

Appendix E

Geotechnical Reports



E1 Geotechnical Study for the Pumpkin Patch Site



**EIR Level Geotechnical Study
Proposed Wetlands Restoration and
Oil Consolidation Project
Pumpkin Patch Site
6701 East Pacific Coast Highway
Studebaker and Pacific Coast Highway
City of Long Beach, California**

**PN 11038-03
May 9, 2016**



May 9, 2016

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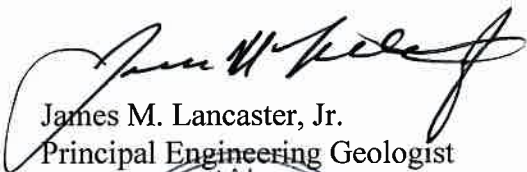
Subject: EIR Level Geotechnical Study, Proposed Wetlands Restoration and Oil Consolidation Project, Pumpkin Patch Site, 6701 East Pacific Coast Highway, Studebaker and Pacific Coast Highway, City of Long Beach, California.

In accordance with your request and authorization, Kling Consulting Group has performed an EIR level geotechnical study for the "Pumpkin Patch" site in the City of Long Beach, California. Our study included review of relevant published geologic and geotechnical literature, a review of past geotechnical site exploration, a brief reconnaissance of the site and a review of the current proposed land use.

We appreciate this opportunity to be of service and to work with you on this project. Should you have any questions regarding this report, please do not hesitate to call.

Respectfully,

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1.0 INTRODUCTION

1.1 Purpose and Scope of Work

Our study was conducted to provide an evaluation of the subject site from a geologic and geotechnical EIR perspective. It is our understanding that the subject “Pumpkin Patch” site is part of an overall Proposed Wetlands Restoration and Oil Production Project. Our conclusions are based on relevant published geologic and geotechnical literature, a review of past geotechnical site explorations, a recent brief site visit to the site and a review of the current proposed land use for the site.

1.2 Site Location and Past Land Use

The subject “Pumpkin Patch” site is located at 6701 East Pacific Coast Highway at the southeast corner of the intersection of Pacific Coast Highway and Studebaker Road in the City of Long Beach, California (See Figure 1). The subject site is northeast of Alamitos Bay and the Naples area of Long Beach and northwest of the San Gabriel River outflow channel. The site consists of a generally flat lying rectangular parcel of land of approximately 7 acres in area with a general elevation of about 18 feet above mean sea level. Vegetation is generally sparse with drainage flow generally to the northeast.

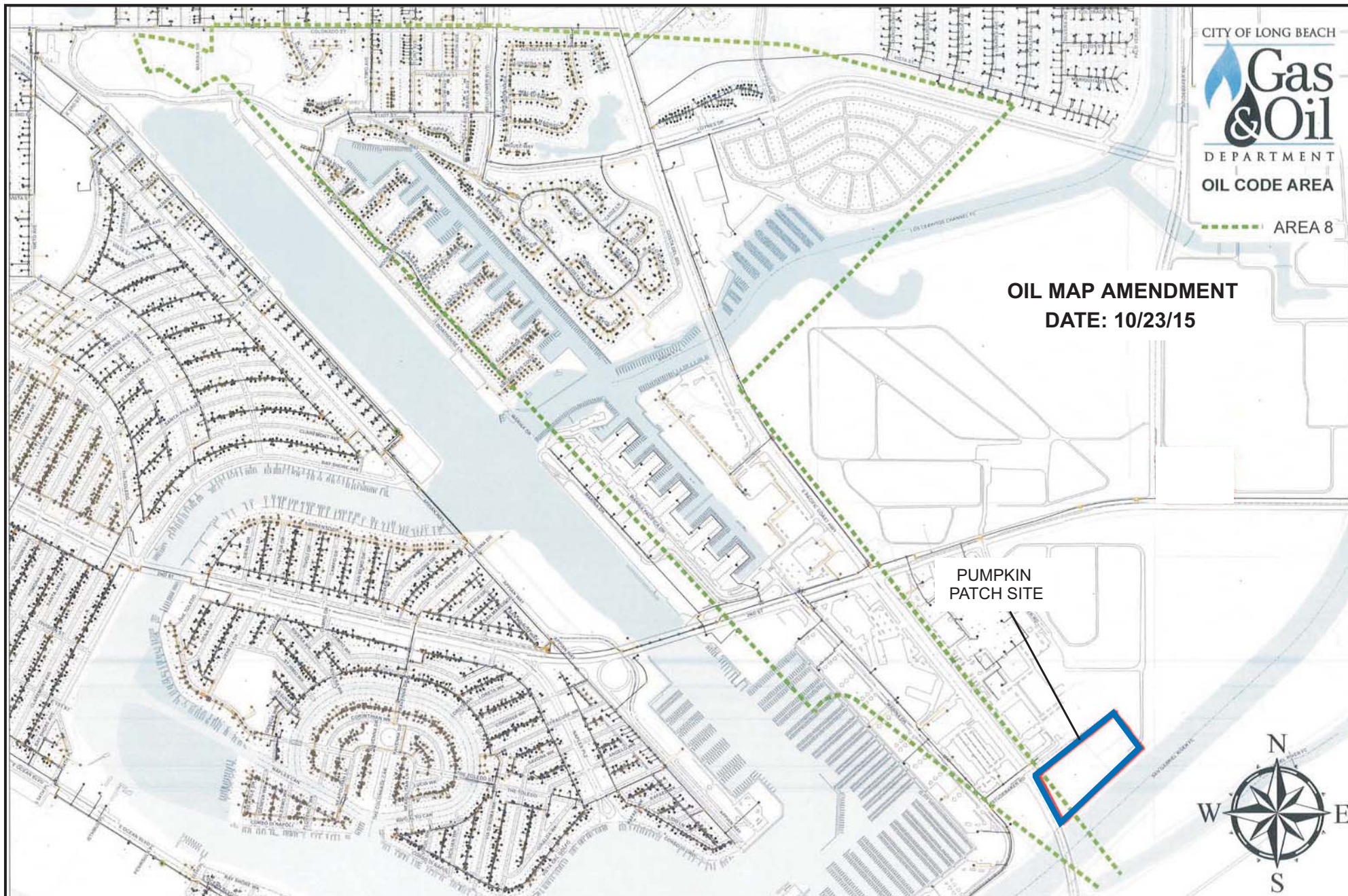
It is our understanding that the site was used as a sanitary landfill in the early 1960s for non-water soluble, non-decomposable inert waste and ordinary household refuse. The disposal of liquids, semi-liquids and hazardous waste was not allowed to be deposited at the site. Other previous uses of the land included holiday commercial activities including Christmas carnivals and tree sales and Pa’s Pumpkin Patch in October.

The subject site is at the southern end of a large oil field area. A single closed/idle oil well is the only indication that the site has been used for oil field production or activity.

1.3 Proposed Current Land Use

It is our understanding that the proposed site will be part of an overall Proposed Wetlands Restoration and Oil Consolidation Project consisting of four sites: the Synergy Oil Field Site, the “Pumpkin Patch” Site, the Los Cerritos Wetlands Authority (LCWA) Site, and the 33-acre City Marketplace Marsh (City Property) Site. The Synergy Oil Field Site is located at 6433 East 2nd Street between Pacific Coast Highway to the west, the Los Cerritos Channel to the north, Studebaker Road to the east, and 2nd Street to the south. The “Pumpkin Patch” Site is located at 6701 East Pacific Coast Highway at the northeast corner of the intersection with the San Gabriel Channel. The LCWA Site is located at the northeast corner of the intersection of Studebaker Road and Westminster Boulevard. The City Property Site is located between 2nd Street to the north and the San Gabriel River to the south.

In order to facilitate the restoration of the approximately southerly 72 acres on the Synergy Oil Field and construction of the public access improvements, the warehouse structures



Reference: Gas & Oil Dept., Oil Code Area Map,
 City of Long Beach, Amendment Date 10/23/15.



Site Location Map
 Pumpkin Patch
 Long Beach, California

Figure: 1
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currently on the Synergy Oil Field will be removed and a portion of the oil production activities currently being conducted at the Synergy Oil Field and the City Property Site will be relocated to the 7 acre “Pumpkin Patch” site. The office uses currently occupying the Bixby building on the Synergy Oil Field site would be relocated to a new approximately 5,200 square feet (sf), two-story office building constructed on the Pumpkin Patch site. Other proposed site development on the Pumpkin Patch Site includes an approximately 9,750 sf of storage/warehouse, parking for 47 cars, drilling of up to fifty (50) new wells (both oil production and water injection wells) and associated production facilities. The height of the office building is 35 feet and the storage/warehouse is 22 feet.

In addition to the 50 wells, two tanks will be constructed on the site: a 3,000 barrel tank for storing “wet oil” that is 30 feet in diameter and 24 feet high; and a 2,000 barrel “skim oil” tank that is 24 feet in diameter and 24 feet high. There is an existing oil well on the Pumpkin Patch site which will be used on a temporary basis as a test well to confirm the feasibility of oil production operations on Pumpkin Patch.

A 22-foot high screen wall will be built on the perimeter of the Pumpkin Patch site. Vehicular access to the site will be from Studebaker Road. The structures will be set back 30 feet from Pacific Coast Highway and perimeter landscaping will be provided along Studebaker, Pacific Coast Highway and the San Gabriel River Channel.

Although the Pumpkin Patch site is approximately 7 acres in size, it is our understanding that the oil production operations will be located on 5 acres of the site closest to Pacific Coast Highway. The northeasterly 2-acre portion of the site will be retained as open space and used to provide a 100-foot buffer from the coastal wetland habitat area at the eastern edge of the site.

1.4 Geologic and Geotechnical Assessments

Our review of documents associated with the site did not reveal specific geologic or geotechnical documents for the subject site. Studies by Moore and Tabor and the IT Corporation were completed in 1986 and 1987 to evaluate the closed sanitary landfill. The IT report indicated that 13 hollow stem auger borings were excavated to sample and evaluate the contents, consistency and extent of the landfill materials.

In January of 2012 our firm excavated four (4) hollow stem auger borings to depths of 24 to 39.5 feet. In addition, three (3) Cone Penetration Test borings were completed to 75 feet in depth. These excavations were completed to help refine the extent of the landfill area and evaluated liquefaction and potential settlement scenarios.

The site exploration and boring logs are provided on Figure 2 and in Appendix B, respectively.



Geotechnical Legend

- ⊕ B-4 Approximate Location of Hollow Stem Boring by KCG, 2011
- △ C-3 Approximate Location of Cone Penetration Test by KCG, 2011
- IT-9 Approximate Location of Boring by IT Corp., 1987
- MW-2A Approximate Location of Monitoring Well by IT Corp., 1987



Not to Scale

2.0 GEOLOGIC CONDITIONS

2.1 Geologic Setting

The project is located within the United States Geological Survey (USGS) Long Beach 7.5-minute quadrangle. The site is within a portion of the Los Angeles Basin that is comprised of a low alluvial floodplain. Past research suggests that over the past 20,000 years, the Rio Hondo, San Gabriel and Santa Ana rivers have moved back and forth across the coastal flood plains in Los Angeles and Orange County depositing the recent alluvial materials observed today. The coastal portion of the floodplain is bound by a line of elongated folded low hills and faults. This portion of the basin is dominated by the northwest-trending Newport-Inglewood Structural Zone.

The soil underlying the project site is characterized by predominately younger alluvial deposits and artificial fill associated with past land use. Younger alluvial deposits consist of Holocene alluvial silty sand and sandy silt, sand and some clayey silt. Based on the IT report the trash area was overlain by approximately 3 to 16 feet of fill materials. The upper fill materials overlying the landfill materials appear to have been from the local materials removed to create the space for refuse and consist of similar materials to the younger alluvium.

2.2 Geologic/Geotechnical Hazards

Our hazard evaluation included an evaluation of expansive soils, groundwater, faulting, seismicity, landslides, liquefaction and settlement, slope stability, seismically induced landsliding, seismically induced settlement, lateral spreading, and subsidence.

2.2.1 Expansive Soils

The encountered onsite alluvial materials are considered to have “low” to “moderate” expansion potential. Expansive soils are subject to volume changes from changes in moisture content: swelling with increases in moisture; shrinkage with decreases in moisture. Based on visual observation of the site it appears that minor amounts of fine grained materials are interspersed throughout the alluvial soil. This creates the possibility for soils with higher expansion potential to exist near the surface due to mixing of soils during grading.

2.2.2 Groundwater

The subject site is located near the Pacific Ocean and the San Gabriel River outflow. The reference reports indicate that the groundwater level is between 11 and 15 feet below the ground surface. Our more recent borings from 2012 indicate that the groundwater is at a depth of approximately 18 feet below the ground surface.

2.2.3 Faulting

Southern California is a tectonically active region. A fault is defined as a fracture within rock upon which there has been an observable amount of displacement. Fracturing or jointing is defined as a break within the rock structure that has not experienced displacement. Faulting can include major sutures within the earth's crust that can produce earthquakes to smaller features that have experienced sympathetic movement due to movement on major faults, to joints and fractures that have not experienced displacement.

As a result of damage due to the 1971 San Fernando earthquake, the State of California enacted the Alquist-Priolo Act. The Act required the State Geologist to map known faults and determine relative activity of the fault. As such, the California Geologic Survey has created definitions for active, potentially active and inactive fault zones. An **active fault** is defined as a well-defined fault that has exhibited surface displacement during the Holocene (recent) time (approximately the last 11,000 years).

A **potentially active** fault is defined as having a history of movement within the Pleistocene time (between 11,000 to 1.6 million years ago). An **inactive** fault is defined as any fault that has not experienced movement in the last 1.6 million years.

The project site is located in the Los Alamitos 7.5-minute quadrangle Special Studies Zone (1986). Although the site is not within a Special Studies zone requiring evaluation for faulting, it is approximately 1,000 feet southwest of the zone for the Newport-Inglewood fault and as such subject to seismic shaking. The attached Figure 4 illustrates the proximity of the site to the Newport-Inglewood fault system.

The northwest-trending Newport-Inglewood Fault Zone dominates the geologic structure of the coast line from Newport Beach to above the Long Beach area capable of a M7.4 earthquake. The fault is characterized by a chain of right lateral faults including the Cherry Hill fault, the Northeast Flank fault, and the Reservoir Hill fault. As a result of the fault movement in the area a number of elongated hills are present in the area including the Dominguez Hills and Signal Hill. The March 11, 1933 M6.4 "Long Beach" earthquake is believed to have occurred along the Newport-Inglewood fault offshore from Huntington Beach.

2.2.4 Seismicity

The USGS estimates that the peak horizontal ground acceleration (PGA_M) is 0.604g. Presented below are the site seismic parameters utilizing generic geologic, seismic and geotechnical data gathered for the site. All structures should be designed for earthquake induced strong ground motions in accordance with the 2013 CBC procedures utilizing the following parameters:

Table 1: Seismic Design Parameters	
Site Class (Soil Profile)	D
Latitude, Longitude	33.7538, -118.1059
Short Period Spectral Acceleration, S_s :	1.566g
1-Second Period Spectral Acceleration, S_1 :	0.586g
Site Coefficient, F_a :	1.0
Site Coefficient, F_v :	1.5
Maximum Considered Earthquake Spectral Response Acceleration, S_{MS} :	1.566g
Maximum Considered Earthquake Spectral Response Acceleration, S_{M1} :	0.879g
Design Spectral Response Acceleration, S_{DS} :	1.044g
Design Spectral Response Acceleration, S_{D1} :	0.586g
Occupancy Category	II
Seismic Design Category	D

2.2.5 Landslides

Based on a review of aerial photographs and available geotechnical reports, and topographic conditions no landslides are present at the property or at a location that could impact the subject site.

2.2.6 Liquefaction and Settlement

As part of the State of California Seismic Hazard Mapping program, the State of California created seismic hazard maps to identify liquefaction hazards on an aerial basis. The project site is located in the Los Alamitos 7.5-minute quadrangle Seismic Hazard Zone (1999). The site is within an area that requires a liquefaction evaluation. The associated Open File report for the Los Alamitos quadrangle, Open File Report 019 was published in 1998.

The term liquefaction refers to a phenomenon that occurs when saturated, loose granular soils experience a temporary loss of strength when subjected to seismic ground vibrations. This loss of strength occurs when an increase of water pressure within the soil matrix exceeds the soil overburden pressure, and therefore liquefies the soil matrix. For liquefaction to occur, three conditions are required:

- Ground shaking of significant magnitude and duration
- Groundwater conditions sufficient to create saturated soil conditions
- Loose cohesionless soils.

Our liquefaction evaluation indicates that approximately 1.3 to 2.7 inches of seismic settlement would occur at the site during a Maximum Credible Earthquake of 7.0 magnitude utilizing a peak ground acceleration PGA_M of 0.604g. This represents the (worst case) design level earthquake and ground acceleration to be used for liquefaction analysis, as per ASCE 7-10.

2.2.7 Lateral Spreading

Lateral spreading is characterized by horizontal displacement of surficial soil layers as a consequence of liquefaction of deeper granular soil layers. Lateral spreading usually occurs on sites with sloping ground surfaces located near bodies of water such as lakes, rivers and oceans. Due to the gently sloping ground towards the nearby San Gabriel River and liquefaction potential, lateral spreading can occur at the site during the design maximum earthquake event.

2.2.8 Slope Stability

Topographic conditions do not indicate the presence of significant slopes that would require slope stability analysis.

2.2.9 Seismically Induced Settlement

Seismically induced settlement and differential settlement is associated with liquefaction and/or seismic movement. Dry settlement potential due to seismic movement may be considered low to moderate based on the overall sandy nature of the soil.

2.2.10 Seismically Induced Landsliding

Seismically induced landsliding is not expected as the site is relatively flat along with the absence of slopes near the site.

2.2.11 Subsidence

Subsidence is the lowering of surface elevation due to changes occurring underground. In the area of the subject site subsidence has been associated with groundwater or oil withdrawal. Because of the alleviated nature of the recent soils and shallow groundwater table, potential subsidence risks are considered to be moderate to high.

3.0 GEOTECHNICAL IMPACTS AND MITIGATION

In accordance with the State CEQA Guidelines, the proposed project could have a significant environmental impact if it would:

- (a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - (i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault.

- (ii) Strong seismic ground shaking.
- (iii) Seismic-related ground failure, including liquefaction.
- (iv) Landslides.
- (b) Result in substantial soil erosion or the loss of topsoil.
- (c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.
- (d) Be located on expansive soil, as defined in Table 18-1-B of the California Building Code (2001), creating substantial risks to life or property.
- (e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

In addition to the above, the California Geologic Survey has also incorporated the following potential impacts within their “Guidelines for Preparation of Geologic Sections of Environmental Impact Reports” (CDMG Note 46, 1982):

1. Flooding due to Dam or Levee Failure
2. Loss of Mineral Resources
3. Excavation and Blasting
4. Impacts due to seiches
5. Impacts due to tsunami
6. Volcanic Hazards.

3.1 Seismic Impacts

In general, seismic exposure at the project site is typical of the Southern California region. Possible sources or causes of earthquake-related damages are addressed below.

3.1.1 Rupture of Known Earthquake Faults

The project site does not lie within an Alquist-Priolo Special Studies Zone. No known active or potentially active faults cross the project site. Therefore, the proposed project would not expose people or structures to potential substantial adverse effects involving rupture of a known earthquake fault.

Mitigation Measures – None

3.1.2 Seismic Ground Shaking

As with all properties in the seismically active Southern California region, the project site is susceptible to ground shaking during a seismic event. Potential impacts from seismic ground shaking are present throughout Southern California and would be of comparable intensity at the project site as it would be for large parts of the region. The proposed project should be designed in accordance with the seismic parameters set forth in Table 1 of this report, which incorporate the known seismic framework of the region, the relative activity of nearby faults, the proximity of the project site to active faults (or “near-source” effects), and soil and bedrock conditions beneath the project site. Compliance with the 2013 CBC utilizing the parameters set forth in Table 1 will reduce seismic risks to an acceptable level. Therefore, the proposed project would not expose people or structures to potential substantial adverse effects relating to strong seismic ground shaking.

Mitigation Measures – None

3.1.3 Seismic Related Ground Failure and Liquefaction

The project site is within a seismic hazard zone for liquefaction and seismic settlement as delineated by the State of California Seismic Hazard Maps. Our evaluation indicates that the site is susceptible to liquefaction including liquefaction-settlement, lateral spreading, and seismic settlement.

Mitigation of Liquefaction-settlement:

In order to reduce the impact of liquefaction occurring at the site several mitigation measures are available. The primary adverse effect from liquefaction is the resulting differential seismic settlement. To mitigate the differential liquefaction settlement, ground improvement measures such as deep soil mixing, jet and pressure grouting and dynamic compaction techniques are available. Selection of the appropriate mitigation technique should take into account an evaluation of the cost, duration and minimizing potential impacts to adjoining properties.

The ground improvement measures of soil mixing, dynamic compaction, jet grouting or pressure grouting effectively reduces or eliminate liquefaction from occurring by strengthening the soil and making it strong enough to resist the seismic shaking. Deep foundations, on the other hand, mitigate the potential for liquefaction settlement by supporting buildings or other surface improvements on piles or drilled caissons that extend through the liquefiable layers and into bearing soil.

Recommended Mitigation:

Given the limited affected areas on the project site, pressure grouting of the liquefiable layers is recommended to mitigate the potential for differential liquefaction settlement.

Mitigation of Lateral Spreading:

Lateral Spreading occurs when liquefaction occurs on sloping ground that transitions into a slope typically towards a body of water such as a river or lake. Instead of vertical displacement that occurs during liquefaction settlement, lateral spreading results in horizontal displacements that can cause tension cracks in the ground. The mitigation of lateral spreading is essentially the same as for liquefaction settlement. Ground improvement methods consisting of deep soil mixing, jet or pressure grouting or dynamic compaction can be utilized to eliminate liquefaction and lateral spreading.

Recommended Mitigation:

Given the limited areas affected on the project site, pressure grouting of the liquefiable layers is recommended to mitigate the potential for lateral spreading.

Mitigation of Seismic Settlement:

Seismic settlement is the settlement that occurs in soil that does not liquefy but that is low enough in density to experience settlement during the strong ground shaking. It is also known as dry settlement. The mitigation of seismic settlement if near the ground surface is densification of the soil by re-compaction. This would entail the removal and replacement of compressible soil prior to site development. If the problematic soil is too deep for removal and re-compaction, ground improvement methods can be used or deep foundations could also be utilized. Another option is to design the buildings and site improvements to withstand the differential settlement.

Recommended Mitigation:

Given the limited areas affected and small amount of settlement, designing the structures and improvements to withstand or accommodate the expected differential settlement is recommended.

3.1.4 Seismically Induced Landslides and Rock Fall

Based on a review of aerial photographs, site exploration, available geotechnical reports, and topographic conditions no existing landslides or slopes susceptible to landsliding are present at the property that could impact the subject site. Therefore the potential for seismically-induced landslides and rock fall to affect the project is considered non-existent.

Mitigation Measures –None

3.1.5 Tsunami

A tsunami is a sea wave caused by a submarine earthquake, landslide, or volcanic eruption. Tsunami can cause catastrophic damage to shallow and or exposed coastline. The project site is located just inland of the Pacific Ocean and adjacent the San Gabriel River outfall. The site is within an area zoned as susceptible to tsunami inundation as mapped by the State of California. Therefore, the potential for tsunami to affect the project site is considered moderate. A separate analysis of the impacts of sea level rise and tsunami inundation is being prepared to address among other issues, the Coastal Commission's Seal Level Rise Guidance Document. The potential impacts of a tsunami on this site will be evaluated in that separate report.

Mitigation Measures – A separate sea level rise report has been prepared to address the potential impacts should a tsunami occur.

3.1.6 Seiches

Seiches are changes or oscillations of water levels within a confined body of water due to fluctuations in the atmosphere, tidal currents, or earthquakes. The effect of this phenomenon is a “standing wave” that would occur in a body of water that would occur when influenced by the external stimulus. No lakes, reservoirs, or other large confined bodies of water are in close proximity of the project site. Therefore, the potential for seiches to affect the project is considered non-existent.

Mitigation Measures – None

3.2 Soil Erosion or Loss of Topsoil

The graded and natural areas of the proposed project will be subject to erosion, sedimentation during, and following grading of the Development Areas. The California Building Code and Long Beach Municipal, as well as the provisions of the Federal Clean Water Act regulations, requires that erosion be controlled and minimized through the use of Best Management Practices, and appropriate flood and storm drainage control systems. Compliance with those codes and regulations will reduce soil erosion and loss of topsoil to acceptable levels. Therefore, the proposed project would not result in substantial soil erosion or loss of topsoil.

Mitigation Measures – None

3.3 Project Site Stability

3.3.1 Landslides

Based on a review of aerial photographs and available geotechnical reports, and topographic conditions no existing landslides or slopes susceptible to landsliding are present at the property or at a location that could impact the subject site. Therefore the potential for landslides to affect the project is considered non-existent.

Mitigation Measures – None

3.3.2 Mudflows

Based on a review of aerial photographs and available geotechnical reports, and topographic conditions no existing slopes susceptible to mudflow are present at the property or at a location that could impact the subject site. Therefore the potential for mudflows to affect the project is considered non-existent.

Mitigation Measures – None

3.3.3 Proposed Cut/Fill Slopes

The subject site is generally topographically flat. It is our understanding that major cut or fill slopes will not be proposed for the site development. It is our further understanding that variations in grade will be created utilizing retaining walls.

Mitigation Measures – None

3.3.4 Compressible Earth Materials

Generally compressible earth materials are to be removed and replaced as compacted fill. It is anticipated that potentially compressible materials below the groundwater table will remain in place and thus are considered susceptible to decomposition. Therefore, the existence of compressible earth materials is considered to be a moderate to significant impact to the site.

Mitigation Measures – Our firm evaluated the potential for settlement for the area of the “wet “trash area and associated alluvial materials. This assumed the removal of the upper approximately 15 to 18 feet of dry trash and overlying fill cover. In addition we have assumed that the remaining site be over-excavated 2 to 5 feet.

Our evaluation indicated that settlement will occur in the wet trash material and a minor amount in the wet alluvial soil below the wet trash. As the materials are saturated, settlement due to load would be minimal; therefore, surcharging of the area would have a limited impact on the overall settlement. The majority of the settlement would be attributable to the decomposition and oxidation of the organic materials in the wet trash zone. The results of our evaluation indicated the following.

Estimated collapse of wet materials	Estimated maximum settlement (feet)
5 percent	1.53
10 percent *	2.10
15 Percent	3.07
20 percent	3.55

*Based on comparisons with landfill sites of known trash thickness and settlement over time. The amount of remaining settlement for any given thickness of trash diminishes over time with ten percent representing our best estimate of remaining settlement for this site.

Based on the results of the overall estimated settlement, we considered two fundamental categories or scenarios of mitigation. The first is to remove the trash and transport it to an appropriate landfill, and fill in the resulting cavity with engineered fill. This scenario would allow construction of improvements without further mitigation. The second category would be to remove a portion of the dry trash adequate to create a “cap” then utilize deep foundations (driven or CFA piles) to support structures with structural slab floors to allow an air gap between the trash pit and the building floor. It should be noted that some oversize heavy oil field equipment including derricks, cranes, cellars supporting equipment are not considered as part of these scenarios. The two mitigation scenarios are described below:

Scenario 1 - Provide a site available for construction without encumbrance from trash settlement.

Requirements:

- Remove both dry and wet trash and re-compact with fill materials
- Over-excavate remaining site 2 to 5 feet

Results:

- No restrictions on pipelines, oil field equipment structures or building footprint size or location
- Use conventional foundations anywhere on site
- Design for normal one inch total and one-half inch differential settlement

Considerations:

- Requires grading below groundwater
- Removal and transport of wet and dry trash materials off site
- Import of fill materials

Scenario 2 - Provide a site available for construction with deep foundations and no trash removal. Structures would be supported by foundations that would extend through the trash and into bearing materials below. The trash pit would continue to settle independent of the buildings.

Requirements:

- Cut surface to grade with limited or no removal where buildings and structures are to be constructed over the historic trash area, enough to provide a soil “cap” over trash
- Insert piles and structural slabs where buildings and structures are to be constructed over the historic trash area to provide a foundation for future structures

- Over-excavate remaining site outside the “major” tenant building footprint 2 to 5 feet

Result:

- No restrictions on pipelines, oil field equipment, building footprint size or location, but requires pile foundations and structural slabs where buildings and structures are to be constructed over the historic trash area
- Use conventional foundations outside trash area. Design for normal one inch total and one-half inch differential settlement

Considerations:

- Additional costs associated with construction of pile foundations and structural slabs
- Additional long term maintenance for improvements over trash area

3.4 Expansive Earth Materials

Expansive soils generally contain clay minerals that absorb moisture and cause the material to “swell” or increase in volume. Likewise, when expansive soils dry out, they tend to shrink or decrease in volume. Volume changes associated with changes in the moisture content of near surface soils can cause uplift or heave of the ground surface. Less commonly, settlement can occur when they lose moisture or dry out. Expansive earth materials may be present at the site on a limited basis and may be exposed during grading activities. The proper mixing and grading of the site materials will limit the potential impacts to the subject site. Therefore, the existence of expansive earth materials is not considered to be a significant impact.

Mitigation Measures – None

3.5 Onsite Waste Disposal

It is assumed that a sanitary sewer system will be constructed to serve the proposed development with connection to the local sanitation district system. Onsite sewage disposal will therefore not be necessary. This is not considered to be a significant impact.

Mitigation Measures – None

3.6 Volcanic Hazards

No potential source of volcanic activity that would produce such hazards as lava flow or ash fall are known to exist in this area of Southern California.

Mitigation Measures – None

4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on information obtained from a review of geologic literature and our brief site visit, the subject site does not possess adverse geotechnical or geological constraints that cannot be mitigated through remedial measures or that would preclude continued development of the property.

Structures should be designed in accordance with seismic design criteria of the 2013 CBC and/or local ordinances.

Due to the possibility of potentially expansive soils, special foundation design recommendations to mitigate expansive soils may be required. Mitigation measures would potentially include removal and replacement of on-site soils with non-expansive soil or utilizing stiffer foundations such as post-tensioned or slab on grade foundation systems designed in accordance with the current 2013 CBC.

The subject site has been mapped within a seismic hazard zone and the potential for liquefaction to occur at the site during a seismic event and the resulting seismic settlement could potentially occur. Therefore, it could become necessary to employ ground improvement techniques or more resistant foundations systems such as deep foundations such as CFA shafts or driven piles. Flexible piping for utilities and production pipelines may also be required. Given the limited areas affected, ground improvement methods consisting of pressure grouting is recommended in areas where the liquefaction induced settlement is greater than what can be accommodated by structural design, with structural design techniques utilized where the amount of differential liquefaction settlement can be tolerated.

Groundwater has been encountered at a depth of 13 to 18 feet in the area of the subject site. As such, removal of trash materials, excavations for basements, well cellars or deep utility installation have the potential to encounter shallow groundwater during construction activities; therefore, dewatering may be required. The current study included subsurface exploration, laboratory testing of onsite soils and engineering analysis adequate to quantify specific geotechnical hazards and to formulate mitigation recommendations. Details regarding final site improvements (e.g., the actual foundation loads and specific locations of the structures vis a vis the subsurface characteristics, such as the historic landfill) are not known at this time. At such time when the details for the specific site improvements and their locations are finalized, a design-level geotechnical investigation shall be prepared to develop detailed corresponding final site- and development-specific recommendations based upon the potential geologic conditions and measures to address those conditions that have been identified in this report.

5.0 PROFESSIONAL LIMITATIONS

The scope of our services for this due diligence geotechnical review has been limited to a brief site visit and a review of the referenced documents as referenced herein. Our review should not be considered as an approval or acceptance of the site for development, without further site specific geotechnical investigations

Geotechnical services are provided by Kling Consulting Group in accordance with generally accepted professional engineering and geologic practice in the area where these services are rendered. Client acknowledges that the present standard in the engineering and geologic and environmental profession does not include a guarantee of perfection and, except as expressly set forth in the conditions above, no warranty, expressed or implied, is extended by KCG.

APPENDIX A

REFERENCES

APPENDIX A

REFERENCES

1. Earthquake Hazards Program, USGS Website for Seismic Design Maps and Tools.
2. State of California, Guidelines for Evaluating and Mitigating Seismic Hazards in California, Special Publication 117A, California Geological Survey, 2008.
3. State of California, Special Studies Zones, Los Alamitos Quadrangle, California Division of Mines and Geology, July 1, 1986.
4. State of California, Seismic Hazard Zones, Los Alamitos Quadrangle, California, Division of Mines and Geology, March 25, 1999.
5. State of California, Special Hazards Zone Report 019, Seismic Hazard Zone Report For The Los Alamitos 7.5-Minute Quadrangle, Los Angeles And Orange Counties, California, 1998.
6. California Geological Survey Special Report 236, Tsunami Emergency Response Playbooks and FASTER Tsunami Height Calculation: Background Information and Guidance, 2014.
7. California Geological Survey, Tsunami Inundation Map for Emergency Planning, Los Alamitos Quadrangle, Seal Beach Quadrangle, County of Los Angeles, California, March 1, 2009.
8. IT Corporation, Final Report, Assessment of the Bixby Ranch Company Sanitary Landfill for the Presence of Hazardous Substances Project No. 240402, dated June 30, 1987.

APPENDIX B
BORING LOGS

LOG OF EXPLORATORY BORING

Sheet 1 of 2

Project: **Pumpkin Patch**

Boring No.: **B-1**

Project Number: **11038-00**

Driller: **J&H**

Date Drilled: **1/17/12**

Drill Type: **HS**

Logged By: **CVS**

Hammer Wt. / Drop: **140lb / 30in**

Ground Elev. [ft]: **---**

Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	☐ Standard Split Spoon ☐ California ☐ Shelby Tube ☐ Bulk Sample	☐ Water Level ATD ☐ Static Water Table	Pocket Pen. [tsf]	Lab Tests	Remarks
SOIL DESCRIPTION and CLASSIFICATION (USCS)										
Undocumented Artificial Fill (Afu) 0 to 5 feet: Silty Sand (SM) : brown, medium to fine grained, slightly moist, loose										
Landfill Material @5 feet - Organic Debris : dark brown, organic smell, wood fragments, no sample retrieved										
@10 feet - Organic Debris : paper waste, dry, no sample retrieved, syringe encountered in cuttings										
@15 feet - Organic Debris : Paper waste, no sample retrieved, slightly moist										
@20 feet - Organic Debris : Debris, oil odor, sand content encountered, wet										

LOG OF EXPLORATORY BORING

Sheet 2 of 2

Project: **Pumpkin Patch**
 Project Number: **11038-00**
 Date Drilled: **1/17/12**
 Logged By: **CVS**

Boring No.: **B-1**
 Driller: **J&H**
 Drill Type: **HS**
 Hammer Wt. / Drop: **140lb / 30in**
 Ground Elev. [ft]: **---**

Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	☐ Standard Split Spoon ☐ Shelby Tube	☐ California ☐ Bulk Sample	☐ Water Level ATD ☐ Static Water Table	Pocket Pen. [tsf]	Lab Tests	Remarks
						SOIL DESCRIPTION and CLASSIFICATION (USCS)					
30											
35			15 30 35	23	104	Younger Alluvium (Qyfa) @35 feet - Sandy Silt (ML) : gray, organic smell, low plasticity, wet, medium to fine grained, medium dense, transition to poorly graded sand (SP) at toe					
Total Depth - 39.5 feet Groundwater encountered at 18 feet Boring backfilled with bentonite slurry											

LOG OF EXPLORATORY BORING

Sheet 1 of 2

Project: **Pumpkin Patch**

Project Number: **11038-00**

Boring No.: **B-2**

Driller: **J&H**

Drill Type: **HS**

Date Drilled: **1/17/12**

Hammer Wt. / Drop: **140lb / 30in**

Logged By: **CVS**

Ground Elev. [ft]: **---**

Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density [pcf]	☒ Standard Split Spoon ☒ Shelby Tube ☒ California ☒ Bulk Sample ☐ Water Level ATD ☐ Static Water Table	Pocket Pen. [tsf]	Lab Tests	Remarks
SOIL DESCRIPTION and CLASSIFICATION (USCS)									
						Undocumented Artificial Fill (Afu) 0 to 5 feet: Silty Sand (SM): brown, medium to fine grained, slightly moist, loose @5 feet - Silty Sand (SM): grey, large to medium grained, dry, loose, organic smell <			

LOG OF EXPLORATORY BORING

Sheet 2 of 2

Project: **Pumpkin Patch**

Project Number: **11038-00**

Boring No.: **B-2**

Driller: **J&H**

Drill Type: **HS**

Date Drilled: **1/17/12**

Hammer Wt. / Drop: **140lb / 30in**

Logged By: **CVS**

Ground Elev. [ft]: **---**

Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density [pcf]	Standard Split Spoon Shelby Tube Water Level ATD California Bulk Sample Static Water Table	Pocket Pen. [tsf]	Lab Tests	Remarks
SOIL DESCRIPTION and CLASSIFICATION (USCS)									
30			10 11 13	27	98	@25 feet - Clayey Silt (ML): dark grey, moist, low plasticity, medium stiff @30 feet - Sandy Silt (ML): grey, moist, low plasticity, medium stiff Total Depth - 31.5 feet Groundwater encountered at 20 feet Boring backfilled with bentonite slurry			

LOG OF EXPLORATORY BORING

Sheet 1 of 2

Project: **Pumpkin Patch**

Boring No.: **B-3**

Project Number: **11038-00**

Driller: **J&H**

Date Drilled: **1/17/12**

Drill Type: **HS**

Logged By: **CVS**

Hammer Wt. / Drop: **140lb / 30in**

Ground Elev. [ft]: **---**

Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	 Standard Split Spoon  Shelby Tube  Water Level ATD  California  Bulk Sample  Static Water Table	Pocket Pen. [tsf]	Lab Tests	Remarks
SOIL DESCRIPTION and CLASSIFICATION (USCS)									
						<u>Undocumented Artificial Fill (Afu)</u> 0 to 5 feet: Silty Sand (SM): brown, medium to fine grained, slightly moist, loose ----- @5 feet - Silty Sand (SM): brown, large to medium grained, dry, loose, some gravel size particles ----- @10 feet - No sample retrieved, concrete fragment in shoe ----- <u>Younger Alluvium (Qyfa)</u> @15 feet - Silty Sand (SM): light grey, medium to fine grained, medium stiff, slightly moist, micaceous, slight oxidation ----- @21 feet - Sandy Silt (ML): light grey, medium to fine grained, moist, low plasticity, soft, oxidation			

HS BA TP 11038-00 GPJ ZKCI GDT 1/27/12

LOG OF EXPLORATORY BORING

Sheet 2 of 2

Project: **Pumpkin Patch**

Boring No.:

B-3

Project Number: **11038-00**

Driller:

J&H

Date Drilled: **1/17/12**

Drill Type:

HS

Logged By: **CVS**

Hammer Wt. / Drop:

140lb / 30in

Ground Elev. [ft]:

Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	☒ Standard Split Spoon ☒ California	☐ Shelby Tube ☒ Bulk Sample	☐ Water Level ATD ☐ Static Water Table	Pocket Pen. [tsf]	Lab Tests	Remarks
SOIL DESCRIPTION and CLASSIFICATION (USCS)											
						@21 feet - Sandy Silt (ML): grey, medium to fine grained, moist, low plasticity, stiff					
						Total Depth - 31.5 feet Groundwater encountered at 18 feet Boring backfilled with bentonite slurry					

LOG OF EXPLORATORY BORING

Sheet 1 of 2

Project: **Pumpkin Patch**

Boring No.: **B-4**

Project Number: **11038-00**

Driller: **J&H**

Date Drilled: **1/17/12**

Drill Type: **HS**

Logged By: **CVS**

Hammer Wt. / Drop: **140lb / 30in**

Ground Elev. [ft]: **----**

Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	☒ Standard Split Spoon ☒ California ☒ Shelby Tube ☒ Bulk Sample ☒ Water Level ATD ☒ Static Water Table	Pocket Pen. [tsf]	Lab Tests	Remarks
SOIL DESCRIPTION and CLASSIFICATION (USCS)									
						Undocumented Artificial Fill (Afu) 0 to 5 feet: Silty Sand (SM): brown, medium to fine grained, slightly moist, loose ----- @5 feet - Silty Sand (SM): brown, large to medium grained, dry, loose Younger Alluvium (Qyfa) @10 feet - Poorly Graded Sand (SP): brown, large to medium grained, dry, stiff @12.5 feet - Poorly Graded Sand (SP): brown, large to medium grained, dry stiff @15 feet - Sandy Silt (ML): grey, slightly moist, fine grained, medium stiff. ----- @ 20 feet - Clayey Silt (ML): with sand: dark gray, very moist, stiff, high plasticity @22.5 feet - Same As Above			

LOG OF EXPLORATORY BORING

Sheet 2 of 2

Project: **Pumpkin Patch**

Project Number: **11038-00**

Boring No.:

B-4

Driller:

J&H

Drill Type:

HS

Date Drilled: **1/17/12**

Hammer Wt. / Drop:

140lb / 30in

Logged By: **CVS**

Ground Elev. [ft]:

Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	☒ Standard Split Spoon ☒ California ☐ Shelby Tube ☐ Bulk Sample	☐ Water Level ATD ☐ Static Water Table	Pocket Pen. [tsf]	Lab Tests	Remarks
SOIL DESCRIPTION and CLASSIFICATION (USCS)										
30										
Total Depth - 24 feet Groundwater encountered at 18 feet Boring backfilled with bentonite slurry										

DEPTH IN FEET	LABORATORY TEST DATA					WELL SUMMARY/ BACKFILL	PENETRATION RESISTANCE (BLDGGS/FT) SAMPLE	UPCS	PROFILE	DESCRIPTION
	PERMEABILITY (cm/s)	BENZENE (ppm)	TOLUENE (ppm)	XYLENE (ppm)	TOTAL PETROLEUM HYDROCARBONS (ppm)					
0										Brown SAND, slightly moist.
5										
8										Very soft, greenish yellow CLAY, moist.
10										
15										
20										
21.0										TOTAL DEPTH 21.0 FEET.
25										
30										
35										

NOTE: Refuse and ground water table not encountered in this boring.

