknown	*	0.048	*	0.032	0.045	N/A	N/A	N/A
Unknown (aromatic)	*	*	*	*	0.061	N/A	N/A	N/A
Unknown (aromatic)	*	*	*	*	0.12	N/A	N/A	N/A
Unknown (aromatic)	*	*	*	*	0.092	N/A	N/A	N/A
Unknown (aromatic)	*	*	*	*	0.05	N/A	N/A	N/A
Unknown (aromatic)	*	*	*	*	0.056	N/A	N/A	N/A

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Total cPAH value includes: benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo (a)pyrene, indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene

TABLE 3
SURFACE SOIL SAMPLING ANALYTICAL RESULTS SUMMARY
CAMPUS SCHOOL #89, BUFFALO, NEW YORK

	Surface Soils TP-2	Surface Soils TP-3	Surface Soils TP-4	Surface Soils TP-7	Surface Soils TP-8	Surface Soils TP-9	Surface Soils TP-12	Surface Soils TP-13	Surface Soils TP-15	Surface Soils TP-16	Surface Soils TP-17	Surface Soils TP-18	Surface Soils TP-19	Eastern USA Background	Average Background	Rec. Soil Cleanup Values
Metals	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
Cyanide	U	U	U	U	U	U	U	U	U	U	U	0.782	0.645	N/A	1.52	***
Aluminum	13300	11600	5820	10700	8480	10800	7420	4180	8140	7260	6480	8530	10200	33,000	10,870	SB
Antimony	4.26 B	U	U	U	3.39 B	U	7.44	5.25 B	U	4.19 B	3.64 B	3.21 B	3.46 B	N/A	U	SB
Arsenic	6.6	5.1	3.5	4.7	4	5.5	4.4	4.3	4.8	2.9	3.9	6	18	3 to 12	9.93	7.5 or SB
Barium	72.3	86.6	56.6	79.7	81.7	83.3	91.9	59.2	78.1	60.1	35.4	79.1	231	15 to 600	92.56	300 or SB
Beryllium	0.624 B	0.593 B	0.312 B	0.568 B	0.435 B	0.568 B	0.4 B	0.24 B	0.511 B	0.355 B	0.29 B	0.48 B	0.671	0-1.75	0.573 B	0.16 or SB
Cadmium	U	U	U	0.655 B	0.631	0.518 B	U	U	U	U	U	U	2.86	0.1-1	0.681	10 or SB
Calcium	2080	3850	3950	4700	14900	9870	52800	61400	28000	78300	23700	31900	25300	130 to 35000	29700	SB
Chromium	14.4	17.2	8.92	22.7	11.6	21.6	8.77	6.12	9.68	8.41	8.64	14.4	20.1	1.5 to 40	15.3	50 or SB
Cobalt	9	11.3	5.42 B	9.54	6.13	8.71	5.82	3.01 B	5.27 B	4.56 B	6.69	6.51	7.56	2.5 to 40	7.72	30 or SB
Copper	22.1	30	23.5	28.8	21.1	27.8	25.2	24.4	31.4	22.9	19.8	33	126	1 to 50	25.7	25 or SB
Iron	21800	22700	15000	21400	14800	20500	14200	8280	13300	13500	13800	17400	21500	2000 to 550000	18100	2,000 or SB
Lead	61.9	46	42	71	80.1	59.8	76.4	73.5	125	63	12	234	506	200 to 500	551.3	SB****200-500
Magnesium	2930	4360	2240	4390	7010	7080	19200	7420	7780	11500	7170	13500	8130	100 to 5000	1027.6	SB
Manganese	497	588	367	492	340	460	329	216	449	324	341	409	1600	50 to 5000	427.3	SB
Mercury	0.08	0.27	0.2	0.086	0.17	0.11	0.32	0.14	0.16	0.073	U	0.1	0.9	0.001 to 0.2	0.145	0.1
Nickel	24.3	32.6	17.2	30.4	16.9	26.8	14	9.29	15.3	12.2	16.1	18.3	29.3	0.5 to 25	18.03	13 or SB
Potassium	1080	1280	641	1290	879	1410	1260	727	969	1050	784	1640	1320	8500 to 43000	1633.3	SB
Selenium	UW	UW	UW	U	U	UW	U	UW	U	U	U	UW	0.66	0.1 to 3.9	U	2 or SB
Sodium	56.5 B	42 B	48.2 B	37.7 B	61.4 B	51.3 B	138 B	107 B	84.6 B	142 B	71.6 B	125 B	188 B	6000 to 8000	220.3	SB
Thallium	0.78 B	0.69 B	0.52 B	0.69 B	0.46 B	0.74 B	0.43 B	0.6 B	0.47 B	0.28 B	0.56 B	0.55 B	0.8 B	N/A	0.51 B	SB
Vanadium	23.5	22.2	11.8	21.7	17.4	21.1	19.9	11.1	17.5	16.2	13.2	20.7	24.4	1 to 300	24.83	150 or SB
Zinc	118	114	78.2	126	456	132	108	90.4	111	161	60.6	159	465	9 to 50	239.3	20 or SB
PCB's																
PBB 1260	*	*	*	*	*	*	*	*	*	0.027	*	0.024	*	N/A	N/A	1 Surface
Semi-Volatile Organics																
Naphthalene	3 J	0.77 J	U	U	0.83 J	U	U	U	U	U	U	U	U	N/A	U	1
4-Chloroaniline	220	U	U	U	U	U	U	U	U	U	U	U	U	N/A	U	0.2
2-Methylnaphthalene	1.1 J	0.57 J	U	U	0.3 J	U	U	U	U	U	U	U	U	N/A	U	36
Acenaphthene	3.9 J	2.3	U	0.12 J	0.58 J	0.081 J	0.056 J	0.065 J	U	U	U	U	0.1 J	N/A	0.05 J	5
Dibenzofuran	2.6 J	1.2 J	U	U	0.55 J	U	U	U	U	U	U	U	U	N/A	U	6
Fluorene	4.2 J	2.4	U	0.1 J	0.68 J	U	U	U	U	U	U	U	0.13 J	N/A	U	5
Phenanthrene	26	13	0.19 J	0.91	4.6	0.65	0.54	0.63	0.31 J	0.058 J	0.54 J	0.47 J	1.7	N/A	0.88	5

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Total cPAH value includes: benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo (a)pyrene, Indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene