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 CLIENT: BIXBY RANCH COMPANY
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 FOR EXPLANATION OF SYMBOLS AND TERMS



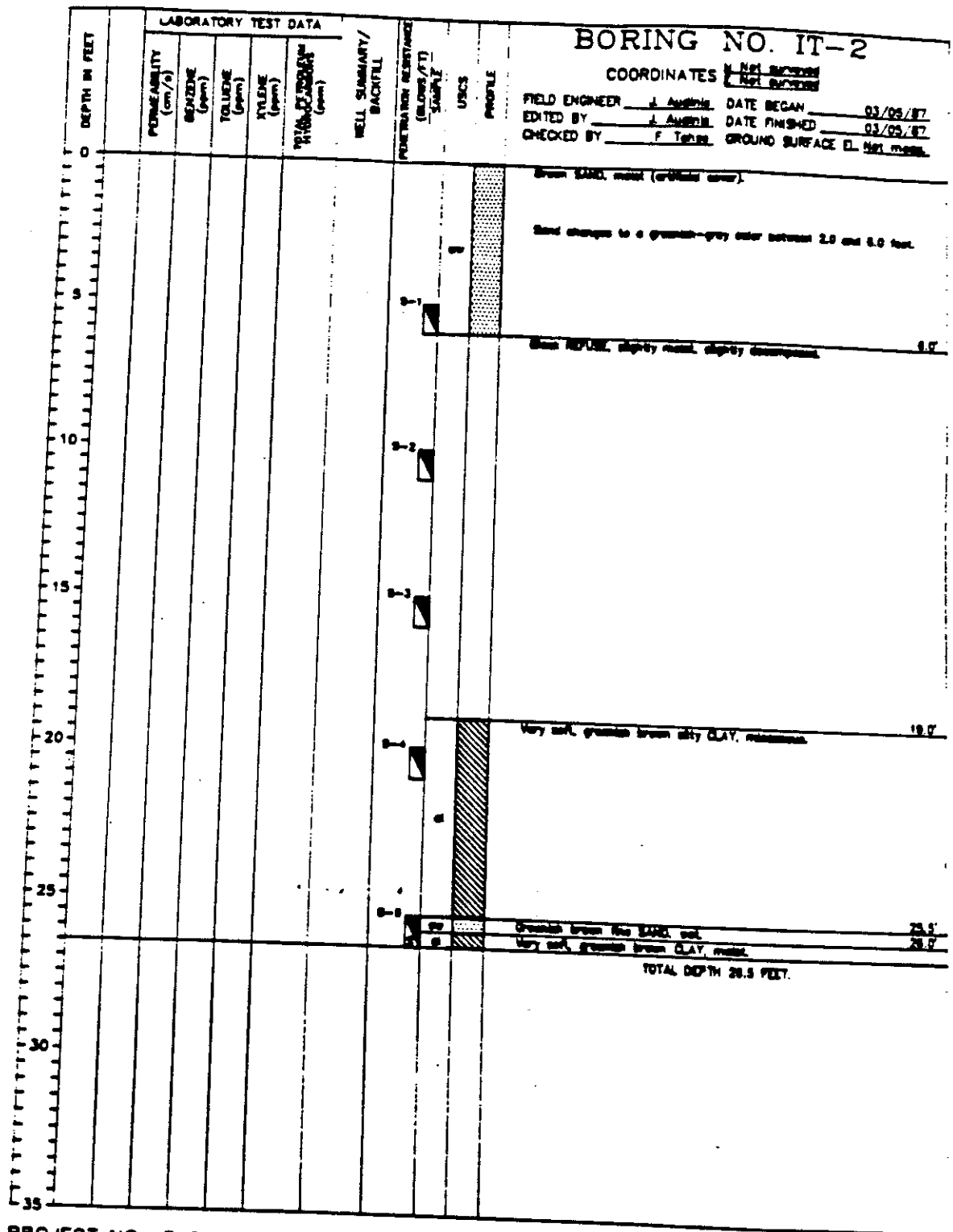
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DEPTH IN FEET	LABORATORY TEST DATA					WELL SUMMARY/ BACKFILL	PENETRATION RESISTANCE (BLOWS/FT) SAMPLE	USCS	PROFILE	DESCRIPTION
	PERMEABILITY (cm/s)	BENZENE (ppm)	TOLUENE (ppm)	XYLENE (ppm)	TOTAL PETROLEUM HYDROCARBONS (ppm)					
0										Brown SAND, moist (grained soils). Sand changes to a black color between 2.0 and 3.0 feet.
3										Black REFUSE consisting of slightly decomposed newspapers encountered from 3.0 feet.
10										Black REFUSE, moist, consisting of glass, newspapers, metal fragments, nuts and bolts.
15										Sample S-1 collected from cuttings at approximately 7.0 feet.
20										REFUSE, slightly moist, slightly decomposed newspapers, rope, leather shoe soles.
25										Sample S-2 collected from cuttings at approximately 16.0 feet.
30										Black REFUSE, moist, pungent odor detected at approximately 22.0 feet.
35										Sample S-3 collected from cuttings at approximately 22.0 feet.
40										Black REFUSE, wet, pungent odor detected at approximately 27.0 feet.
45										Sample S-4 collected from cuttings at approximately 27.0 feet.
50										Green SAND, wet.
55										Sample S-5 collected from cuttings at approximately 36.0 feet.
60										TOTAL DEPTH 37.0 FEET.
65										
70										

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DEPTH IN FEET	LABORATORY TEST DATA					WELL SUMMARY/ BACKFILL	PENETRATION RESISTANCE (BLOWS/FT) SAMPLER	USCS	PROFILE	DESCRIPTION
	PERMEABILITY (cm/s)	BENZENE (ppm)	TOLUENE (ppm)	XYLENE (ppm)	TOTAL HYDROCARBON (ppm)					
0										Green SAND, slightly moist.
3										Greenish grey SAND, slightly moist, shell fragments present.
10										Green to black REFUSE, slightly moist, wood and paper.
15										Black REFUSE and soil, soil, wood fragments, rubber shoes, glass.
20										Black REFUSE, soil, empty cans, empty, paint can, etc.
25										
30										
35										
40										Greenish brown SAND, soil.
45										
50										
55										
60										
65										
70										

TOTAL DEPTH 38.0 FEET.

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DEPTH IN FEET	LABORATORY TEST DATA					WELL SUMMARY/ BACKFILL	PENETRATION RESISTANCE (BLows/FT) SAMPLE	USCS	PROFILE	DESCRIPTION
	PERMEABILITY (cm/s)	BENZENE (ppm)	TOLUENE (ppm)	XYLENE (ppm)	TOTAL PETROLEUM HYDROCARBONS (ppm)					
0										
5										
10										
15										
20										
25										
30										
35										
40										
45										
50										
55										
60										
65										
70										

DEPTH IN FEET	DESCRIPTION
0-1	Granular brown SAND with asphalt fragments. Sample not recovered due to asphalt fragments (artificially hard).
0-2	Granular black silty SAND, slightly moist (artificially hard).
0-3	Granular black sandy CLAY, moist, trace of organics (artificially hard). Blank REFUSE
3-4	Blank REFUSE, newspapers and glass.
4-5	Blank REFUSE, soil, volatile odor and hydrocarbon stain detected on surface of cuttings.
5-6	Blank REFUSE, soil, glass, aluminum, paper fragments.
6-7	Blank REFUSE, soil.
7-8	Blank REFUSE, soil, many carbonaceous, hydrocarbon stain detected on surface of cuttings.
8-9	Gravel to tan SAND, soil.

TOTAL DEPTH 43.0 FEET.

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DEPTH IN FEET	LABORATORY TEST DATA					WELL SUMMARY/ BACKFILL	PENETRATION RESISTANCE (BLOWS/FT) SIGHT	USCS	PROFILE	DESCRIPTION
	PERMEABILITY (cm/s)	BENZENE (ppm)	TOLUENE (ppm)	XYLENE (ppm)	TRICHLOROETHYLENE (ppm)					
0										
5										Light to dark brown clayey SAND, moist (artificial backfill).
10										Brownish green clayey SAND, slightly moist (artificial backfill).
15										Brownish green CLAY, moist, micaceous (artificial backfill).
20										Brownish green clayey SAND, moist (artificial backfill).
25										
30										
35										

COORDINATES N 401 800000
E 401 800000

FIELD ENGINEER J. A. WILSON DATE BEGAN 24/09/87
EDITED BY J. A. WILSON DATE FINISHED 24/09/87
CHECKED BY F. JONES GROUND SURFACE EL 401 800

DESCRIPTION

Light to dark brown clayey SAND, moist (artificial backfill).

Brownish green clayey SAND, slightly moist (artificial backfill).

Brownish green CLAY, moist, micaceous (artificial backfill).

Brownish green clayey SAND, moist (artificial backfill).

TOTAL DEPTH 18.0 FEET.

NOTE: Boring backfilled with barren soil cuttings. No REFUSE encountered in this boring.

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DEPTH IN FEET	LABORATORY TEST DATA					WELL SUMMARY/ BACKFILL	PENETRATION RESISTANCE (BLOWS/FT) SAMPLE	USCS	PROFILE	DESCRIPTION
	PERMEABILITY (cm/s)	BENZENE (ppm)	TOLUENE (ppm)	XYLENE (ppm)	HYDROCARBON (ppm)					
0										
5										Orange green silty SAND, med. amount (grit) sand(s).
10										Very soft dark green CLAY, med. amount (grit) sand(s).
15										Dark green to black sandy CLAY, slightly med. amount hydrogen sulfide odor detected.
20										Orange gray CLAY, med. some pebbles and iron staining present.
25										TOTAL DEPTH 21.0 FEET.
30										NOTE: Boring bailed with handline cuttings. No REFUSE encountered in this boring.
35										

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DEPTH IN FEET	LABORATORY TEST DATA					WELL SUMMARY/ BACKFILL	PENETRATION RESISTANCE (BLOWS/FT) SAMPLE	USCS	PROFILE	DESCRIPTION
	PERMEABILITY (cm/s)	BENZENE (ppm)	TOLUENE (ppm)	XYLENE (ppm)	TOTAL HYDROCARBONS (ppm)					
0										
5										Greenish brown SAND, slightly moist, micaceous (artificial beach).
10										Black REFUSE and sand, slightly moist, paper, cloth, and some metal fragments encountered.
10.75										Greenish gray SAND, slightly moist.
15										TOTAL DEPTH 11.0 FEET.
20										NOTE: Boring described with barometer cuttings.
25										
30										
35										

BORING NO. IT-7

COORDINATES N. Not Recorded
N. Not Recorded

FIELD ENGINEER J. Andrie DATE BEGAN 24/09/87
EDITED BY J. Andrie DATE FINISHED 24/09/87
CHECKED BY F. Torres GROUND SURFACE EL. Not Measured

DESCRIPTION

Greenish brown SAND, slightly moist, micaceous (artificial beach).

Black REFUSE and sand, slightly moist, paper, cloth, and some metal fragments encountered.

Greenish gray SAND, slightly moist.

TOTAL DEPTH 11.0 FEET.

NOTE: Boring described with barometer cuttings.

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DEPTH IN FEET	LABORATORY TEST DATA					WELL SUMMARY / BACKFILL	PENETRATION RESISTANCE (BL ONS / FT) SAMPLE	USCS	PROFILE	DESCRIPTION
	PERMEABILITY (cm/s)	BREXIDIE (open)	TOLUENE (open)	XYLENE (open)	TOTAL PERMEABILITY (open)					
0										
5										Dark brown Sand with some clay, slightly moist, micaceous, some shell fragments.
10										Greenish grey sandy CLAY and sand, moist.
15										
20										
25										
30										
35										

TOTAL DEPTH 11.0 FEET.

NOTE: Boring classified with barren cuttings. No REFUSE encountered in this boring.

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DEPTH IN FEET	LABORATORY TEST DATA					WELL SAMPLING / BACKFILL	PENETRATION RESISTANCE (IN CHITS / 1) SAMPLE	UP/DN	MOISTURE	DESCRIPTION
	PERMEABILITY (cm/s)	BENZENE (ppm)	TOLUENE (ppm)	XYLENE (ppm)	TOTAL HYDROCARBON (ppm)					
0										
5										Light brown to tan SAND, slightly moist.
10										Brown sandy CLAY, slightly moist, micaceous
15										Greenish gray SAND with some clay, slightly moist.
20										Greenish gray SAND, very moist.
25										
30										
35										

TOTAL DEPTH 11.0 FEET

NOTE: Boring backfilled with borings cuttings. No REFUSE encountered in this boring.

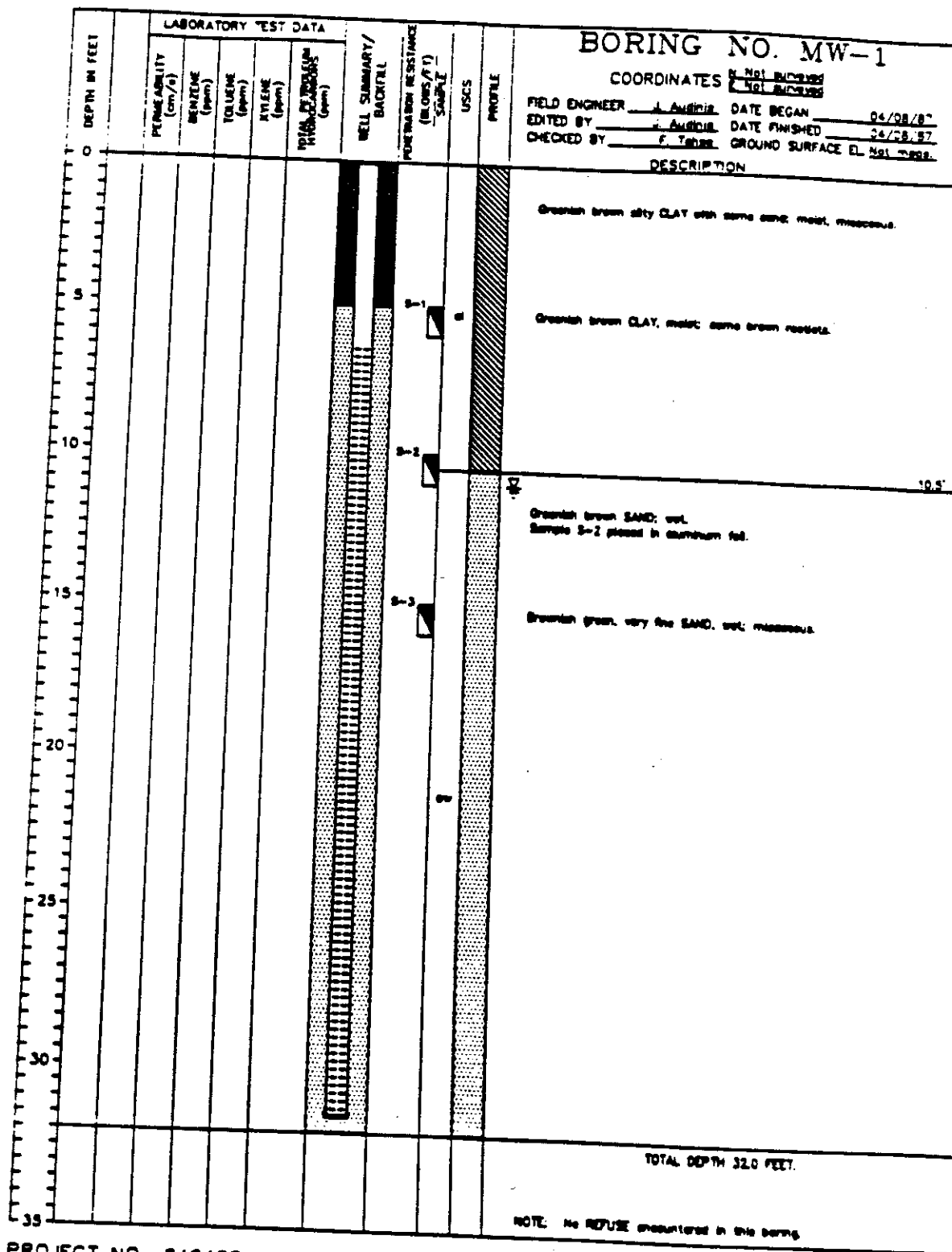
BORING NO. IT-9

COORDINATES N 1/4 Sec 10, T 10 N, R 10 E
 FIELD ENGINEER J. A. JONES DATE BEGAN 24.12.87
 EDITED BY J. A. JONES DATE FINISHED 24.12.87
 CHECKED BY P. JONES GROUND SURFACE ELEVATION 100.00

PROJECT NO. 240402
 CLIENT: BIXBY RANCH CO.
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DEPTH IN FEET	LABORATORY TEST DATA					WELL SUMMARY/ BACKFILL	PENETRATION RESISTANCE (BLOWS/FT) SAMPLE	USCS	PROFILE	DESCRIPTION
	PERMEABILITY (cm/s)	BENZENE (ppm)	TOLUENE (ppm)	XYLENE (ppm)	TOTAL HYDROCARBONS (ppm)					
0										
5							1-1		FILL	Green SAND, slightly moist (drilled borehole).
10							1-2			Green SAND, very moist, occasional shell fragments present.
15							1-3			Green sandy SILT, moist; occasional, some shell fragments.
20							1-4			Black REFUSE and clayey soil, very moist; pungent odor detected; glass, plastic fragments.
25							1-5			Black REFUSE and soil, very moist to wet; pungent odor; paper and copper metal fragments.
30							1-6		REFUSE	Sample 1-4 collected from cuttings at approximately 21.0 feet.
35							1-7			Black REFUSE, wet, smoky; pungent odor detected; some shell fragments.
40							1-8			Sample 1-5 placed in glass sample jar.
45							1-9			Black REFUSE, wet, smoky; pungent odor.
50							1-10			Sample 1-6 placed in a glass sample jar.
55							1-11			Black REFUSE, wet, smoky; pungent odor.
60							1-12			Sample 1-7 placed in a glass sample jar.
65							1-13			Green SAND, wet.
70										TOTAL DEPTH 37.0 FEET.

NOTE: Shell casing could not be placed in this boring due to refusal of the submersible. A 10.0 foot steel driving hammer fell into this boring. This boring was backfilled with grout.

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DEPTH IN FEET	LABORATORY TEST DATA					WELL SUMMARY/ BACKFILL	PENETRATION RESISTANCE (BLDG. #/1) --SAMPLE--	USCS	PROFILE	BORING NO. MW-2A COORDINATES <u>N. 101. 100. 100. 100.</u> FIELD ENGINEER <u>J. AMERIN</u> DATE BEGAN <u>04/28/87</u> EDITED BY <u>J. AMERIN</u> DATE FINISHED <u>04/28/87</u> CHECKED BY <u>P. 100. 100. 100. 100.</u> GROUND SURFACE EL. <u>N. 101. 100. 100.</u> DESCRIPTION See log of Boring MW-2. Boring MW-2A was drilled approximately 4.0 feet southeast of Boring MW-2. TOTAL DEPTH 38.0 FEET.
	PLASTICITY (cm/g)	DETERMINED (gpm)	TOLUENE (gpm)	HYDRAULIC (gpm)	HYDRAULIC (gpm)					
0										
5										
10										
15										
20										
25										
30										
35										
40										
45										
50										
55										
60										
65										
70										

PROJECT NO. 240402
 CLIENT: SIXBY RANCH CO.
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APPENDIX C

LABORATORY TEST RESULTS

Project Name : PUMPKIN PATCH Project Number : 11038-00
Sample No. B-1 Depth/Elev. 35' Tested by : RMC Date : 23-Jan-12
Location / Source : _____ Sampled by: _____ Date : _____
Sample Descriptions / Classification : GRAYISH BROWN SANDY SILT (ML)

HYDROMETER ANALYSIS (ASTM STD HYDROMETER 152H)

Temp.(°C)	Hydro.Rdg.Cor.	K Value	Hygroscopic Moisture		Wt.of Air Dry Sample, (g)	91.63
22.0	5.00	0.01312	Wet Weight of Soil,(g)	71.05	Wt.of Oven Dry Sample, (g)	90.55
			Dry Weight of Soil,(g)	70.21	Material Passing Sieve No.	10
			Moisture Content,(%)	1.20		

Specific Gravity (γ) = 2.7 (Assumed) Correction Factor (α) = 0.99

Date	Time	Elapsed Time(min)	Temp. (°C)	R'	C	R	% P	% P Corrected	L (cm)	k Value	L/T (cm/min)	Diameter (mm)
24-Jan	7:40	0.25										
		0.50										
		1.00	22	56	5.00	51	55.8	55.8	7.1	0.01312	7.1000	0.03496
		2.00										
		4.00										
		5.00										
		15.0										
		30.0										
		60.0	22	30	5.00	25	27.3	27.3	11.4	0.01312	0.19000	0.00572
		240.0										
		1440.0	22	18	5.00	13	14.2	14.2	13.3	0.01312	0.00924	0.00126

SIEVE ANALYSIS

Sieve		Weight Retained		Cumulative		Specification
Size	Opening (mm)	Individual (g)	Cummulative (g)	% Retained	% Passing	% Passing
3"	75.0					
2"	50.0					
1-1/2"	38.1					
1"	25.0					
3/4"	19.0					
1/2"	12.5					
3/8"	9.5					
#4	4.75					
#8	2.36					
#10	2.00		0.00	0.0	100.0	
#16	1.18					
#30	0.600		0.85	0.4	99.6	
#50	0.300		8.35	3.8	96.2	
#100	0.150		32.50	14.6	85.4	
#200	0.075		57.15	25.7	74.3	

Total Wt. of Dry Soil,(g) 222.30

	Moist	Dry
(+)#10 Sieve,(g)	-	0
(-)#10 Sieve,(g)	62.28	61.54

Sand & Gravel Particle Descriptions

Shape	Rounded	
	Angular	X
Hardness	Hard & Durable	
	Soft	
	Weathered & Friable	X

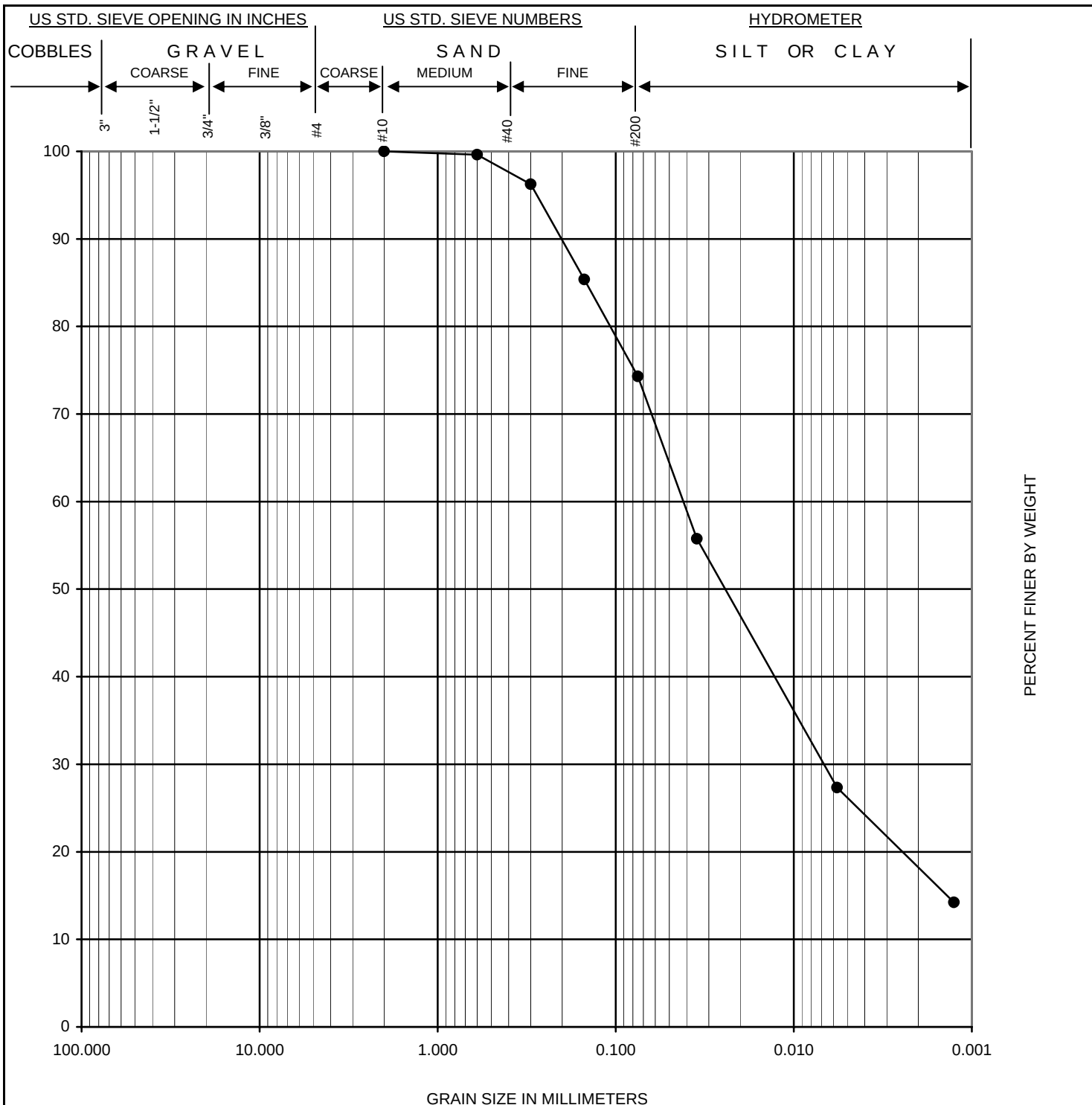
D ₁₀		D ₆₀	
D ₃₀			
Coefficient of Uniformity, C _u			-
Coefficient of Curvature, C _c			-

Remarks : _____



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Irvine, Ca. 92614
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**GRAIN - SIZE
ANALYSIS**



PROJECT NUMBER : 11038-00

PROJECT NAME : PUMPKIN PATCH

SAMPLE NO.	DEPTH	SYMBOL	CLASSIFICATION	NAT.W%	LL	PL	PI
B-1	35'	ML	GRAYISH BROWN SANDY SILT	-	-	-	-



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**GRAIN - SIZE
CURVE**

Project Name : PUMPKIN PATCH Project Number : 11038-00
Sample No. B-2 Depth/Elev. 30' Tested by : RMC Date : 23-Jan-12
Location / Source : _____ Sampled by: _____ Date : _____
Sample Descriptions / Classification : GRAYISH BROWN SANDY SILT (ML)

HYDROMETER ANALYSIS (ASTM STD HYDROMETER 152H)

Temp.(°C)	Hydro.Rdg.Cor.	K Value	Hygroscopic Moisture		Wt.of Air Dry Sample, (g)	86.47
22.0	5.00	0.01312	Wet Weight of Soil,(g)	87.15	Wt.of Oven Dry Sample, (g)	84.55
			Dry Weight of Soil,(g)	85.21	Material Passing Sieve No.	10
			Moisture Content,(%)	2.28		

Specific Gravity (γ) = 2.7 (Assumed) Correction Factor (α) = 0.99

Date	Time	Elapsed Time(min)	Temp. (°C)	R'	C	R	% P	% P Corrected	L (cm)	k Value	L/T (cm/min)	Diameter (mm)
24-Jan	7:40	0.25										
		0.50										
		1.00	22	54	5.00	49	57.4	57.4	7.4	0.01312	7.4000	0.03569
		2.00										
		4.00										
		5.00										
		15.0										
		30.0										
		60.0	22	24	5.00	19	22.2	22.2	12.4	0.01312	0.20667	0.00596
		240.0										
		1440.0	22	14	5.00	9	10.5	10.5	14.0	0.01312	0.00972	0.00129

SIEVE ANALYSIS

Sieve		Weight Retained		Cummulative		Specification
Size	Opening (mm)	Individual (g)	Cummulative (g)	% Retained	% Passing	% Passing
3"	75.0					
2"	50.0					
1-1/2"	38.1					
1"	25.0					
3/4"	19.0					
1/2"	12.5					
3/8"	9.5					
#4	4.75					
#8	2.36					
#10	2.00		0.00	0.0	100.0	
#16	1.18					
#30	0.600		0.85	0.4	99.6	
#50	0.300		8.35	3.6	96.4	
#100	0.150		32.50	14.1	85.9	
#200	0.075		57.15	24.8	75.2	

Total Wt. of Dry Soil,(g) 230.65

	Moist	Dry
(+)#10 Sieve,(g)	-	0
(-)#10 Sieve,(g)	62.28	60.89

Sand & Gravel Particle Descriptions

Shape	Rounded	
	Angular	X
Hardness	Hard & Durable	
	Soft	
	Weathered & Friable	X

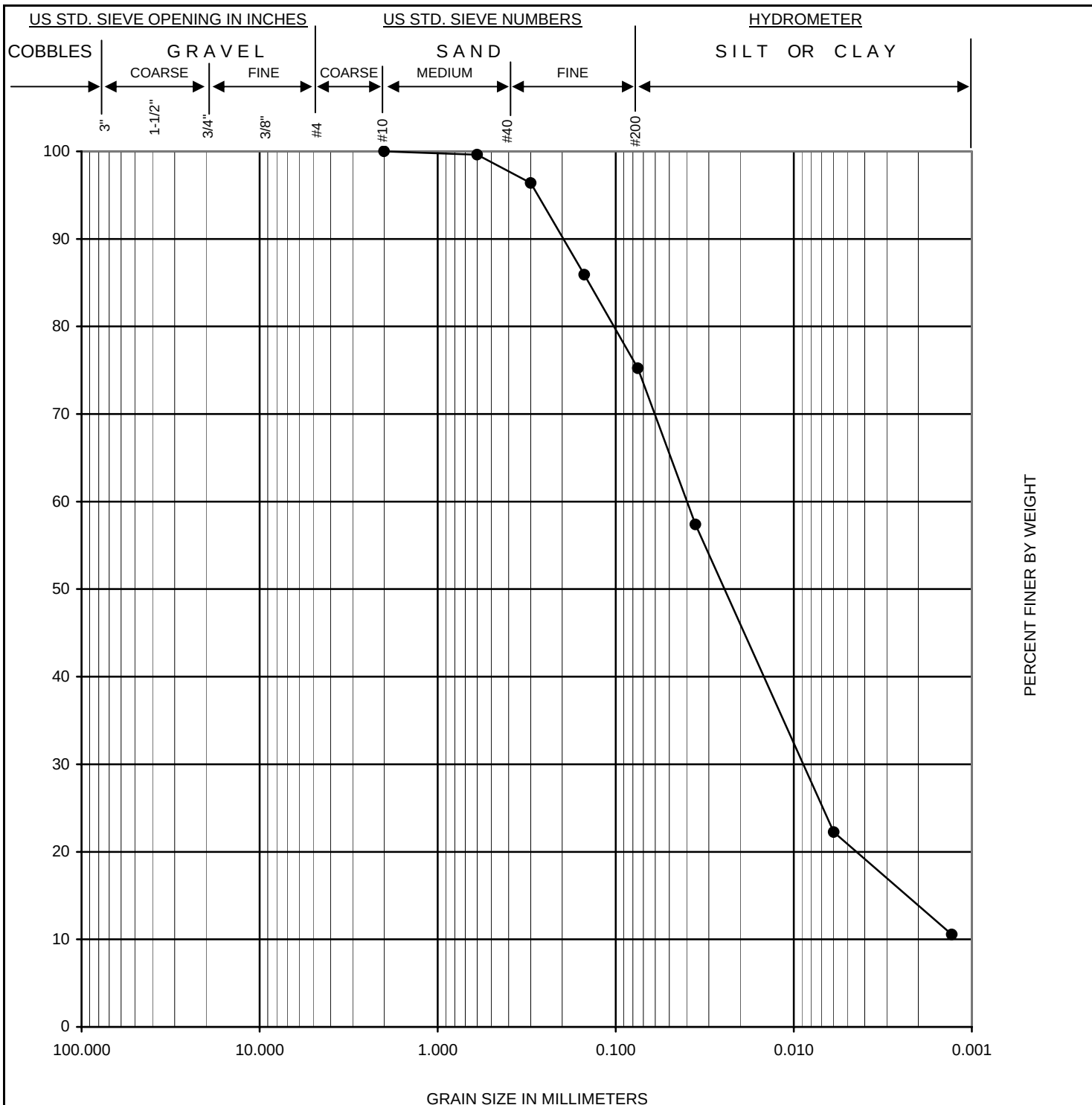
D ₁₀		D ₆₀	
D ₃₀			
Coefficient of Uniformity, C _u			-
Coefficient of Curvature, C _c			-

Remarks : _____



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**GRAIN - SIZE
ANALYSIS**



PROJECT NUMBER : 11038-00

PROJECT NAME : PUMPKIN PATCH

SAMPLE NO.	DEPTH	SYMBOL	CLASSIFICATION	NAT.W%	LL	PL	PI
B-2	30'	ML	GRAYISH BROWN SANDY SILT	-	-	-	-



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**GRAIN - SIZE
CURVE**

Project Name : PUMPKIN PATCH Project Number : 11038-00
Sample No. B-3 Depth/Elev. 20' Tested by : RMC Date : 23-Jan-12
Location / Source : _____ Sampled by: _____ Date : _____
Sample Descriptions / Classification : GRAY SANDY SILT (ML)

HYDROMETER ANALYSIS (ASTM STD HYDROMETER 152H)

Temp.(°C)	Hydro.Rdg.Cor.	K Value	Hygroscopic Moisture		Wt.of Air Dry Sample, (g)	91.33
22.0	5.00	0.01312	Wet Weight of Soil,(g)	72.42	Wt.of Oven Dry Sample, (g)	90.06
			Dry Weight of Soil,(g)	71.41	Material Passing Sieve No.	10
			Moisture Content,(%)	1.41		

Specific Gravity (γ) = 2.7 (Assumed) Correction Factor (α) = 0.99

Date	Time	Elapsed Time(min)	Temp. (°C)	R'	C	R	% P	% P Corrected	L (cm)	k Value	L/T (cm/min)	Diameter (mm)
24-Jan	7:38	0.25										
		0.50										
		1.00	22	59	5.00	54	59.4	59.4	6.6	0.01312	6.6000	0.03371
		2.00										
		4.00										
		5.00										
		15.0										
		30.0										
		60.0	22	29	5.00	24	26.4	26.4	11.5	0.01312	0.19167	0.00574
		240.0										
		1440.0	22	19	5.00	14	15.4	15.4	13.2	0.01312	0.00917	0.00126

SIEVE ANALYSIS

Sieve		Weight Retained		Cumulative		Specification
Size	Opening (mm)	Individual (g)	Cummulative (g)	% Retained	% Passing	% Passing
3"	75.0					
2"	50.0					
1-1/2"	38.1					
1"	25.0					
3/4"	19.0					
1/2"	12.5					
3/8"	9.5					
#4	4.75					
#8	2.36					
#10	2.00		0.00	0.0	100.0	
#16	1.18					
#30	0.600		0.08	0.0	100.0	
#50	0.300		0.13	0.1	99.9	
#100	0.150		4.37	1.9	98.1	
#200	0.075		39.38	17.0	83.0	

Total Wt. of Dry Soil,(g) 232.17

	Moist	Dry
(+)#10 Sieve,(g)	-	0
(-)#10 Sieve,(g)	71.70	70.70

Sand & Gravel Particle Descriptions

Shape	Rounded	
	Angular	X
Hardness	Hard & Durable	
	Soft	
	Weathered & Friable	X

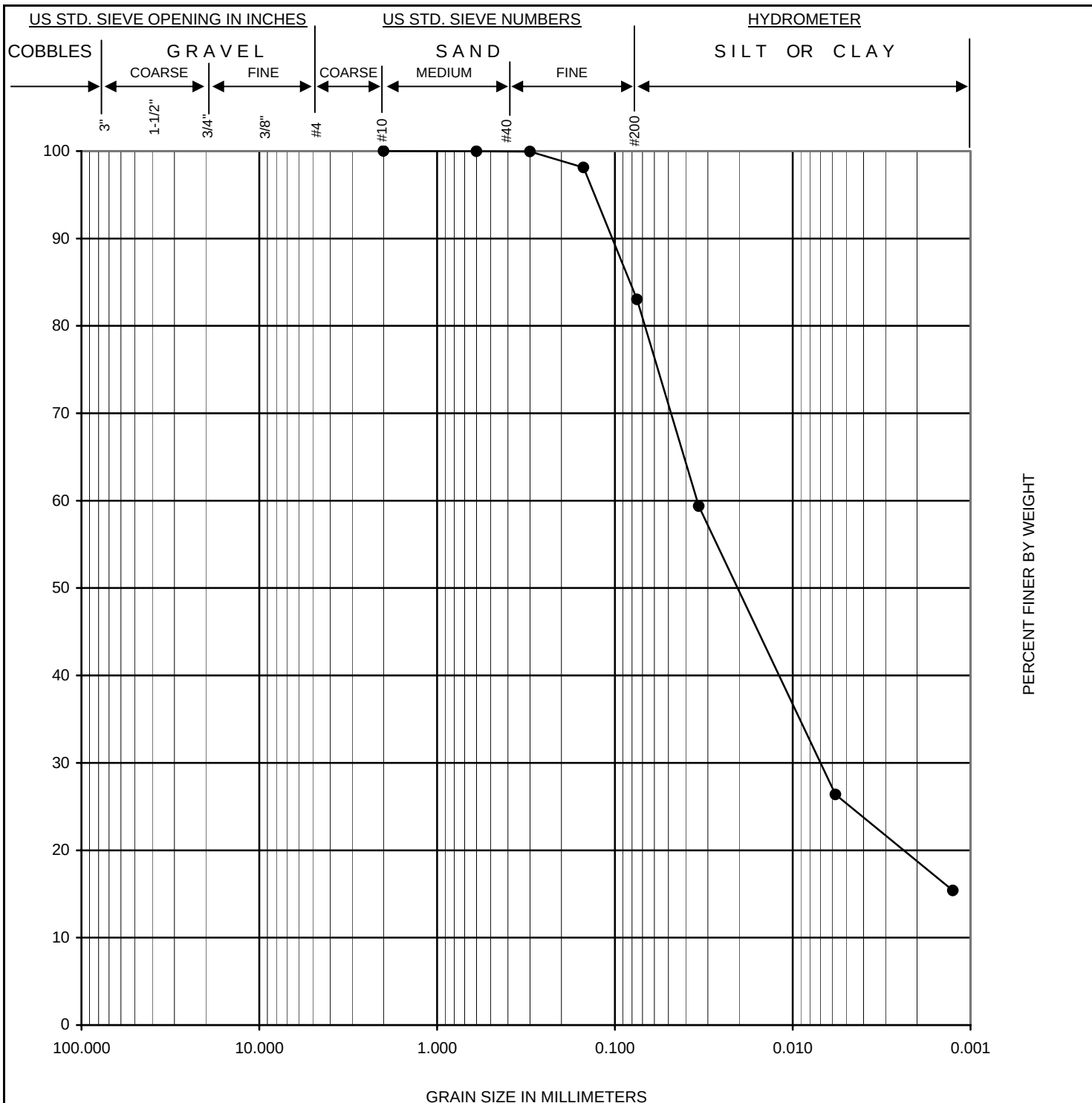
D ₁₀		D ₆₀	
D ₃₀			
Coefficient of Uniformity, C _u			-
Coefficient of Curvature, C _c			-

Remarks : _____



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**GRAIN - SIZE
ANALYSIS**



PROJECT NUMBER : 11038-00

PROJECT NAME : PUMPKIN PATCH

SAMPLE NO.	DEPTH	SYMBOL	CLASSIFICATION	NAT.W%	LL	PL	PI
B-3	20'	ML	GRAY SANDY SILT	-	-	-	-



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**GRAIN - SIZE
CURVE**

Project Name : PUMPKIN PATCH Project Number : 11038-00
Sample No. B-4 Depth/Elev. 22.5' Tested by : RMC Date : 23-Jan-12
Location / Source : _____ Sampled by: _____ Date : _____
Sample Descriptions / Classification : GRAY SANDY SILT (ML)

HYDROMETER ANALYSIS (ASTM STD HYDROMETER 152H)

Temp.(°C)	Hydro.Rdg.Cor.	K Value	Hygroscopic Moisture		Wt.of Air Dry Sample, (g)	90.55
22.0	5.00	0.01312	Wet Weight of Soil,(g)	78.05	Wt.of Oven Dry Sample, (g)	87.44
			Dry Weight of Soil,(g)	75.37	Material Passing Sieve No.	10
			Moisture Content,(%)	3.56		

Specific Gravity (γ) = 2.7 (Assumed) Correction Factor (α) = 0.99

Date	Time	Elapsed Time(min)	Temp. (°C)	R'	C	R	% P	% P Corrected	L (cm)	k Value	L/T (cm/min)	Diameter (mm)
24-Jan	7:36	0.25										
		0.50										
		1.00	22	45	5.00	40	45.3	45.3	8.9	0.01312	8.9000	0.03914
		2.00										
		4.00										
		5.00										
		15.0										
		30.0										
		60.0	22	27	5.00	22	24.9	24.9	11.9	0.01312	0.19833	0.00584
		240.0										
		1440.0	22	19	5.00	14	15.9	15.9	13.2	0.01312	0.00917	0.00126

SIEVE ANALYSIS

Sieve		Weight Retained		Cummulative		Specification
Size	Opening (mm)	Individual (g)	Cummulative (g)	% Retained	% Passing	% Passing
3"	75.0					
2"	50.0					
1-1/2"	38.1					
1"	25.0					
3/4"	19.0					
1/2"	12.5					
3/8"	9.5					
#4	4.75					
#8	2.36					
#10	2.00		0.00	0.0	100.0	
#16	1.18					
#30	0.600		0.27	0.1	99.9	
#50	0.300		1.76	0.6	99.4	
#100	0.150		14.34	5.2	94.8	
#200	0.075		94.26	34.3	65.7	

Total Wt. of Dry Soil,(g) 274.44

	Moist	Dry
(+)#10 Sieve,(g)	-	0
(-)#10 Sieve,(g)	115.60	111.63

Sand & Gravel Particle Descriptions

Shape	Rounded	
	Angular	X
Hardness	Hard & Durable	
	Soft	
	Weathered & Friable	X

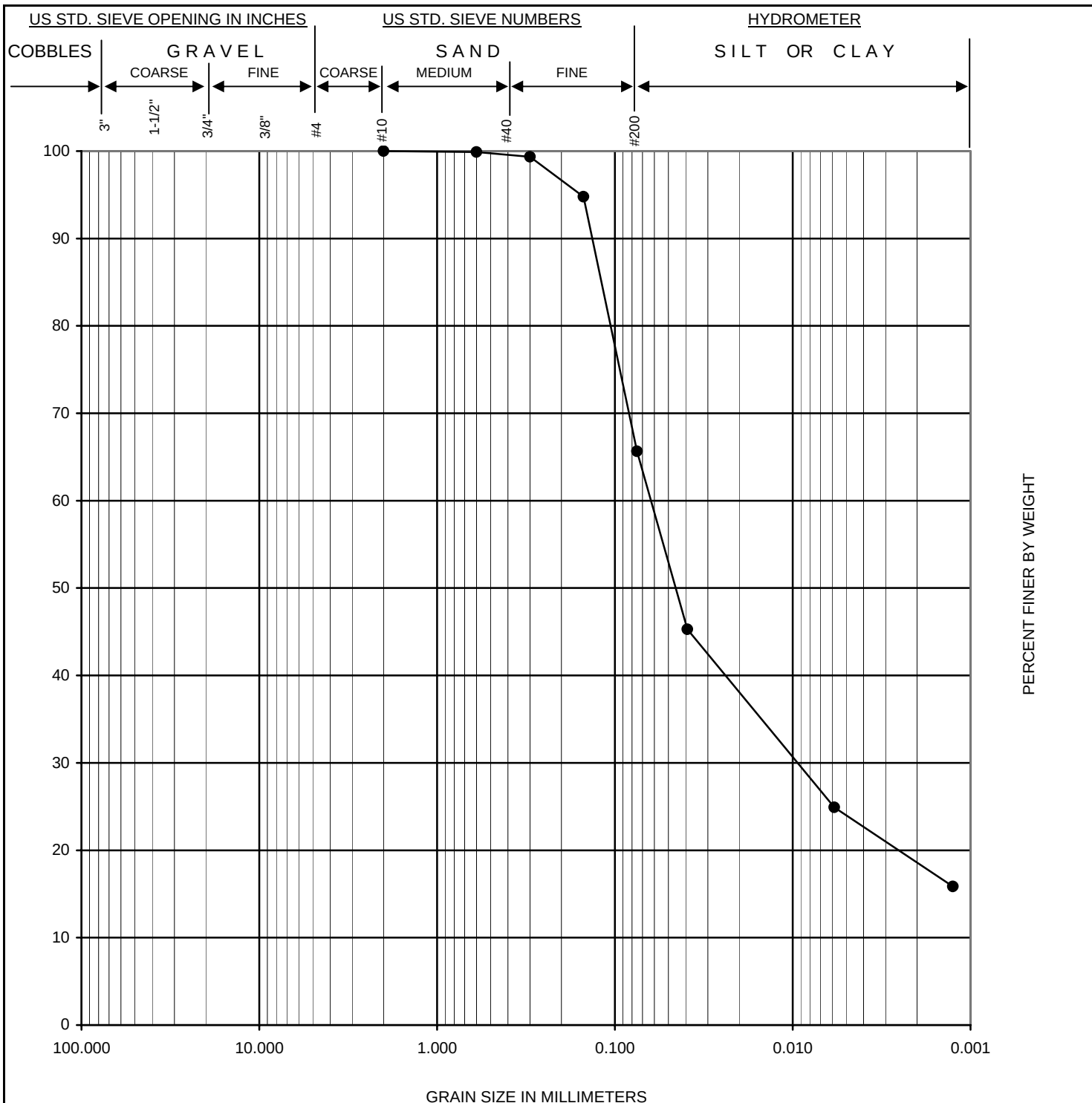
D ₁₀		D ₆₀	
D ₃₀			
Coefficient of Uniformity, C _u		-	
Coefficient of Curvature, C _c		-	

Remarks : _____



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**GRAIN - SIZE
ANALYSIS**



PROJECT NUMBER : 11038-00

PROJECT NAME : PUMPKIN PATCH

SAMPLE NO.	DEPTH	SYMBOL	CLASSIFICATION	NAT.W%	LL	PL	PI
B-4	22.5'	ML	GRAY SANDY SILT	-	-	-	-



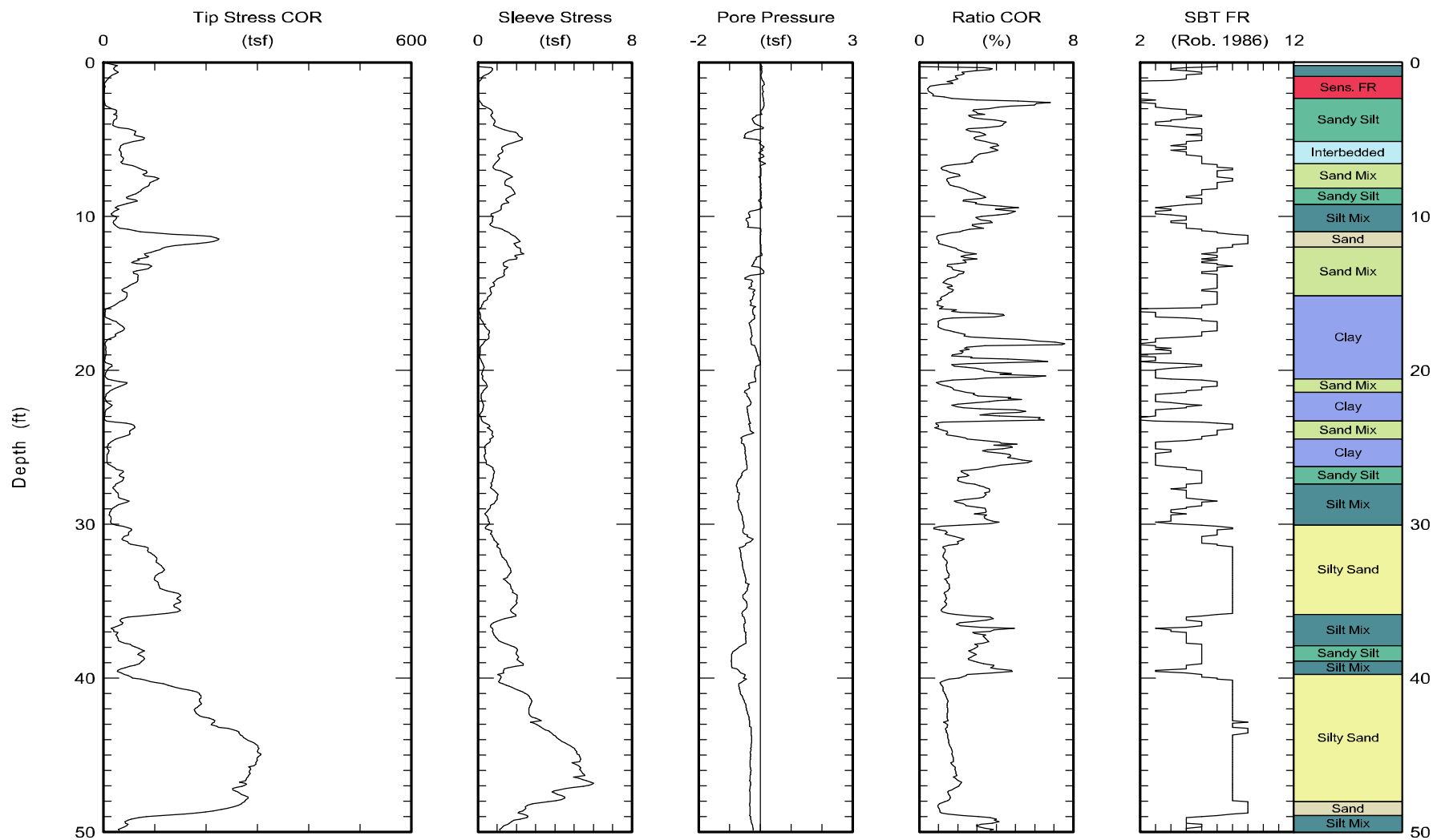
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**GRAIN - SIZE
CURVE**

APPENDIX D

CONE PENTRATION TEST DATA

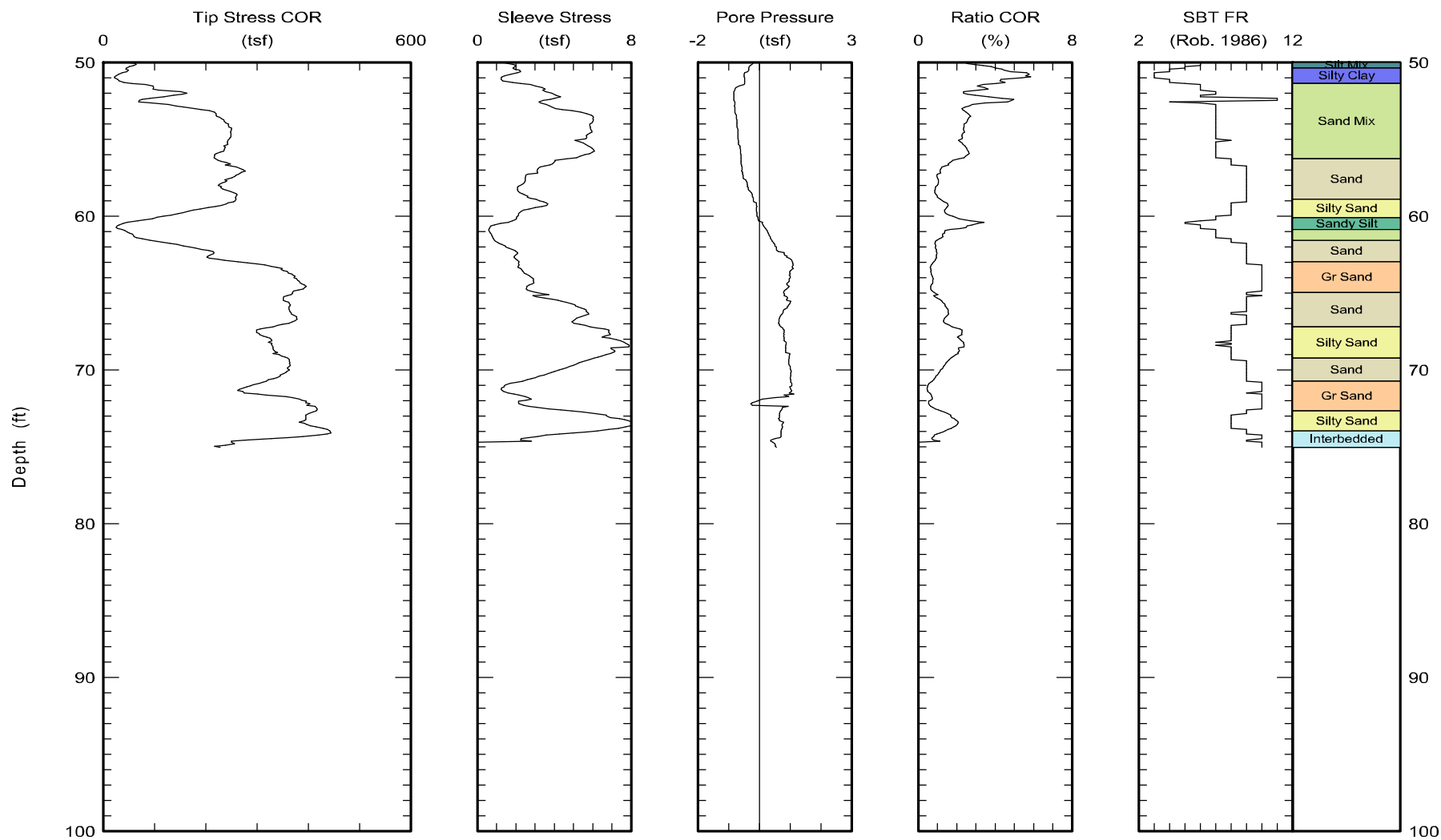
 Kehoe Testing & Engineering Office: (714) 901-7270 Fax: (714) 901-7289 rich@kehoetesting.com www.kehoetesting.com	CPT Data 30 ton rig	Date: 16/Jan/2012 Test ID: C-1 Project: LongBeach
	Customer: Kling Consulting Group, Inc. Job Site: Studebaker Rd & PCH	



Maximum depth: 75.06 (ft)

Page 1 of 2

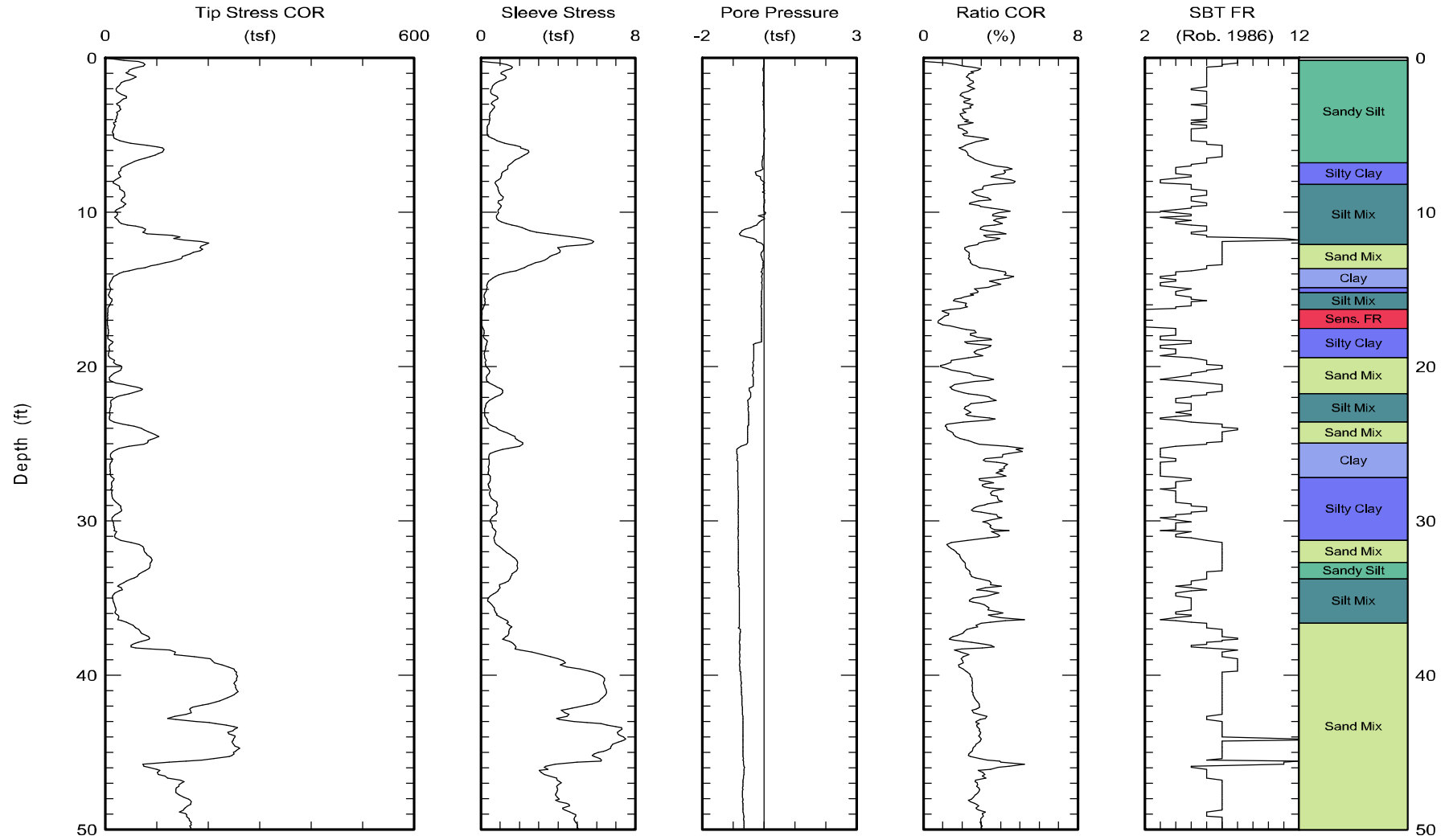
 Kehoe Testing & Engineering Office: (714) 901-7270 Fax: (714) 901-7289 rich@kehoetesting.com www.kehoetesting.com	CPT Data 30 ton rig	Date: 16/Jan/2012 Test ID: C-1 Project: LongBeach
	Customer: Kling Consulting Group, Inc. Job Site: Studebaker Rd & PCH	



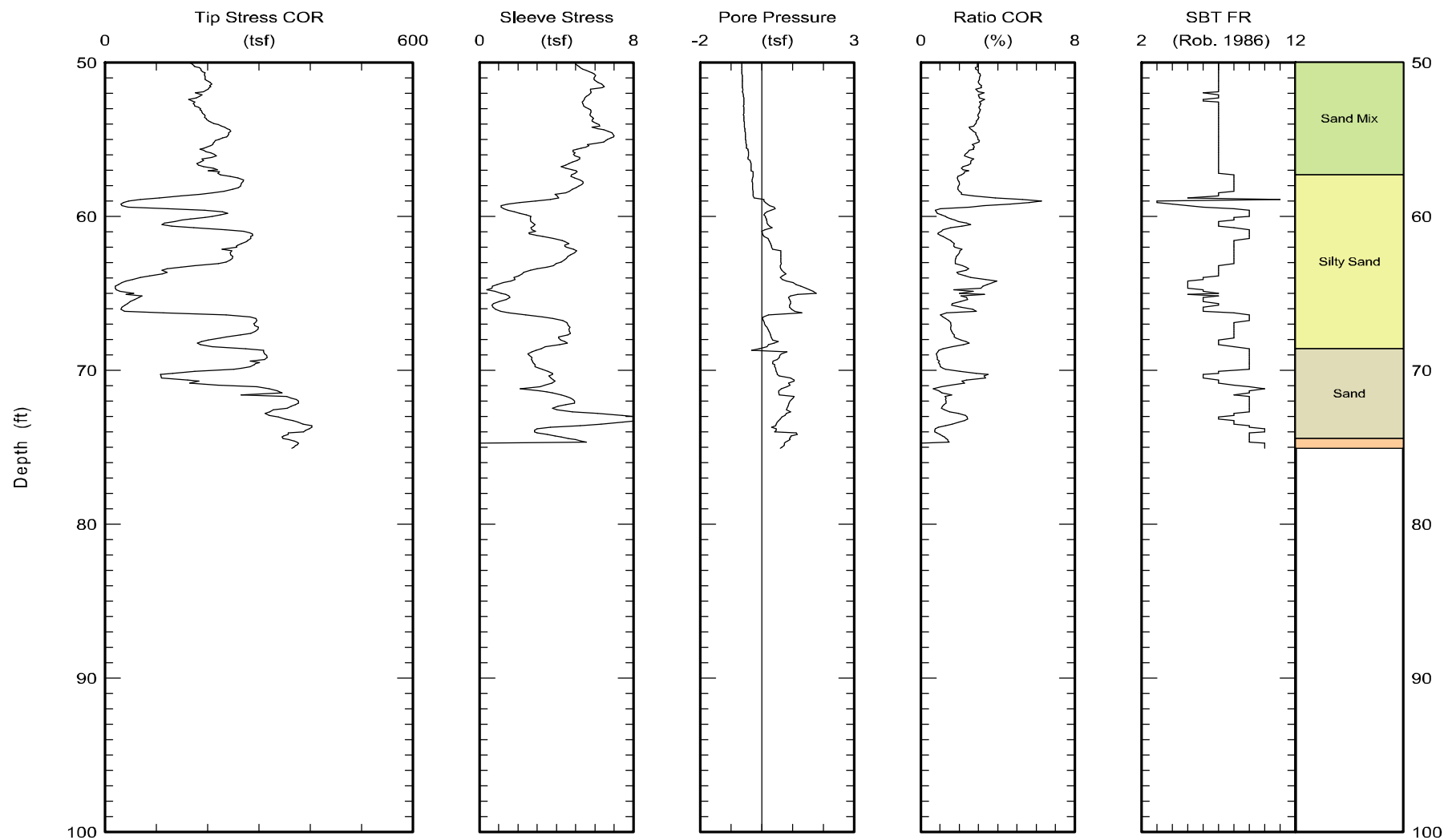
Maximum depth: 75.06 (ft)

Page 2 of 2

 Kehoe Testing & Engineering Office: (714) 901-7270 Fax: (714) 901-7289 rich@kehoetesting.com www.kehoetesting.com	CPT Data 30 ton rig	Date: 16/Jan/2012 Test ID: C-2 Project: LongBeach
	Customer: Kling Consulting Group, Inc. Job Site: Studebaker Rd & PCH	



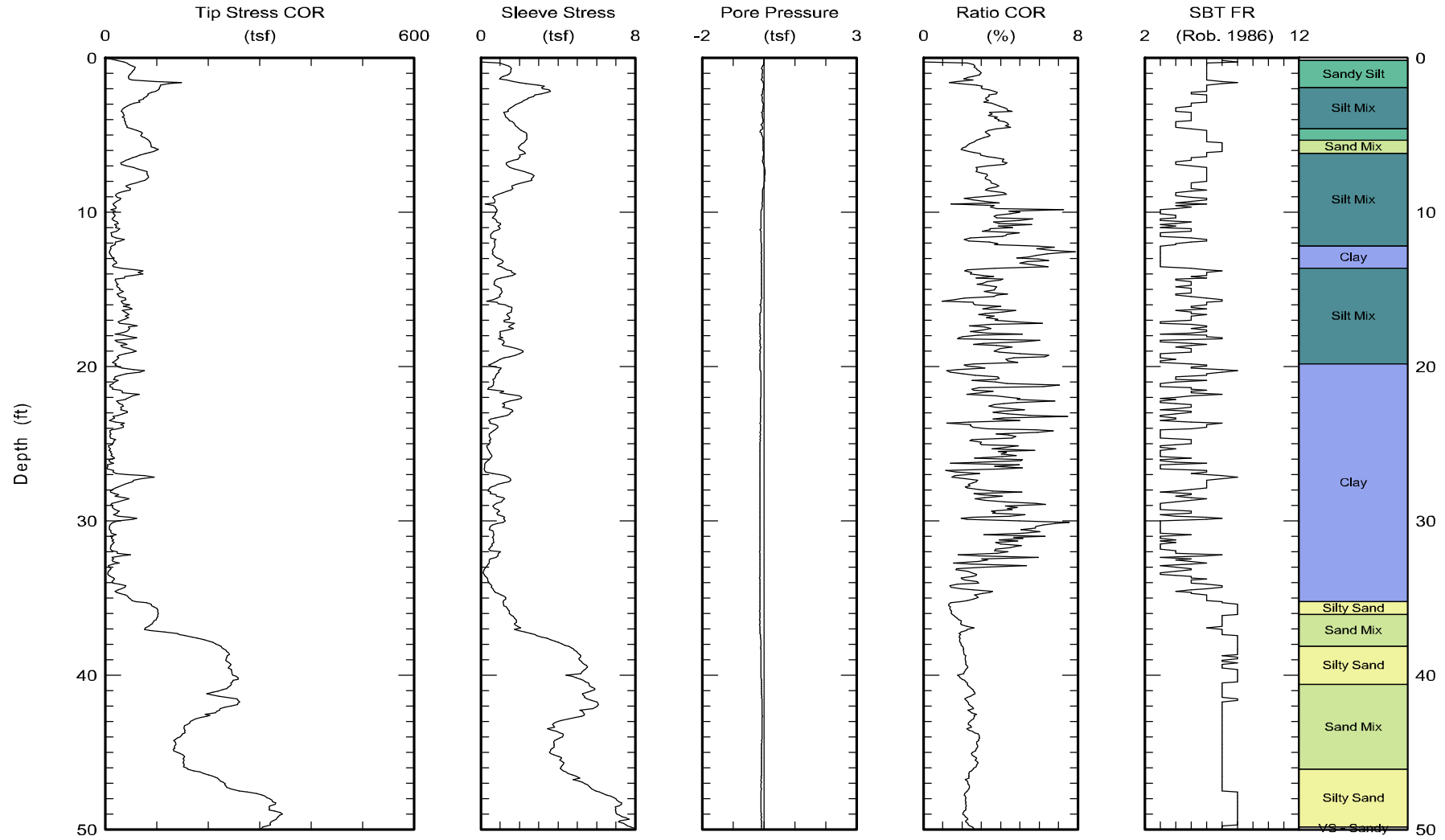
 Kehoe Testing & Engineering Office: (714) 901-7270 Fax: (714) 901-7289 rich@kehoetesting.com www.kehoetesting.com	CPT Data 30 ton rig	Date: 16/Jan/2012 Test ID: C-2 Project: LongBeach
	Customer: Kling Consulting Group, Inc. Job Site: Studebaker Rd & PCH	



Maximum depth: 75.10 (ft)

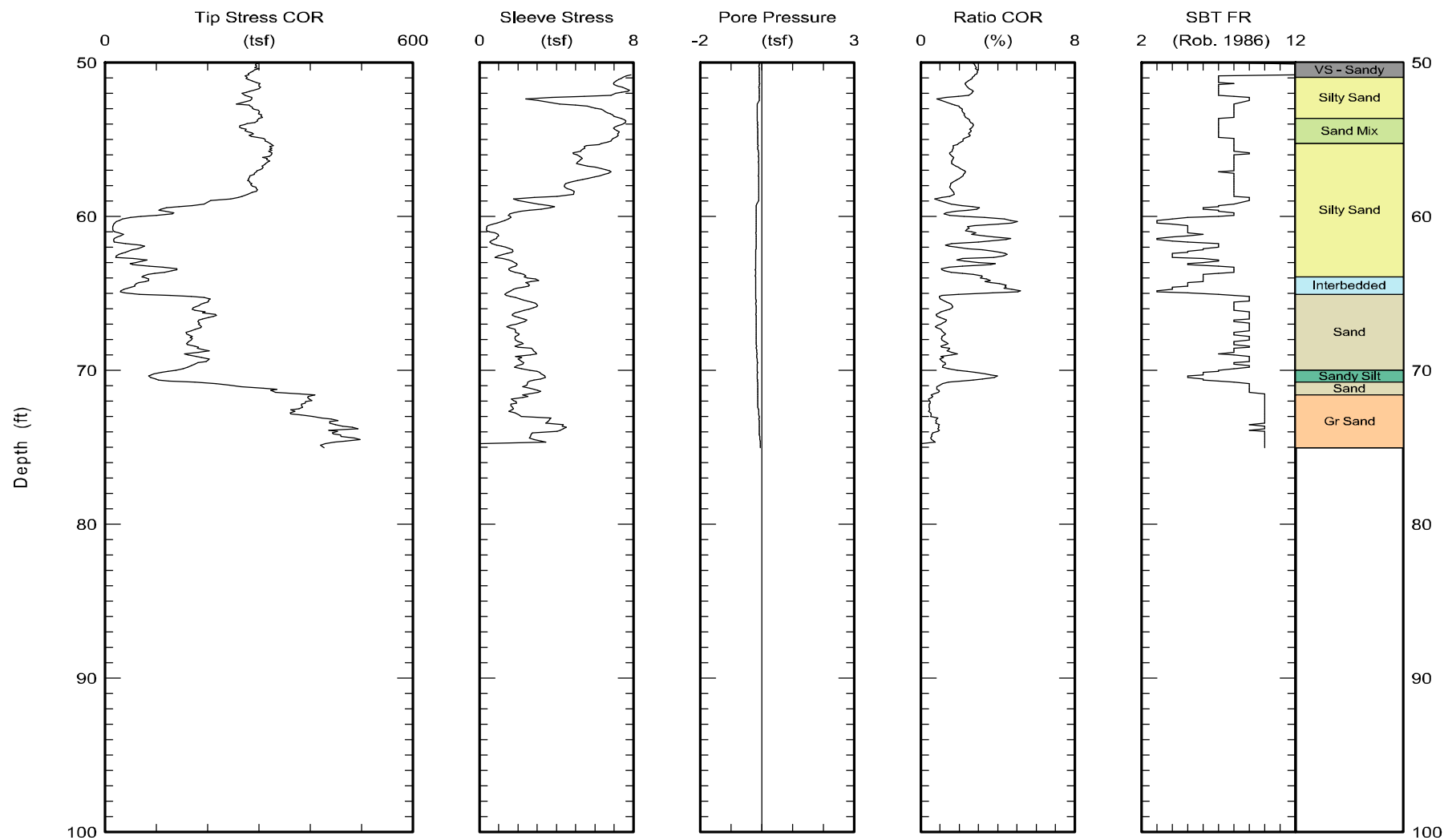
Page 2 of 2

 Kehoe Testing & Engineering Office: (714) 901-7270 Fax: (714) 901-7289 rich@kehoetesting.com www.kehoetesting.com	CPT Data 30 ton rig	Date: 16/Jan/2012 Test ID: C-3 Project: LongBeach
	Customer: Kling Consulting Group, Inc. Job Site: Studebaker Rd & PCH	



Maximum depth: 75.06 (ft)
Page 1 of 2

 Kehoe Testing & Engineering Office: (714) 901-7270 Fax: (714) 901-7289 rich@kehoetesting.com www.kehoetesting.com	CPT Data 30 ton rig	Date: 16/Jan/2012 Test ID: C-3 Project: LongBeach
	Customer: Kling Consulting Group, Inc. Job Site: Studebaker Rd & PCH	



Maximum depth: 75.06 (ft)

Page 2 of 2

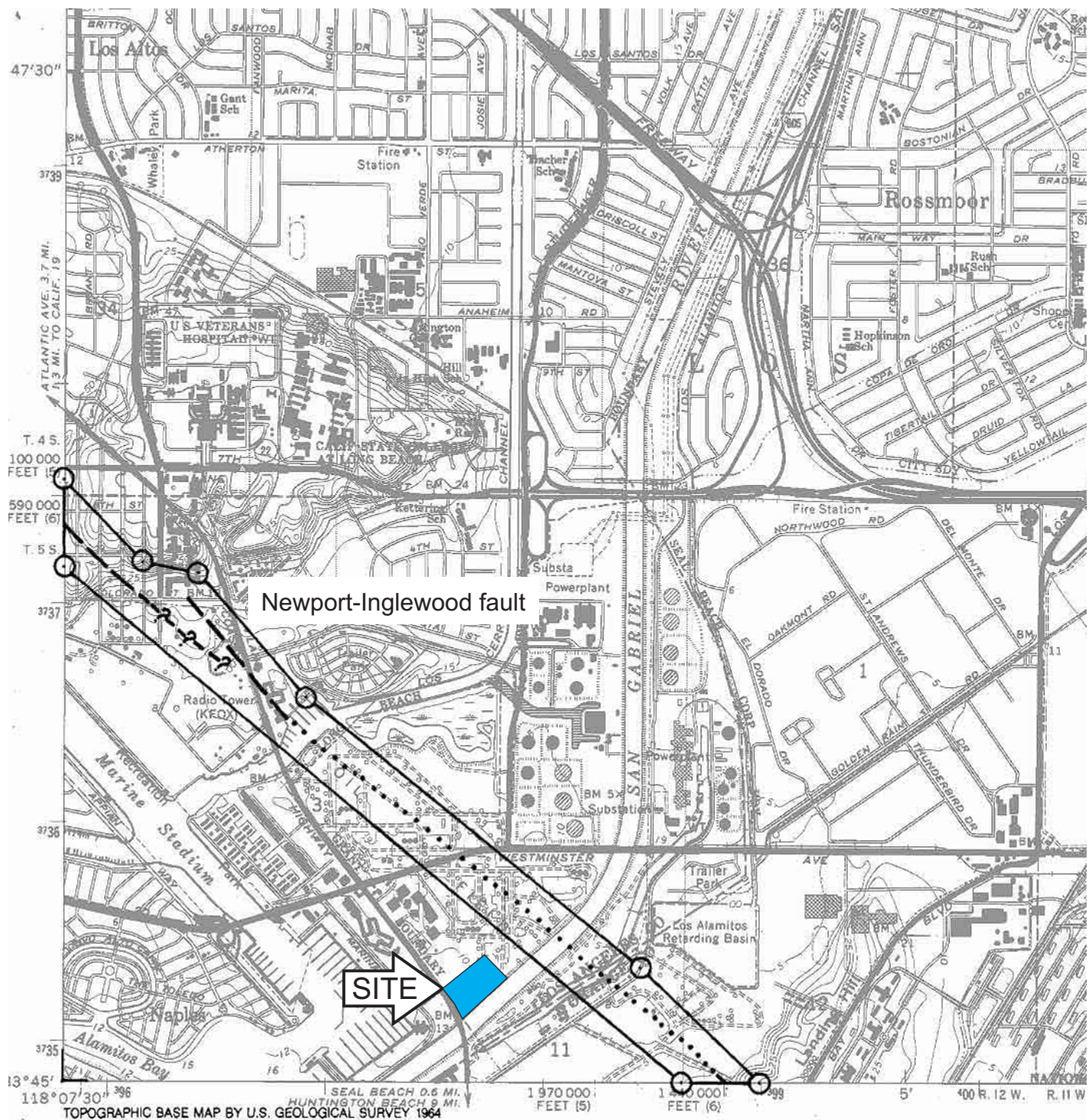


Geotechnical Legend

35 } Approximate Contour of Trash Depth



Not to Scale



Not To Scale

Reference: CGS, State of California Special Studies Zones - Los Alamitos Quadrangle

E2 Geotechnical Study for the LCWA Site



**EIR Level Geotechnical Study
Proposed Wetlands Restoration and
Oil Consolidation Project
LCWA Site
Studebaker and
Westminster Boulevard
City of Long Beach, California.**

**PN 11038-02
May 26, 2016**



May 26, 2016

PN 11038-02

Mr. Ken Coulter
Beach Oil Minerals Partners
4901 Birch Street
Newport Beach, CA 92660

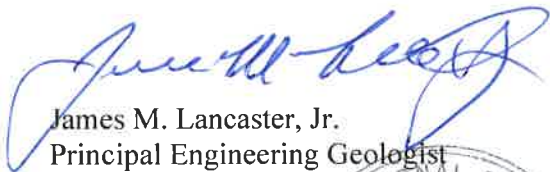
Subject: EIR Level Geotechnical Study, Proposed Wetlands Restoration and Oil Consolidation Project, LCWA Site, Studebaker and Westminster Boulevard, City of Long Beach, California.

In accordance with your request and authorization, Kling Consulting Group has performed an EIR level geotechnical study for the "LCWA" site in the City of Long Beach, California. Our study included review of relevant published geologic and geotechnical literature, a review of past geotechnical site explorations in the general area, site specific geotechnical site exploration and a review of the current proposed land use.

We appreciate this opportunity to be of service and to work with you on this project. Should you have any questions regarding this report, please do not hesitate to call.

Respectfully,

KLING CONSULTING GROUP

A handwritten signature in blue ink, appearing to read "James M. Lancaster, Jr.", is positioned above the text.

James M. Lancaster, Jr.
Principal Engineering Geologist
C.E.G. 1927
Expires 6/30/16



JML:HFK:dmj

Dist.: (4) Addressee

A handwritten signature in blue ink, appearing to read "Henry F. Kling", is positioned above the text.

Henry F. Kling
Principal Geotechnical Engineer
G.E. 2205
Expires 03/31/18



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Figure 3	—	Fault Location Map

1.0 INTRODUCTION

1.1 Purpose and Scope of Work

Our study was conducted to provide an evaluation of the subject site from a geologic and geotechnical EIR perspective. It is our understanding that the subject “LCWA” site is part of an overall Proposed Wetlands Restoration and Oil Production Project. Our conclusions are based on relevant published geologic and geotechnical literature, a review of past geotechnical site explorations in the general area, geotechnical site exploration including three (3) hollow stem borings and four (4) cone penetrations tests (CPTs), and a review of the current proposed land use for the site.