Table 3, continued

Semi-Volatile Organics	TP-2 mg/kg	TP-3 mg/kg	TP-4 mg/kg	TP-7 mg/kg	TP-8 mg/kg	TP-9 mg/kg	TP-12 mg/kg	TP-13 mg/kg	TP-15 mg/kg	TP-16 mg/kg	TP-17 mg/kg	TP-18 mg/kg	TP-19 mg/kg	Eastern USA Background	Average Background	NYSDEC TAGM
Anthracene	7.9	3.7	U	0.21 J	1.3	0.15 J	0.13 J	0.15 J	0.07 J	U	U	0.095 J	0.37 J	N/A	0.1499	50
Carbazole	4.1 J	2.1 J	U	0.13 J	0.7 J	0.087 J	0.045 J	0.071 J	U	U	U	0.06 J	0.18 J	N/A	U	N/A
Fluoranthene	24	9.6	0.35 J	1	3.8	0.65	0.76	0.97	0.58	0.11 J	0.12 J	0.75	2.4	N/A	1.19	50
Pyrene	25	11	0.42	1	3.1	1.1	0.98	1.1	0.64	U	U	0.78	3.3	N/A	1.29	50
Benzo(a)anthracene	12	6.6	0.21 J	0.56	1.7	0.4 J	0.46	0.54	0.35 J	0.049 J	0.04 J	0.38 J	1.7	N/A	0.89 J	0.224 / MDL
Chrysene	11	6.5	0.24 J	0.58	1.6	0.46	0.46	0.6	0.38 J	0.062 J	0.06 J	0.45 J	1.7	N/A	2.183 J	0.4
Bis-2-ethylhexyl phthalate	U	U	U	0.17 J	U	0.22 J	0.056 J	0.77 J	0.32 J	U	U	0.09 J	0.081 J	N/A	1.24	50
Benzo(b)fluoranthene	18	9.2	0.51	1.1	2.6	0.68	0.89	1.4	0.67	0.13 J	0.12 J	0.98	3.1	N/A	1.2	1.1
Benzo(k)fluoranthene	8.4	3.4	0.23 J	0.45 J	1.2	0.29 J	0.33 J	0.34 J	0.23 J	0.049 J	0.06 J	0.35 J	0.92	N/A	0.51 J	1.1
Benzo(a)pyrene	14	6.6	0.38 J	0.8	1.9	0.52	0.69	0.76	0.49	0.084 J	0.079 J	0.59	1.9	N/A	0.83 J	0.061 / MDL
Indeno(1,2,3-cd)pyrene	7.4	3	0.29 J	0.3 J	0.74 J	0.36 J	0.29 J	0.33 J	0.26 J	0.046 J	0.045 J	0.26 J	1	N/A	0.64 J	3.2
Dibenzo(a,h)anthracene	U	U	0.083 J	U	0.096 J	U	U	U	U	U	U	0.079 J	0.29 J	N/A	0.055 J	0.014
Benzo(g,h,i)perylene	4.2 J	1.6 J	0.21 J	0.22 J	0.43 J	0.25 J	0.22 J	0.21 J	0.18 J	U	U	0.2 J	0.69	N/A	0.42 J	50
Total cPAH	**70.8**	**35.3**	**1.943**	**3.79**	**9.836**	**2.93**	**3.176**	**3.97**	**2.38**	**0.42**	**0.404**	**3.289**	**10.61**	N/A	**6.308**	*
Total SVOC	**179**	**83.54**	**3.113**	**7.65**	**26.706**	**5.898**	**5.907**	**7.936**	**4.48**	**0.588**	**1.064**	**5.734**	**19.561**	N/A	**11.5279**	*
Unknown	1.7	0.2	0.19	0.86	0.27	0.16	*	0.11	0.35	0.14	0.25	0.19	0.21	N/A	N/A	N/A
Unknown	2.3	0.3	0.11	2	0.2	0.1	*	0.16	0.23	0.092	0.16	0.16	0.22	N/A	N/A	N/A
Unknown	2.8	0.39	0.081	1.3	1.3	0.14	*	0.16	0.22	0.21	0.097	0.15	0.16	N/A	N/A	N/A
Unknown	1.7	0.19	0.18	*	0.94	0.11	*	0.18	0.16	0.26	0.17	0.3	0.15	N/A	N/A	N/A
Unknown	4.7	0.49	0.28	*	1.6	0.33	*	0.18	0.2	0.098	0.18	0.19	0.15	N/A	N/A	N/A
Unknown	1.5	0.15	0.1	*	0.87	0.26	*	0.17	0.24	0.1	0.12	0.099	0.15	N/A	N/A	N/A
Unknown	2.1	0.21	0.16	*	1.3	1.6	*	0.64	0.58	0.24	0.25	0.12	0.16	N/A	N/A	N/A
Unknown	1.6	0.16	0.31	*	*	0.22	*	0.82	0.81	0.22	0.19	0.17	0.16	N/A	N/A	N/A
Unknown	1.4	0.33	0.14	*	*	0.22	*	0.9	*	0.25	0.24	0.14	0.99	N/A	N/A	N/A
Unknown	2.9	0.2	0.21	*	*	0.23	*	1.3	*	0.45	0.17	0.2	0.97	N/A	N/A	N/A
Unknown	1.7	0.13	0.16	*	*	0.93	*	1.4	*	1.4	0.18	0.72	0.88	N/A	N/A	N/A
Unknown	1.1	0.11	0.41	*	*	0.23	*	*	*	0.55	0.22	0.74	*	N/A	N/A	N/A
Unknown	0.96	0.13	0.13	*	*	0.27	*	*	*	*	0.17	1	*	N/A	N/A	N/A
Unknown	1.5	0.12	0.3	*	*	0.4	*	*	*	*	*	0.4	*	N/A	N/A	N/A
Unknown	1.1	0.59	0.4	*	*	0.23	*	*	*	*	*	0.29	*	N/A	N/A	N/A
Unknown	*	*	0.48	*	*	0.42	*	*	*	*	*	1.3	*	N/A	N/A	N/A
Unknown	*	*	0.97	*	*	0.46	*	*	*	*	*	0.38	*	N/A	N/A	N/A
Unknown	*	*	1	*	*	0.88	*	*	*	*	*	0.39	*	N/A	N/A	N/A
Unknown	*	*	0.42	*	*	0.92	*	*	*	*	*	*	*	N/A	N/A	N/A
Unknown	*	*	0.75	*	*	*	*	*	*	*	*	*	*	N/A	N/A	N/A
Unknown (PAH)	*	*	*	*	0.36	*	*	*	*	*	*	*	0.28	N/A	N/A	N/A
Unknown (PAH)	*	*	*	*	0.44	*	*	*	*	*	*	*	0.39	N/A	N/A	N/A
Unknown (PAH)	*	*	*	*	0.63	*	*	*	*	*	*	*	0.17	N/A	N/A	N/A
Unknown (PAH)	*	*	*	*	0.41	*	*	*	*	*	*	*	0.15	N/A	N/A	N/A
Unknown (PAH)	*	*	*	*	0.19	*	*	*	*	*	*	*	0.15	N/A	N/A	N/A
Unknown (PAH)	*	*	*	*	0.2	*	*	*	*	*	*	*	0.16	N/A	N/A	N/A
Unknown (PAH)	*	*	*	*	0.22	*	*	*	*	*	*	*	0.18	N/A	N/A	N/A
Unknown (PAH)	*	*	*	*	0.18	*	*	*	*	*	*	*	0.14	N/A	N/A	N/A
Unknown (PAH)	*	*	*	*	*	*	*	*	*	*	*	*	1.1	N/A	N/A	N/A
LBS#9	*	*	*	*	*	*	*	*	0.83	*	*	*	*	N/A	N/A	N/A

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Total cPAH value includes: benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo (a)pyrene, indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene

4.0 CONCLUSIONS AND RECOMMENDATIONS

Investigations conducted at the property have indicated the presence of detectable levels of SVOCs (primarily carcinogenic PAHs) and metals in both the surface soils and the fill materials. With the exception of one location (tar-like materials in subsurface ash in TP-19), no PID readings above ambient levels were recorded on any of the samples and no volatile organic compounds were detected in samples.

Three distinct areas of subsurface conditions were observed at the property as follows (refer to Figure 2).

Area 1

The area along the southeast and northeast portion of the property appeared to be outside the former quarry area. This area consists of topsoil, fill and a thin ash layer (note, this is not the same ash found in the quarry areas), and bedrock at a shallow depth (bedrock at depths of less than 3-4 feet). Surface soils (0-2 inch) in this area indicated elevated levels of PAHs and some metals particularly in the southeast portion of the property. Subsurface soils did not appear to be significantly elevated.

Area 2

The area behind and to the north of the school and within the center and northern portions of the park/ball field is within the former quarry. This area consisted of a topsoil layer, a fill layer consisting of brick, pipe, wood and building fragments over an ash layer. Previous studies indicate that the ash fill was found to be at depths down to 26 to 30 feet to the top of bedrock. Surface and subsurface soils in this area had detectable levels of PAHs and metals above regulatory guidelines, but, generally at much lower levels then test pits in the southeast and northeast. The exception, however, was Test Pit TP-19 which had levels significantly higher and was associated with a "tar like" material.

Area 3

The area to the south west of the school and along the southern end of the park/ball field contained about ½ foot of topsoil over approximately 8 feet of fill consisting of silt and sand with some clay, wood, brick, and building fragments. No ash was encountered in the test pits in this area and only surface samples were. Although detectable levels of metals and PAHs in surface soil samples were indicated above regulatory guidelines, levels were relatively low. Total SVOCs and cPAHs were well below 10 ppm and two of the locations were below 1 ppm cPAHs.

PAHs and metals can be introduced into the environment by natural (e.g., soil chemistry, forest fires) and human (e.g., automobile, coal or other heating fuel combustion, industry, or stone quarrying) processes. In general, PAHs and metals are not very mobile in soils,

in that they have low solubilities with water and tend to adsorb to the soil grains. The primary routes of human exposure to PAHs and metals include inhalation or ingestion of contaminated dust as well as dermal contact. Because of their ubiquitous nature, studies have been performed to determine typical levels of PAHs in urban environments.

The Journal of Soil Contamination published an article entitled, "Background Levels of Polycyclic Aromatic Hydrocarbons and Selected Metals in New England Urban Soils" in which soil samples from urban locations in three New England cities were collected at a depth of 0-6 inches and analyzed for PAHs (Bradley et al.1994). The result of these three studies reported that background concentrations of total cPAHs ranged from 0.68 ppm to 78 ppm, with an average concentration of 9 ppm. Detectable levels of PAH compounds at the property fall within or below this range. Additionally, the levels of PAHs observed in surface soils are similar to concentrations found in other areas of the City of Buffalo.

With the exception of a few isolated samples (i.e. TP-19), the concentrations of the various PAHs and metal compounds detected are slightly above the NYSDEC TAGM 4046 recommended soil cleanup objectives. This would indicate that the associated health risks, assuming workers/students and pedestrians are actually subjected to substantial long-term exposure, are also minimal. Considering the nature of the proposed continued use of the property as a school and park/ball field, the potential exposure of students and residents to surface soil and workers to subsurface fill materials via the above potential exposure routes is low and will be virtually eliminated if engineering and administrative controls are instituted.