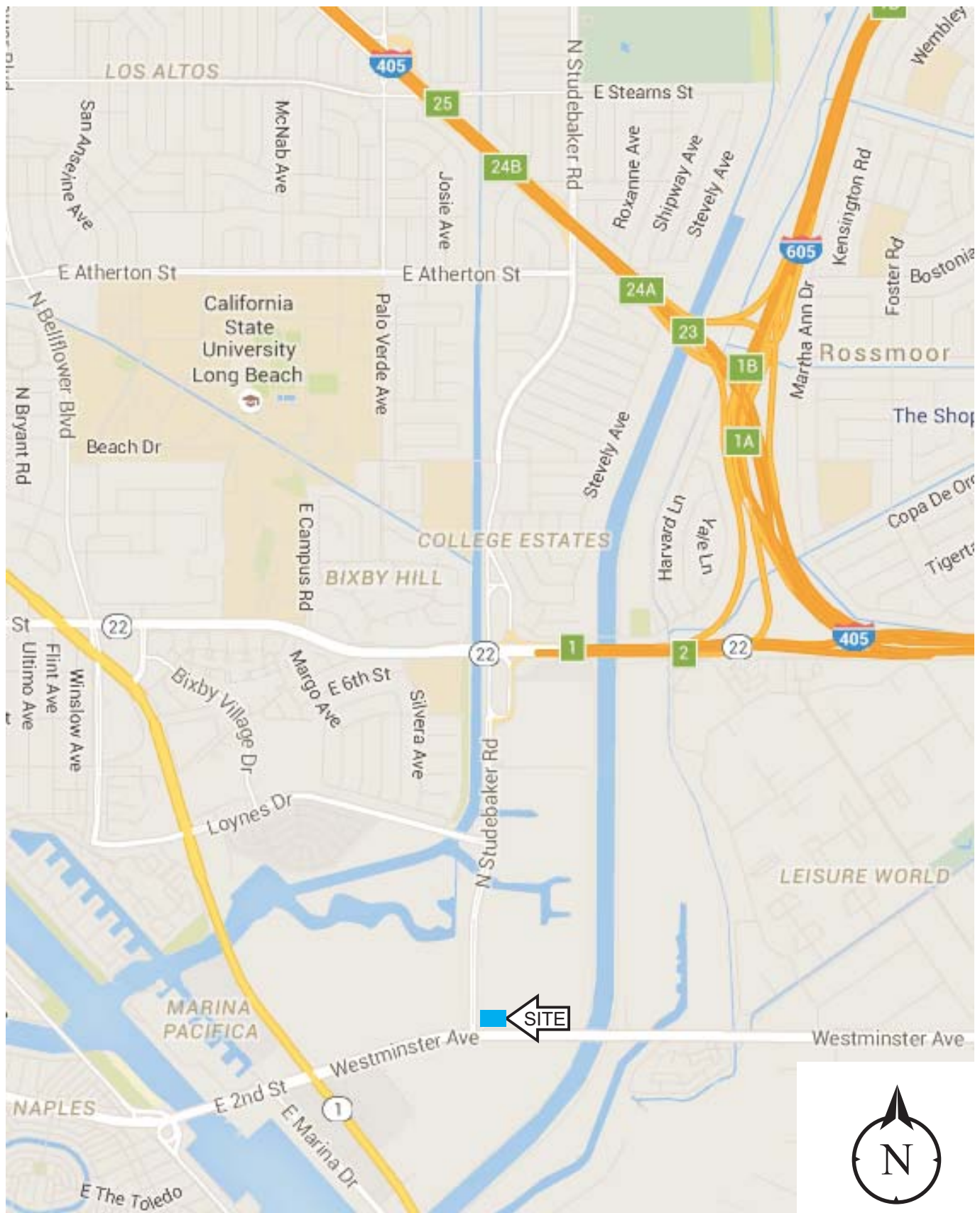
1.2 Site Location and Past Land Use

The subject “LCWA” site is located at the northeast corner of the intersection of Studebaker Road and Westminster in the City of Long Beach, California (See Figure 1). The subject site is northeast of Alamitos Bay and the Naples area of Long Beach and approximately 1,000 feet northwest of the San Gabriel River outflow channel. The site consists of a generally flat lying rectangular parcel of land of approximately 5 acres in area with a general elevation of about 12 feet above mean sea level. Vegetation is generally sparse with sheet flow drainage to the north and east. The LCWA Site is currently undeveloped and is used on a temporary lease basis for equipment storage and staging.

1.3 Proposed Current Land Use

It is our understanding that the proposed site will be part of an overall Proposed Wetlands Restoration and Oil Consolidation Project consisting of four sites: the Synergy Oil Field Site, the “LCWA” Site, the Los Cerritos Wetlands Authority (LCWA) Site, and the 33-acre City Marketplace Marsh (City Property) Site. The Synergy Oil Field Site is located at 6433 East 2nd Street between Pacific Coast Highway to the west, the Los Cerritos Channel to the north, Studebaker Road to the east, and 2nd Street to the south. The “Pumpkin Patch” Site is located at 6701 East Pacific Coast Highway at the northeast corner of the intersection with the San Gabriel Channel. The City Property Site is located between 2nd Street to the north and the San Gabriel River to the south.

It is our understanding that the “LCWA” is to replace the oil production facilities currently on other nearby properties owned by the City of Long Beach and Synergy Oil. It is our further understanding that the wells will be a combination of oil production and water injection wells. In addition to the oil production area, the project proposes to construct an elevated piperack, a 21,000 barrel sales oil tank (35 feet in height and 75 feet in diameter), and a 5,000 barrel injection water tank (35 feet in height and 32 feet in diameter). The site will also include a 15-20 feet high ground flare, and 3 gas turbines for onsite electrical power generation. A 22-foot high screen wall will be built on the perimeter of the LCWA site. The project proposes to improve the existing driveway off of Studebaker Road to a 30-foot entrance/exit, and to construct a secondary 30-foot access from Westminster Boulevard. Perimeter landscaping will be provided along the Studebaker Road and Westminster Boulevard frontage.



Reference: Map Data © 2016 Google

1.4 Geologic and Geotechnical Assessments

In May of 2016 our firm excavated three (3) hollow stem auger borings to depths of 26.5 to 40 feet. In addition, four (4) Cone Penetration Test borings were completed to 75 feet in depth. These excavations were completed to help define the geologic conditions of the site and to evaluate potential geologic hazards.

The site exploration and boring logs are provided on Figure 2 and in Appendix B, respectively.

2.0 GEOLOGIC CONDITIONS

2.1 Geologic Setting

The project is located within the United States Geological Survey (USGS) Long Beach 7.5-minute quadrangle. The site is within a portion of the Los Angeles Basin that is comprised of a low alluvial floodplain. Past research suggests that over the past 20,000 years, the Rio Hondo, San Gabriel and Santa Ana rivers have moved back and forth across the coastal flood plains in Los Angeles and Orange County depositing the recent alluvial materials observed today. The coastal portion of the floodplain is bound by a line of elongated folded low hills and faults. This portion of the basin is dominated by the northwest-trending Newport-Inglewood Structural Zone.

The soil underlying the project site is characterized by predominately younger alluvial deposits and minor artificial fill associated with past land use. Younger alluvial deposits consist of Holocene alluvial silty sand and sandy silt, sand and some clayey silt.

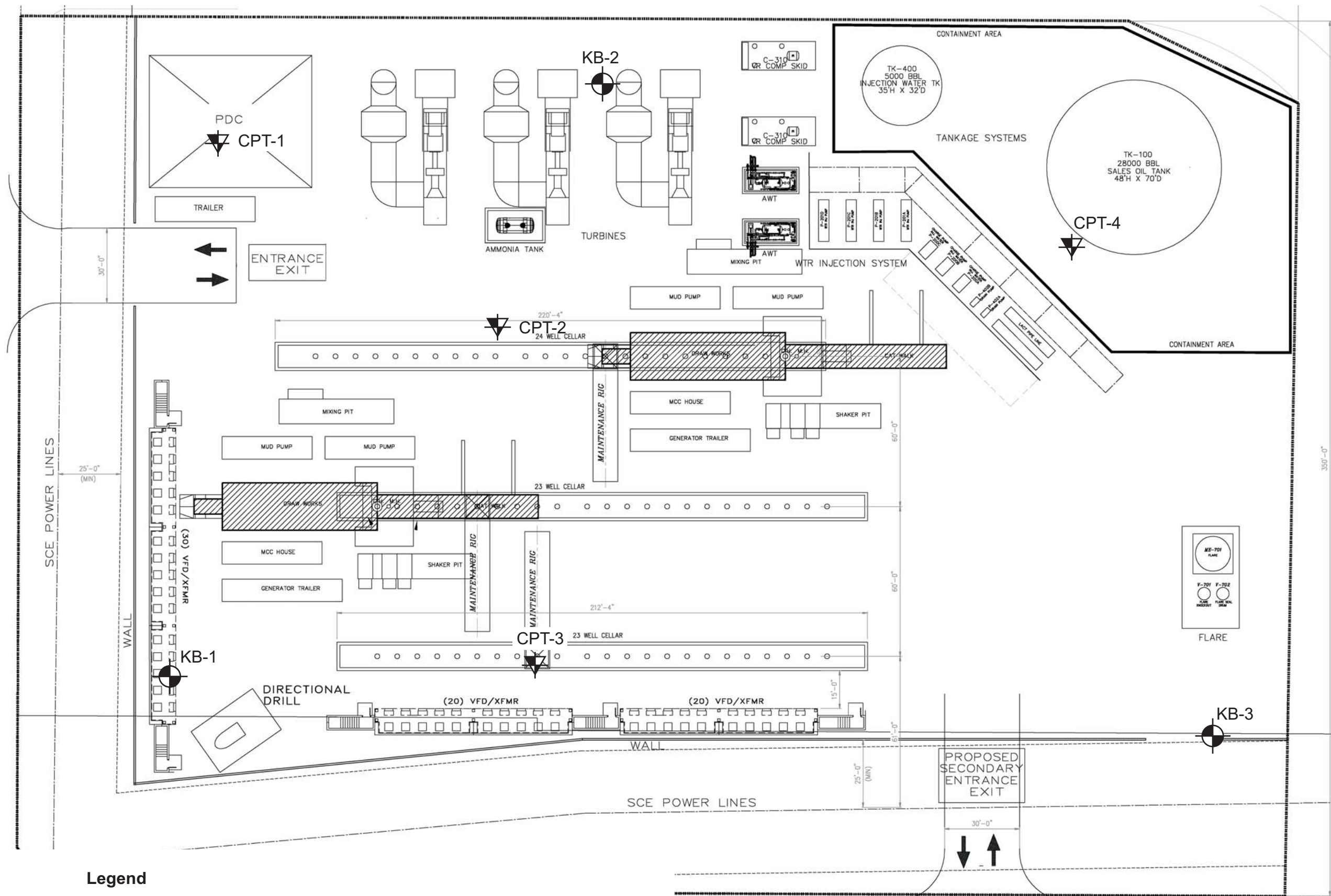
2.2 Geologic/Geotechnical Hazards

Our hazard evaluation included an evaluation of expansive soils, groundwater, faulting, seismicity, landslides, liquefaction and settlement, slope stability, seismically induced landsliding, seismically induced settlement, lateral spreading, and subsidence.

2.2.1 Expansive Soils

The encountered onsite alluvial materials are considered to have “low” to “moderate” expansion potential. Expansive soils are subject to volume changes from changes in moisture content: swelling with increases in moisture; shrinkage with decreases in moisture. Based on visual observation of the site it appears that minor amounts of fine grained materials are interspersed throughout the alluvial soil. This creates the possibility for soils with higher expansion potential to exist near the surface due to mixing of soils during grading.

Studebaker Road



Legend

- KB-3 Approximate Location of Boring by KCG
- CPT-4 Approximate Location of CPT by KCG



Approximate Scale
1" = 40'



Westminster Avenue

2.2.2 Groundwater

The subject site is located near the Pacific Ocean and the San Gabriel River outflow. The reference reports indicate that high past groundwater level was about 10 feet below the ground surface. Our recent borings encountered groundwater at a depth of 15 to 30 feet below the ground surface.

2.2.3 Faulting

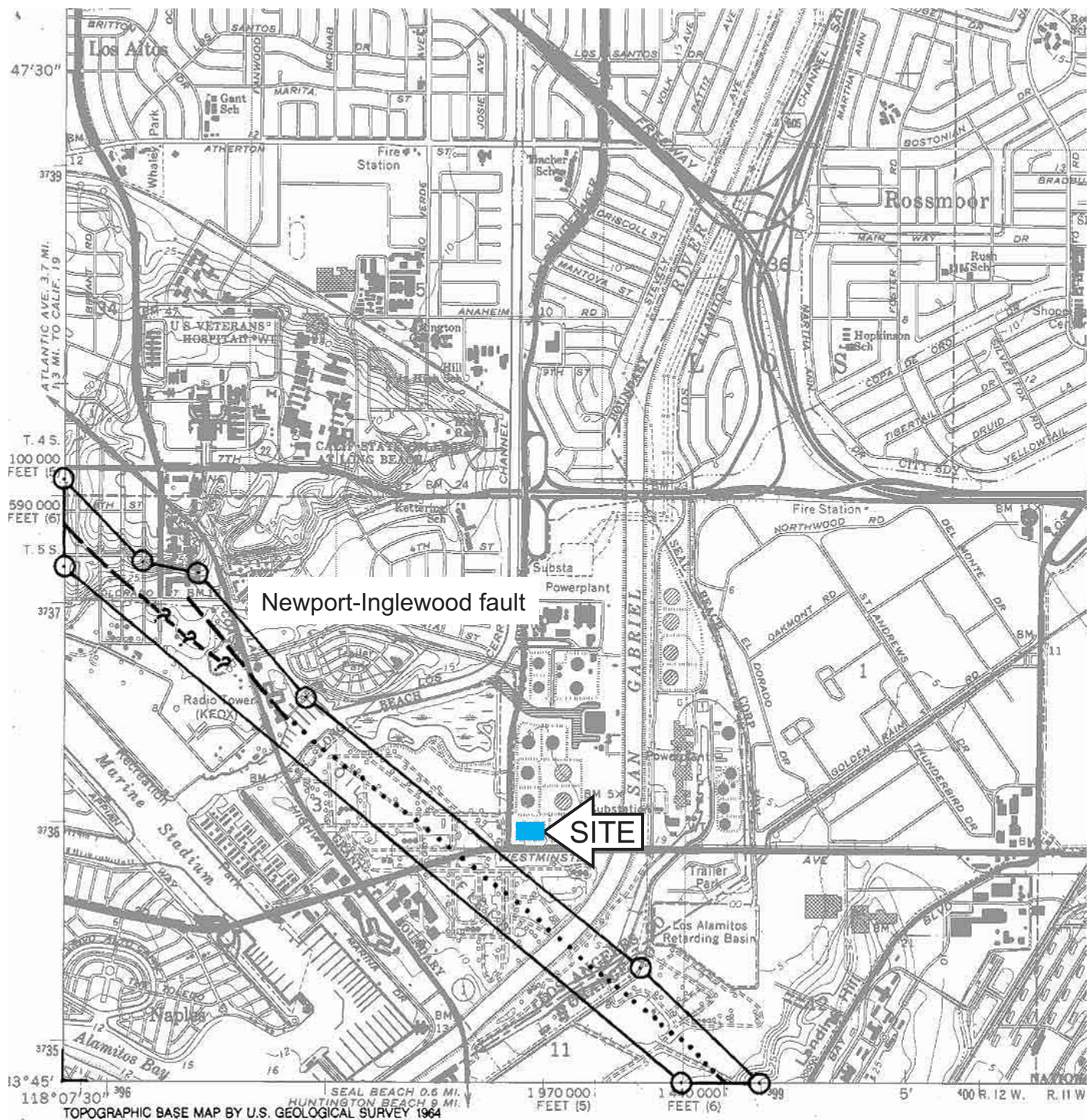
Southern California is a tectonically active region. A fault is defined as a fracture within rock upon which there has been an observable amount of displacement. Fracturing or jointing is defined as a break within the rock structure that has not experienced displacement. Faulting can include major sutures within the earth's crust that can produce earthquakes to smaller features that have experienced sympathetic movement due to movement on major faults, to joints and fractures that have not experienced displacement.

As a result of damage due to the 1971 San Fernando earthquake, the State of California enacted the Alquist-Priolo Act. The Act required the State Geologist to map known faults and determine relative activity of the fault. As such, the California Geologic Survey has created definitions for active, potentially active and inactive fault zones. An **active fault** is defined as a well-defined fault that has exhibited surface displacement during the Holocene (recent) time (approximately the last 11,000 years). A **potentially active** fault is defined as having a history of movement within the Pleistocene time (between 11,000 to 1.6 million years ago). An **inactive** fault is defined as any fault that has not experienced movement in the last 1.6 million years.

The project site is located in the Los Alamitos 7.5-minute quadrangle Special Studies Zone (1986). Although the site is not within a Special Studies zone requiring evaluation for faulting, it is approximately 200 feet northeast of the edge of the AP fault zone for the Newport-Inglewood fault and as such subject to strong seismic shaking. The attached Figure 3 illustrates the proximity of the site to the Newport-Inglewood fault system.

The northwest-trending Newport-Inglewood Fault Zone dominates the geologic structure of the coast line from Newport Beach to above the Long Beach area capable of a M7.4 earthquake. The fault is characterized by a chain of right lateral faults including the Cherry Hill fault, the Northeast Flank fault, and the Reservoir Hill fault. As a result of the fault movement in the area a number of elongated hills are present in the area including the Dominguez Hills and Signal Hill. The March 11, 1933 M6.4 "Long Beach" earthquake is believed to have occurred along the Newport-Inglewood fault offshore from Huntington Beach.

2.2.4 Seismicity



Not To Scale

Reference: CGS, State of California Special Studies Zones - Los Alamitos Quadrangle

The USGS estimates that the peak horizontal ground acceleration (PGA_M) is 0.604g. Presented below are the site seismic parameters utilizing generic geologic, seismic and geotechnical data gathered for the site. All structures should be designed for earthquake induced strong ground motions in accordance with the 2013 CBC procedures utilizing the following parameters:

Table 1: Seismic Design Parameters	
Site Class (Soil Profile)	D
Latitude, Longitude	33.7604, -118.1028
Short Period Spectral Acceleration, S_S :	1.565g
1-Second Period Spectral Acceleration, S_1 :	0.584g
Site Coefficient, F_a :	1.0
Site Coefficient, F_v :	1.5
Maximum Considered Earthquake Spectral Response Acceleration, S_{MS} :	1.565g
Maximum Considered Earthquake Spectral Response Acceleration, S_{M1} :	0.876g
Design Spectral Response Acceleration, S_{DS} :	1.043g
Design Spectral Response Acceleration, S_{D1} :	0.584g
Occupancy Category	II
Seismic Design Category	D

2.2.5 Landslides

Based on a review of aerial photographs and available geotechnical reports, and topographic conditions no landslides are present at the property or at a location that could impact the subject site.

2.2.6 Liquefaction and Settlement

As part of the State of California Seismic Hazard Mapping program, the State of California created seismic hazard maps to identify liquefaction hazards on an aerial basis. The project site is located in the Los Alamitos 7.5-minute quadrangle Seismic Hazard Zone (1999). The site is within an area that requires a liquefaction evaluation. The associated Open File report for the Los Alamitos quadrangle, Open File Report 019 was published in 1998.

The term liquefaction refers to a phenomenon that occurs when saturated, loose granular soils experience a temporary loss of strength when subjected to seismic ground vibrations. This loss of strength occurs when an increase of water pressure within the soil matrix exceeds the soil overburden pressure, and therefore liquefies the soil matrix. For liquefaction to occur, three conditions are required:

- Ground shaking of significant magnitude and duration;
- Groundwater conditions sufficient to create saturated soil conditions;
- Loose cohesionless soils.

Our liquefaction evaluation indicates that approximately 2.6 to 4.3 inches of seismic settlement would occur at the site during a Maximum Credible Earthquake of 7.0 magnitude utilizing a peak ground acceleration PGA_M of 0.601g. This represents the (worst case) design level earthquake and ground acceleration to be used for liquefaction analysis, as per ASCE 7-10.

2.2.7 Lateral Spreading

Lateral spreading is characterized by horizontal displacement of surficial soil layers as a consequence of liquefaction of deeper granular soil layers. Lateral spreading usually occurs on sites with sloping ground surfaces located near bodies of water such as lakes, rivers and oceans. Due to the flatness of the site, the lack of slopes and distance to the nearest water body, lateral spreading is unlikely to occur during a design maximum earthquake event.

2.2.8 Slope Stability

Topographic conditions do not indicate the presence of significant slopes that would require slope stability analysis.

2.2.9 Seismically Induced Settlement

Seismically induced settlement and differential settlement is associated with liquefaction and/or seismic movement. Dry settlement potential due to seismic movement may be considered low to moderate based on the overall sandy nature of the soil.

2.2.10 Seismically Induced Landsliding

Seismically induced landsliding is not expected as the site is relatively flat along with the absence of slopes near the site.

2.2.11 Subsidence

Subsidence is the lowering of surface elevation due to changes occurring underground. In the area of the subject site as with much of the Long Beach area is a regional issue. Generally subsidence has been associated with groundwater and oil withdrawal at depth. Generally, subsidence in the Long Beach area is concentrated in the Long Beach Harbor area (Wilmington oil field) and lessens with distance away from the area. It has been estimated that north and east of the main Long Beach Harbor area, this subsidence has averaged a few tenths of a foot over a period of about 20 years and has been generally uniform across wide areas. Continued subsidence potential risks are considered to be low.

3.0 GEOTECHNICAL IMPACTS AND MITIGATION

In accordance with the State CEQA Guidelines, the proposed project could have a significant environmental impact if it would:

- (a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - (i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault.
 - (ii) Strong seismic ground shaking.
 - (iii) Seismic-related ground failure, including liquefaction.
 - (iv) Landslides.
- (b) Result in substantial soil erosion or the loss of topsoil.
- (c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.
- (d) Be located on expansive soil, as defined in Table 18-1-B of the California Building Code (2001), creating substantial risks to life or property.
- (e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

In addition to the above, the California Geologic Survey has also incorporated the following potential impacts within their “Guidelines for Preparation of Geologic Sections of Environmental Impact Reports” (CDMG Note 46, 1982):

1. Flooding due to Dam or Levee Failure
2. Loss of Mineral Resources
3. Excavation and Blasting
4. Impacts due to seiches
5. Impacts due to tsunami
6. Volcanic Hazards.

3.1 Seismic Impacts

In general, seismic exposure at the project site is typical of the Southern California region. Possible sources or causes of earthquake-related damages are addressed below.

3.1.1 Rupture of Known Earthquake Faults

The project site does not lie within an Alquist-Priolo Special Studies Zone. No known active or potentially active faults cross the project site. Therefore, the proposed project would not expose people or structures to potential substantial adverse effects involving rupture of a known earthquake fault.

Mitigation Measures – None

3.1.2 Seismic Ground Shaking

As with all properties in the seismically active Southern California region, the project site is susceptible to strong ground shaking during a seismic event. Potential impacts from seismic ground shaking are present throughout Southern California and would be of comparable intensity at the project site as it would be for large parts of the region. The proposed project should be designed in accordance with the seismic parameters set forth in Table 1 of this report, which incorporate the known seismic framework of the region, the relative activity of nearby faults, the proximity of the project site to active faults (or “near-source” effects), and soil and bedrock conditions beneath the project site. Compliance with the 2013 CBC utilizing the parameters set forth in Table 1 will reduce seismic risks to an acceptable level. Therefore, the proposed project would not expose people or structures to potential substantial adverse effects relating to strong seismic ground shaking.

Mitigation Measures – None

3.1.3 Seismic Related Ground Failure and Liquefaction

The project site is within a seismic hazard zone for liquefaction and seismic settlement as delineated by the State of California Seismic Hazard Maps. Our evaluation indicates that the site is susceptible to liquefaction including liquefaction-settlement and seismic settlement.

Mitigation of Liquefaction-settlement:

In order to reduce the impact of liquefaction occurring at the site several mitigation measures are available. The primary adverse effect from liquefaction is the resulting differential seismic settlement. To mitigate the differential liquefaction settlement, ground improvement measures such as deep soil mixing, jet and pressure grouting and dynamic compaction techniques are available. Selection of the appropriate mitigation technique should take into account an evaluation of the cost, duration and minimizing potential impacts to adjoining properties.

The ground improvement measures of soil mixing, dynamic compaction, jet grouting or pressure grouting effectively reduces or eliminate liquefaction from occurring by strengthening the soil and making it strong enough to resist the seismic shaking. Deep foundations, on the other hand, mitigate the potential for liquefaction settlement by supporting buildings or other surface improvements on piles or drilled caissons that extend through the liquefiable layers and into bearing soil.

Recommended Mitigation:

Given the limited affected areas on the project site, pressure grouting of the liquefiable layers is recommended to mitigate the potential for differential liquefaction settlement.

Mitigation of Lateral Spreading:

Lateral Spreading occurs when liquefaction occurs on sloping ground that transitions into a slope typically towards a body of water such as a river or lake. Instead of vertical displacement that occurs during liquefaction settlement, lateral spreading results in horizontal displacements that can cause tension cracks in the ground. The mitigation of lateral spreading is essentially the same as for liquefaction settlement. Ground improvement methods consisting of deep soil mixing, jet or pressure grouting or dynamic compaction can be utilized to eliminate liquefaction and lateral spreading. Given the flatness of the site and the lack of slopes it is unlikely that the site will be affected by lateral spreading.

Recommended Mitigation:

None

Mitigation of Seismic Settlement:

Seismic settlement is the settlement that occurs in soil that does not liquefy but that is low enough in density to experience settlement during the strong ground shaking. It is also known as dry settlement. The mitigation of seismic settlement if near the ground surface is densification of the soil by re-compaction. This would entail the removal and replacement of compressible soil prior to site development. If the problematic soil is too deep for removal and re-compaction, ground improvement methods can be used or deep foundations could also be utilized. Another option is to design the buildings and site improvements to withstand the differential settlement.

Recommended Mitigation:

Given the limited areas affected and small amount of settlement, designing the structures and improvements to withstand or accommodate the expected differential settlement is recommended.

3.1.4 Seismically Induced Landslides and Rock Fall

Based on a review of aerial photographs, site exploration, available geotechnical reports, and topographic conditions no existing landslides or slopes susceptible to landsliding are present at the property that could impact the subject site. Therefore the potential for seismically-induced landslides and rock fall to affect the project is considered non-existent.

Mitigation Measures –None

3.1.5 Tsunami

A tsunami is a sea wave caused by a submarine earthquake, landslide, or volcanic eruption. Tsunami can cause catastrophic damage to shallow and or exposed coastline. The project site is located just inland of the Pacific Ocean and about 1,000 feet from the San Gabriel River outfall. The site is within an area zoned as susceptible to tsunami inundation as mapped by the State of California. Therefore, the potential for tsunami to affect the project site is considered moderate. A separate analysis of the impacts of sea level rise and tsunami inundation is being prepared to address among other issues, the Coastal Commission's Sea Level Rise Guidance Document. The potential impacts of a tsunami on this site will be evaluated in that separate report.

Mitigation Measures – A separate sea level rise report has been prepared to address the potential impacts should a tsunami occur.

3.1.6 Seiches

Seiches are changes or oscillations of water levels within a confined body of water due to fluctuations in the atmosphere, tidal currents, or earthquakes. The effect of this phenomenon is a "standing wave" that would occur in a body of water that would occur when influenced by the external stimulus. No lakes, reservoirs, or other large confined bodies of water are in close proximity of the project site. Therefore, the potential for seiches to affect the project is considered non-existent.

Mitigation Measures – None

3.2 Soil Erosion or Loss of Topsoil

The graded and natural areas of the proposed project will be subject to erosion, sedimentation during, and following grading of the Development Areas. The California Building Code and Long Beach Municipal, as well as the provisions of the Federal Clean Water Act regulations, requires that erosion be controlled and minimized through the use of Best Management Practices, and appropriate flood and storm drainage control systems. Compliance with those codes and regulations will reduce soil erosion and loss of topsoil to acceptable levels. Therefore, the proposed project would not result in substantial soil erosion or loss of topsoil.

Mitigation Measures – None

3.3 Project Site Stability

3.3.1 Landslides

Based on a review of aerial photographs and available geotechnical reports, and topographic conditions no existing landslides or slopes susceptible to landsliding are present at the property or at a location that could impact the subject site. Therefore the potential for landslides to affect the project is considered non-existent.

Mitigation Measures – None

3.3.2 Mudflows

Based on a review of aerial photographs and available geotechnical reports, and topographic conditions no existing slopes susceptible to mudflow are present at the property or at a location that could impact the subject site. Therefore the potential for mudflows to affect the project is considered non-existent.

Mitigation Measures – None

3.3.3 Proposed Cut/Fill Slopes

The subject site is generally topographically flat. It is our understanding that major cut or fill slopes will not be proposed for the site development. It is our further understanding that variations in grade will be created utilizing retaining walls.

Mitigation Measures – None

3.3.4 Compressible Earth Materials

Generally compressible earth materials are to be removed and replaced as compacted fill. Therefore, the existence of compressible earth materials is considered to not be a significant impact to the site.

Mitigation Measures – None

3.4 Expansive Earth Materials

Expansive soils generally contain clay minerals that absorb moisture and cause the material to “swell” or increase in volume. Likewise, when expansive soils dry out, they tend to shrink or decrease in volume. Volume changes associated with changes in the moisture content of near surface soils can cause uplift or heave of the ground surface. Less commonly, settlement can occur when they lose moisture or dry out. Expansive earth materials may be present at the site on a limited basis and may be exposed during grading activities. The proper mixing and grading of the site materials will limit the potential impacts to the subject site. Therefore, the existence of expansive earth materials is not considered to be a

significant impact.

Mitigation Measures – None

3.5 Onsite Waste Disposal

It is assumed that a sanitary sewer system will be constructed to serve the proposed development with connection to the local sanitation district system. Onsite sewage disposal will therefore not be necessary. This is not considered to be a significant impact.

Mitigation Measures – None

3.6 Volcanic Hazards

No potential source of volcanic activity that would produce such hazards as lava flow or ash fall are known to exist in this area of Southern California.

Mitigation Measures – None

3.7 Subsidence Hazard

Based on a review of available geotechnical literature, the site is subject to subsidence of the subsurface soils at depth. The majority of the subsidence in the Long Beach area has been concentrated in the Wilmington Oil field area and lessens to the north and east with an estimated average of a few tenths of a foot over a period of about 20 years. Therefore, the potential for subsidence to affect the project is considered low.

Mitigation Measures – None

4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on information obtained from a review of geologic literature and our site investigation, the subject site does not possess adverse geotechnical or geological constraints that cannot be mitigated through remedial measures or that would preclude continued development of the property.

Structures should be designed in accordance with seismic design criteria of the 2013 CBC and/or local ordinances.

Due to the possibility of potentially expansive soils, special foundation design recommendations to mitigate expansive soils may be required. Mitigation measures would potentially include removal and replacement of on-site soils with non-expansive soil or utilizing stiffer foundations such as post-tensioned or slab on grade foundation systems designed in accordance with the current 2013 CBC.

The subject site has been mapped within a seismic hazard zone and the potential for liquefaction to occur at the site during a seismic event and the resulting seismic settlement could potentially occur. Therefore, it could become necessary to employ ground improvement techniques or more resistant

foundations systems such as deep foundations such as CFA shafts or driven piles. Flexible piping for utilities and production pipelines may also be required. Given the limited areas affected, ground improvement methods consisting of pressure grouting is recommended in areas where the liquefaction induced settlement is greater than what can be accommodated by structural design, with structural design techniques utilized where the amount of differential liquefaction settlement can be tolerated.

Groundwater has been encountered at a depth of between 15 and 30 feet in the area of the subject site. As such, removal of unacceptable earth materials, excavations for basements, well cellars or deep utility installation have the potential to encounter shallow groundwater during construction activities; therefore, dewatering may be required. The current study included subsurface exploration, laboratory testing of onsite soils and engineering analysis adequate to quantify specific geotechnical hazards and to formulate mitigation recommendations. Details regarding final site improvements (e.g., the actual foundation loads and specific locations of the structures vis a vis the subsurface characteristics, such as the historic landfill) are not known at this time. At such time when the details for the specific site improvements and their locations are finalized, a design-level geotechnical investigation shall be prepared to develop detailed corresponding final site- and development-specific recommendations based upon the potential geologic conditions and measures to address those conditions that have been identified in this report.

5.0 PROFESSIONAL LIMITATIONS

The scope of our services for this due diligence geotechnical review has been limited to a brief site visit and a review of the referenced documents as referenced herein. Our review should not be considered as an approval or acceptance of the site for development, without further site specific geotechnical investigations

Geotechnical services are provided by Kling Consulting Group in accordance with generally accepted professional engineering and geologic practice in the area where these services are rendered. Client acknowledges that the present standard in the engineering and geologic and environmental profession does not include a guarantee of perfection and, except as expressly set forth in the conditions above, no warranty, expressed or implied, is extended by KCG.

APPENDIX A

REFERENCES

APPENDIX A

REFERENCES

1. Earthquake Hazards Program, USGS Website for Seismic Design Maps and Tools.
2. State of California, Guidelines for Evaluating and Mitigating Seismic Hazards in California, Special Publication 117A, California Geological Survey, 2008.
3. State of California, Special Studies Zones, Los Alamitos Quadrangle, California Division of Mines and Geology, July 1, 1986.
4. State of California, Seismic Hazard Zones, Los Alamitos Quadrangle, California, Division of Mines and Geology, March 25, 1999.
5. State of California, Special Hazards Zone Report 019, Seismic Hazard Zone Report For The Los Alamitos 7.5-Minute Quadrangle, Los Angeles And Orange Counties, California, 1998.
6. California Geological Survey Special Report 236, Tsunami Emergency Response Playbooks and FASTER Tsunami Height Calculation: Background Information and Guidance, 2014.
7. California Geological Survey, Tsunami Inundation Map for Emergency Planning, Los Alamitos Quadrangle, Seal Beach Quadrangle, County of Los Angeles, California, March 1, 2009.

APPENDIX B
BORING LOGS

LOG OF EXPLORATORY BORING

Sheet 1 of 1

Project: **LCWA**
 Project Number: **11038-02**
 Date Drilled: **5/3/16**
 Logged By: **T.D.**

Boring No.: **KB-1**
 Driller: **Jet Drilling**
 Drill Type: **HS**
 Hammer Wt. / Drop: **140lb / 30in**
 Ground Elev. [ft]: **11.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Standard Split Spoon Shelby Tube Water Level ATD California Bulk Sample Static Water Table	Pocket Pen. [tsf]	Lab Tests	Remarks
SOIL DESCRIPTION and CLASSIFICATION (USCS)										
10							Alluvium (Qal) @ 0.0 feet - Silty SAND (SC): dark brown, fine grained, oily texture, misc. brick fragments, dry to damp, loose, oil-like odor.			0.0-5.0 ft. 29 ppm PID
5	5			5 9 15	20	101	@ 5.0 feet - Silty SAND (SC): mottled brown and grey, fine grained, dry to damp, medium dense, oil-like odor.			
0	10			6 8 9	25	96	@ 10.0 feet - Fine Sandy SILT (ML) with some clay: dark grey, fine grained, highly micaceous, dry to damp, firm, slight oil-like odor.		DS	
-5	15			3 4 7	25	103	@ 15.0 feet - Fine Sandy SILT (ML) with some clay: dark grey, fine grained, highly micaceous, damp to wet, firm, faint oil-like odor.			Saturated at 15 ft. Blow counts might be affect by water.
-10	20			5 9 14	28	95	@ 20.0 feet - Fine Sandy SILT (ML) with some clay: dark grey, fine grained, highly micaceous, wet, firm.			
-15	25			4 6 8	29	93	@ 25.0 feet - SAME			
Total Depth: 26.5 feet Groundwater Encountered at 15.0 feet No Caving Backfilled with Cuttings 05/03/16										

HS BA TP 11038-02.GPJ Kling Consulting Group, Inc. 5/25/16

LOG OF EXPLORATORY BORING

Sheet 1 of 1

Project: **LCWA**
 Project Number: **11038-02**
 Date Drilled: **5/3/16**
 Logged By: **T.D.**

Boring No.: **KB-2**
 Driller: **Jet Drilling**
 Drill Type: **HS**
 Hammer Wt. / Drop: **140lb / 30in**
 Ground Elev. [ft]: **10.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	 Standard Split Spoon  Shelby Tube  Water Level ATD  California  Bulk Sample  Static Water Table	Pocket Pen. [tsf]	Lab Tests	Remarks
SOIL DESCRIPTION and CLASSIFICATION (USCS)										

HS BA TP 11038-02.GPJ Kling Consulting Group, Inc. 5/25/16

LOG OF EXPLORATORY BORING

Sheet 1 of 1

Project: **LCWA**
 Project Number: **11038-02**
 Date Drilled: **5/3/16**
 Logged By: **T.D.**

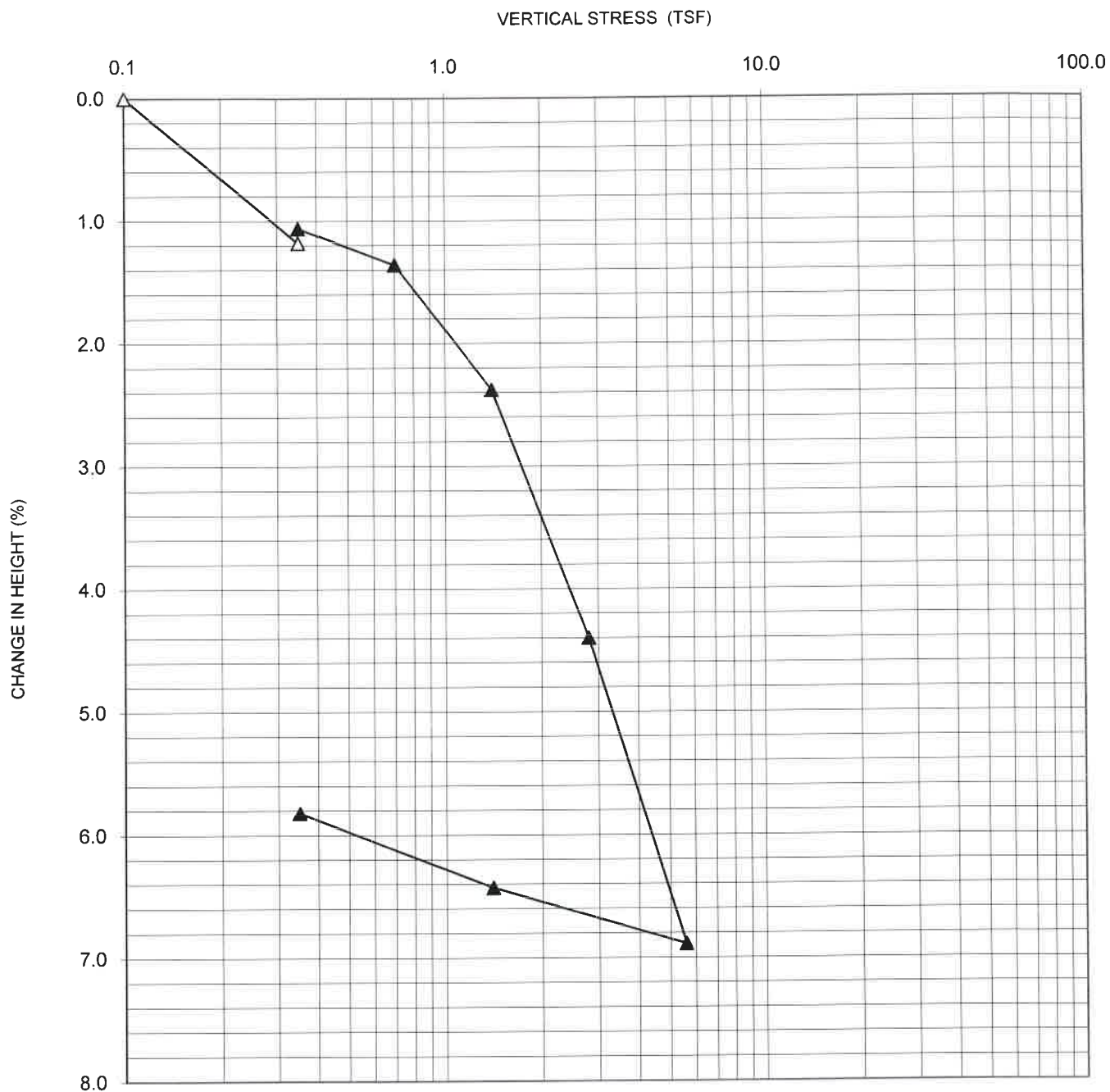
Boring No.: **KB-3**
 Driller: **Jet Drilling**
 Drill Type: **HS**
 Hammer Wt. / Drop: **140lb / 30in**
 Ground Elev. [ft]: **12.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Standard Split Spoon Shelby Tube Water Level ATD California Bulk Sample Static Water Table	Pocket Pen. [tsf]	Lab Tests	Remarks
SOIL DESCRIPTION and CLASSIFICATION (USCS)										
10							Alluvium (Qal) @ 0.0 feet - Sandy SILT (ML) with some clay: brown, fine grained, micaceous, dry to damp, soft to firm.			
5				3 5 10	6	117	@ 5.0 feet - Sandy SILT (ML): greyish brown, fine grained, highly micaceous, iron-oxide staining, damp, firm.			
5										
10				5 7 14	24	100	@ 10.0 feet - Silty CLAY (CL): greyish brown, fine grained, highly micaceous, tiny rootlets, iron-oxide staining, damp, firm.			
0										
15				4 7 9	48	78	@ 15.0 feet - SAME			
-5										
20				4 6 7	32	92	@ 20.0 feet - SAME			
-10										
25				5 6 10	27	96	@ 25.0 feet - Silty CLAY (CL): dark grey, fine grained, highly micaceous, random decayed rootlets, damp, firm.			
Total Depth: 26.5 feet No Groundwater No Caving Backfilled with Cuttings 05/03/16										

HS BA TP 11038-02.GPJ Kling Consulting Group, Inc. 5/25/16

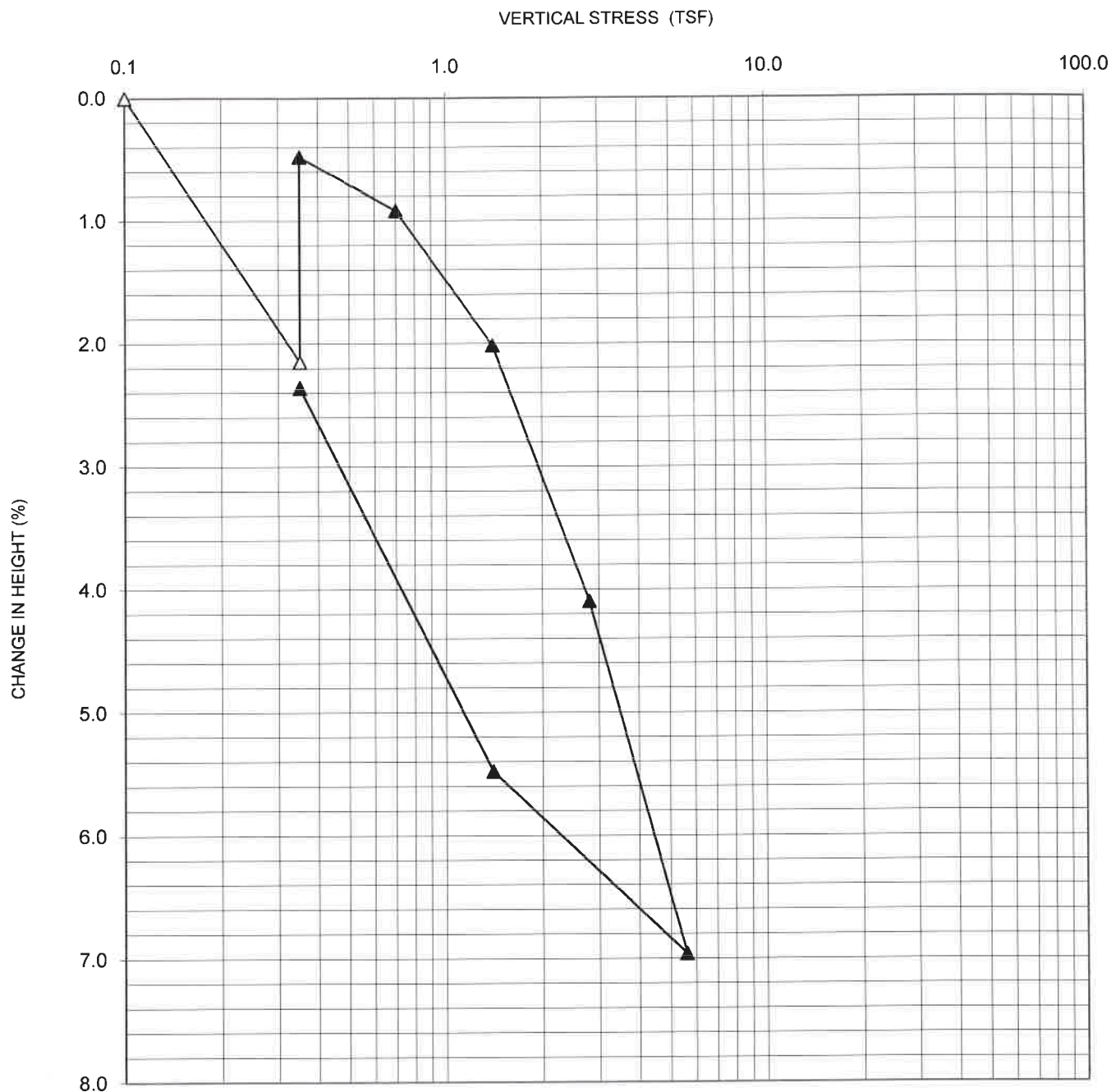
APPENDIX C

LABORATORY TEST RESULTS



PROJECT NO.: 11038-01 SOIL DESCRIPTIONS: BROWN FINE SANDY SILT (ML)
 BORING NO./LOCATION : KB - 2 DEPTH / ELEV. : 5' LIQUID LIMIT : -
 SPECIFIC GRAVITY : 2.68 (Assumed) PLASTIC LIMIT: -

	SPECIMEN HEIGHT (INCHES)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	SATURATION (%)	VOID RATIO
INITIAL	1.0000	17.2	108.0	84.2	0.548
FINAL	0.9418	17.7	114.7	103.5	0.458



PROJECT NO.: 11038-01 SOIL DESCRIPTIONS: GRAYISH BROWN SANDY CLAY (CL)

BORING NO./LOCATION : KB - 3 DEPTH / ELEV. : 10' LIQUID LIMIT : -

SPECIFIC GRAVITY : 2.68 (Assumed) PLASTIC LIMIT: -

	SPECIMEN HEIGHT (INCHES)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	SATURATION (%)	VOID RATIO
INITIAL	1.0000	24.3	99.9	96.6	0.674
FINAL	0.9764	24.6	102.3	103.7	0.635

Project Name : L C W A

Project No. : 11038-01

Boring / Sample No : KB - 1

Depth : 10' (ft.)