Chronic exposure to PAHs and metals in surface soils is not likely to occur under current conditions. People using or maintaining the school could be exposure to PAHs and metals in surface soils by sitting on the ground, playing, gardening, landscaping, or other improvement activities. Students or other members of the community using the play areas could be exposed to surface soils through participating in sports or by sitting on the ground. Since large areas of the school property are paved, the public would not be exposed to surface soil in these areas. The grass on most of the rest of the property was observed to be thick and well-established. Well-established and maintained grass cover usually minimizes human exposure to soil by acting as a barrier to direct contact with soil. Chronic exposure, therefore, appears to be limited.

Exposure to the PAHs and metals in the subsurface is not likely to occur under most conditions. Exposure would only occur if excavations occurred below the surface and if the subsurface soil is left at the surface. In general, potential for exposure to the fill materials at the site will be limited to onsite excavations (i.e. caissons, utilities, foundations, etc.) and/or fugitive dust generated at the site during excavations.

Even though the risk of exposure appear minimal, minor remedial activities aimed at preventing inhalation, ingestion, or dermal contact with potential contaminants can be applied to reduce the risk further. These remedial activities may include capping the elevated PAH containing soils with clean fill and re-establishing adequate grass cover

and/or paving as an acceptable means of minimizing any potential health risks. Should a higher risk reduction be required, then removal of the fill or stabilization in place are potential alternatives.

Institutional controls, consisting of deed restrictions and guidelines/restrictions pertaining to potential future construction activities on the property should also be part of the process if subsurface fill and elevated surface soils are left in place. These suggested approaches will require input from the involved agencies. A soils management program is recommended to meet these needs. The soils management/handling procedures need to focus on reducing or eliminating the potential for workers, students and park users to come in contact (chronic inhalation, ingestion, skin contact) with the impacted site soils.

In summary, whereas the surface soils and fill materials pose only a minimal potential risk to construction workers and/or students and park users in their present condition, this potential risk can be further reduced and/or eliminated if proper management strategies are employed. Based on a review of the investigation data and the proposed site development plans, the following are possible alternatives:

- Develop a detailed soils management plan for the property which would apply to future intrusive activities such as maintenance for utilities.
- All fill materials not excavated can be capped with at least six-inches of clean soil and/or covered with concrete/asphalt to prevent direct contact or generation of fugitive dust.
- All fill materials excavated at the site (during and post construction) should be managed as if they are contaminated. This means that any fill materials excavated at the site will be disposed offsite at a facility permitted to accept non-hazardous contaminated soils or will be utilized in regrading the site in accordance with 6NYCRR Part 360-1.15(b)(8) and capped with clean soils and/or concrete/asphalt.
- Covenants should incorporate the Soils Management Plan.

Based on the sampling program used, no significant levels of indoor air contamination was found in the crawl space area.

5.0 LIMITATIONS

This report is based on information from a limited soil sampling investigation, organic vapor screening, and visual observations of the soils, as described within this report. This report is intended exclusively for the purpose outlined herein at the site location and project indicated. The property and this site assessment is limited to the footprint of the lot.

This report is intended for the sole use of the Buffalo Board of Education. The scope of

services performed in this assessment may not be appropriate to satisfy the needs of other users and any use or re-use of this document or the findings, conclusions, or recommendations presented, is at the sole risk of the user. The conclusions set forth in this report are based upon, and limited by, the analytical data and other information available to PEI/URS.

It should be noted that all surface and subsurface environmental assessments are inherently limited in the sense that conclusions are drawn and recommendations developed from information obtained from limited data and site evaluation at a specific time. The passage of time may result in a change in environmental circumstances at this site and surrounding properties, or hazardous materials beneath the surface may be present but undetectable during this limited Phase II assessment.

Opinions and recommendations presented herein apply to the site conditions existing at the time of the subsurface assessment and those reasonably foreseeable. They cannot necessarily apply to site changes of which PEI/URS is not aware and has not had the opportunity to evaluate.

APPENDIX A

Test Pit Logs

TEST PIT LOG

PROJECT: Public School 89 Additions	SHEET: 1 OF 1
CLIENT: Buffalo Board of Education	JOB NUMBER:
CONTRACTOR:	LOCATION:
DATE STARTED: Feb. 12, 2001	GROUND ELEVATION:
DATE COMPLETED: Feb. 12, 2001	OPERATOR:
PIT NUMBER: TP-1	GEOLOGIST: Karen Wehn
	GROUND WATER:

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
	51-1		
1			0-.5' below ground surface (BGS), moist dark brown (clay and silt). Top soil w/ little clay
2			0.5- 1.5' BGS; Moist dark brown sandy silt and silty sand; 15-25% coarse brick, glass and other FILL
3			1.5- 2.0' BGS; Moist black ash and wood fibers. Compact Sample was derived from this layer.
4			2.0-4.0' BGS; same as 0.5 –1.5' BGS 4.0' BGS; Onondaga Limestone Formation was encountered. Bottom of pit.
5			
6			
7			
8			
9			
10			
11			
12			

COMMENTS:

Groundwater was not encountered @ this location

no sample was taken

TEST PIT LOG

PROJECT: Public School 89 Additions	SHEET: 1 OF 1
CLIENT: Buffalo Board of Education	JOB NUMBER:
CONTRACTOR:	LOCATION:
DATE STARTED: Feb. 12, 2001	GROUND ELEVATION:
DATE COMPLETED: Feb. 12, 2001	OPERATOR:
T NUMBER: TP-2	GEOLOGIST: Karen Wehn
	GROUND WATER:

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
0	S1-2		0-1'Below ground surface (BGS) moist dark brown clay and silt Top soil with little clay
1			1- 1.5' BGS; moist black ash; FILL
2			2.5' BGS; Onondaga Limestone was encountered Bottom of pit.
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

COMMENTS:

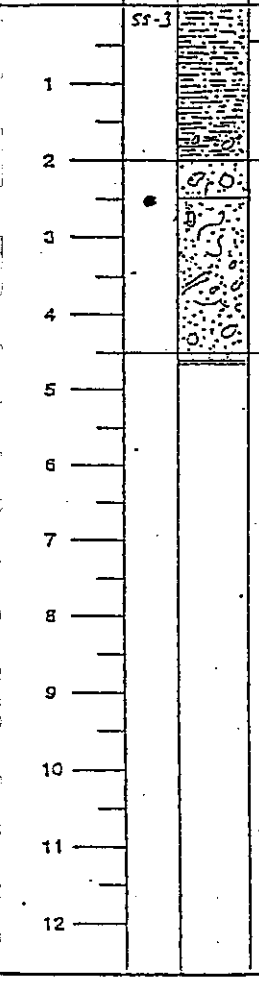
Groundwater was not encountered @ this location,
Bedrock was shallow.

Surface and subsurface samples were taken

TEST PIT LOG

PROJECT: Public School 89 Additions	SHEET: 1 OF 1
CLIENT: Buffalo Board of Education	JOB NUMBER:
CONTRACTOR:	LOCATION:
DATE STARTED: Feb. 12, 2001	GROUND ELEVATION:
DATE COMPLETED: Feb. 12, 2001	OPERATOR:
PIT NUMBER: TP-3	GEOLOGIST: Karen Wehn
	GROUND WATER:

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1	SS-3		0-.5- 2.0' below ground surface (BGS), moist dark brown (clay and silt) . Top soil w/ little clay
2			2.5' BGS; Moist black ash; FILL This layer was sampled.
3			2.5-4.5' BGS; FILL, soil
4			4.5' BGS; Onondaga Limestone Formation was encountered. Bottom of pit.
5			
6			
7			
8			
9			
10			
11			
12			



COMMENTS:

Groundwater was not encountered @ this location,

Surface sample was taken

TEST PIT LOG

PROJECT: Public School 89 Additions	SHEET: 1 OF 1
CLIENT: Buffalo Board of Education	JOB NUMBER:
CONTRACTOR:	LOCATION:
DATE STARTED: Feb. 12, 2001	GROUND ELEVATION:
DATE COMPLETED: Feb. 12, 2001	OPERATOR:
PIT NUMBER: TP-4	GEOLOGIST: Karen Wehn
	GROUND WATER:

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
	SS-4		
1			0 –1' below ground surface (BGS), moist dark brown (clay and silt). Top soil w/ little clay
2			1 – 2' BGS; Layer of black ash-FILL This layer was sampled.
	•		2 – 3' BGS; light brown soil (FILL) and some clay
3			3' BGS: Onondaga Limestone Formation was encountered. Bottom of pit.
4			
5			
6			
7			
8			
9			
10			
11			
12			

COMMENTS:

Groundwater was not encountered @ this location,

Surface sample was taken

TEST PIT LOG

OJECT: Public School 89 Additions	SHEET: 1 OF 1
CLIENT: Buffalo Board of Education	JOB NUMBER:
ONTRACTOR:	LOCATION:
TE STARTED: Feb. 12, 2001	GROUND ELEVATION:
DATE COMPLETED: Feb. 12, 2001	OPERATOR:
T NUMBER: TP-5	GEOLOGIST: Karen Wehn
	GROUND WATER:

EPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1	SS-5		0 –1.5" BGS; Top soil (moist, dark brown clay, silt)
2			1.5" BGS; Black ash
3			2 –2.5' BGS; light brown soil (FILL) 2.5' BGS; bedrock. Bottom of pit.
4			
5			
6			
7			
8			
9			
10			
11			
12			

OMMENTS:

Groundwater was not encountered @ this location,
Bedrock is shallow; possible ledge

No sample was taken

TEST PIT LOG

PROJECT: Public School 89 Additions	SHEET: 1 OF 1
CLIENT: Buffalo Board of Education	JOB NUMBER:
CONTRACTOR:	LOCATION:
DATE STARTED: Feb. 12, 2001	GROUND ELEVATION:
DATE COMPLETED: Feb. 12, 2001	OPERATOR:
PIT NUMBER: TP-6	GEOLOGIST: Karen Wehn
	GROUND WATER:

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1	SS-6		0-.5- 2.0' below ground surface (BGS), moist dark brown (clay and silt) . Top soil w/ little clay
2			2-4.6' BGS; Moist black soil-contains tiles, porcelain, pipe and wire fragments, wood, ash, cinders; FILL
3			This portion was sampled.
4			4.6' BGS; termination of test pit
5			
6			
7			
8			
9			
10			
11			
12			

COMMENTS:

Groundwater was not encountered @ this location,
No sample was taken

TEST PIT LOG

PROJECT: Public School 89 Additions	SHEET: 1 OF 1
CLIENT: Buffalo Board of Education	JOB NUMBER:
CONTRACTOR:	LOCATION:
DATE STARTED: Feb. 12, 2001	GROUND ELEVATION:
DATE COMPLETED: Feb. 12, 2001	OPERATOR:
PIT NUMBER: TP-7	GEOLOGIST: Karen Wehn
	GROUND WATER:

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
	SS-7		
1			0-.5- 1.0' below ground surface (BGS), moist dark brown (clay and silt) . Top soil w/ little clay
2			1-6.0' BGS; Moist black soil- contains tiles, porcelain, pipe and wire fragments, wood, ash, cinders; FILL This portion was sampled.
3			
4			
5			
6			6 – 8' BGS; ash
7			
8			8.0' BGS; termination of test pit
9			
10			
11			
12			

COMMENTS:

Groundwater was not encountered @ this location,

Surface and subsurface samples were taken.

TEST PIT LOG

PROJECT: Public School 89 Additions	SHEET: 1 OF 1
CLIENT: Buffalo Board of Education	JOB NUMBER:
CONTRACTOR:	LOCATION:
DATE STARTED: Feb. 12, 2001	GROUND ELEVATION:
DATE COMPLETED: Feb. 12, 2001	OPERATOR:
PIT NUMBER: TP-8	GEOLOGIST: Karen Wehn
	GROUND WATER:

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
	SS-5		
1			0-.5- 1.0' below ground surface (BGS), moist dark brown (clay and silt) . Top soil w/ little clay
2			1-6.0' BGS; Moist black Soil-contains tiles, porcelain, pipe and wire fragments, wood, ash, cinders; FILL
3			
4			
5			
6			6.0 – 7.5'BGS; ash. This portion was sampled.
7			
			7.5' BGS; termination of test pit
8			
9			
10			
11			
12			

COMMENTS:

Groundwater was not encountered @ this location,
Bedrock is shallow; possible ledge

Surface sample was taken

TEST PIT LOG

PROJECT: Public School 89 Additions	SHEET: 1 OF 1
CLIENT: Buffalo Board of Education	JOB NUMBER:
CONTRACTOR:	LOCATION:
DATE STARTED: Feb. 12, 2001	GROUND ELEVATION:
DATE COMPLETED: Feb. 12, 2001	OPERATOR:
PIT NUMBER: TP-9	GEOLOGIST: Karen Wehn
	GROUND WATER:

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
	SS-9		
1			0-.5- 1.0' below ground surface (BGS), moist dark brown (clay and silt). Top soil w/ little clay
2			1-4.0' BGS; Moist, light brown silt and clay
3			
4			4.0 –8.0'BGS; Moist black and gray ash. Contains wire, tiles, porcelain, pipe, wood, ash, cinders (FILL) This portion was sampled.
5			
6			
7			
8			8.0' BGS; Bottom of pit.
9			
10			
11			
12			

COMMENTS:

Groundwater was not encountered @ this location,

Surface sample was taken

TEST PIT LOG

PROJECT: Public School 89 Additions	SHEET: 1 OF 1
CLIENT: Buffalo Board of Education	JOB NUMBER:
CONTRACTOR:	LOCATION:
DATE STARTED: Feb. 12, 2001	GROUND ELEVATION:
DATE COMPLETED: Feb. 12, 2001	OPERATOR:
PIT NUMBER: TP-10	GEOLOGIST: Karen Wehn
	GROUND WATER:

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1	SS-10		0-0.5' below ground surface (BGS), moist dark brown (clay and silt). Top soil w/ little clay
2			0.5-3.0' BGS; Moist, light brown silt and f-c sand; little clay. Contains brick, wood and building fragments
3			3.0-3.5 BGS; Moist black ash
4			3.5 – 6.0' BGS; Ash encountered. Contains tiles, porcelain, pipe, wire fragments, wood, cinders; (FILL) This portion was sampled.
5			
6			6.0' BGS; bottom of pit
7			
8			
9			
10			
11			
12			

COMMENTS:

Groundwater was not encountered @ this location,

No Sample was taken.

TEST PIT LOG

PROJECT: Public School 89 Additions	SHEET: 1 OF 1
CLIENT: Buffalo Board of Education	JOB NUMBER:
CONTRACTOR:	LOCATION:
DATE STARTED: Feb. 12, 2001	GROUND ELEVATION:
DATE COMPLETED: Feb. 12, 2001	OPERATOR:
PIT NUMBER: TP-11	GEOLOGIST: Karen Wehn
	GROUND WATER:

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
			0-0.5' below ground surface (BGS), moist dark brown (clay and silt). Top soil w/ little clay
1			
2			0.5 – 4.0' BGS; (FILL) building debris, assorted rubble
3			
4			4.0 – 6.0' BGS; gray and white ash layer. Brick, wood and assorted building rubble was encountered.
5			
6			6.0' BGS; Termination of test pit
7			
8			
9			
10			
11			
12			

COMMENTS:

Groundwater was not encountered @ this location,

No sample was taken.

TEST PIT LOG

PROJECT: Public School 89 Additions		SHEET: 1 OF 1
CLIENT: Buffalo Board of Education	JOB NUMBER:	
CONTRACTOR:	LOCATION:	
DATE STARTED: Feb. 12, 2001	GROUND ELEVATION:	
DATE COMPLETED: Feb. 12, 2001	OPERATOR:	
PIT NUMBER: TP-12	GEOLOGIST: Karen Wehn	
	GROUND WATER:	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1	SS-01	G	0-3.5' below ground surface (BGS), moist dark brown (clay and silt). Top soil w/ little clay; brick fragments
2			
3			3.5 – 4.5' BGS; moist ash, silt and f-c sand, little clay. Contains brick, wood and building fragments. At 4.5' BGS, ash sample was collected
4			
5			4.5 – 6.0' BGS; Same as above
6			6.0' BGS; Termination of test pit.
7			
8			
9			
10			
11			
12			

COMMENTS:

Groundwater was not encountered @ this location,

Surface and sub-surface samples were collected.

TEST PIT LOG

PROJECT: Public School 89 Additions	SHEET: 1 OF 1
CLIENT: Buffalo Board of Education	JOB NUMBER:
CONTRACTOR:	LOCATION:
DATE STARTED: Feb. 12, 2001	GROUND ELEVATION:
DATE COMPLETED: Feb. 12, 2001	OPERATOR:
PIT NUMBER: TP-13	GEOLOGIST: Karen Wehn
	GROUND WATER:

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
			0-0.5' below ground surface (BGS), moist dark brown (clay and silt) . Top soil w/ little clay; brick fragments
1			0.5-2.5' BGS ; Moist, brown fill, silt and f-c sand; little clay. Contains brick, wood and building fragments
2			2.5'-3.4' BGS- black ash was encountered.
3			3.4-4.5' BGS; Moist gray ash
4			4.5' BGS: Termination of test pit
5			
6			
7			
8			
9			
10			
11			
12			

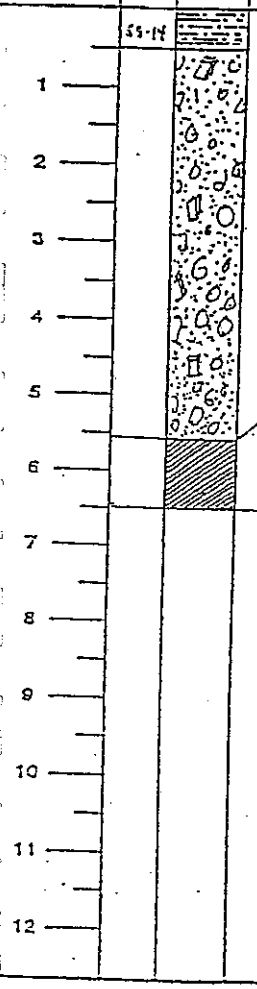
COMMENTS:

Groundwater was not encountered @ this location,

Surface and sub-surface samples were taken.

TEST PIT LOG

PROJECT: Public School 89 Additions	SHEET: 1 OF 1
CLIENT: Buffalo Board of Education	JOB NUMBER:
CONTRACTOR:	LOCATION:
DATE STARTED: Feb. 12, 2001	GROUND ELEVATION:
DATE COMPLETED: Feb. 12, 2001	OPERATOR:
PIT NUMBER: TP-14	GEOLOGIST: Karen Wehn
	GROUND WATER:



DESCRIPTION

0-0.5' below ground surface (BGS), moist dark brown (clay and silt). Top soil w/ little clay; brick fragments

0.5-5.6' BGS ; Moist, brown fill, silt and f-c sand; little clay. Contains brick, wood and building fragments.

5.6 – 6.5' BGS; Moist gray ash layer

6.5' BGS; Termination of test pit

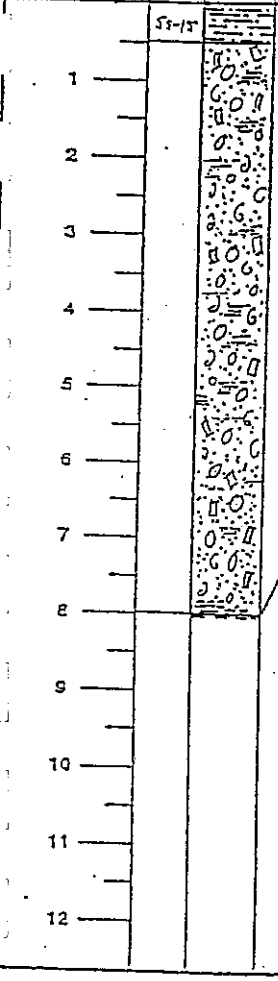
COMMENTS:

Groundwater was not encountered @ this location,

No samples were taken

TEST PIT LOG

PROJECT:	Public School 89 Additions	SHEET: 1 OF 1	
CLIENT:	Buffalo Board of Education	JOB NUMBER:	
CONTRACTOR:		LOCATION:	
DATE STARTED:	Feb. 12, 2001	GROUND ELEVATION:	
DATE COMPLETED:	Feb. 12, 2001	OPERATOR:	
PIT NUMBER:	TP-15	GEOLOGIST:	Karen Wehn
		GROUND WATER:	



DESCRIPTION

0-0.5' below ground surface (BGS), moist dark brown (clay and silt) . Top soil w/ little clay; brick fragments

0.5-8.0' BGS ; Moist, brown fill, silt and f-c sand; little clay. Contains brick, wood and building fragments. Gravel close to the surface. All FILL. Little or no ash here.

8.0' BGS; Natural f-c sand, silt and clay.
Bottom of pit @ 8.0' BGS

COMMENTS:

Groundwater was not encountered @ this location,

Surface sample was taken .

TEST PIT LOG

PROJECT: Public School 89 Additions	SHEET: 1 OF 1
CLIENT: Buffalo Board of Education	JOB NUMBER:
CONTRACTOR:	LOCATION:
DATE STARTED: Feb. 12, 2001	GROUND ELEVATION:
DATE COMPLETED: Feb. 12, 2001	OPERATOR:
PIT NUMBER: TP-16	GEOLOGIST: Karen Wehn
	GROUND WATER:

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
	S1-16		
1			0 – 2.0' below ground surface (BGS), moist dark brown (clay and silt). Top soil w/ little clay; brick fragments
2			2.0 – 4.0' BGS ; Moist, brown fill, silt and f-c sand; little clay. Contains brick, wood and building fragments.
3			No subsurface sample was taken.
4			4.0' BGS; Natural f-c sand, silt and clay. Bottom of pit
5			
6			
7			
8			
9			
10			
11			
12			

COMMENTS:

Groundwater was not encountered @ this location,
Surface sample was taken

TEST PIT LOG

PROJECT: Public School 89 Additions			SHEET: 1 OF 1
CLIENT: Buffalo Board of Education		JOB NUMBER:	
CONTRACTOR:		LOCATION:	
DATE STARTED: Feb. 12, 2001		GROUND ELEVATION:	
DATE COMPLETED: Feb. 12, 2001		OPERATOR:	
PIT NUMBER: TP-17		GEOLOGIST: Karen Wehn	
		GROUND WATER:	

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1	SS-17		0 – 0.2' below ground surface (BGS), moist dark brown (clay and silt) . Top soil w/ little clay; brick fragments
2			2.0 – 5.0' BGS; Moist, brown fill, silt and f-c sand; little clay. Contains brick, wood and building fragments.
3			
4			
5			5.0' BGS; Bedrock Bottom of pit @ 5.0' BGS
6			
7			
8			
9			
10			
11			
12			

COMMENTS:

Groundwater was not encountered @ this location,
No sample was taken

TEST PIT LOG

PROJECT: Public School 89 Additions	SHEET: 1 OF 1
CLIENT: Buffalo Board of Education	JOB NUMBER:
CONTRACTOR:	LOCATION:
DATE STARTED: Feb. 12, 2001	GROUND ELEVATION:
DATE COMPLETED: Feb. 12, 2001	OPERATOR:
PIT NUMBER: TP-18	GEOLOGIST: Karen Wehn
	GROUND WATER:

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1	S1-18		Only a surface sample was taken. No pit at this location.
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

COMMENTS:

TEST PIT LOG

PROJECT: Public School 89 Additions	SHEET: 1 OF 1
CLIENT: Buffalo Board of Education	JOB NUMBER:
CONTRACTOR:	LOCATION:
DATE STARTED: Feb. 12, 2001	GROUND ELEVATION:
DATE COMPLETED: Feb. 12, 2001	OPERATOR:
PIT NUMBER: TP-19	GEOLOGIST: Karen Wehn
	GROUND WATER:

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
	SS-19		
1			0-0.5' below ground surface (BGS), moist dark brown (clay and silt) . Top soil w/ little clay; brick fragments
2			0.5 – 4.0' BGS; (FILL) building debris, assorted rubble
3			
4			4.0 – 5.0' BGS; Moist gray ash, cinders, tar paper, brick, wood. (FILL) 1ppm over background reading for Hnu
5			5.0' BGS; Termination of test pit
6			
7			
8			
9			
10			
11			
12			

COMMENTS:

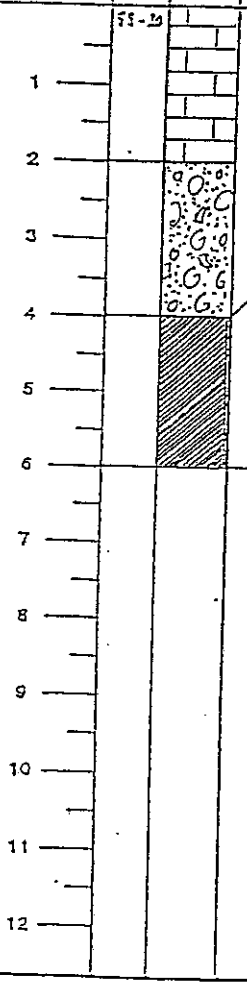
Groundwater was not encountered @ this location,

Surface and sub-surface samples were collected

TEST PIT LOG

PROJECT: Public School 89 Additions	SHEET: 1 OF 1
CLIENT: Buffalo Board of Education	JOB NUMBER:
CONTRACTOR:	LOCATION:
DATE STARTED: Feb. 12, 2001	GROUND ELEVATION:
DATE COMPLETED: Feb. 12, 2001	OPERATOR:
PIT NUMBER: TP-20	GEOLOGIST: Karen Wehn
	GROUND WATER:

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	DESCRIPTION
1			0 – 0.2' below ground surface (BGS), concrete; To side of concrete;
2			2.0 – 4.0' BGS; ; Moist, gray soil wood, black cinders. Contains brick, wood and building fragments. All FILL
3			4.0- 6.0'BGS; All, ash
4			
5			6.0' BGS;
6			
7			
8			
9			
10			
11			
12			



COMMENTS:

Groundwater was not encountered @ this location,
No sample was taken

URSF-096/1 OF 1/TPL/GCM

APPENDIX B
SITE HEALTH AND SAFETY PLAN REQUIREMENTS

SITE HEALTH AND SAFETY PLAN

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ATTACHMENTS

C1 COMMUNITY AIR MONITORING PLAN

SITE HEALTH AND SAFETY PLAN

1.0 SCOPE

This section specifies the minimum requirements for health, safety, and emergency response for the project. The Contractor shall develop and implement a written Site Health and Safety Plan (SHASP) which at a minimum meets the requirements of this item and complies with applicable Federal and State regulations. The SHASP shall be submitted for review to the Engineer before any onsite work can be initiated. The SHASP, complete with all comments addressed, will be made a part of the Contract Documents.