Tested By : RB Date: 9-May-16

Sample Descriptions / Classification : DK. GRAY SILTY FINE SAND (SM)

Applied Normal Load (ksf)	1.0		2.0		4.0	
Shear Stress, (Peak) (ksf)	0.840		1.416		2.700	
Shear Stress, (Ultimate) (ksf)	0.672		1.248		2.436	
Density and Saturation	Initial	Final	Initial	Final	Initial	Final
Wet Weight of Soil + Ring (gms)	186.25	186.38	187.22	186.91	185.94	186.06
Dry Weight of Soil + Ring (gms)		158.22		158.71		157.66
Weight of Water (gms)	-	46.54	-	47.28	-	45.81
Weight of Ring (gms)	-	46.1	-	44.65	-	44.52
Weight of Dry Soil (gms)	-	112.12	-	114.06	-	113.14
Moisture Content (%)	25.0	41.5	25.0	41.5	25.0	40.5
Wet Density (pcf)	117.0	117.1	119.0	118.7	118.1	118.1
Dry Density (pcf)	-	82.7	-	83.9	-	84.1
Specific Gravity, G_s (Assumed)	2.68					
Thickness of Specimen, (in.)	1.00					
Degree of Saturation, (%)	65.6	108.9	67.5	112.0	67.8	109.8
Void Ratio	-	1.021	-	0.992	-	0.989

Lateral Displacement, d_h 0.36 (in.)Displacement Rate, d_r 0.05 (in./min.)Elapsed Time of Test, t_e 7.20 (min.)

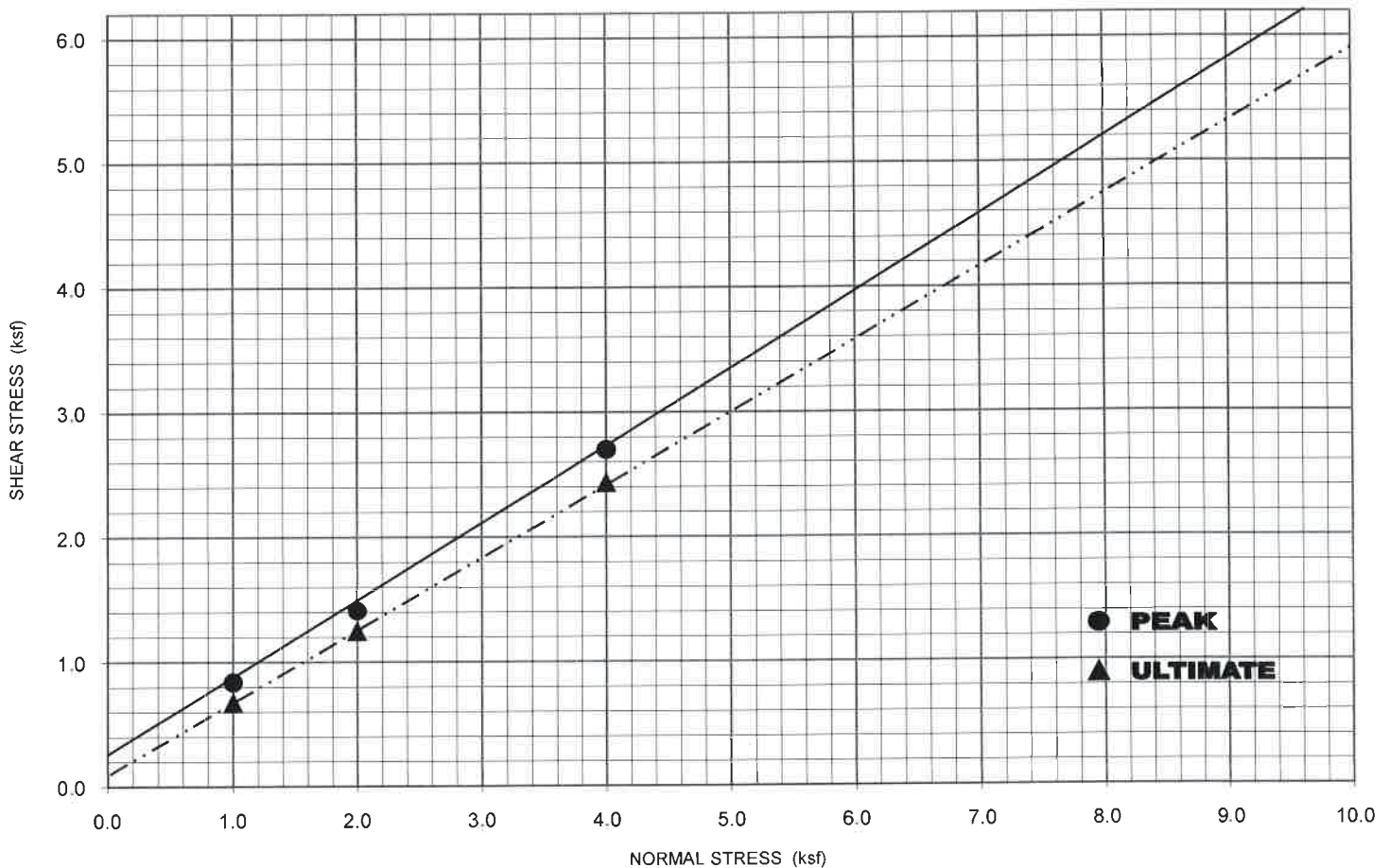
Specimen : Undisturbed : X

Remolded : -

Reconstituted : -

	PEAK	ULTIMATE
Cohesion, c (psf)	300	100
Friction Angle, ϕ	32	30

Remarks :



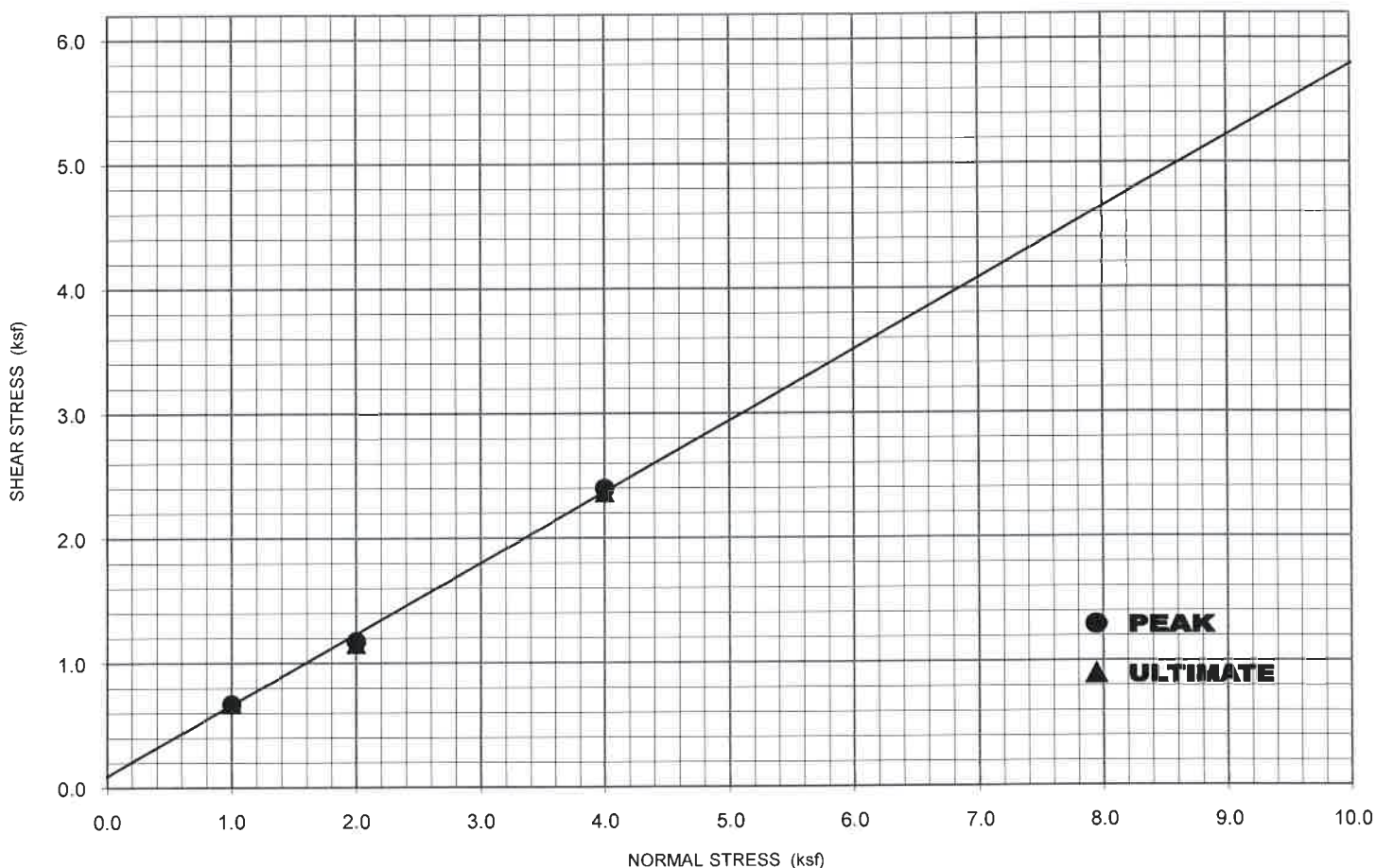
Project Name : **LCWA**Project No. : **11038-01**Boring / Sample No : **KB - 3**Depth : **0 - 5'** (ft.)Tested By : **RB** Date: **9-May-16**Sample Descriptions / Classification : **GRAYISH BROWN SANDY CLAY (CL)**

Applied Normal Load (ksf)	1.0		2.0		4.0	
Shear Stress, (Peak) (ksf)	0.672		1.176		2.400	
Shear Stress, (Ultimate) (ksf)	0.672		1.152		2.364	
Density and Saturation	Initial	Final	Initial	Final	Initial	Final
Wet Weight of Soil + Ring (gms)	187.91	196.01	187.96	196.03	189.05	197.10
Dry Weight of Soil + Ring (gms)		168.61		168.66		169.75
Weight of Water (gms)	-	46.54	-	47.28	-	45.81
Weight of Ring (gms)	-	44.09	-	44.14	-	45.23
Weight of Dry Soil (gms)	-	124.52	-	124.52	-	124.52
Moisture Content (%)	15.5	37.4	15.5	38.0	15.5	36.8
Wet Density (pcf)	120.1	126.8	120.1	126.8	120.1	126.8
Dry Density (pcf)	-	92.3	-	91.9	-	92.7
Specific Gravity, G_s (Assumed)	2.68					
Thickness of Specimen, (in.)	1.00					
Degree of Saturation, (%)	51.2	123.4	50.7	124.1	51.6	122.5
Void Ratio	-	0.812	-	0.820	-	0.805

Lateral Displacement, d_h 0.36 (in.)
 Displacement Rate, d_r 0.05 (in./min.)
 Elapsed Time of Test, t_e 7.20 (min.)
 Specimen : Undisturbed : -
 Remolded : X
 Reconstituted : -

	PEAK	ULTIMATE
Cohesion, c (psf)	100	0
Friction Angle, ϕ	30	0

Remarks : **SAMPLED REMOLDED**
TO 90% OF (115.5PCF @ 15.5%)



Project Name : LCWA

Project No. : 11038-01

Boring / Sample No : KB - 3

Depth : 5' (ft.)

Tested By : RB Date: 10-May-16

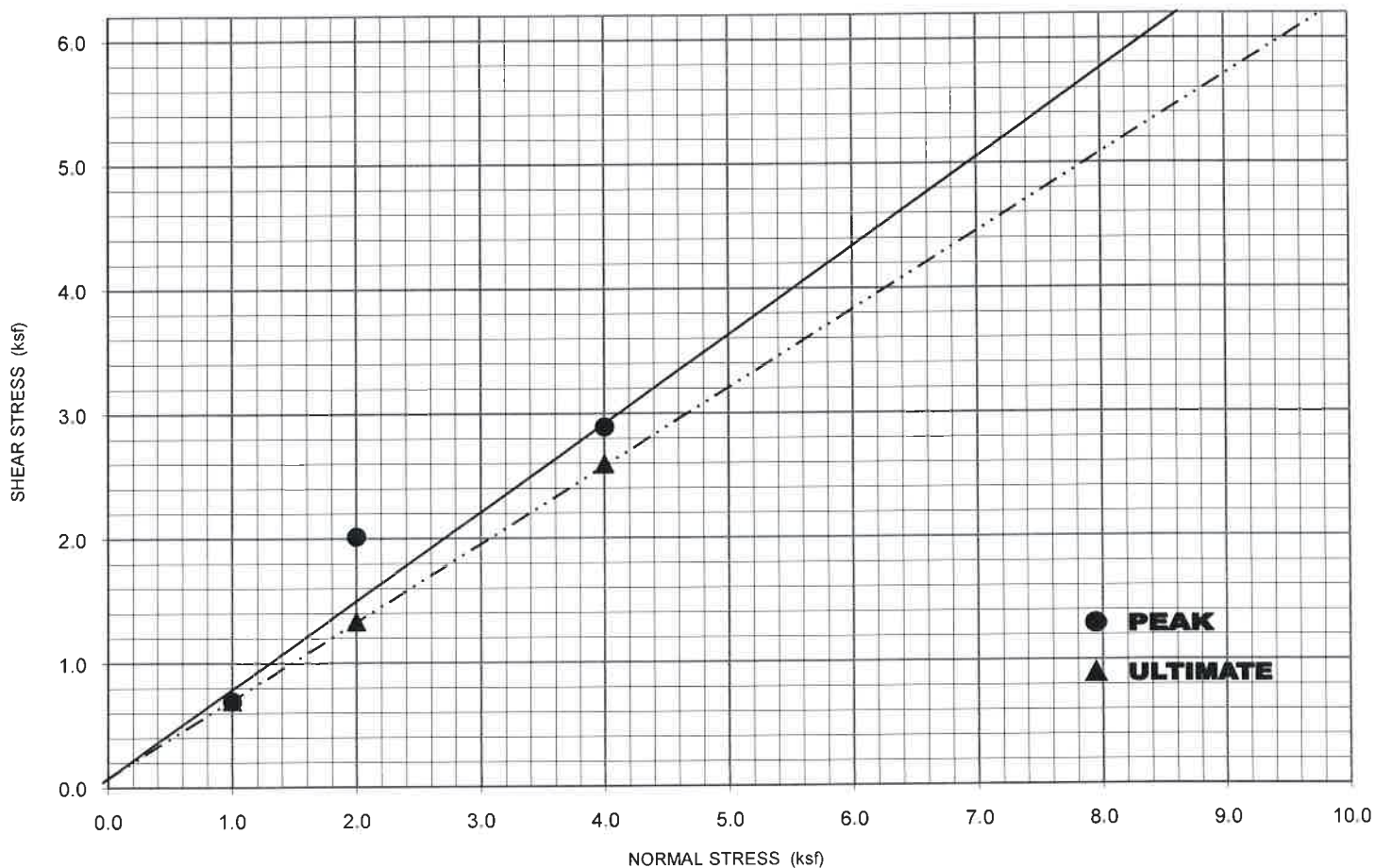
Sample Descriptions / Classification : DK. BROWN CLAYEY SAND (SC)

Applied Normal Load (ksf)	1.0		2.0		4.0	
Shear Stress, (Peak) (ksf)	0.696		2.016		2.892	
Shear Stress, (Ultimate) (ksf)	0.696		1.332		2.592	
Density and Saturation	Initial	Final	Initial	Final	Initial	Final
Wet Weight of Soil + Ring (gms)	182.9	195.84	199.02	205.71	198.23	205.25
Dry Weight of Soil + Ring (gms)		175.54		190.82		190.18
Weight of Water (gms)	-	46.54	-	47.28	-	45.81
Weight of Ring (gms)	-	44.15	-	44.41	-	46.34
Weight of Dry Soil (gms)	-	131.39	-	146.41	-	143.84
Moisture Content (%)	5.6	35.4	5.6	32.3	5.6	31.8
Wet Density (pcf)	115.9	126.6	129.1	134.6	126.8	132.6
Dry Density (pcf)	-	93.5	-	101.8	-	100.6
Specific Gravity, G_s (Assumed)	2.68					
Thickness of Specimen, (in.)	1.00					
Degree of Saturation, (%)	19.0	120.4	23.3	134.5	22.7	128.9
Void Ratio	-	0.789	-	0.643	-	0.662

Lateral Displacement, d_h 0.36 (in.)
 Displacement Rate, d_r 0.05 (in./min.)
 Elapsed Time of Test, t_e 7.20 (min.)
 Specimen : Undisturbed : X
 Remolded : -
 Reconstituted : -

	PEAK	ULTIMATE
Cohesion, c (psf)	100	100
Friction Angle, ϕ	35	32

Remarks :



PROJECT NAME : LCWAPROJECT NUMBER : 11038-01TRACT NUMBER : TESTED BY : RB DATE : 6-May-16LOT NUMBER : SAMPLED BY : TD DATE : 03-May-16SAMPLE NO. : KB - 3 LOCATION : DEPTH 0 - 5'SOIL DESCRIPTIONS / CLASSIFICATION : GRAYISH BROWN SANDY CLAY (CL)

TRIAL NUMBER		1	2	3	4
WET WT. OF SOIL + RING	(g)	628.79	594.39		
WEIGHT OF RING	(g)	204.36	204.36		
WET WEIGHT OF SOIL	(g)	424.43	390.03		
FACTOR		0.3030	0.3030		
WET DENSITY	(pcf)	128.6	118.2		
DRY DENSITY	(pcf)	112.7	106.6		
DEGREE OF SATURATION	(%)	77.0	50.7		

MOISTURE DETERMINATION

WET WEIGHT OF SOIL	(g)	311.58	309.16		
DRY WEIGHT OF SOIL	(g)	273.04	278.77		
MOISTURE CONTENT	(%)	14.1	10.9		

RACK NO. : 4SURCHARGE : 144 psf

FINAL DENSITY & SATURATION

WET WT. + RING	(g)	
DRY WT. + RING	(g)	
MOISTURE CONTENT	(%)	
SAMPLE LENGTH	(cm)	
SAMPLE AREA	(cm ²)	
VOLUME	(cc)	
WT. OF RING	(g)	
DRY DENSITY	(pcf)	
SPEC.GRAVITY (assumed)		2.70
SATURATION	(%)	
% RETAINED ON #4 SIEVE		

DATE	TIME	ELAPSED TIME (min.)	DIAL READING (in.)	DEFLECTION (in.)
6-May	10:45		0.485	
	1:00		0.551	
9-May	5:08		0.523	0.038
E. I.	38		SO ₄ 2790	ppm

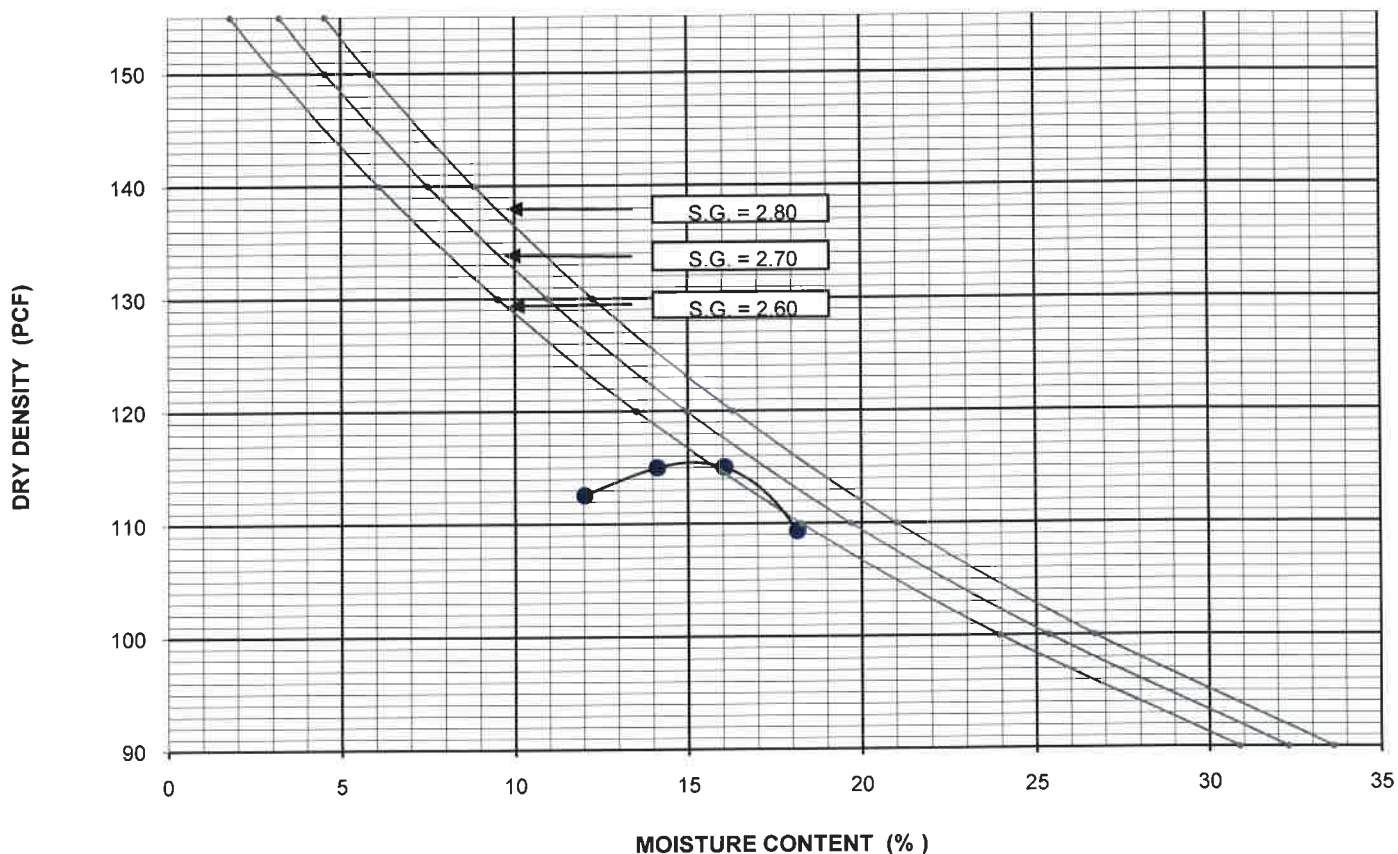
REMARKS :

JOB NAME : LCWA				JOB NUMBER: 11038-01	
SAMPLE NUMBER :				TESTED BY : RB	
SAMPLE LOCATION : KB - 3 @ 0 - 5'				DATE : 6-May-16	
SAMPLE DESCRIPTIONS / CLASSIFICATION :				GRAYISH BROWN SANDY CLAY (CL)	
TEST STANDARD	ASTM D-698 - 00			ASTM D 1557-02	
METHOD	A	B	C	A	B
TRIAL NUMBER	1	2	3	4	5
WATER ADDED (ML)	-	0	50	100	
WT. SOIL + MOLD (GMS)	3892	3969	4003	3938	
WT. OF MOLD (GMS)	1985	1985	1985	1985	
WT. OF WET SOIL (GMS)	1907	1984	2018	1953	
WET DENSITY (PCF)	126.1	131.2	133.5	129.2	
CAN NUMBER	S	N	M	R	
WET SOIL + TARE (GMS)	301.78	311.58	316.46	323.41	
DRY SOIL + TARE (GMS)	269.39	273.04	272.69	273.73	
TARE (GMS)	0.00	0.00	0.00	0.00	
DRY SOIL (GMS)	269.39	273.04	272.69	273.73	
WATER (GMS)	32.39	38.54	43.77	49.68	
MOISTURE CONTENT (%)	12.0	14.1	16.1	18.1	
DRY DENSITY (PCF)	112.6	115.0	115.0	109.3	

DIAMETER OF MOLD: 4 In.
 VOLUME OF MOLD: 0.0333 Cu.Ft.
 SCALPED ON SIEVE SIZE/NO.: #4
 PERCENT RETAINED, (%) : 10.6
MAXIMUM DRY DENSITY: 115.5 Pcf.
OPT. MOIST. CONTENT : 15.5 %

FOR OVERSIZE CORRECTION (ASTM D4718):
 %,Finer Fraction = - % Moisture = -
 %,Oversize Fraction = - Assumed Sp.Gr. 2.64
 Corrected MDD of Total Materials, (PCF) = -
 Corrected OMC of Total Materials, (%) = -

REMARKS :



PROJECT:		L C W A		NO.:	11038-00		TECHNICIAN :	RB		DATE :	05-May-16	
Hole No.		KB - 3										
Sample No.		1		2	3	4						
Sample Depth:		5'		10'	15'	20'						
Visual Soil Classification	Top	DK. BROWN CLAYEY SAND W/ GRAVEL (SC)	GRAYISH BROWN SANDY CLAY (CL)	DK. GRAY SANDY CLAY (CL)	DK. GRAY FINE SAND SILT (ML)	SAME						
	Bottom			LT. BROWN FINE SANDY SILT (ML)								
Pocket Penetrometer Reading, (tsf)		> 4.5		2.50	1.50	1.75	2.25					
Weight of Moist Soil and Rings, (gms.)		776.00		969.40	916.00	959.00	961.70					
No. of Rings		4		5	5	5	5					
Dish No.		A5		B11	A2	B16	A24					
Weight of Moist Soil and Dish, (gms.)		209.91		150.05	154.65	159.97	163.56					
Weight of Dry Soil and Dish, (gms.)		200.08		125.61	112.98	126.72	133.99					
Weight of Dish, (gms.)		25.63		25.18	25.24	24.09	25.3					
Weight of Dry Soil, (gms.)		174.45		100.43	87.74	102.63	108.69					
Wet Density, (pcf)		124.0		123.9	114.9	122.1	122.6					
Moisture Content, (%)		5.6		24.3	47.5	32.4	27.2					
Dry Density, (pcf)		117.3		99.6	77.9	92.2	96.4					
Degree of Saturation, (%) (G =2.68)		35.5		96.1	111.1	106.8	99.1					
Void Ratio		0.425		0.679	1.146	0.813	0.735					
Porosity		0.298		0.404	0.534	0.448	0.424					
Remarks :												
							18008 Sky Park Circle, Suite 250 Irvine, Ca. 92614 Tel: (949)797-6241 Fax: (949)797-6260					
MOISTURE - DENSITY TEST												

PROJECT:		L C W A		NO.:		11038-00		TECHNICIAN :		RB		DATE :		05-May-16	
Hole No.		KB - 1								KB - 2					
Sample No.		12		13		14		15		16		6		7	
Sample Depth:		5'		10'		15'		20'		25'		5'		10'	
Visual Soil Classification	Top	DK. GRAY FINE SANDY SILT W/ LITTLE CLAY AT ONE SIDE (ML)		DK. GRAY SILTY FINE SAND (SM)		DK. GRAY FINE SANDY SILT (ML)		DK. GRAY FINE SILTY SAND (SM)		DK. GRAY FINE SANDY SILT (ML)		BROWN FINE SANDY SILT (ML)		DK. GRAY FINE SAND SILT (ML)	
	Bottom			DK. GRAY FINE SANDY SILT (ML)								DK. BROWN CLAYEY SAND W/ GRAVEL (SC)		GRAYISH BROWN FINE SILTY SAND (SM)	
Pocket Penetrometer Reading, (tsf)		> 4.5		-		2.50		-		1.75		3.50		2.25	
Weight of Moist Soil and Rings, (gms.)		958.60		944.70		1000.20		959.10		950.00		753.12		939.30	
No. of Rings		5		5		5		5		5		4		5	
Dish No.		B21		A14		B7		B8		B20		A18		B1	
Weight of Moist Soil and Dish, (gms.)		156.52		152.99		171.00		157.64		151.59		146.64		148.54	
Weight of Dry Soil and Dish, (gms.)		134.15		127.19		141.80		128.33		123.12		128.63		117.05	
Weight of Dish, (gms.)		24.05		24.06		25.08		25.25		25.62		24.10		25.40	
Weight of Dry Soil, (gms.)		110.10		103.13		116.72		103.08		97.50		104.53		91.65	
Wet Density, (pcf)		122.1		119.7		129.0		122.1		120.6		119.2		118.8	
Moisture Content, (%)		20.3		25.0		25.0		28.4		29.2		17.2		34.4	
Dry Density, (pcf)		101.4		95.8		103.2		95.1		93.4		101.7		88.4	
Degree of Saturation, (%) (G =2.68)		84.0		89.9		108.0		100.5		98.9		71.6		103.4	
Void Ratio		0.648		0.746		0.621		0.758		0.791		0.645		0.891	
Porosity		0.393		0.427		0.383		0.431		0.442		0.392		0.471	
Remarks :															

RECEIVED

MAY 12 2016

Kling Consulting Group

May 10, 2016

Mr. Dante Domingo
Kling Consulting Group

18008 Sky Park Circle #250
Irvine, California 92614

Project No. 41319

Dear Mr. Domingo:

Testing of the bulk soil sample delivered to our laboratory on 5/10/2016 has been completed.

Reference: P.N. 11038-01, LCWA
Sample: KB-2 @ 0'-5', Sampled 5/3/2016

Data sheets are attached for your use and file. Any untested portion of the sample will be retained for a period of 60 days prior to disposal. The opportunity to be of service is sincerely appreciated and should you have any questions, kindly call.

Respectfully Submitted,



Steven R. Marvin
RCE 30659

SRM:tw
Enclosure



R - VALUE DATA SHEET

PROJECT No. 41319

DATE: 5/10/2016

BORING NO. KB-2 @ 0'-5'
LCWA
P.N. 11038-01

SAMPLE DESCRIPTION: Brown Sandy Silt

R-VALUE TESTING DATA CA TEST 301			
	SPECIMEN ID		
	a	b	c
Mold ID Number	10	12	13
Water added, grams	54	24	38
Initial Test Water, %	15.0	12.3	13.6
Compact Gage Pressure, psi	40	120	65
Exudation Pressure, psi	172	451	313
Height Sample, Inches	2.62	2.52	2.54
Gross Weight Mold, grams	3080	3075	3092
Tare Weight Mold, grams	1959	1963	1979
Sample Wet Weight, grams	1121	1112	1113
Expansion, Inches x 10exp-4	9	49	22
Stability 2,000 lbs (160psi)	45 / 109	32 / 70	35 / 83
Turns Displacement	4.98	4.61	4.80
R-Value Uncorrected	19	41	33
R-Value Corrected	20	41	33
Dry Density, pcf	112.7	119.1	116.9

DESIGN CALCULATION DATA

Traffic Index	Assumed:	4.0	4.0	4.0
G.E. by Stability		0.82	0.60	0.69
G. E. by Expansion		0.30	1.63	0.73

Equilibrium R-Value		32 by EXUDATION	Examined & Checked: 5 /10/ 16
REMARKS:	Gf = 1.25 0.0% Retained on the 3/4" Sieve.		

The data above is based upon processing and testing samples as received from the field. Test procedures in accordance with latest revisions to Department of Transportation, State of California, Materials & Research Test Method No. 301.