1.1 References

The Site Health and Safety Plan shall meet applicable requirements contained in the following publications.

- 29 CFR 1910, General Industry, Occupational Safety and Health Administration (OSHA) Safety and Health Standards.
- 29 CFR 1926, Construction Industry, OSHA Safety and Health Standards.
- USEPA Order 1440.2, Health and Safety Requirements for Employees Engaged in Field Activities, July 12, 1981.
- NIOSH/OSHA/USCG/USEPA, Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities, October 1985.
- Standard Operating Safety Guides, United States Environmental Protection Agency, Office of Emergency and Remedial Response, November 1984.

- "Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices." American Conference of Governmental Industrial Hygienists, Cincinnati, Ohio, Current Edition.

- "Guide to Occupational Exposure Values." American Conference of Governmental Industrial Hygienists, Cincinnati, Ohio, Current Edition.

- Department of Labor, Occupational Safety and Health Administration, 29 CFR, Part 1910, Air Contaminants; Final Rule, January 19, 1989.

- "Pocket Guide to Chemical Hazards" National Institute for Occupational Safety and Health and Occupational Safety and Health Administration, current edition.

1.2 Definitions

- Onsite Personnel: Onsite personnel shall include the Contractor, Subcontractor(s), the Owner and his representatives, and the local, state, and federal government representatives having jurisdiction over the work performed under this contract, as well as all employees/agents of these parties.

- Visitors: All personnel present on site not qualifying as Onsite Personnel.

- Health and Safety Manager: The Health and Safety Manager (HSM) must have a formal education and training in occupational health and safety with a minimum of three years experience in hazardous waste site operations. The HSM must have a working knowledge of State and Federal Occupational Safety and Health Regulations. He shall be responsible for the development, implementation, and oversight of the SHASP and shall provide necessary direction and supervision to the Site Health and Safety Officer. He shall also be responsible for site- specific training, review of air monitoring data, and review of any accident reports. The HSM shall be available during normal working hours.

- Site Health and Safety Officer: The Site Health and Safety Officer (SHSO) must have a minimum of two years of related experience. He must have a working knowledge of State and Federal Occupational Safety and Health Regulations and must have demonstrable experience in the proper use of air monitoring instrumentation used at the site. The SHSO shall be certified in CPR and first aid. The SHSO must be on site during active working hours. The responsibilities of the SHSO are as follows:

  a. Implement the SHASP on site
  b. Enforce day-to-day health and safety protocols in effect on site
  c. Require that all workers involved in intrusive activities on the site have had appropriate waste site worker training and medical examinations, and review and maintain training and medical certifications on site
  d. Require that all personnel entering the site understand the provisions of the SHASP
  e. Conduct daily health and safety inspections and prepare weekly reports
  f. Conduct periodic training sessions in proper use and maintenance of personal protective equipment and safety practices
  g. Check the condition of all emergency equipment weekly and its availability on a daily basis
  h. Conduct periodic emergency response drills
  i. Conduct daily health and safety meetings each morning
  j. Direct and advise Contractor personnel, visitors, and Subcontractor(s) on all aspects, especially changes, related to health and safety requirements at the site
  k. Conduct necessary health and safety monitoring
  l. Conduct air monitoring program
  m. Monitor site and perimeter conditions and determine all necessary changes in levels of personal protection and, if warranted, execute work stoppages
  n. Report changes in site conditions and changes in personal protection requirements to the Engineer
  o. Prepare accident/incident reports

p. Prepare and maintain all Field Activities Forms in an orderly fashion

- Monitoring: Monitoring includes the use of real-time direct reading field instruments to provide necessary information for the selection of proper personal protective equipment for onsite personnel and visitors and for the protection of general public health and the environment during the performance of the work on site.

- Medical Consultant: The Medical Consultant must be a physician that is certified in occupational medicine and familiar with potential site hazards of the project. The Medical Consultant shall be available to consult with local emergency medical services and will provide medical evaluations of personnel assigned to the project.

1.3 Site Health and Safety Plan Requirements

This contract will require work which may involve exposure to physical and chemical hazards. The Contractor shall ensure adequate protection for all onsite personnel and implement a complete Site Health and Safety Plan for all personnel working on or visiting the site. The Site Health and Safety Plan shall address, as a minimum, the following subject areas in accordance with 29 CFR, 1910.120:

- Health and safety organization (responsibilities, qualifications, and chain-of-command).

- A health and safety risk or hazard analysis for each site task and operation to be performed.

- Provisions for employee training to assure compliance with 1910.120(e).

- Personal protective equipment (PPE) to be used by employees for each of the site tasks and operations being conducted to eliminate potential exposures as required by the personal protective equipment program in 1910.120(g)(5).

- Medical surveillance requirements in accordance with 1910.120(f).

- Real-time air monitoring to identify and monitor exposures to onsite personnel and offsite receptors; personnel and environmental sampling techniques and instrumentation to be used.

- Site control measures in accordance with 1910.120(d).

- Personnel and equipment decontamination procedures in accordance with 1910.120(k).

- Standard Operating Safety Procedures, engineering controls, and work practices.

- An Emergency Response Plan meeting the requirements of 1910.120(l) for safe and effective responses to emergencies, including communications, emergency rescue, fire protection, ambulance service, first aid, spill/release response, PPE, and other equipment.

- First aid requirements.

- Confined space entry procedures meeting the requirements of 1910.146.

- A spill containment program meeting the requirements of 1910.120(j).

- Heat/cold stress monitoring.

- Logs, reports, and record keeping.

- Site description and contamination evaluation.

1.4 Submittals

- The Contractor's Site Health and Safety Plan (SHASP) submitted to the Engineer prior to the startup of work.

- Written certification of hazardous waste site worker training (initial and refresher), site-specific health and safety training, first aid training, and medical surveillance for all personnel participating in intrusive construction activities.

1.5 Compliance

- Consistent disregard for the provisions of the SHASP by the Contractor or his Subcontractor(s), or employees shall be deemed just and sufficient cause for stoppage of work. Such work stoppage shall not form the basis of claim for either extra payment or extension of time for the project completion.

- The Contractor's compliance with the minimum requirements in these specifications does not relieve the Contractor from the responsibility of implementing proper health and safety procedures under unforeseen conditions.

2.0 EXECUTION OF WORK

The Contractor shall: (a) develop and submit for review a Site Health and Safety Plan; (b) employ a Health and Safety Manager, Site Health and Safety Officer, and a Medical Consultant; and (c) conduct all necessary monitoring activities to protect his onsite personnel and others in the area.

2.1 Site Health and Safety Plan Implementation

The SHASP shall be developed and implemented by the Contractor's HSM. The requirements described herein shall be used as a minimum outline description of the SHASP. The SHASP shall be site-specific and incorporate an assessment of the hazards associated with the remediation work

to be performed under this Contract. The SHASP shall address potential hazards associated with the performance of work.

2.2 Site Health and Safety Plan Elements

2.2.1 Health and Safety Organization

The Contractor shall submit a health and safety organization chart naming key project personnel, defining their duties, responsibilities, and presenting a structure to implement the SHASP as well as address problems and take corrective actions. Key project personnel will at a minimum include the Contractor's Project Manager, Health and Safety Manager, Site Health and Safety Officer, and field team personnel.

2.2.2 Hazard Assessment

The purpose of the Hazard Assessment is to provide information necessary for selecting personal protective equipment, establishing air monitoring requirements, and determining health and safety procedures necessary to protect all onsite personnel, the environment, and the public.

- Chemical Hazards: A qualitative evaluation of chemical hazards shall be based on the following:

  a. Nature of potential contaminants
  b. Locations of potential contaminants at the project site
  c. Levels of contaminants
  d. Potential for personnel/public exposure during various site activities
  e. Effects of potential contaminants on human health

- Physical Hazards: The Contractor shall assess the potential for physical hazards affecting personnel during the performance of work.

2.2.3 Training

- General: The Contractor shall certify that all personnel assigned to or regularly entering areas of intrusive activity beyond the Support Zone for the purpose of performing or supervising work, for health, safety, security, or administrative purposes, for maintenance, or for any other site-related function, have received appropriate health and safety training in accordance with 29 CFR 1910.120 (e). Training shall consist of a minimum of 40 hours initial off-site training and three (3) days onsite experience. Twenty-four (24) hours of initial off-site training is acceptable for workers on site only occasionally for a specific limited task and who are unlikely to be exposed over Permissible Exposure Limits (PELs). In addition, the Contractor's supervisory personnel shall have a minimum of eight (8) hours additional specialized training on managing hazardous waste operations. Documentation of all such training shall be submitted to the Engineer before any employees will be allowed beyond the Support Zone.

- Site-Specific Training: All personnel assigned to or entering active intrusive work areas of the site shall complete one site-specific training session to guarantee that all such personnel are familiar with the use of health and safety, respiratory, and protective equipment and with the safety and security procedures required for the site. The initial site-specific training session shall be conducted by the HSM. The Contractor shall notify the Engineer at least five (5) days prior to the initial site-specific training session so that the Owner and Government personnel involved in the project may attend. Follow-up site-specific training sessions for new personnel or visitors shall be conducted by the SHSO. The Contractor shall provide site-specific training to all Contractor's and Subcontractor's employees and Government representatives consistent with the requirements of OSHA Standard 29 CFR 1910.120, prior to the commencement of work. The site-specific training program shall address all elements of the SHASP.

- Records: The Contractor shall keep records of all training periods, documenting date, attendance, and topics covered. Additionally, the Contractor shall be

responsible for, and shall guarantee that, only personnel successfully completing the required training are permitted to enter active intrusive work areas of the site.

2.2.4 Medical Surveillance

The Contractor shall provide the services of a Medical Consultant who is a physician board certified in occupational medicine to perform the medical examinations for all employees who perform intrusive work in the Exclusion Zone, in accordance with 29 CFR 1910.120(f). The Medical Consultant shall review the medical examination results to certify if Contractor's personnel are fit to perform assigned tasks using personal protective equipment. The medical surveillance protocol to be implemented is the Medical Consultant's responsibility but shall meet the requirements of USEPA, OSHA Standards 29 CFR 1910.134, and ANSI Z88.2-1980. The components of the Contractor's medical examination shall be included in the SHASP. The Contractor shall maintain and preserve medical records on workers permitted to enter beyond the Support Zone for 30 years after they leave employment as per 29 CFR Part 1910.20.

Onsite personnel entering the Exclusion Zone, and not employed by the Contractor or his Subcontractor shall be required to sign a declaration that he/she has undergone a physical examination of the same or similar scope and has been certified fit to enter contaminated areas requiring personal protective equipment necessary for this project.

Lost-Time Injuries: Any employee who develops a lost-time injury or illness during the period of the contract as a result of work in the Exclusion Zone must be evaluated by the Medical Consultant. The employee's supervisor shall be provided with a written statement indicating the employee's fitness (ability to return to work), signed by the Medical Consultant prior to allowing the employee to re-enter the Exclusion Zone. A copy of this written statement shall be submitted to the Engineer. An accident report describing the events leading up to and causing the injury or illness shall be submitted to the Engineer.

2.3 Site Control

The Contractor shall establish a system to control access to the site. This system shall be incorporated into the layout of the site into work zones. The work zones shall include the Support Zone, Contamination Reduction Zones, and Exclusion Zones (active intrusive work areas). The system shall assure that only authorized persons enter active intrusive work areas.

- The Contractor shall restrict access and mark the outer limits of the active intrusive work areas with high visibility barrier tape or flagging and signs warning unauthorized personnel not to enter.

- If construction is concurrent, the Contractor will be responsible for establishing a means of communication between the active work areas. The Contractor will also be responsible for establishing a means of communication between workers within the same work area.

- Site security shall be established and maintained.

2.4 Standard Safety Practices

The Contractor shall develop, implement, and enforce safe work practices and engineering safeguards for the work covered under these specifications. General site health and safety directives for conducting onsite work which shall be included in the SHASP and enforced during site activities include but are not limited to:

- Eating and smoking shall be prohibited except in designated areas outside the Exclusion Zone and Contamination Reduction Zone as identified by the SHSO.

- Before initiating any non-routine operation in any restricted area, all personnel shall consult the SHSO about health and safety requirements for the operations.

- A buddy system shall be implemented for all activities involving the use of respiratory protective equipment.

- The Contractor shall implement protocols for loading and unloading material on site. These protocols shall include DOT requirements covering such items as grounding, placarding, driver qualifications, and the use of wheel locks. Operation of other heavy construction equipment shall be in accordance with OSHA Standard 29 CFR Part 1926.

2.5 Personal Protective Equipment

The Contractor shall provide all onsite personnel with appropriate personal protective equipment and protective clothing as required by the SHASP. The Contractor shall ensure that all safety equipment and protective clothing is kept clean and well-maintained.

Selection of personal protective equipment is based on the potential toxicity or physical dangers associated with hazardous materials and possible routes of exposure. Based on known or anticipated hazards, personnel will be required to wear a minimum of Level D protection. The adequacy of personal protection shall be confirmed through air monitoring conducted by the Contractor's Site Health and Safety Officer (SHSO). If the need to upgrade the level of personal protection arises, the SHSO will provide his personnel with the appropriate equipment. PPE selection, evaluation, and re-evaluation is an on-going process directly related to the change in conditions as encountered at the site.

Various levels of PPE must be made available on site during construction activities. It is anticipated that Level D and Level D-Modified PPE will be required.

2.6 Decontamination

- Equipment Decontamination: The Contractor shall construct a decontamination pad within the Contamination Reduction Zone(s) for removing soil from all vehicles and equipment leaving the exclusion zone(s). The decontamination pad(s) shall include

a high-pressure water wash area for equipment and vehicles. A designated clean area shall be established within the Contamination Reduction Zone(s) for performing equipment maintenance.

Any item taken into the Exclusion Zone must be assumed to be contaminated and must be carefully inspected and/or decontaminated before the item leaves the area. All contaminated vehicles, equipment, and materials shall be cleaned and decontaminated to the satisfaction of the Engineer prior to leaving the area. All construction material shall be handled and brought on site in such a way as to minimize the potential for contaminants being carried off site. Separate, clearly-marked parking and delivery areas shall be established.

- Water used for personnel and equipment decontamination will be collected and pumped into a recharge trench which will allow the water to seep into the ground within the limits of the final cover system.

- Personnel Decontamination: Personnel shall be required to go through a thorough decontamination procedure in the Contamination Reduction Zone prior to entering the Support Zone. Decontamination shall consist of soap and water washing of worker's hands, and face, and wet wiping of worker's boots or shoes.

2.7 Air Monitoring

The Contractor shall perform continuous real-time monitoring during active work at each work area and at site perimeter stations. Real-time organic vapor monitoring shall be conducted using Photoionization and/or Flame Ionization Detectors at each active work area within the breathing zone. All real-time monitoring shall be run continuously during active work. Real-time monitoring for combustibles, oxygen, hydrogen sulfide, and particulates shall also be run continuously along with the organic vapor monitoring. In addition, real-time, direct reading monitors shall be used at least hourly at one upwind and three downwind perimeter stations to monitor releases resulting from onsite activity and to provide information necessary to determine work rates and the implementation of

control measures to prevent unacceptable contaminations from leaving the site. Results of the real-time monitoring shall be logged and reported to the Engineer daily.

3.0 EMERGENCY EQUIPMENT AND FIRST AID REQUIREMENTS

- Fire Extinguishers: The type and number of fire extinguishers shall be determined by the Contractor. Inspection and maintenance shall be the responsibility of the Contractor. At least one 20-lb type ABC fire extinguisher shall be located at each entrance to each active work area with additional units located in onsite offices, and on each piece of heavy equipment. These fire extinguishers shall be utilized for putting out equipment or personnel fires and not to be employed as sole fire fighting equipment for large site fire.

- Emergency Eye Wash: Portable emergency eye wash units shall be provided by the Contractor. These portable units must be protected from freezing and shall be located close to the work area and at each equipment decontamination station. The emergency eye wash units shall meet the requirements specified in ANSI Z358.1-1981.

- First Aid Kits: The size and number of kits shall be sufficient for the maximum number of people on site at one time. The kits shall be equipped as per the recommendations of the Medical Consultant and shall be able to provide stabilization for patients requiring offsite treatment and general first aid. The first aid kit locations shall be specially marked and provided with adequate water and other supplies necessary to cleanse and decontaminate burns, wounds, or lesions.

- Onsite Emergency Vehicle: The Contractor shall provide at all times while onsite work proceeds, a designated emergency vehicle which will be used to transport injured personnel to the hospital for treatment. This vehicle shall contain a map showing the route and written directions to the hospital.