R-VALUE GRAPHICAL PRESENTATION

PROJECT NO. 41319

DATE: 5 /10/ 16

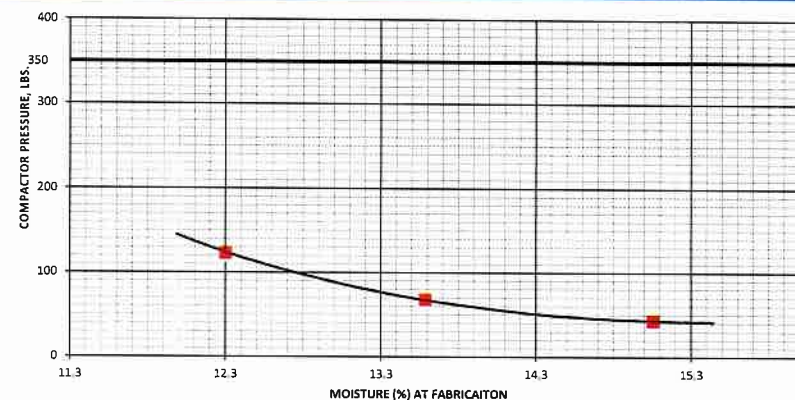
BORING NO. KB-2 @ 0'-5'

LCWA

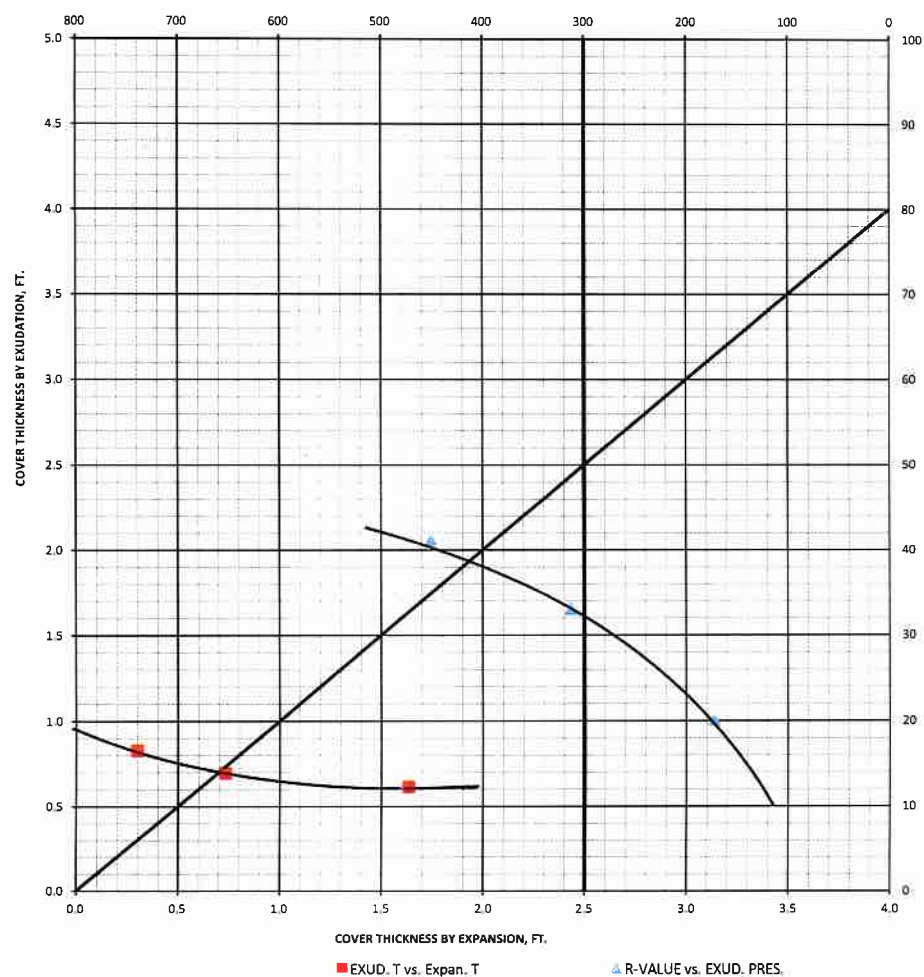
P.N. 11038-01

REMARKS:

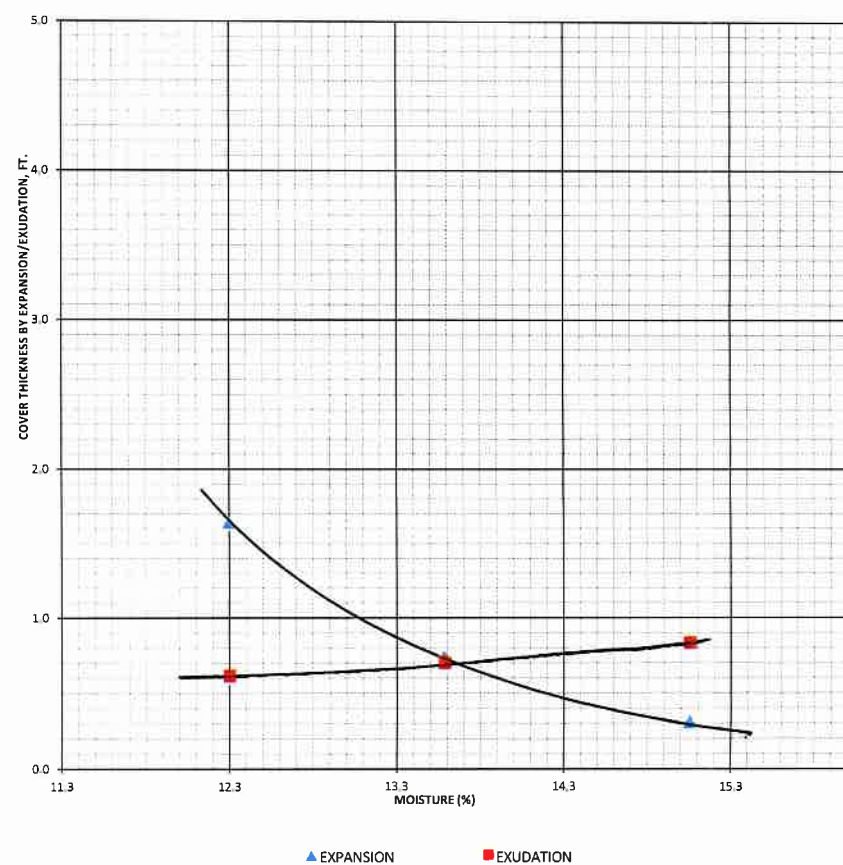
COMPACTOR PRESSURE vs MOISTURE %



COVER THICKNESS BY EXUDATION vs COVER THICKNESS BY EXPANSION



COVER THICKNESS vs MOISTURE %



APPENDIX D

CONE PENETRATION TEST DATA



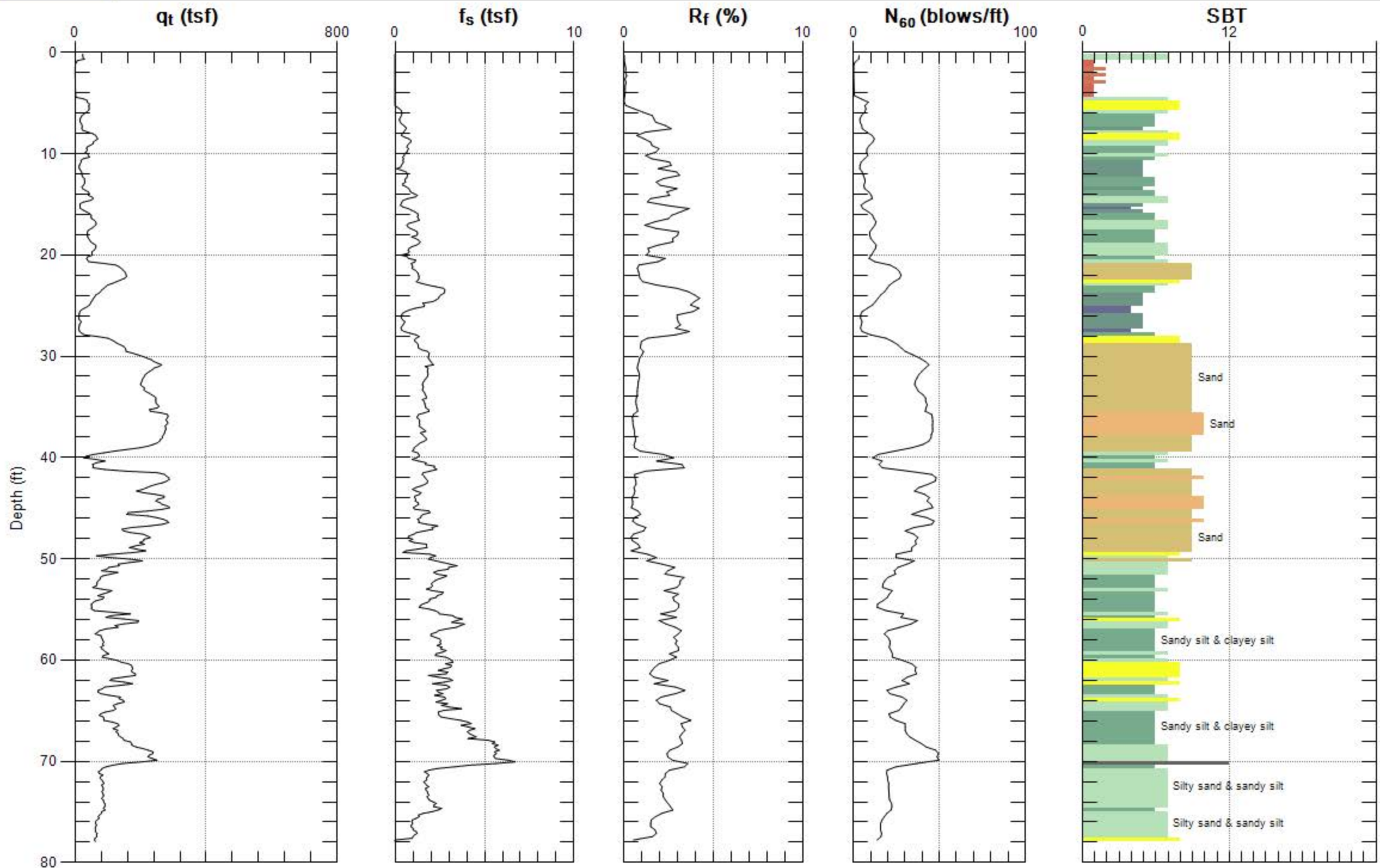
Kling Consulting Group

Site: LCWA

Sounding: CPT-1

Engineer: Hans Tolksdorf

Date: 5/3/2016 01:39



Max. Depth: 77.920 (ft)

Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



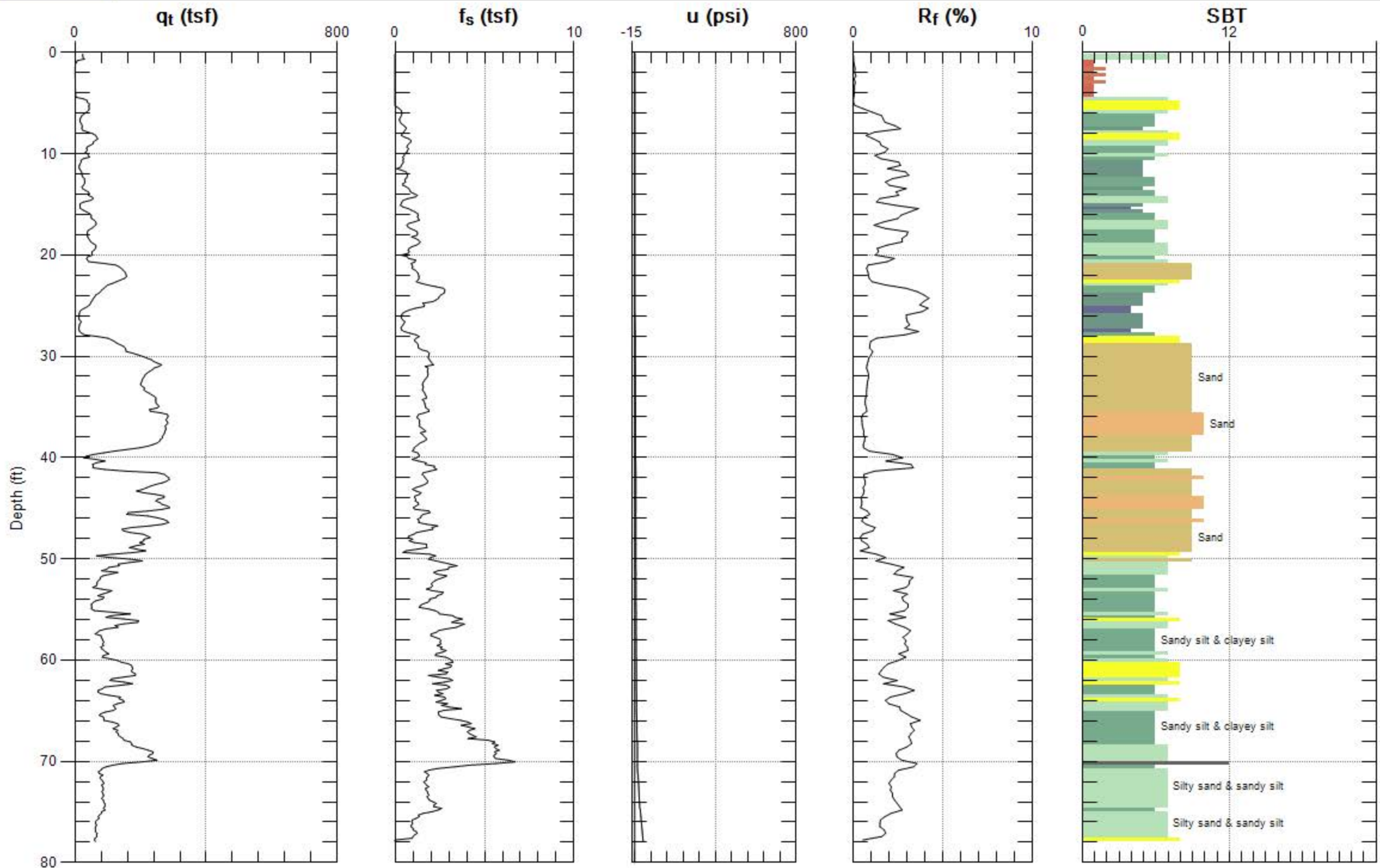
Kling Consulting Group

Site: LCWA

Sounding: CPT-1

Engineer: Hans Tolksdorf

Date: 5/3/2016 01:39



Max. Depth: 77.920 (ft)

Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



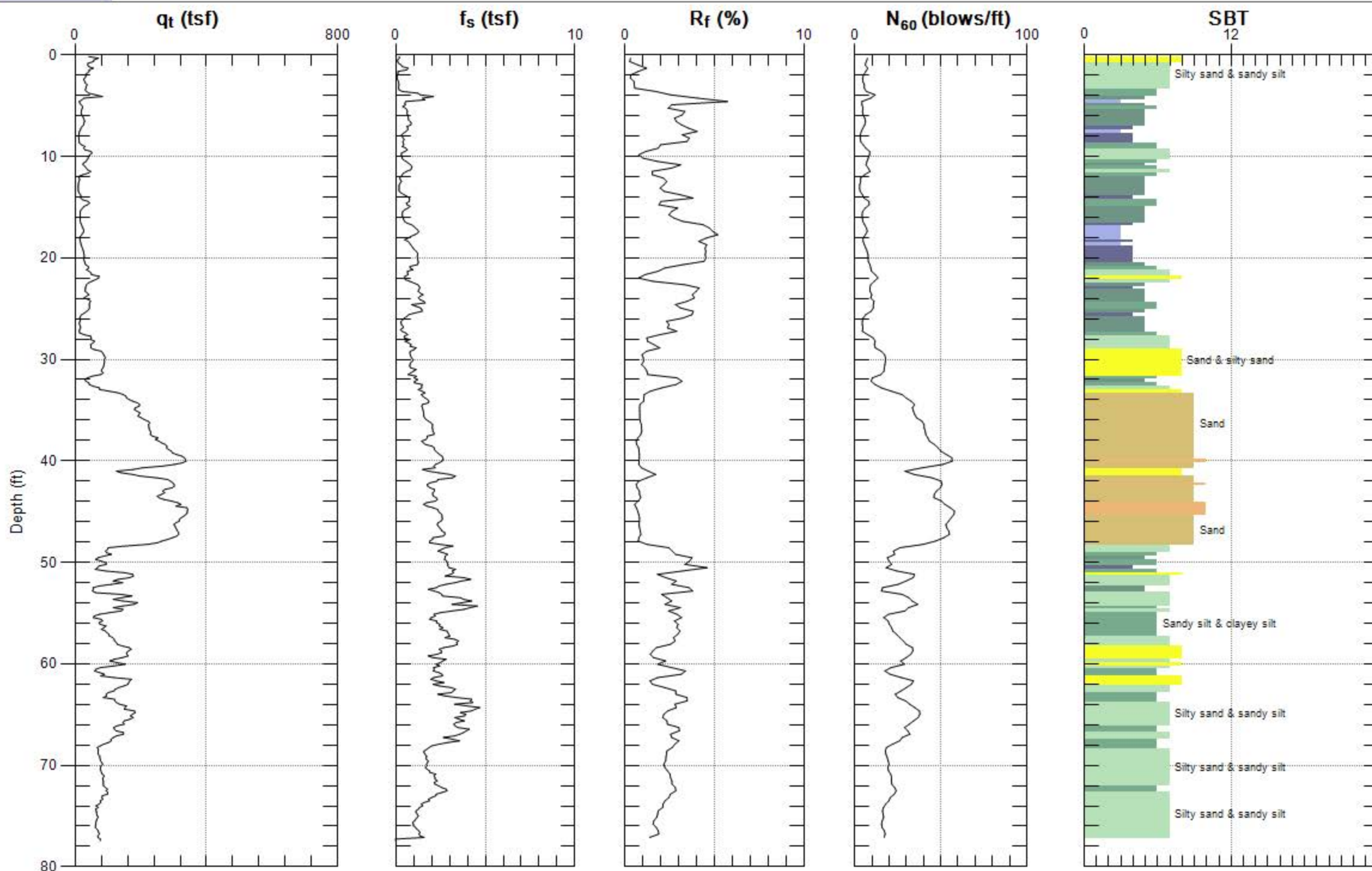
Kling Consulting Group

Site: LCWA

Sounding: CPT-2

Engineer: Hans Tolksdorf

Date: 5/3/2016 12:38



Max. Depth: 77.428 (ft)

Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



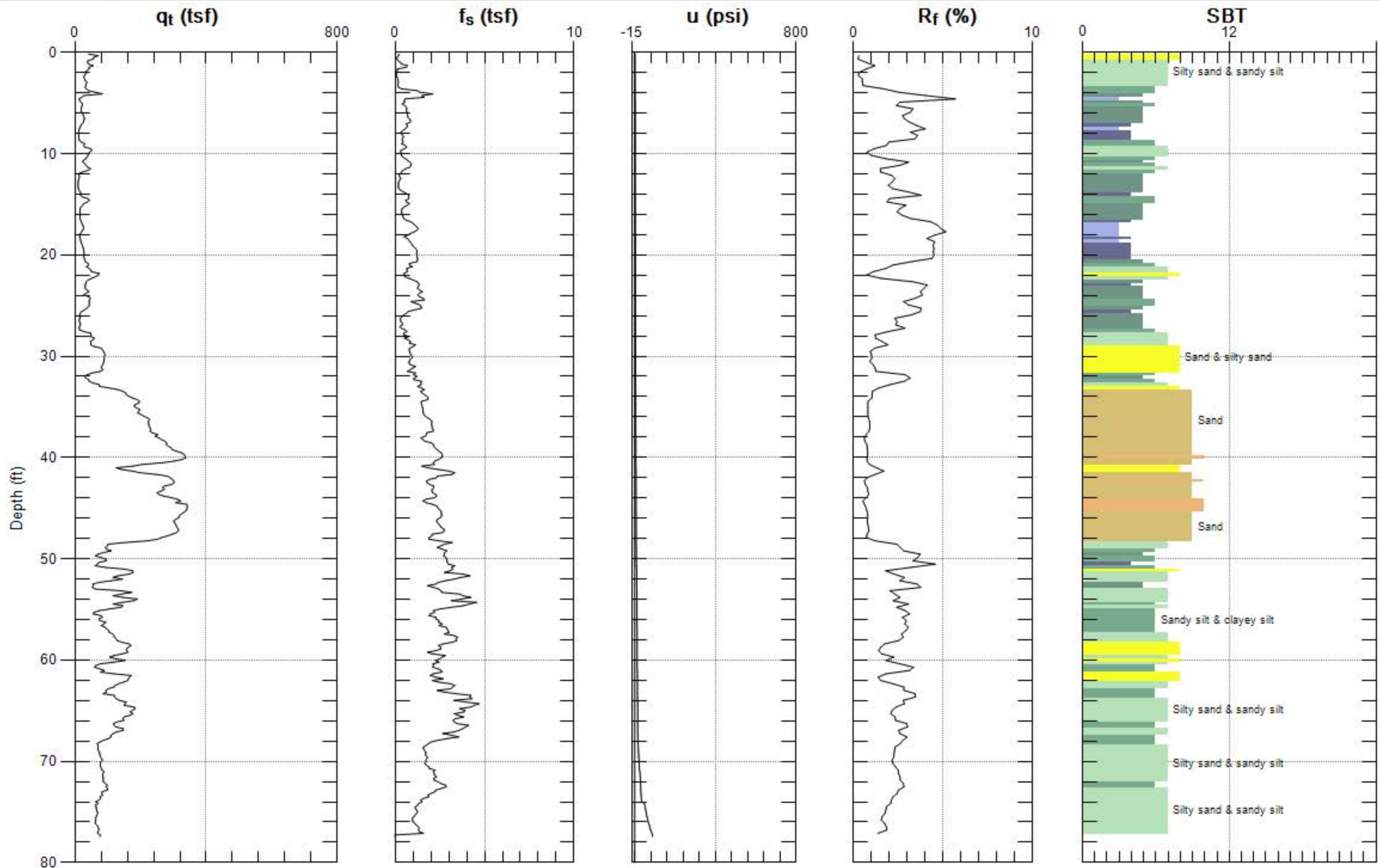
Kling Consulting Group

Site: LCWA

Sounding: CPT-2

Engineer: Hans Tolksdorf

Date: 5/3/2016 12:38



Max. Depth: 77.428 (ft)

Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



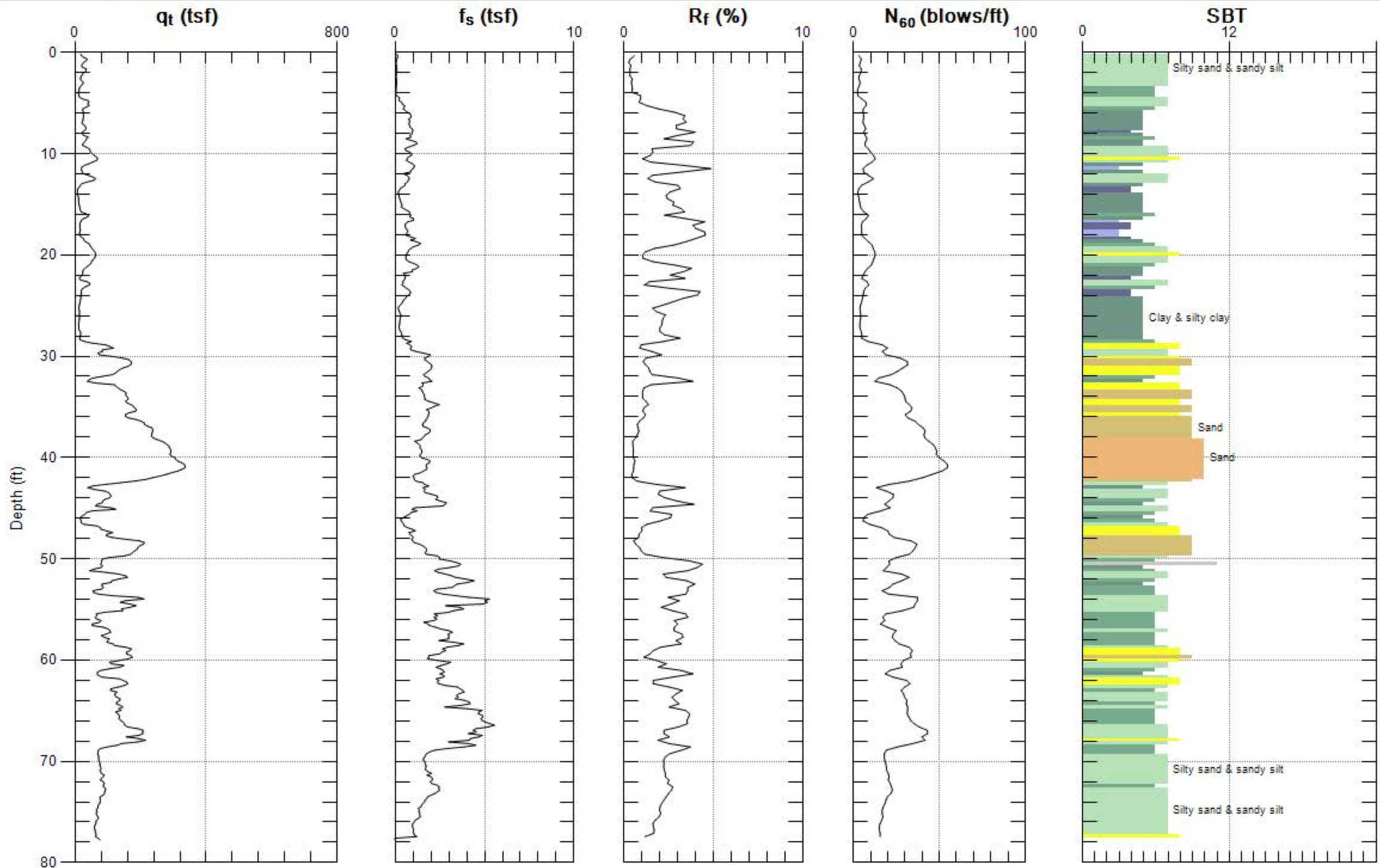
Kling Consulting Group

Site: LCWA

Sounding: CPT-3

Engineer: Hans Tolksdorf

Date: 5/3/2016 10:17



Max. Depth: 77.756 (ft)

Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



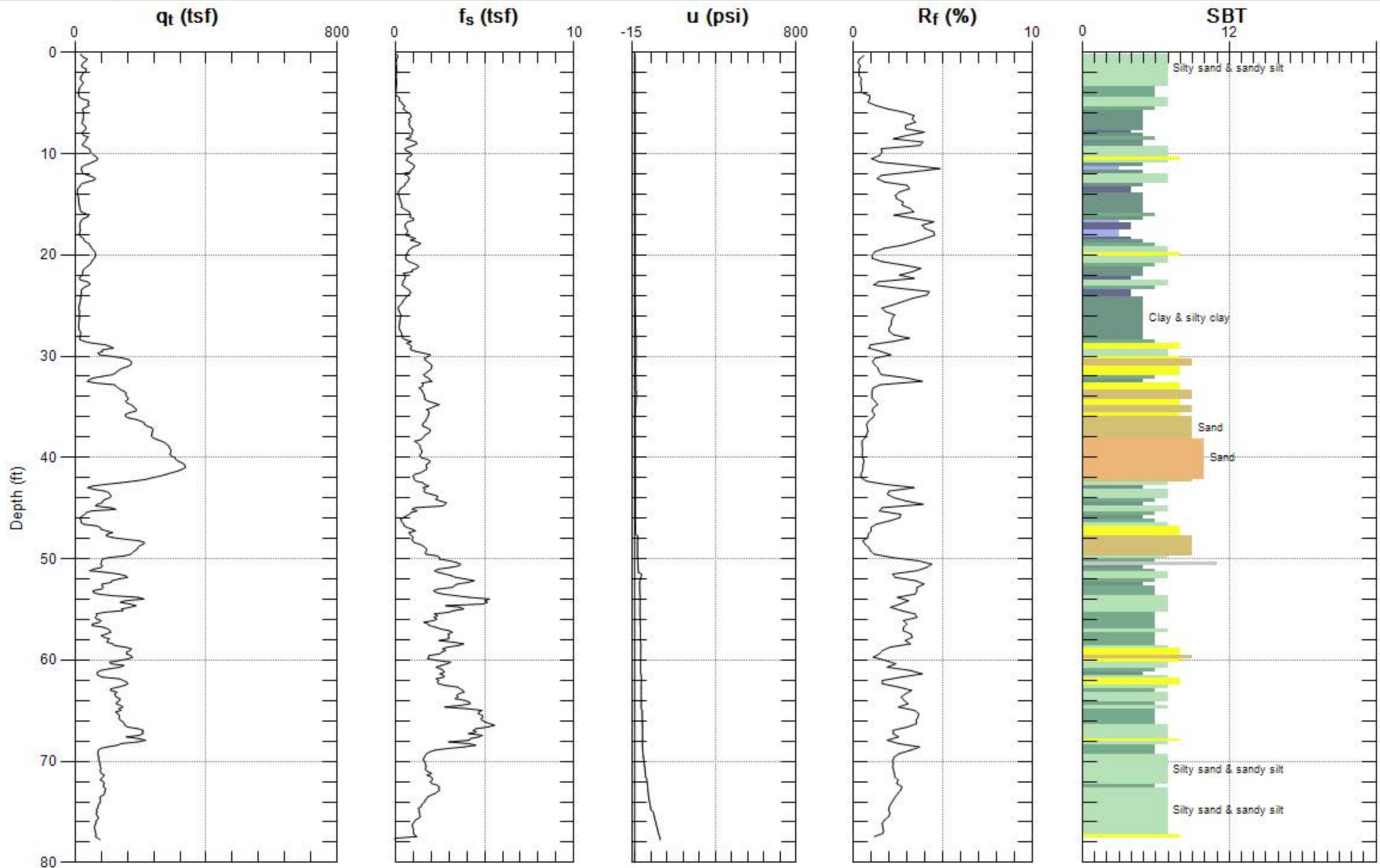
Kling Consulting Group

Site: LCWA

Sounding: CPT-3

Engineer: Hans Tolksdorf

Date: 5/3/2016 10:17



Max. Depth: 77.756 (ft)

Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



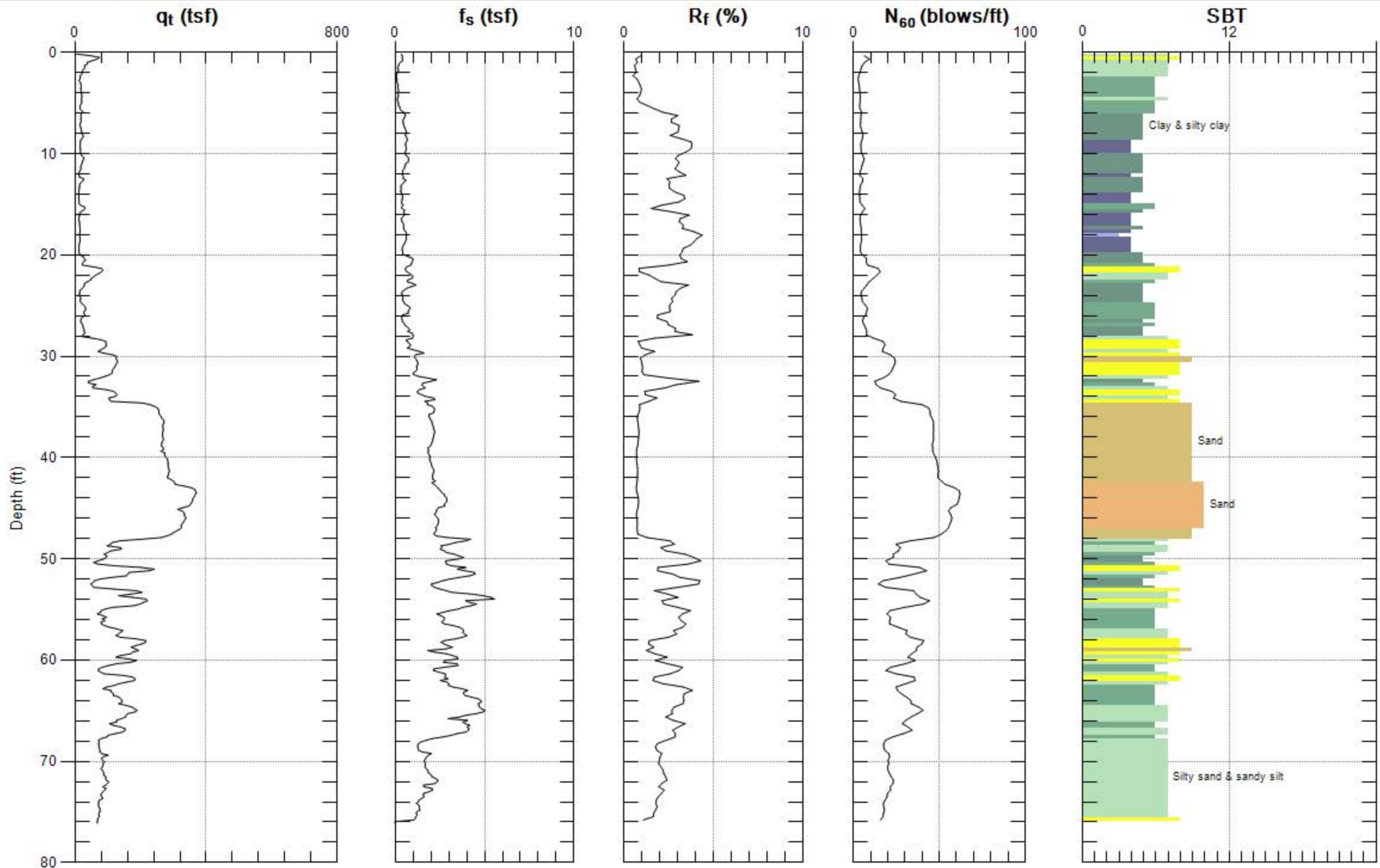
Kling Consulting Group

Site: LCWA

Sounding: CPT-4

Engineer: Hans Tolksdorf

Date: 5/3/2016 07:35



Max. Depth: 76.115 (ft)

Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



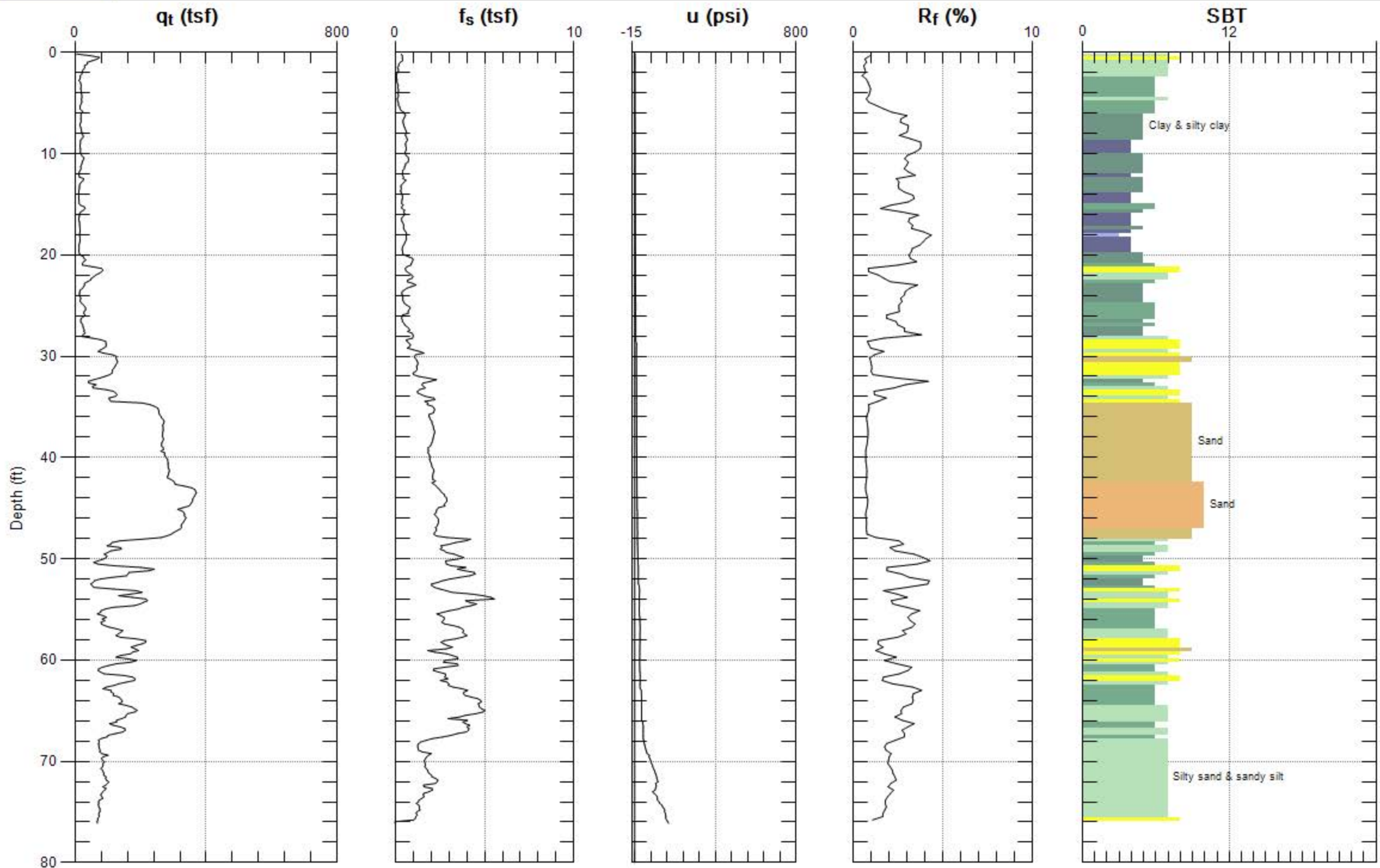
Kling Consulting Group

Site: LCWA

Sounding: CPT-4

Engineer: Hans Tolksdorf

Date: 5/3/2016 07:35



Max. Depth: 76.115 (ft)

Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)

E3 Fault Zone Evaluation



October 27, 2016

PN 11038-04

Mr. Ken Coulter
Beach Oil Minerals Partners
4901 Birch Street
Newport Beach, CA 92660

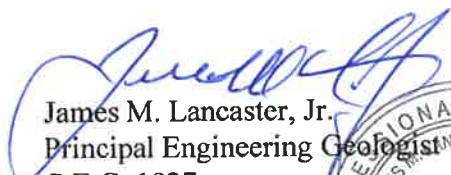
Subject: Limited Alquist Priolo Fault Zone Evaluation, Synergy Oil Field Site, 6433 E. Second Street, City of Long Beach, California

In accordance with your request and authorization, Kling Consulting Group has performed a limited evaluation in regards to the Synergy Oil Field property and the State of California Alquist Priolo fault zone in the City of Long Beach, California. Our study included review of relevant published geologic and geotechnical literature, a review of past geotechnical site explorations in the general area and a review of the current proposed land use.

We appreciate this opportunity to be of service and to work with you on this project. Should you have any questions regarding this report, please do not hesitate to call.

Respectfully,

KLING CONSULTING GROUP


James M. Lancaster, Jr.
Principal Engineering Geologist
C.E.G. 1927
Expires 6/30/18

A circular professional seal for James M. Lancaster, Jr., a Certified Engineering Geologist in the State of California. The seal contains the text "PROFESSIONAL GEOLOGIST", "JAMES M. LANCASTER, JR.", "No 1927", "CERTIFIED ENGINEERING GEOLOGIST", and "STATE OF CALIFORNIA".

JML:HFK:mk

Dist.: (4) Addressee



Henry F. Kling
Principal Geotechnical Engineer
G.E. 2205
Expires 03/31/18



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Attachments:

Appendix A	—	References
Figure 1	—	Site Location Map
Figure 2	—	Fault Location Map

1.0 INTRODUCTION

1.1 Purpose and Scope of Work

Our study was conducted to provide an evaluation of the subject site from a geologic and geotechnical perspective in regards to potential faulting and fault rupture at the subject site.

1.2 Site Location and Past Land Use

The subject Synergy oil field site (formerly known as the Bixby Oil Field), is located northeast of the intersection of Pacific Coast Highway and 2nd Street in the City of Long Beach, California (See Figure 1). The site is bounded by Pacific Coast Highway to the west, 2nd Street to the south, Studebaker Road to the east and the Los Cerritos Channel to the north. The site consists of a generally flat lying rectangular parcel of land of approximately 154 acres in area with a general elevation of between 6 and 12 feet above mean sea level. Vegetation is generally sparse with sheet flow drainage to the north and east. The site is currently developed with oil field facilities including tanks, wells pipelines and minor structures that have been used in support of the operations of the oil field.

1.3 Proposed Current Land Use

It is our understanding that the proposed site will be part of an overall Proposed Wetlands Restoration and Oil Consolidation Project consisting of four sites: the Synergy Oil Field Site, the "LCWA" Site, the Los Cerritos Wetlands Authority (LCWA) Site, and the 33-acre City Marketplace Marsh (City Property) Site.

It is our understanding that the Synergy Oil Field Site project proposes to establish a wetlands mitigation bank and public access trails on the northerly approximately 78 acres of the 154-acre Synergy Oil Field, to implement a wetlands restoration plan on the southerly approximately 72 acres, and to construct public access improvements, including a parking lot on existing disturbed areas and converting an existing building for use as a visitors' center on the remaining approximately 4 acres of the Synergy Oil Field. The mitigation bank provides for the phased restoration and permanent preservation of restored wetlands. The Project also proposes the removal of thirty-seven (37) oil wells from the southerly 72 acres.

2.0 GEOLOGIC CONDITIONS

2.1 Geologic Setting

The project is located within the United States Geological Survey (USGS) Los Alamitos 7.5-minute quadrangle. The site is within a portion of the Los Angeles Basin that is comprised of a low alluvial floodplain. Past research suggests that over the past 20,000 years, the Rio Hondo, San Gabriel and Santa Ana rivers have moved back and forth across the coastal flood plains in Los Angeles and Orange County depositing the recent alluvial materials observed today. The coastal portion of the floodplain is bound by a line of elongated folded low hills

and faults. This portion of the basin is dominated by the northwest-trending Newport-Inglewood Structural Zone.

The soil underlying the project site is characterized by predominately younger alluvial deposits and minor artificial fill associated with past land use. Younger alluvial deposits consist of Holocene alluvial silty sand and sandy silt, sand and some clayey silt.

2.2 Geologic/Geotechnical Hazards

Our hazard evaluation associated with this report has been confined to faulting, seismicity and related seismic hazards.

2.2.1 Groundwater

The subject site is located near the Pacific Ocean and the San Gabriel River outflow. The reference reports indicate that high past groundwater level was about 10 feet below the ground surface.

2.2.2 Faulting

Southern California is a tectonically active region. A fault is defined as a fracture within rock upon which there has been an observable amount of displacement. Fracturing or jointing is defined as a break within the rock structure that has not experienced displacement. Faulting can include major sutures within the earth's crust that can produce earthquakes to smaller features that have experienced sympathetic movement due to movement on major faults, to joints and fractures that have not experienced displacement.

As a result of damage due to the 1971 San Fernando earthquake, the State of California enacted the Alquist-Priolo Act. The Act required the State Geologist to map known faults and determine relative activity of the fault. As such, the California Geologic Survey has created definitions for active, potentially active and inactive fault zones. An **active fault** is defined as a well-defined fault that has exhibited surface displacement during the Holocene (recent) time (approximately the last 11,000 years). A **potentially active** fault is defined as having a history of movement within the Pleistocene time (between 11,000 to 1.6 million years ago). An **inactive** fault is defined as any fault that has not experienced movement in the last 1.6 million years.

The northwest-trending Newport-Inglewood Fault Zone dominates the geologic structure of the coast line from Newport Beach to above the Long Beach area and is capable of a M7.4 earthquake. The fault is characterized by a chain of right lateral faults including the Cherry Hill fault, the Northeast Flank fault, and the Reservoir Hill fault. As a result of the fault movement in the area a number of elongated hills are present in the area including the Dominguez Hills and Signal Hill. The March 11,

1933 M6.4 “Long Beach” earthquake is believed to have occurred along the Newport-Inglewood fault offshore from Huntington Beach.

The project site is located in the Los Alamos 7.5-minute quadrangle Special Studies Zone (1986). A review of the Special Studies map indicates that the fault hazard zone runs across the site in a southeast to northwest direction. It appears that the existing structures proposed to be converted to the visitor center are both within the fault zone and straddle the actual postulated Newport-Inglewood fault. As such, the site structures are subject to strong seismic shaking and subject to possible surface rupture. The attached Figure 2 illustrates the proximity of the site to the Newport-Inglewood fault system.

2.2.3 Seismicity

The USGS estimates that the peak horizontal ground acceleration (PGA_M) is 0.603g. Presented below are the site seismic parameters utilizing generic geologic, seismic and geotechnical data gathered for the site. All structures should be designed for earthquake induced strong ground motions in accordance with the 2013 CBC procedures utilizing the following parameters:

Table 1: Seismic Design Parameters	
Site Class (Soil Profile)	D
Latitude, Longitude	33.7567, -118.1092
Short Period Spectral Acceleration, S_s :	1.565g
1-Second Period Spectral Acceleration, S_1 :	0.585g
Site Coefficient, F_a :	1.0
Site Coefficient, F_v :	1.5
Maximum Considered Earthquake Spectral Response Acceleration, S_{MS} :	1.565g
Maximum Considered Earthquake Spectral Response Acceleration, S_{MI} :	0.877g
Design Spectral Response Acceleration, S_{DS} :	1.043g
Design Spectral Response Acceleration, S_{DI} :	0.584g
Occupancy Category	II
Seismic Design Category	D

3.0 GEOTECHNICAL IMPACTS AND MITIGATION

In accordance with the State CEQA Guidelines, the proposed project could have a significant environmental impact if it would:

- (a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - (i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault.
 - (ii) Strong seismic ground shaking.
 - (iii) Seismic-related ground failure, including liquefaction.
 - (iv) Landslides.
- (b) Result in substantial soil erosion or the loss of topsoil.
- (c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.
- (d) Be located on expansive soil, as defined in Table 18-1-B of the California Building Code (2001), creating substantial risks to life or property.
- (e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

In addition to the above, the California Geologic Survey has also incorporated the following potential impacts within their "Guidelines for Preparation of Geologic Sections of Environmental Impact Reports" (CDMG Note 46, 1982):

1. Flooding due to Dam or Levee Failure
2. Loss of Mineral Resources
3. Excavation and Blasting
4. Impacts due to seiches
5. Impacts due to tsunami
6. Volcanic Hazards.

3.1 Seismic Impacts

In general, seismic exposure at the project site is typical of the Southern California region. Possible sources or causes of earthquake-related damages are addressed below.

3.1.1 Rupture of Known Earthquake Faults

The project site lies within the Alquist-Priolo Special Studies Zone for the Newport-Inglewood Fault. This active fault crosses the project site in a southeast to northwest direction and based on our evaluation the fault runs directly under the buildings and parking lot proposed to be converted to the visitor center. Therefore, the proposed project could expose people or structures to potential substantial adverse effects involving rupture of a known earthquake fault.

Mitigation Measures – The proposed project should be evaluated in accordance with the Alquist-Priolo fault hazard act (2611.6). As used in this chapter, "project" means either of the following:

(1) Any subdivision of land which is subject to the Subdivision Map Act (Division 2 (commencing with Section 66410) of Title 7 of the Government Code), and which contemplates the eventual construction of structures for human occupancy.

(2) Structures for human occupancy, with the exception of either of the following:

- (A) Single-family wood-frame or steel-frame dwellings to be built on parcels of land for which geologic reports have been approved pursuant to paragraph (1).
- (B) A single-family wood-frame or steel-frame dwelling not exceeding two stories when that dwelling is not part of a development of four or more dwellings.

As the proposed project is a structure of human occupancy and is not a single family residence it is consider a "project" under the act. Therefore mitigation or exemption from the act will be required.

The act goes on to provide the following exceptions in Section 2621.7. This chapter, except Section 2621.9, shall not apply to any of the following:

- (a) The conversion of an existing apartment complex into a condominium.
- (b) Any development or structure in existence prior to May 4, 1975, except for an alteration or addition to a structure that exceeds the value limit specified in subdivision (c).
- (c) An alteration or addition to any structure if the value of the alteration or addition does not exceed 50 percent of the value of the structure.

Based on our evaluation, the structures may meet the exceptions presented under (b) and (c) above. In addition under Section 1621.7 (e)(2)(c)(4) it states that the following:

(4) A qualified historical building within an earthquake fault zone that is exempt pursuant to this subdivision may be repaired or seismically retrofitted using the State Historical Building Code, except that, notwithstanding any provision of that building code and its implementing regulations, paragraph (2) shall apply.

Should it be determine that an exception is not available for the proposed structures it would recommended that the structures be moved on the site as to locate them outside the Alquist-Priolo Special Studies zone (see Figure 2).

3.1.2 Seismic Ground Shaking

As with all properties in the seismically active Southern California region, the project site is susceptible to strong ground shaking during a seismic event. Potential impacts from seismic ground shaking are present throughout Southern California and would be of comparable intensity at the project site as it would be for large parts of the region. The proposed project should be designed in accordance with the seismic parameters set forth in Table 1 of this report, which incorporate the known seismic framework of the region, the relative activity of nearby faults, the proximity of the project site to active faults (or “near-source” effects), and soil and bedrock conditions beneath the project site. Compliance with the 2013 CBC utilizing the parameters set forth in Table 1 will reduce seismic risks from ground shaking to an acceptable level.

Therefore, the proposed project would not expose people or structures to potential substantial adverse effects relating to strong seismic ground shaking.

Mitigation Measures – None

3.1.3 Seismic Related Ground Failure and Liquefaction

The project site is within a seismic hazard zone for liquefaction and seismic settlement as delineated by the State of California Seismic Hazard Maps. Our evaluation indicates that the site is susceptible to liquefaction including liquefaction-settlement and seismic settlement.

Mitigation of Liquefaction-settlement:

In order to reduce the impact of liquefaction occurring at the site several mitigation measures are available. The primary adverse effect from liquefaction is the resulting differential seismic settlement. To mitigate the differential liquefaction settlement, ground improvement measures such as deep soil mixing, jet and pressure grouting and dynamic compaction techniques are available. Selection of the appropriate mitigation technique should take into account an evaluation of the cost, duration and minimizing potential impacts to adjoining properties.

The ground improvement measures of soil mixing, dynamic compaction, jet grouting or pressure grouting effectively reduces or eliminate liquefaction from occurring by

strengthening the soil and making it strong enough to resist the seismic shaking. Deep foundations, on the other hand, mitigate the potential for liquefaction settlement by supporting buildings or other surface improvements on piles or drilled caissons that extend through the liquefiable layers and into bearing soil.

Recommended Mitigation:

Given the limited affected areas on the project site, pressure grouting of the liquefiable layers is recommended to mitigate the potential for differential liquefaction settlement.

Mitigation of Lateral Spreading:

Lateral Spreading occurs when liquefaction occurs on sloping ground that transitions into a slope typically towards a body of water such as a river or lake. Instead of vertical displacement that occurs during liquefaction settlement, lateral spreading results in horizontal displacements that can cause tension cracks in the ground. The mitigation of lateral spreading is essentially the same as for liquefaction settlement. Ground improvement methods consisting of deep soil mixing, jet or pressure grouting or dynamic compaction can be utilized to eliminate liquefaction and lateral spreading. Given the flatness of the site and the lack of slopes it is unlikely that the site will be affected by lateral spreading.

Recommended Mitigation:

None

Mitigation of Seismic Settlement:

Seismic settlement is the settlement that occurs in soil that does not liquefy but that is low enough in density to experience settlement during the strong ground shaking. It is also known as dry settlement. The mitigation of seismic settlement if near the ground surface is densification of the soil by re-compaction. This would entail the removal and replacement of compressible soil prior to site development. If the problematic soil is too deep for removal and re-compaction, ground improvement methods can be used or deep foundations could also be utilized. Another option is to design the buildings and site improvements to withstand the differential settlement.

Recommended Mitigation:

Given the limited areas affected and small amount of settlement, designing the structures and improvements to withstand or accommodate the expected differential settlement is recommended.

3.1.4 Seismically Induced Landslides and Rock Fall

Based on a review of aerial photographs, site exploration, available geotechnical reports, and topographic conditions no existing landslides or slopes susceptible to landsliding are present at the property that could impact the subject site. Therefore the potential for seismically-induced landslides and rock fall to affect the project is considered non-existent.

Mitigation Measures –None

3.1.5 Tsunami

A tsunami is a sea wave caused by a submarine earthquake, landslide, or volcanic eruption. Tsunami can cause catastrophic damage to shallow and or exposed coastline. The project site is located just inland of the Pacific Ocean and about 1,000 feet from the San Gabriel River outfall. The site is within an area zoned as susceptible to tsunami inundation as mapped by the State of California. Therefore, the potential for tsunami to affect the project site is considered moderate. A separate analysis of the impacts of sea level rise and tsunami inundation should be prepared to address among other issues, the Coastal Commission's Sea Level Rise Guidance Document. The potential impacts of a tsunami on this site will be evaluated in that separate report.

Mitigation Measures – A separate sea level rise report should be prepared to address the potential impacts should a tsunami occur.

3.1.6 Seiches

Seiches are changes or oscillations of water levels within a confined body of water due to fluctuations in the atmosphere, tidal currents, or earthquakes. The effect of this phenomenon is a "standing wave" that would occur in a body of water that would occur when influenced by the external stimulus. No lakes, reservoirs, or other large confined bodies of water are in close proximity of the project site. Therefore, the potential for seiches to affect the project is considered non-existent.

Mitigation Measures – None

4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on information obtained from a review of geologic literature and our evaluation, the subject site does not possess adverse geotechnical or geological constraints that cannot be mitigated through remedial measures or that would preclude continued development of the property.

Structures should be designed in accordance with seismic design criteria of the 2013 CBC, Alquist-Priolo Special Studies act, and/or local ordinances. This may require application for an exception or moving of the structures.

The subject site has been mapped within a seismic hazard zone and the potential for liquefaction to occur at the site during a seismic event and the resulting seismic settlement could potentially occur. Therefore, it could become necessary to employ ground improvement techniques or more resistant foundations systems such as deep foundations such as CFA shafts or driven piles. Flexible piping for utilities and production pipelines may also be required. Given the limited areas affected, ground improvement methods consisting of pressure grouting is recommended in areas where the liquefaction induced settlement is greater than what can be accommodated by structural design, with structural design techniques utilized where the amount of differential liquefaction settlement can be tolerated.

Groundwater is estimated to be at a depth of about 10 feet in the area of the subject site. As such, removal of unacceptable earth materials, excavations for basements, well cellars or deep utility installation have the potential to encounter shallow groundwater during construction activities; therefore, dewatering may be required. The current study included subsurface exploration, laboratory testing of onsite soils and engineering analysis adequate to quantify specific geotechnical hazards and to formulate mitigation recommendations. Details regarding final site improvements (e.g., the actual foundation loads and specific locations of the structures vis a vis the subsurface characteristics, such as the historic landfill) are not known at this time. At such time when the details for the specific site improvements and their locations are finalized, a design-level geotechnical investigation shall be prepared to develop detailed corresponding final site- and development-specific recommendations based upon the potential geologic conditions and measures to address those conditions that have been identified in this report.

5.0 PROFESSIONAL LIMITATIONS

The scope of our services for this due diligence geotechnical review has been limited to a brief site visit and a review of the referenced documents as referenced herein. Our review should not be considered as an approval or acceptance of the site for development, without further site specific geotechnical investigations

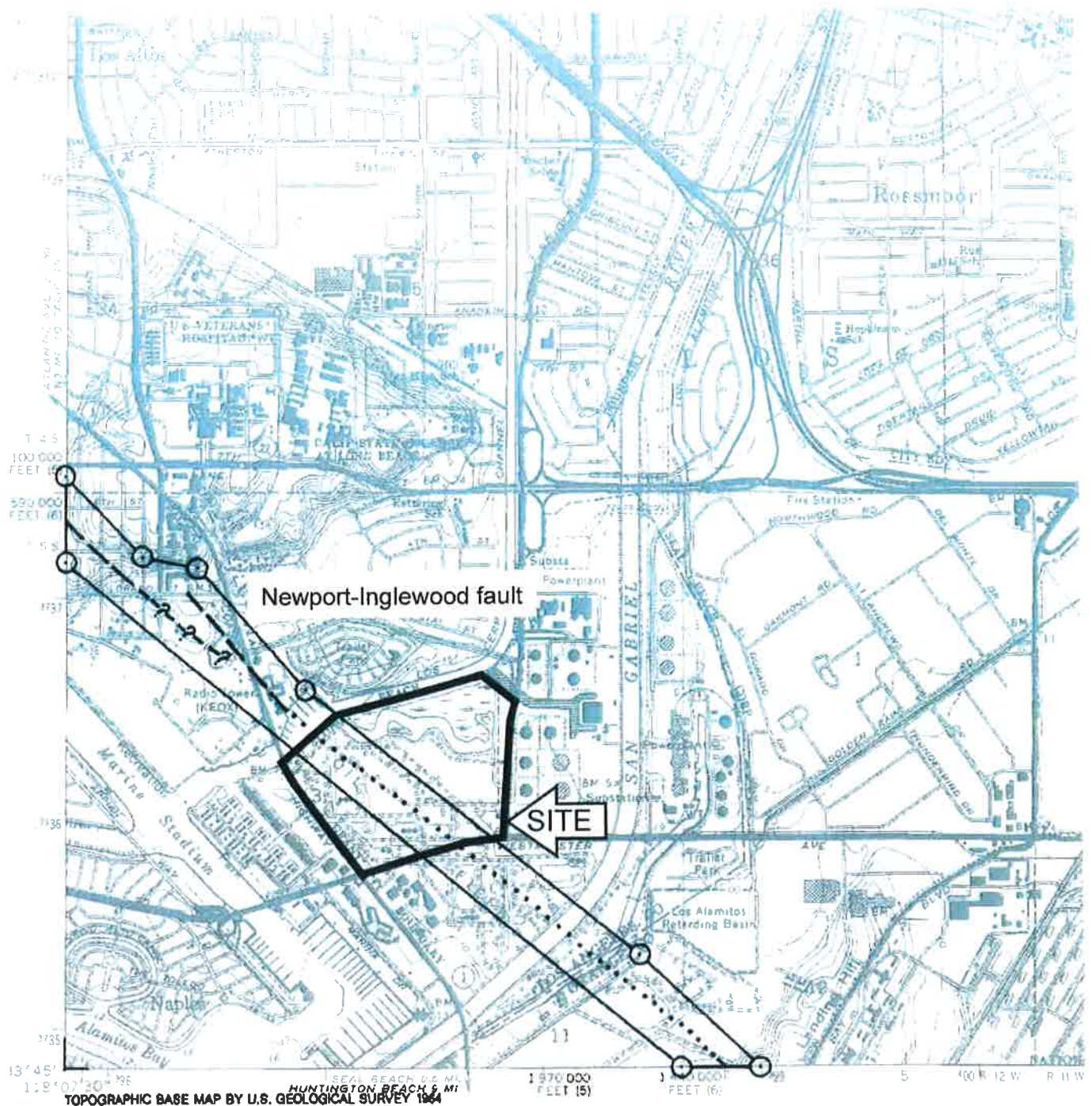
Geotechnical services are provided by Kling Consulting Group in accordance with generally accepted professional engineering and geologic practice in the area where these services are rendered. Client acknowledges that the present standard in the engineering and geologic and environmental profession does not include a guarantee of perfection and, except as expressly set forth in the conditions above, no warranty, expressed or implied, is extended by KCG.

APPENDIX A
REFERENCES

APPENDIX A

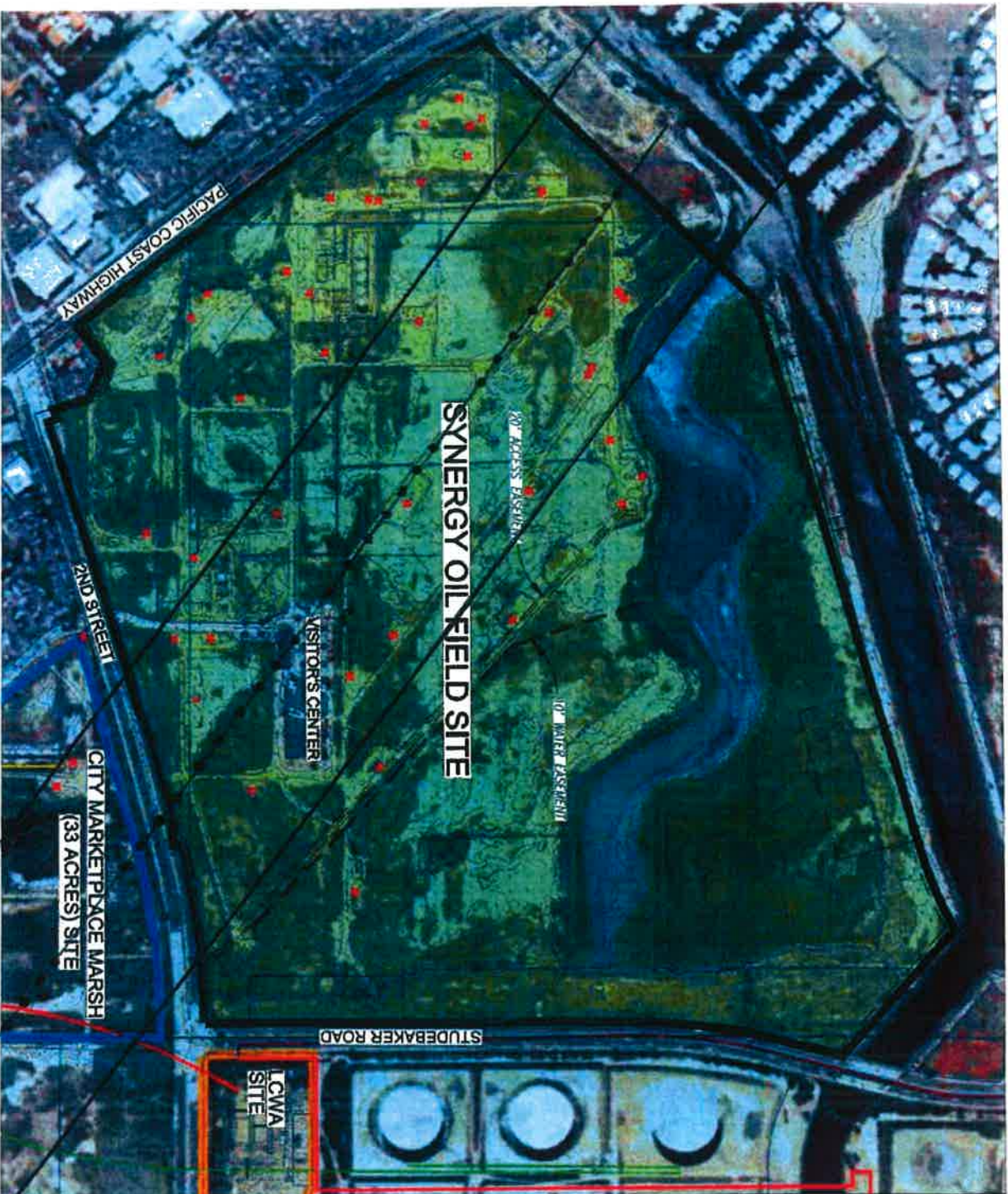
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4. State of California, Seismic Hazard Zones, Los Alamitos Quadrangle, California, Division of Mines and Geology, March 25, 1999.
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6. California Geological Survey Special Report 236, Tsunami Emergency Response Playbooks and FASTER Tsunami Height Calculation: Background Information and Guidance, 2014.
7. California Geological Survey, Tsunami Inundation Map for Emergency Planning, Los Alamitos Quadrangle, Seal Beach Quadrangle, County of Los Angeles, California, March 1, 2009.



Not To Scale

Reference: CGS, State of California Special Studies Zones - Los Alamitos Quadrangle



Reference: Lyon Communities, 2015, Synergy Oil Field Site, Long Beach, CA, Dated: 10/23/2015.

LEGEND:

-  ASSESSMENT PAVEMENT LINE
-  OIL WELL TO BE ABANDONED
-  REMOVED PAVEMENT LINE
-  REMOVED PAVEMENT LINE
-  PIPE BUNDLE OPTION 1
-  PIPE BUNDLE OPTION 2
-  LCWA SITE
-  SYNERGY OIL FIELD SITE (113 ACRES)
-  CITY MARKETPLACE MARSH (33 ACRES) SITE
-  HABITAT PRESERVATION AND RESTORATION



Not To Scale

E4 Soil and Groundwater Assessment

Soil and Groundwater Assessment

for

The Pumpkin Patch
7001 East Pacific Coast Highway
County of Los Angeles • Long Beach, California



This soil and groundwater assessment report has been prepared for:

Mr. Peter Zak
Beach Oil Minerals Partners

Prepared: July 2016

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- D) Boring Logs
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1.0 INTRODUCTION

Mr. Peter Zak, representative for Beach Oil Minerals Partners, has authorized **Advanced Environmental Concepts, Inc. (AEC)** to prepare this soil and groundwater assessment report which describes and evaluates the vertical and lateral extent of Total Petroleum Hydrocarbons (TPH), Volatile Organic Compounds (VOCs), Poly-Nuclear Aromatics (PNAs), Mercury, and Polychlorinated Biphenyls (PCBs) associated with the former landfill at the Pumpkin Patch Property, 7001 East Pacific Coast Highway, Long Beach, California (Figure 1). The subject site is currently undeveloped, with the exception of oil field infrastructure within the eastern one-third portion of the property and this eastern portion of the property has never been associated with the former landfill operation. The western two-thirds portion of the site extends from Pacific Coast Highway to the oil field related property; is relatively level-graded; and has been consistently used for seasonal sales of pumpkins and Christmas trees. Historical aerial photographs and prior reports indicate that the central-eastern portion of the western two-thirds of the subject property was used as a municipal landfill during 1960-1961 identified as the City Dump & Salvage Landfill #2. The waste accepted at the facility was reportedly composed of the following: non-water soluble and non-decomposable inert solids; ordinary household and commercial refuse, decomposable organic refuse, scrap metal, as well as garbage and market refuse (IT, 1987). The disposal of liquids, semi-liquids, and hazardous-classified waste was not permitted. The subject property is in planning stages for development as a land-based platform for a directional oil well drilling operation (Figure 2a and 2b). The regulatory contact for this project is Dr. Enrique Casas of the Los Angeles Regional Water Quality Control Board (RWQCB).

1.1 Purpose and Rationale

The soil and groundwater assessment program described in the RWQCB-approved work plan has the following objective:

- Evaluate the vertical and horizontal extent of TPH, VOCs, PNAs, Mercury, and PCBs associated with the former City Dump & Salvage Landfill #2 that operated at the Pumpkin Patch Property during 1960-1961. Five permanent groundwater monitoring wells have been installed to assess groundwater quality within and proximal to the former landfill trench and the wells were sampled approximately 24 hours following installation and will be sampled on a quarterly basis for a minimum 1 year period to establish potential contamination trends at the subject property.

1.2 Scope of Work

AEC performed the following scope of work for the installation of the five groundwater monitoring wells:

1. Locating underground utilities using Client records and Underground Service Alert (USA);
2. Advanced five soil borings with a hollow-stem auger drill rig to identify the upper contamination limits as well the vertical and lateral extent of Chemicals of Potential Concern (COPCs) including TPH, VOCs, PNAs, Mercury, and PCBs associated with the former landfill;
3. Collected soil samples using a split-spoon sampler lined with stainless steel sleeves at intervals of 5-feet; soil samples were analyzed for Total Petroleum Hydrocarbons as carbon chain (TPH-cc), Volatile Organic Compounds (VOCs), Poly-nuclear Aromatics (PNAs), Polychlorinated Biphenyls (PCBs), and Title 22 Metals;

4. Installed five permanent groundwater monitoring wells to approximately 34-feet below ground surface (bgs). The wells were completed using 2-inch diameter Schedule 40 PVC blank connected to 20-feet of 0.010-inch screen with a filter pack of #2/12 Monterey sand to one foot above the screened interval. An approximate 3-5 foot hydrated bentonite seal was placed above the sand pack followed by a cement-bentonite slurry to grade. The top of the well casing is protected by traffic-rated flush-mounted well boxes;
5. Following completion of the well installation the wells were developed using a submersible pump 1 day following well completion. The water obtained during development was placed in 55-gallon drums pending offsite disposal on an as-needed basis;
6. Following well purging the groundwater wells were sampled. Groundwater samples were analyzed for Total Petroleum Hydrocarbons as carbon chain (TPH-cc), Volatile Organic Compounds (VOCs), Poly-Nuclear Aromatics (PNAs), Polychlorinated Biphenyls (PCBs), and Title 22 Metals. In addition, the water was analyzed for chloride, sulfate and Total Dissolved Solids (TDS);
7. Prepare a final report detailing the results of the soil and groundwater investigation which will include drilling and sampling methods, analytical results, conclusions, and recommendations.

2.0 BACKGROUND

The subject property consists of three Parcels (Parcel 4, Parcel 5 and Parcel 6), legally identified as Assessor's Parcel Numbers (APNs) 7237-020-043, -044, and -045 and is within a portion of the Northwest Quarter of Section 11; Township 5 South, Range 12 West, of the San Bernardino Base & Meridian System.

Currently, the western two-thirds of the subject property, identified as Parcel 4, consists of perimeter-fenced level graded open ground that is used for seasonal pumpkin and Christmas tree sales during the fall and winter months. Access is from Studebaker Road through a swing gate attached to the chain link fence. Studebaker Road and an asphalt-paved parking lot associated with The Market Place commercial development form the north boundary, the San Gabriel River forms the south boundary, Pacific Coast Highway forms the west boundary, and the Seal Beach Oil Field forms the east boundary. Wood, paper and glass landfill debris is visible at the surface along the south boundary of the site. Also, along the east boundary of the Pumpkin Patch portion of the site is a fenced compound where trailers, storage containers and various equipment is stored that are used for the seasonal pumpkin and Christmas tree sales. AEC additionally identified a groundwater monitoring well at the southwest corner of the subject property.

The eastern one-third of the subject property consists of Parcel 5 and Parcel 6. These two parcels are bisected by a hill slope approximately 15-feet in elevation that trends north-south. The eastern half of Parcels 5 and 6 are improved with an active oil field "horse-head" type pumping unit and surface and subsurface pipelines for oil delivery. The oil field infrastructure is on a lease basis with the property owners.

The subject property was leased from the Bixby Ranch Company in 1960 by City Dump and Salvage, Inc. of Long Beach, California for the creation of the City Dump and Salvage Landfill #2. AEC has reviewed a "Final Report, Assessment of the Bixby Ranch Company Sanitary Landfill for the Presence of Hazardous Substances", IT Corporation, June 30, 1987 and obtained the historical information regarding the landfill. During September 1960, City Dump and Salvage received a permit from the County of Los Angeles, Industrial Waste Division, to accept wastes in the eastern half of the site at a minimum of 300-feet from Pacific Coast Highway.

City Dump and Salvage commenced waste acceptance operations at the site in mid-1960 (prior to receiving an approved permit) and ceased operations in early 1961 after filling the landfill to its permitted capacity. Clients of the City Dump and Salvage landfill included the City of Long Beach, J & S Disposal Company (City of Lakewood), and the Veteran's Administration Hospital.

The disposal permit allowed for the excavation and subsequent filling with refuse a trench that was excavated below the groundwater table in the eastern half of Parcel 4. Final cover of the landfill was completed by May 16, 1961. During March and April 1987, the IT Corporation (IT) drilled and sampled soil borings at the site to identify the varying depths of the refuse burial and to evaluate if there were hazardous concentrations of chemicals impacting soil and/or groundwater. The results of their sampling indicated that the landfill is typically rectangular-shaped, encompasses the eastern half of the property, and that the refuse in the central portion of the burial area extends to a depth of 30-feet below ground surface (bgs). The refuse in the landfill consists of newspaper, plastic, metal, wood, glass, plant debris, rubber tubes and tires, and green waste. IT also installed two groundwater monitoring wells at the site (MW-1 and MW-2A), and determined that groundwater is typically identified at 15-feet bgs, is primarily derived from sea water intrusion, and does not constitute a source of drinking water.

Soil samples collected from the borings were submitted for analysis as both composite and discrete. The results indicated total lead concentrations ranging between 3.3 mg/kg to 386 mg/kg. The current California Human Health Screening Level (CHHSL) for lead in residential-use soil is 80 mg/kg and in commercial/industrial-use soil is 320 mg/kg. In addition, there was a detection of Arochlor 1248 (PCB with 48% chlorine by weight) of 4.2 mg/kg and the residential-use CHHSL is 0.089 mg/kg and the commercial/industrial use is 0.3 mg/kg.

The analytical results for lead and PCBs obtained during the 1987 IT investigation did not exceed recommended action levels for that period. However, during the past 24 years, the acceptable concentrations for lead and PCB Arochlors have decreased dramatically. Therefore, it was previously recommended by AEC, that an updated subsurface soil and groundwater investigation be conducted within, and surrounding the landfill. It was recommended that selected soil and groundwater samples be analyzed for Total Petroleum Hydrocarbons as carbon chain (TPH-cc); Title 22 Metals, PCBs, Volatile and Semi-volatile Organic Compounds (VOCs and SVOCs), organo-phosphate pesticides and herbicides, and chlorinated pesticides and herbicides.

During 2012, AEC was contracted by Lyon Communities to investigate the current subsurface soil and groundwater conditions within the former landfill trench as well as outside the confines of the former landfill. Three cone-penetrometer (CPT) borings and four hollow-stem auger borings were performed onsite. AEC collected soil samples for laboratory analysis and also obtained "grab" groundwater samples from first encountered groundwater. Selected soil samples were analyzed for TPH-carbon chain (TPH-cc), Volatile Organic Compounds (VOCs), Poly-nuclear Aromatics (PNAs), Polychlorinated Biphenyls (PCBs), and Title 22 Metals or Lead. The results of the soil analyses indicates that the area of environmental impact exceeding regulatory-derived "actionable" concentrations occurs within the confines of the former landfill trench and confirmed with the soil samples obtained from B-1. The analytes that commonly exceeded regulatory-driven "actionable" concentrations were the Poly-Nuclear Aromatics (PNAs) of which Naphthalene was the most common detection. Naphthalene is a common naturally occurring by-product of oil field production and is also a precursor to the anthropogenic formulation of other chemicals; therefore, would be expected to be identified within the confines of a former landfill from 1960 that is within the boundaries of an oil field that has been producing since the 1920s.

AEC subsequently performed an updated ESA for the subject property during July 2015 and recommended that permanent groundwater monitoring wells be installed at the subject property within and proximal to the former landfill and quarterly groundwater monitoring be implemented for a minimum 1 year period to define the upper contamination limits as well as vertical and horizontal extent of impacted groundwater at the subject property.

3.0 HYDROGEOLOGY

3.1 Topography

The site lies within the Coastal Plain of Los Angeles County. The Coastal Plain is primarily a featureless plain that slopes gently to the south and west, towards the Pacific Ocean. The Coastal Plain is bounded to the northwest by the Santa Monica Mountains; to the north and northeast by the Elysian, Repetto, Puente, Merced, and Coyote Hills; to the east by the Los Angeles – Orange County border; and to the south and west by the Pacific Ocean. Local topographic highs are dispersed throughout the Coastal Plain and are the surface expressions of subsurface deformation.

The most notable topographic highs in the area have evolved in response to interaction of the Los Angeles, Rio Hondo and San Gabriel Rivers with the Newport-Inglewood uplift. The surface expression of the Newport-Inglewood uplift is a northwest trending suite of low hills that separate the central portion of the Coastal Plain from the portion that flanks the Pacific Ocean. The Newport-Inglewood uplift is defined by the Beverly, Baldwin, Rosecrans, Dominguez, Signal, and Bixby Ranch Hills.

The subject site lies at an elevation of approximately 18 feet above mean sea level on a gently southwest sloping portion of the Coastal Plain. The San Gabriel River is located immediately southwest of the site, and flows into the adjacent Alamitos Bay and the Pacific Ocean.

3.2 Geology

This portion of South Long Beach/Seal Beach is on a coastal plain underlain by relatively recent sediments ranging in age from Quaternary deposits of the Pleistocene epoch (11,000 to 1,600,000 years) through the Holocene epoch (less than 11,000 years). The older sediments typically are shallow marine terrace deposits that have been uplifted by ongoing seismic movement and eroded to form the Bolsa Chica and Huntington Beach mesas. The mesas are bordered by younger (unconsolidated) alluvial soils that fill the gaps near Seal Beach, Bolsa Chica, and the Santa Ana River. The alluvial sediments are many hundreds of feet thick throughout the Seal Beach area. The Newport-Inglewood Fault Zone is visible on the ground surface as a series of northwest-trending elongated hills, including Signal Hill and the Dominguez Hills, extending from Newport Beach to Beverly Hills and is adjacent to the subject property.

This area of Long Beach is seismically active. The region is crossed by a network of major regional faults and minor local faults. This faulting and seismicity is dominated by the San Andreas Fault System, which separates two of the major tectonic plates that represent part of Earth's continental and oceanic crust: the Pacific plate is west of the San Andreas Fault System; the North American plate is to the east. There are numerous faults in the general area that are categorized as active, potentially active, and inactive by the California Geological Survey. A fault is classified as active if it has either moved during the Holocene epoch (during the last 11,000 years) or is included in an Alquist-Priolo Earthquake Fault Zone. The Newport-Inglewood Fault Zone is an active right-lateral fault system consisting of a series of fault segments located mostly parallel to the coastline throughout the City of Long Beach. The Seal Beach fault trace is also active in the area of the subject property.

The shallow native soil beneath the subject property consists of silty sand to medium grained sand to approximately 25-feet below ground surface (bgs). The western two-thirds of the subject property has an average elevation of 18-feet above mean sea level (msl) and the eastern one-third has an average elevation of 5-feet msl. Groundwater associated with sea water intrusion has been identified between 15 to 20-feet bgs across the western portion of the subject property and is nearer to 10-feet bgs in the eastern portion. The depth to groundwater varies with tidal fluctuation. The east-central portion of the western two-thirds of the subject property has been

previously excavated into the water-bearing zone to an approximate depth of 32-feet bgs during 1960 and backfilled with layers of refuse and import fill associated with its use as a municipal landfill.

4.0 DRILLING AND SAMPLING

Advanced Environmental Concepts, Inc. proposed to advance five soil borings and install dedicated groundwater monitoring wells. The drilling and sampling of the five exploratory soil borings was accomplished using J & H Drilling.

4.1 Soil Sampling

The borings were advanced using a truck mounted CME-75 hollow-stem auger drill rig. Prior to and after drilling, the augers were steam cleaned to minimize any chance of affecting a potentially "clean" location.

Soil sampling was conducted during the installation of the groundwater monitoring wells using the hollow-stem auger drill rig by driving a California split-spoon sampler fitted with clean stainless steel sleeves into undisturbed soil. The sleeves were removed from the sample barrel and the bottom sleeve was sealed, placed in an ice chest, and recorded on a chain-of-custody for shipment to TestAmerica Laboratories for analysis. The soil in the middle sleeve was used for lithologic description and also for obtaining photoionization detector (PID) readings. Soil lithology described from the cuttings was recorded on the attached boring logs in accordance with the Unified Soils Classification System (USCS). Soil samples were able to be retrieved at intervals of 5-feet from all borings with the exception of AEC-1 which was advanced through the central portion of a former landfill trench. The trench was so full of debris and lacking in cohesive soil, therefore, a representative soil sample could not be obtained at 10', 15' and 20' bgs.

4.2 Soil Sample Results

AEC collected soil samples and analyzed the soil for Chemicals of Potential Concern (COPCs) including TPH, VOCs, PNAs, Metals, and PCBs. The analytical results identified numerous detections of TPH as gasoline, diesel and oil along with VOCs in borings AEC-1 and AEC-2 which is to be expected since these two locations are within the former City Dump & Salvage #2 waste acceptance trench. Also, shallow soil collected from AEC-3 indicated 1,700 mg/kg of oil-range hydrocarbon and the soil sample exhibited a crude oil odor leading AEC to believe that the boring was in, or near the former oil well sump associated with oil well "Bixby A" 11. AEC-2-20' was the only soil sample to exceed an Industrial ESL comparative standard and the analyte was diesel at 2,000 mg/kg (ESL of 1,100 mg/kg).

4.3 Well Installation

The five groundwater monitoring wells were installed to an approximate depth of 34-feet bgs and existing well (EW-1) had been drilled during April 1987 to a depth of 31.5-feet bgs. The five new wells consisted of 2-inch diameter, flush-threaded, Schedule 40 PVC with an end cap. The wells were installed through 8-inch diameter hollow-stem auger and the bottom 20-feet of casing consisted of 0.010-inch factory slotted liner. The sand pack was placed while removing the auger and the filter pack consisted of Number 2/12 Monterey sand which was methodically poured down the annulus. The filter pack was generally placed one foot above the screened interval and bentonite chips were poured on top of the sand and hydrated to form a seal. A neat cement/bentonite slurry was used to fill the annular space to grade level. Traffic rated flush-mount protective boxes were installed and cemented. EW-1 consists of 4-inch diameter casing and the screened interval was placed between 31.5-feet to 6.5-feet bgs. The well locations were

surveyed to a known benchmark by Chris Nelson & Associates in accordance with GeoTracker requirements. The groundwater flow direction has been calculated at South 55° East with a gradient of 0.12'/foot. However, it is the opinion of AEC that the groundwater elevations are tidally influenced; therefore, AEC will return to the site and collect depth to water readings during a consecutive "high" and "low" tide event.

Following completion of the well installations, the wells were developed using a submersible pump. Approximately 3-5 casing volumes were removed from each well to achieve adequate development. Well development commenced approximately one day following well completion. The water obtained during development was placed in 55-gallon drums which are currently stored at the Pumpkin Patch site.

4.4 Groundwater Sample Results

Following well development, the groundwater wells were sampled. The collected groundwater was transferred to 1 Liter Amber jars and 40 milliliter VOAs and analyzed for Total Petroleum Hydrocarbons as carbon chain (TPH-cc) by EPA Method 8015M; Volatile Organic Compounds (VOCs), including the full suite of oxygenates, by EPA Method 8260B; Title 22 Metals by EPA Methods 7471A/6010B; Polynuclear Aromatic Hydrocarbons (PAHs); PCBs by EPA Method 8081A; and water quality parameters of chloride, sulfate and Total Dissolved Solids (TDS). The analytical testing was conducted by Test America, a California-Certified Laboratory. The groundwater well samples that exhibited the most detections of the requested analytes were from wells AEC-1 and AEC-2; again, not a surprise since these two wells were completed within a former waste acceptance trench. The groundwater from well AEC-1 exhibited concentrations exceeding the comparative Industrial ESL standard for the VOCs 1,4-Dichlorobenzene, Benzene, Ethyl Benzene, Naphthalene, and TBA. AEC-1 also exhibited gasoline and diesel concentrations exceeding their respective ESLs. In addition, Aroclor-1242 and 1258 (PCB compounds) exceeded their respective ESL standard. Groundwater well AEC-5 and EW-1 did not exhibit any TPH, VOC, SVOC, and/or PCB detections; well EW-1-W has been an "existing well" onsite since April 1987. Analytical results from AEC-3 and AEC-4 exhibited trace to non-detectable concentrations of TPH and VOCs; non-detectable concentrations of SVOCs; and no detections of PCBs. The Chloride, Sulfate and Total Dissolved Solids concentrations from all six groundwater wells exceed their respective Secondary MCLs of 250 mg/L; 250 mg/L and 500 mg/L, respectively.

5.0 CONCLUSIONS

The analytical results for both soil and groundwater indicate the highest concentrations and greatest volume of detectable analytes are identified in groundwater wells AEC-1 and AEC-2. These two wells are positioned within the former boundary of the City Dump & Salvage #2 waste acceptance trench. AEC was unable to obtain representative soil samples from 10', 15' and 20' bgs in AEC-1 because of the large volume of refuse and void space at the boring location. The cuttings from this boring included newspaper, wood, wire, metal fragments and glass. The soil and water from both AEC-1 and AEC-2 exhibited consistent black staining and discoloration and a strong hydrogen sulfide odor most likely caused from the decomposition of construction waste. Also, groundwater from AEC-1 and AEC-2 exhibited detectable concentrations of PCBs (Aroclor 1242 and 1248) which most likely resulted from the decomposition of fluorescent light ballasts or automotive switches that may have been disposed in the landfill trench. In addition, the Chloride, Sulfate and Total Dissolved Solids concentrations from all six groundwater wells exceed their respective Secondary MCLs.

The groundwater flow direction has been calculated at South 55° East with a gradient of 0.12'/foot. However, it is the opinion of AEC that the groundwater elevations are tidally influenced; therefore, AEC will return to the site and collect depth to water readings during a consecutive "high" and "low" tide event.

6.0 RECOMMENDATIONS

AEC recommends conducting the groundwater sampling program as outlined in the Los Angeles RWQCB Order No. R4-2002-022 and Monitoring and Reporting Program CI-2767. Following review of a year's sampling results AEC will provide further recommendation(s).