4.0 EMERGENCY RESPONSE PLAN AND PROCEDURES

The Contractor shall develop an Emergency Response Plan which shall be submitted as part of the SHASP. This plan shall be designed to delineate contingency procedures to be used in the event of injuries to employees or other site-related accidents. The Emergency Response Plan shall include the procedures to be used to mitigate the harmful effects of chemical exposure as well as rescue and first aid services to be rendered. The Contractor shall coordinate with local agencies (fire department, police department, emergency medical services, etc.) prior to beginning work.

Emergency response agencies and current telephone numbers shall be included in the SHASP.

4.1 Contingency Procedures

The Contractor shall include in the SHASP a set of contingency procedures. At a minimum, these procedures shall describe:

a) The actions that the Contractor will take in response to a worker injury or illness, a heavy equipment related accidents, fires, explosions, or any spill of contaminated materials;

b) The name, address, and phone number (home and office) of the person(s) designated by the Contractor to act as emergency coordinator;

c) A list of all emergency equipment at the site;

d) Fires: The Contractor shall develop procedures for responding to both small and large fires which shall address the following minimum actions:

- Evacuation procedures.
- Extinguishing methods.

- Notification of emergency response services, Engineer, and Owner.

e) Escape routes which will be used in the event of a sudden release, explosion, fire, etc.;

f) A map showing the route to the nearest hospital;

The Contractor shall prepare a Contingency Plan designed to prevent the spread of contaminants to adjacent areas. The plan shall incorporate a comprehensive air monitoring program which will follow NYSDEC and NYSDOH guidelines for a Community Air Monitoring Plan and shall meet the minimum requirements of the Project Contingency Plan. The Community Air Monitoring Plan particulate limits shall be modified for this project as follows:

- An action level of 150 micrograms per cubic meter (integrated over a maximum period of 15 minutes) shall be established.

- If the site particulate levels exceed the 150 micrograms/cubic meter limit, then particulate measurements upwind of the site will be recorded. If the waste site level exceeds background by more than 100 micrograms/cubic meter, then remedial site activities must be performed.

The NYSDEC and NYSDOH Community Air Monitoring Plan has been provided as an attachment to this section.

The Contractor shall promptly report in writing to the Engineer and Owner all accidents arising out of, or in connection with, the performance of the work, whether on or adjacent to the site, which caused death, personal injury, or property damage, giving full details and statements of witnesses.

4.2 Accident Investigation and Reporting

The Contractor shall develop a system, including forms, on which the pertinent details about accidents, damage, existing hazards, and actions taken to alleviate problems can be listed . These forms shall be appended to the Contractor's SHASP.

5.0 HEAT/COLD STRESS MONITORING

As a minimum, the Contractor shall establish work/rest schedules based on ambient conditions and the level of protection being utilized and identify necessary physiological monitoring requirements.

Procedures to monitor, avoid, and treat heat/cold stress shall be established in accordance with "Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities," NIOSH/OSHA/USCG/EPA, October 1985; U.S. Dept. of Health and Human Services, Public Health Service, Centers for Disease Control, National Institute for Occupational Safety Health; Publication No. 85-115.

Field implementation of the Heat/Cold Stress Prevention Plan shall be performed by a person with current first aid/CPR certification who is trained to recognize symptoms of heat and cold stress.

6.0 SPILL CONTROL PLAN

The Contractor shall provide spill control measures; including methods, means, and facilities required to prevent contamination by site wastes, contaminated groundwater, equipment fuels, oils, and greases, and any other potentially hazardous materials. If a spill occurs, the following actions, at a minimum, shall be taken by the Contractor.

a. Notify the Owner and Engineer immediately.

b. Take immediate measures to control and contain the spill within the site boundaries.

c. Keep unnecessary people away, isolate the hazardous area, and deny entry.

d. Stay upwind; keep out of low lying areas.

e. Allow no flares, smoking, or flames in hazard area.

f. For liquids, keep combustibles away from the spilled material.

7.0 DOCUMENTATION

7.1 Logs, Reports, and Recordkeeping

The Contractor shall maintain logs and reports covering the implementation of the SHASP. The format shall be developed by the Contractor to include Daily Safety Logs, Air Monitoring Logs, and a Close-Out Safety Report. These logs and reports shall be appended to the Contractor's SHASP.

7.2 Daily Safety Logs

Daily Safety Logs shall be completed by the SHSO and submitted to the Engineer on a daily basis. These logs shall include:

a. Date.

b. Work area(s) checked.

c. Employees present in work areas.

d. Equipment being utilized by employees.

e. Protective clothing being worn by employees.

f. Protective devices being used by employees.

g. Accidents or breaches of procedure.

7.3 Air Monitoring Logs

Air Monitoring Logs shall be completed by the SHSO and submitted to the Engineer on a daily basis. These logs shall include:

a. Date of report.

b. Equipment utilized for air monitoring.

c. Real-time air monitoring readings from each work location.

d. Calibration records.

e. Signature of individual taking readings.

f. Specific locations of real-time readings.

g. Exact time monitoring was conducted.

h. Meteorological conditions.

i. Any required equipment repair.

7.4 Close-out Safety Report

At the completion of the work, the Contractor shall submit a Close-out Safety Report. The report shall be signed and dated by the Site Health and Safety Officer and submitted to the Engineer. The report shall include procedures and techniques used to decontaminate equipment, vehicles, and decontamination facilities. The report shall include a summary of safety aspects of the entire project.

8.0 COMMUNICATIONS

A hardline or cellular telephone communications system shall be established by the Contractor. Two way radios shall be utilized for onsite communication. A map giving directions to the nearest hospital and a list of emergency numbers, including the Owner, Engineer, police, fire, ambulance, hospital, and the NYSDEC shall be prominently posted near the telephone.

9.0 POSTED REGULATIONS

The Contractor shall develop a series of posted regulations which shall address onsite protocols regarding use of personal protective equipment, personal hygiene, and provisions for smoking and eating on the site.

These protocols shall be posted at various locations on site and shall be reviewed with the Contractor's personnel.

Community Air Monitoring Plan
(Ground Intrusive Activities)

Real-time air monitoring, for volatile compounds and particulate levels at the perimeter of the work area is necessary. The plan must include the following:

- Volatile organic compounds must be monitored at the downwind perimeter of the work area on a continuous basis. If total organic vapor levels exceed 5 ppm above background, work activities must be halted and monitoring continued under the provisions of a Vapor Emission Response Plan. All readings must be recorded and be available for State (DEC & DOH) personnel to review.

- Particulates should be continuously monitored upwind, downwind and within the work area at temporary particulate monitoring stations. If the downwind particulate level is 100* $\mu g/m^3$ greater than the upwind particulate level, then dust suppression techniques must be employed. All readings must be recorded and be available for State (DEC & DOH) personnel to review.

(*See Section 4.1 for revised particulate requirements - a level of 150 $\mu g/m^3$ is normally specified)

<u>Vapor Emission Response Plan</u>

If the ambient air concentration of organic vapors exceeds 5 ppm above background at the perimeter of the work area, activities will be halted and monitoring continued. If the organic vapor level decreases below 5 ppm above background, work activities can resume. If the organic vapor levels are greater than 5 ppm over background but less than 25 ppm over background at the perimeter of the work area, activities can resume provided:

- The organic vapor level 200 ft. downwind of the work area or half the distance to the nearest residential or commercial structure, whichever is less, is below 5 ppm over background.

If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown. When work shutdown occurs, downwind air monitoring as directed by the Safety

Officer will be implemented to ensure that vapor emission does not impact the nearest residential or commercial structure at levels exceeding those specified in the Major Vapor Emission section.

Major Vapor Emission

If any organic levels greater than 5 ppm over background are identified 200 feet downwind from the work area or half the distance to the nearest residential or commercial property, whichever is less, all work activities must be halted.

If, following the cessation of the work activities, or as the result of an emergency, organic levels persist above 5 ppm above background 200 feet downwind or half the distance to the nearest residential or commercial property from the work area, then the air quality must be monitored within 20 feet of the perimeter of the nearest residential or commercial structure (20 Foot Zone).

If efforts to abate the emission source are unsuccessful and if the following levels persist for more than 30 minutes in the 20-Foot Zones, then the Major Vapor Emission Response Plan shall automatically be placed into effect;

- if organic vapor levels are approaching 5 ppm above background.

However, the Major Vapor Emission Response Plan shall be immediately placed into effect if organic vapor levels are greater than 10 ppm above background.

Major Vapor Emission Response Plan

Upon activation, the following activities will be undertaken:

1. All Emergency Response Contacts as listed in the Health and Safety Plan of the Work Plan will go into effect.
2. The local police authorities will immediately be contacted by the Safety Officer and advised of the situation.

3. Frequent air monitoring will be conducted at 30 minutes intervals within the 20 Foot Zone. If two successive readings below action levels are measured, air monitoring may be halted or modified by the Safety Officer.