7.0 REMARKS/SIGNATURES

This report represents the professional opinions of **Advanced Environmental Concepts, Inc.** These opinions are based on currently available data and were arrived at in accordance with accepted hydrogeologic and environmental engineering practices. No other warranty, expressed or implied, is given.

This report has been prepared by:

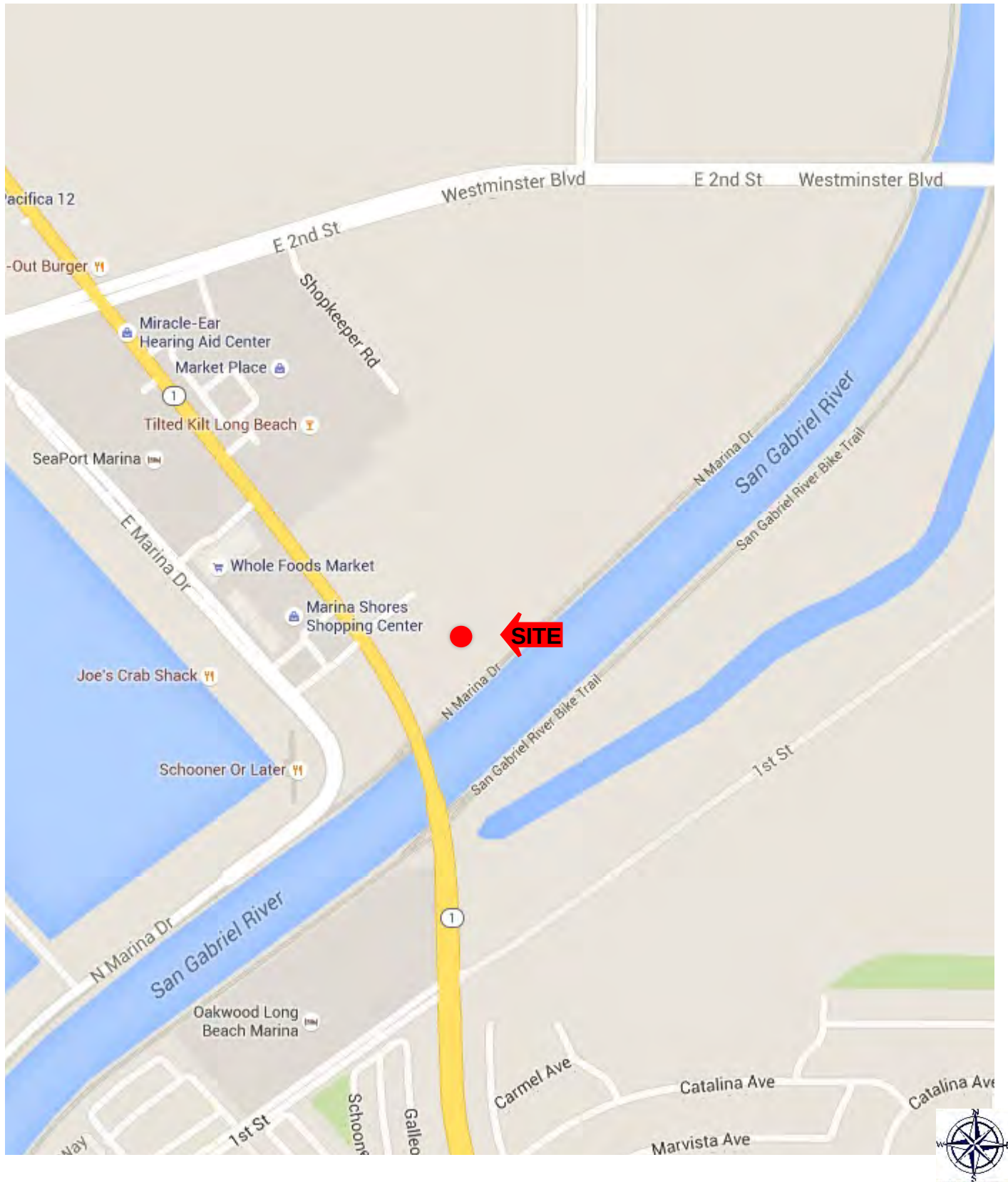
Advanced Environmental Concepts, Inc.


Jonathan L. Buck
California Professional Geologist #7468

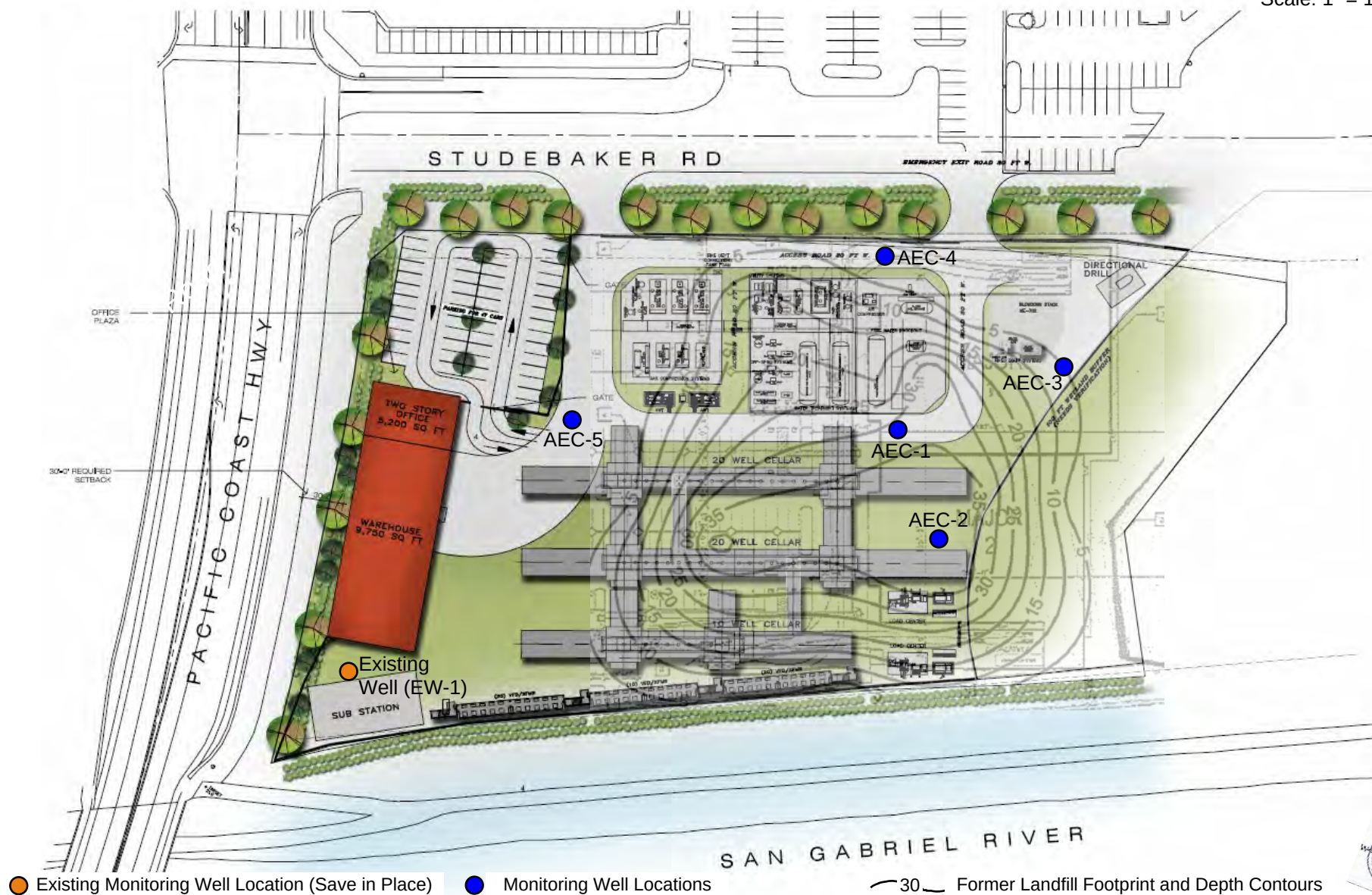


Appendix A

FIGURES AND SITE PHOTOGRAPHS



Scale: 1" = 116'





● Existing Monitoring Well Location (Save in Place)

● Monitoring Well Locations

Scale: 1" = 116'



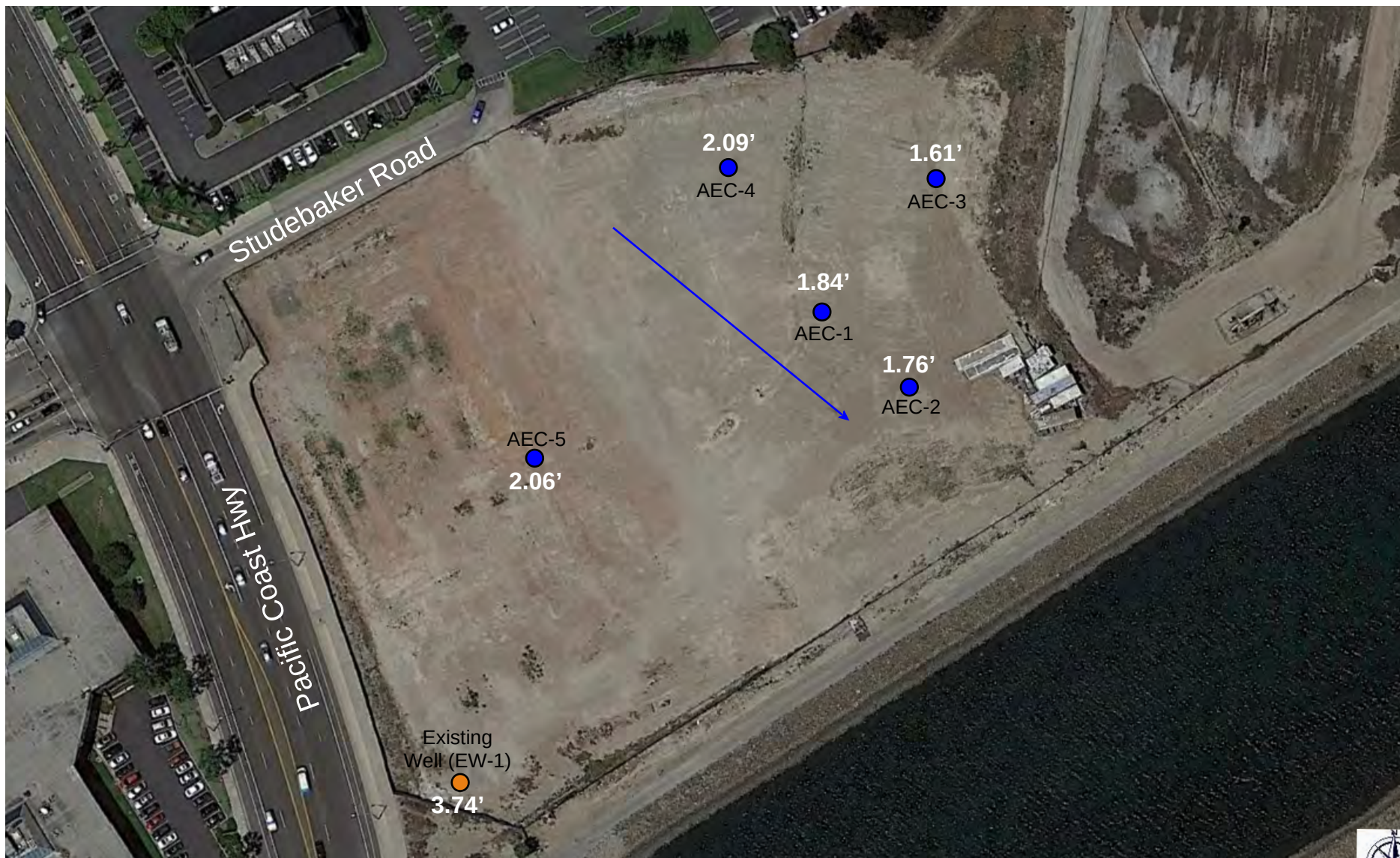
220 East Truxtun Avenue
 Bakersfield, California 93305
 (661) 395-1646

Monitoring Well Locations

Pumpkin Patch
Pacific Coast Highway and Studebaker Road
County of Los Angeles • Long Beach, California

FIGURE

2b



Existing Monitoring Well Location (Save in Place)

Monitoring Well Locations

Flow Direction

Scale: 1" = 116'



220 East Truxtun Avenue
Bakersfield, California 93305
(661) 395-1646

Groundwater Flow Direction

Pumpkin Patch
Pacific Coast Highway and Studebaker Road
County of Los Angeles • Long Beach, California

FIGURE

3

Pumpkin Patch Well Installation
July 12, 2016

1. Clearing boring location to 4.5' bgs using a hand auger.



2. Drilling and sampling boring AEC-5.



Pumpkin Patch Well Installation
July 13, 2016

3. Large volume of newspapers between 10-15' bgs.



Appendix B

TABULATED ANALYTICAL RESULTS

Table 1
Pumpkin Patch
Soil Sample Results
July 12-13, 2016

	Sample ID:	Feb 2016																	
	Sample Type:	ESLs	AEC-1-5'	AEC-2-5'	AEC-2-10'	AEC-2-15'	AEC-2-20'	AEC-3-5'	AEC-3-10'	AEC-3-15'	AEC-3-20'	AEC-4-5'	AEC-4-10'	AEC-4-15'	AEC-4-20'	AEC-5-5'	AEC-5-10'	AEC-5-15'	AEC-5-20'
Parameter:	Sample Date:	Industrial	7/13/2016	7/13/2016	7/13/2016	7/13/2016	7/13/2016	7/12/2016	7/12/2016	7/12/2016	7/12/2016	7/12/2016	7/12/2016	7/12/2016	7/12/2016	7/12/2016	7/12/2016	7/12/2016	7/12/2016
Method 8260B																			
*All Other Compounds ND	ug/Kg	N/A	*ND	*ND	*ND	*ND	*ND	*ND	*ND	*ND	*ND	*ND	*ND	*ND	*ND	*ND	*ND	*ND	*ND
1,2,4-Trimethylbenzene	ug/Kg	N/A	5,000	ND<0.88	ND<0.85	ND<71	1,200	ND<0.95	ND<0.99	ND<0.89	ND<0.91	ND<0.89	ND<0.90	ND<0.97	ND<0.97	ND<0.99	ND<1	ND<0.99	ND<1
1,3,5-Trimethylbenzene	ug/Kg	N/A	1,700	ND<0.88	ND<0.85	ND<71	260	ND<0.95	ND<0.99	ND<0.89	ND<0.91	ND<0.89	ND<0.90	ND<0.97	ND<0.97	ND<0.99	ND<1	ND<0.99	ND<1
1,4-Dichlorobenzene	ug/Kg	13,000	1,300	ND<0.88	ND<0.85	380	260	ND<0.95	ND<0.99	ND<0.89	ND<0.91	ND<0.89	ND<0.90	ND<0.97	ND<0.97	ND<0.99	ND<1	ND<0.99	ND<1
Ethylbenzene	ug/Kg	22,000	540	ND<0.88	ND<0.85	420	450	ND<0.95	ND<0.99	ND<0.89	ND<0.91	ND<0.89	ND<0.90	ND<0.97	ND<0.97	ND<0.99	ND<1	ND<0.99	ND<1
Isopropylbenzene	ug/Kg	N/A	160 J	ND<0.88	ND<0.85	96 J	110 J	ND<0.95	ND<0.99	ND<0.89	ND<0.91	ND<0.89	ND<0.90	ND<0.97	ND<0.97	ND<0.99	ND<1	ND<0.99	ND<1
m and p-Xylene	ug/Kg	N/A	1,800	ND<1.8	ND<1.7	ND<140	240 J	ND<1.9	ND<2	ND<1.8	ND<1.8	ND<1.8	ND<1.8	ND<1.9	ND<1.9	ND<2	ND<2	ND<2	ND<2
Naphthalene	ug/Kg	14,000	5,600	ND<1.8	ND<1.7	2,300	2,600	ND<1.9	ND<2	ND<1.8	ND<1.8	ND<1.8	ND<1.8	ND<1.9	ND<1.9	ND<2	ND<2	ND<2	ND<2
n-Butylbenzene	ug/Kg	N/A	540 J	ND<0.88	ND<0.85	350	280 J	ND<0.95	ND<0.99	ND<0.89	ND<0.91	ND<0.89	ND<0.90	ND<0.97	ND<0.97	ND<0.99	ND<1	ND<0.99	ND<1
N-Propylbenzene	ug/Kg	N/A	430	ND<0.88	ND<0.85	200	100 J	ND<0.95	ND<0.99	ND<0.89	ND<0.91	ND<0.89	ND<0.90	ND<0.97	ND<0.97	ND<0.99	ND<1	ND<0.99	ND<1
o-Xylene	ug/Kg	N/A	1,100	ND<0.88	ND<0.85	ND<71	120 J	ND<0.95	ND<0.99	ND<0.89	ND<0.91	ND<0.89	ND<0.90	ND<0.97	ND<0.97	ND<0.99	ND<1	ND<0.99	ND<1
sec-Butylbenzene	ug/Kg	N/A	510 J	ND<0.88	ND<0.85	180 J	120 J	ND<0.95	ND<0.99	ND<0.89	ND<0.91	ND<0.89	ND<0.90	ND<0.97	ND<0.97	ND<0.99	ND<1	ND<0.99	ND<1
Styrene	ug/Kg	40,000,000	ND<140	ND<0.88	ND<0.85	ND<71	130 J	ND<0.95	ND<0.99	ND<0.89	ND<0.91	ND<0.89	ND<0.90	ND<0.97	ND<0.97	ND<0.99	ND<1	ND<0.99	ND<1
Toluene	ug/Kg	4,600,000	320	ND<0.88	ND<0.85	ND<71	620	ND<0.95	ND<0.99	ND<0.89	ND<0.91	ND<0.89	ND<0.90	ND<0.97	ND<0.97	ND<0.99	ND<1	ND<0.99	ND<1
Trichloroethene	ug/Kg	8,000	ND<140	ND<0.88	ND<0.85	ND<71	ND<83	1.7 J	1.1 J	0.89 J	2.4	ND<0.89	ND<0.90	2.1	ND<0.97	ND<0.99	ND<1	ND<0.99	ND<1
Xylenes (Total)	ug/Kg	2,400,000	2,900	ND<1.8	ND<1.7	ND<140	360	ND<1.9	ND<2	ND<1.8	ND<1.8	ND<1.8	ND<1.8	ND<1.9	ND<1.9	ND<2	ND<2	ND<2	ND<2
p-Isopropyltoluene	ug/Kg	N/A	1,900	ND<0.88	ND<0.85	ND<71	700	ND<0.95	ND<0.99	ND<0.89	ND<0.91	ND<0.89	ND<0.90	ND<0.97	ND<0.97	ND<0.99	ND<1	ND<0.99	ND<1
Method 8015/8260																			
C4-C12 (Gasoline Range)	mg/Kg	3,900	300	ND<0.062	ND<0.059	87	84	ND<0.067	ND<0.069	ND<0.063	ND<0.064	ND<0.062	ND<0.063	ND<0.068	ND<0.068	ND<0.069	ND<0.070	ND<0.070	ND<0.070
C13-C22 (Diesel Range)	mg/Kg	1,100	540	3.0 J	3.5 J	110	2,000	89 J	ND<5.1	ND<5.4	ND<5.3	ND<5	ND<5.2	ND<13	ND<5.2	ND<5.2	22	ND<5.1	ND<5.1
C23-C40 (Oil Range)	mg/Kg	140,000	850	11	11	700	13,000	1,700	8.6 J	ND<5.4	ND<5.3	ND<5	ND<5.2	13 J	ND<5.2	ND<5.2	45	ND<5.1	ND<5.1
Method 8270C																			
Acenaphthene	ug/Kg	45,000,000	210 J	ND<3.9	ND<8.1	92 J	ND<95	ND<310	ND<4	ND<8.4	ND<3.9	ND<4	ND<3.9	ND<8.5	ND<7.9	ND<3.9	ND<4	ND<8	ND<3.9
Acenaphthylene	ug/Kg	N/A	ND<79	ND<3.9	ND<8.1	ND<88	ND<95	ND<310	ND<4	ND<8.4	ND<3.9	ND<4	ND<3.9	ND<8.5	ND<7.9	ND<3.9	ND<4	ND<8	ND<3.9
Anthracene	ug/Kg	230,000,000	ND<79	ND<3.9	ND<8.1	ND<88	ND<95	ND<310	ND<4	ND<8.4	ND<3.9	ND<4	ND<3.9	ND<8.5	ND<7.9	ND<3.9	ND<4	ND<8	ND<3.9
Benzo[a]anthracene	ug/Kg	2,900	ND<79	ND<3.9	ND<8.1	ND<88	ND<95	ND<310	ND<4	ND<8.4	ND<3.9	ND<4	ND<3.9	ND<8.5	ND<7.9	ND<3.9	ND<4	ND<8	ND<3.9
Benzo[a]pyrene	ug/Kg	290	ND<79	ND<3.9	ND<8.1	ND<88	ND<95	ND<310	ND<4	ND<8.4	ND<3.9	ND<4	ND<3.9	ND<8.5	ND<7.9	ND<3.9	ND<4	ND<8	ND<3.9
Benzo[b]fluoranthene	ug/Kg	2,900	ND<79	ND<3.9	9.4 J	ND<88	ND<95	ND<310	ND<4	ND<8.4	ND<3.9	ND<4	ND<3.9	ND<8.5	ND<7.9	ND<3.9	ND<4	ND<8	ND<3.9
Benzo[g,h,i]perylene	ug/Kg	N/A	ND<79	ND<3.9	ND<8.1	ND<88	ND<95	ND<310	ND<4	ND<8.4	ND<3.9	ND<4	ND<3.9	ND<8.5	ND<7.9	ND<3.9	ND<4	ND<8	ND<3.9
Benzo[k]fluoranthene	ug/Kg	29,000	ND<79	ND<3.9	ND<8.1	ND<88	ND<95	ND<310	ND<4	ND<8.4	ND<3.9	ND<4	ND<3.9	ND<8.5	ND<7.9	ND<3.9	ND<4	ND<8	ND<3.9
Chrysene	ug/Kg	260,000	ND<79	ND<3.9	20 J	ND<88	ND<95	ND<310	ND<4	ND<8.4	ND<3.9	ND<4	ND<3.9	ND<8.5	ND<7.9	ND<3.9	4.5 J	ND<8	ND<3.9
Dibenz[a,h]anthracene	ug/Kg	290	ND<79	ND<3.9	ND<8.1	ND<88	ND<95	ND<310	ND<4	ND<8.4	ND<3.9	ND<4	ND<3.9	ND<8.5	ND<7.9	ND<3.9	ND<4	ND<8	ND<3.9
Fluoranthene	ug/Kg	30,000,000	ND<79	ND<3.9	ND<8.1	280 J	ND<95	ND<310	ND<4	ND<8.4	ND<3.9	ND<4	ND<3.9	ND<8.5	ND<7.9	ND<3.9	12 J	ND<8	ND<3.9
Fluorene	ug/Kg	30,000,000	360 J	ND<3.9	ND<8.1	150 J	ND<95	ND<310	ND<4	ND<8.4	ND<3.9	ND<4	ND<3.9	ND<8.5	ND<7.9	ND<3.9	ND<4	ND<8	ND<3.9
Indeno[1,2,3-cd]pyrene	ug/Kg	2,900	ND<79	ND<3.9	ND<8.1	ND<88	ND<95	ND<310	ND<4	ND<8.4	ND<3.9	ND<4	ND<3.9	ND<8.5	ND<7.9	ND<3.9	ND<4	ND<8	ND<3.9
Naphthalene	ug/Kg	14,000	400 J	ND<3.9	14 J	1,900	1,300	ND<310	ND<4	ND<8.4	ND<3.9	ND<4	ND<3.9	ND<8.5	ND<7.9	ND<3.9	ND<4	ND<8	ND<3.9
Phenanthrene	ug/Kg	N/A	100 J	ND<3.9	10 J	330 J	250 J	ND<310	ND<4	ND<8.4	ND<3.9	ND<4	ND<3.9	ND<8.5	ND<7.9	ND<3.9	31	ND<8	ND<3.9
Pyrene	ug/Kg	23,000,000	ND<79	5.5 J	15 J	200 J	ND<95	ND<310	ND<4	ND<8.4	ND<3.9	ND<4	ND<3.9	ND<8.5	ND<7.9	ND<3.9	8.8 J	ND<8	ND<3.9
Method 8082																			
Aroclor-1016	ug/Kg	1,000	ND<17	ND<17	ND<36	ND<34	550	ND<35	ND<35	ND<36	ND<34	ND<34	ND<35	ND<35	ND<36	ND<36	ND<36	ND<76	ND<35
Aroclor-1221	ug/Kg	1,000	ND<17	ND<17	ND<36	ND<34	ND<79	ND<35	ND<35	ND<36	ND<34	ND<34	ND<35	ND<35	ND<36	ND<36	ND<36	ND<76	ND<35
Aroclor-1232	ug/Kg	1,000	ND<17	ND<17	ND<36	ND<34	ND<79	ND<35	ND<35	ND<36	ND<34	ND<34	ND<35	ND<35	ND<36	ND<36	ND<36	ND<76	ND<35
Aroclor-1242	ug/Kg	1,000	ND<17	ND<17	ND<36	ND<34	ND<79	ND<35	ND<35	ND<36	ND<34	ND<34	ND<35	ND<35	ND<36	ND<36	ND<36	ND<76	ND<35
Aroclor-1248	ug/Kg	1,000	ND<17	ND<17	ND<36	ND<34	ND<79	ND<35	ND<35	ND<36	ND<34	ND<34	ND<35	ND<35	ND<36	ND<36	ND<36	ND<76	ND<35
Aroclor-1254	ug/Kg	1,000	ND<17	ND<17	ND<36	ND<34	340	ND<35	ND<35	ND<36	ND<34	ND<34	ND<35	ND<35	ND<36	ND<36	ND<36	ND<76	ND<35
Aroclor-1260	ug/Kg	1,000	ND<17	ND<17	ND<36	76 J	300	ND<35	ND<35	ND<36	ND<34	ND<34	ND<35	ND<35	ND<36	ND<36	ND<36	ND<76	ND<35
Method 6020																			
Silver	mg/Kg	5,800	ND<0.10	ND<0.10	ND<0.10	ND<0.099	ND<0.10	ND<0.099	ND<0.099	ND<0.099	ND<0.1	ND<0.099	ND<0.099	ND<0.099	ND<0.10	ND<0.099	ND<0.10	ND<0.ND	

Table 2
Pumpkin Patch
Water Sample Results
July 13-14, 2016

Parameter:	Sample ID:							
	Sample Type:	Feb 2016 ESLs	AEC-1-W	AEC-2-W	AEC-3-W	AEC-4-W	AEC-5W	EW-1-W
	Sample Date:	Industrial	7/14/2016	7/14/2016	7/13/2016	7/13/2016	7/13/2016	7/13/2016
Method 8260B								
*All Other Compounds ND	ug/L	N/A	*ND	*ND	*ND	*ND	*ND	*ND
1,2,4-Trimethylbenzene	ug/L	N/A	35	61	ND<0.25	ND<0.25	ND<0.25	ND<0.25
1,3,5-Trimethylbenzene	ug/L	N/A	8	14	ND<0.25	ND<0.25	ND<0.25	ND<0.25
1,4-Dichlorobenzene	ug/L	0.48	17	46	ND<0.25	ND<0.25	ND<0.25	ND<0.25
Benzene	ug/L	0.15	4.6	3.8	ND<0.25	1.1	ND<0.25	ND<0.25
Chlorobenzene	ug/L	70	1.6 J	2.6	ND<0.25	ND<0.25	ND<0.25	ND<0.25
Chloromethane	ug/L	190	ND<1.3	0.82 J	ND<0.25	ND<0.25	ND<0.25	ND<0.25
Ethanol	ug/L	N/A	ND<380	200 J	ND<75	ND<75	ND<75	ND<75
Ethylbenzene	ug/L	1.5	19	14	ND<0.25	0.57	ND<0.25	ND<0.25
Isopropylbenzene	ug/L	N/A	1.5 J	2.7	ND<0.25	ND<0.25	ND<0.25	ND<0.25
m and p-Xylene	ug/L	N/A	37	16	ND<0.50	ND<0.50	ND<0.50	ND<0.50
Naphthalene	ug/L	0.17	87	51	ND<0.40	ND<0.40	ND<0.40	ND<0.40
n-Butylbenzene	ug/L	N/A	3.5 J	5.8	ND<0.40	ND<0.40	ND<0.40	ND<0.40
N-Propylbenzene	ug/L	N/A	3.2	6	ND<0.25	ND<0.25	ND<0.25	ND<0.25
o-Xylene	ug/L	N/A	21	10	ND<0.25	ND<0.25	ND<0.25	ND<0.25
sec-Butylbenzene	ug/L	N/A	2.5	3.2	ND<0.25	ND<0.25	ND<0.25	ND<0.25
Styrene	ug/L	0.5	ND<1.3	1.2	ND<0.25	ND<0.25	ND<0.25	ND<0.25
tert-Butylbenzene	ug/L	N/A	ND<1.3	0.79 J	ND<0.25	ND<0.25	ND<0.25	ND<0.25
Toluene	ug/L	150	53	28	ND<0.25	ND<0.25	ND<0.25	ND<0.25
Xylenes (Total)	ug/L	190	58	26	ND<0.50	ND<0.50	ND<0.50	ND<0.50
p-Isopropyltoluene	ug/L	N/A	13	12	ND<0.25	ND<0.25	ND<0.25	ND<0.25
tert-Butyl alcohol (TBA)	ug/L	12	53	25 ID	11 ID	24	ND<5	ND<5
Method 8015/8260								
C4-C12 (Gasoline Range)	mg/L	0.22	2,300	1,600	0.049	0.092	ND<0.035	ND<0.035
C13-C22 (Diesel Range)	mg/L	0.15	2.5	0.91	2.6 J	0.73	ND<0.088	ND<0.093
C23-C40 (Oil Range)	mg/L	N/A	1.2	0.36 J	40	0.31 J	ND<0.088	ND<0.093
Method 8270C								
Acenaphthene	ug/L	530	0.68	1.6	ND<0.097	ND<0.091	ND<0.087	ND<0.097
Acenaphthylene	ug/L	N/A	ND<0.19	ND<0.19	ND<0.097	ND<0.091	ND<0.087	ND<0.097
Anthracene	ug/L	1,800	ND<0.19	0.30 J	ND<0.097	ND<0.091	ND<0.087	ND<0.097
Benzo[a]anthracene	ug/L	0.034	ND<0.19	ND<0.19	ND<0.097	ND<0.091	ND<0.087	ND<0.097
Benzo[a]pyrene	ug/L	0.0034	ND<0.19	ND<0.19	ND<0.097	ND<0.091	ND<0.087	ND<0.097
Benzo[b]fluoranthene	ug/L	0.012	ND<0.19	ND<0.19	ND<0.097	ND<0.091	ND<0.087	ND<0.097
Benzo[g,h,i]perylene	ug/L	N/A	ND<0.19	ND<0.19	ND<0.097	ND<0.091	ND<0.087	ND<0.097
Benzo[k]fluoranthene	ug/L	0.017	ND<0.19	ND<0.19	ND<0.097	ND<0.091	ND<0.087	ND<0.097
Chrysene	ug/L	0.17	ND<0.19	ND<0.19	ND<0.097	ND<0.091	ND<0.087	ND<0.097
Dibenz(a,h)anthracene	ug/L	0.0034	ND<0.19	ND<0.19	ND<0.097	ND<0.091	ND<0.087	ND<0.097
Fluoranthene	ug/L	800	0.51	0.31 J	ND<0.097	ND<0.091	ND<0.087	ND<0.097
Fluorene	ug/L	290	0.68	2.0	ND<0.097	ND<0.091	ND<0.087	ND<0.097
Indeno[1,2,3-cd]pyrene	ug/L	0.034	ND<0.19	ND<0.19	ND<0.097	ND<0.091	ND<0.087	ND<0.097
Naphthalene	ug/L	0.17	21	29	ND<0.097	0.62	ND<0.087	ND<0.097
Phenanthrene	ug/L	N/A	2.1	2.9	ND<0.097	ND<0.091	ND<0.087	ND<0.097
Pyrene	ug/L	120	0.41	0.35 J	ND<0.097	ND<0.091	ND<0.087	ND<0.097
Method 8082								
Aroclor-1016	ug/L	0.0019	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
Aroclor-1221	ug/L	0.0019	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
Aroclor-1232	ug/L	0.0019	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
Aroclor-1242	ug/L	0.0019	1.7	5.5	ND<0.50	ND<0.50	ND<0.50	ND<0.50
Aroclor-1248	ug/L	0.0019	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
Aroclor-1254	ug/L	0.0019	1.1	1.4	ND<0.50	ND<0.50	ND<0.50	ND<0.50
Aroclor-1260	ug/L	0.0019	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
Method 6020								
Silver	mg/L	94,000	ND<0.050	ND<0.050	ND<0.025	ND<0.025	ND<0.050	ND<0.0050
Arsenic	mg/L	4	0.063 J	ND<0.050	0.093	ND<0.025	ND<0.050	ND<0.0050
Barium	mg/L	2,000,000	3.4	2.4	0.7	0.15	0.29	0.12
Beryllium	mg/L	1,000	ND<0.010	ND<0.010	ND<0.0050	ND<0.0050	ND<0.010	ND<0.0010
Cadmium	mg/L	40	ND<0.020	ND<0.20	ND<0.010	ND<0.010	ND<0.020	ND<0.0020
Chromium	mg/L	N/A	0.68	0.14	0.15	ND<0.013	0.047 J	0.0030 J
Cobalt	mg/L	6,000	0.075 J	0.031 J	0.054	ND<0.013	ND<0.025	0.0068 J
Copper	mg/L	300,000	0.6	0.13	0.23	0.026 J	0.096 J	0.01
Lead	mg/L	200	1.1	0.27	0.14	ND<0.013	ND<0.025	ND<0.0025
Molybdenum	mg/L	100,000	ND<0.10	ND<0.10	0.053 J	ND<0.050	ND<0.10	0.057
Nickel	mg/L	12,000	0.31	0.075 J	0.1	ND<0.025	ND<0.050	0.0075 J
Selenium	mg/L	30,000	0.078 J	ND<0.061	ND<0.031	ND<0.031	ND<0.061	ND<0.0061
Thallium	mg/L	100	ND<0.050	0.055 J	ND<0.025	ND<0.025	ND<0.050	ND<0.0050
Vanadium	mg/L	50,000	0.19	ND<0.050	0.29	0.030 J	0.11	0.0084 J
Zinc	mg/L	6,000	2.0	0.47	0.35	ND<0.050	ND<0.10	ND<0.010
Antimony	mg/L	7,800	ND<0.060	ND<0.060	0.074	ND<0.030	ND<0.060	ND<0.0060
Method 7471A								
Mercury	mg/L	1,200	0.003	ND<0.00040	0.00015 J	ND<0.00010	ND<0.00010	ND<0.00010
Method 300.0								
Chloride	mg/L	250	15,000	14,000	36,000	35,000	62,000	4,000
Sulfate	mg/L	250	42 J	40 J	4,800	2,300	7,100	470
General Chemistry								
Total Dissolved Solids	mg/L	500	30,000	26,000	62,000	59,000	100,000	9,700

ND: Not detected above Method Detection Limit (MDL)

N/A: Not applicable

NA: Not Analyzed

Exceeds February 2016 Environmental Screening Level (ESL) - Shallow Soils - Residential-Direct Exposure - GW is Not Drinking Water

Exceeds National Secondary Drinking Water Regulation

Arsenic exceeds 12 mg/Kg

Appendix C

**LABORATORY REPORTS AND CHAIN-OF-CUSTODY
DOCUMENTATION**

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Irvine

17461 Derian Ave

Suite 100

Irvine, CA 92614-5817

Tel: (949)261-1022

TestAmerica Job ID: 440-152462-1

Client Project/Site: Pumpkin Patch

For:

Advanced Environmental Concepts Inc

220 E. Truxtun Ave.

Bakersfield, California 93305

Attn: Jonathan Buck



Authorized for release by:

7/26/2016 2:51:52 PM

Danielle Roberts, Senior Project Manager

(949)261-1022

danielle.roberts@testamericainc.com

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results through

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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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Sample Summary

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-152462-1	AEC-5-5'	Solid	07/12/16 09:00	07/12/16 18:30
440-152462-2	AEC-5-10'	Solid	07/12/16 09:05	07/12/16 18:30
440-152462-3	AEC-5-15'	Solid	07/12/16 09:08	07/12/16 18:30
440-152462-4	AEC-5-20'	Solid	07/12/16 09:12	07/12/16 18:30
440-152462-5	AEC-3-5'	Solid	07/12/16 11:05	07/12/16 18:30
440-152462-6	AEC-3-10'	Solid	07/12/16 11:10	07/12/16 18:30
440-152462-7	AEC-3-15'	Solid	07/12/16 11:14	07/12/16 18:30
440-152462-8	AEC-3-20'	Solid	07/12/16 11:21	07/12/16 18:30
440-152462-9	AEC-4-5'	Solid	07/12/16 13:15	07/12/16 18:30
440-152462-10	AEC-4-10'	Solid	07/12/16 13:19	07/12/16 18:30
440-152462-11	AEC-4-15'	Solid	07/12/16 13:25	07/12/16 18:30
440-152462-12	AEC-4-20'	Solid	07/12/16 13:30	07/12/16 18:30

Case Narrative

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Job ID: 440-152462-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative 440-152462-1

Comments

No additional comments.

Receipt

The samples were received on 7/12/2016 6:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.0° C.

Receipt Exceptions

The Field Sampler was not listed on the Chain of Custody.

GC/MS VOA

Method(s) 8260B: The continuing calibration verification (CCV) associated with batch 440-342846 recovered above the upper control limit for Chloroethane and Chloromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: AEC-4-20' (440-152462-12) and (CCVIS 440-342846/2).

Method(s) 8260B: Internal standard responses were outside of acceptance limits for the following samples: 1,4-Dichlorobenzene-d4 is low AEC-3-5' (440-152462-5) and AEC-3-20' (440-152462-8). The sample(s) shows evidence of matrix interference. Due to limited sample volume no rerun was possible.

Method(s) 8260B: Surrogate recovery for the following samples was outside control limits: 4-Bromofluorobenzene, Dibromofluoromethane and Toluene-d8 are high AEC-3-5' (440-152462-5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8260B/CA_LUFTMS: Internal standard responses were outside of acceptance limits for the following samples: 1,4-Dichlorobenzene-d4 is low AEC-3-5' (440-152462-5) and AEC-3-20' (440-152462-8). The sample(s) shows evidence of matrix interference. Due to limited sample volume sample could not be reran.

Method(s) 8260B/CA_LUFTMS: Surrogate recovery for the following samples was outside control limits: 4-Bromofluorobenzene, Dibromofluoromethane and Toluene-d8 are high AEC-3-5' (440-152462-5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed. Limited sample volume.

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

GC/MS Semi VOA

Method(s) 8270C SIM: The following sample required a dilution due to the nature of the sample matrix: AEC-3-5' (440-152462-5). 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) 8270C SIM: The following sample was diluted due to the nature of the sample matrix: AEC-3-5' (440-152462-5). Elevated reporting limits (RLs) are provided.

Method(s) 8270C SIM: The continuing calibration verification (CCV) associated with batch 440-342622 recovered above the upper control limit for Benzo[g,h,i]perylene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

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

GC Semi VOA

Method(s) 8015B: Surrogate recovery for the following sample was outside control limits: AEC-5-5' (440-152462-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Case Narrative

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Job ID: 440-152462-1 (Continued)

Laboratory: TestAmerica Irvine (Continued)

Method(s) 8015B: The following sample required a dilution due to the nature of the sample matrix: AEC-3-5' (440-152462-5). 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) 8015B: Surrogate recovery for the following sample was outside control limits: AEC-3-10' (440-152462-6). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8082: Surrogate recovery for the following samples was outside control limits: AEC-3-15' (440-152462-7). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8082: The following samples required a copper clean-up to reduce matrix interferences caused by sulfur: AEC-5-5' (440-152462-1), (LCS 440-342185/2-A), (MB 440-342185/1-A), (440-152462-A-1-D MS) and (440-152462-A-1-E MSD).

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) 3546: The following samples was diluted due to the nature of the sample matrix: AEC-5-5' (440-152462-1), AEC-5-10' (440-152462-2), AEC-5-15' (440-152462-3), AEC-5-20' (440-152462-4), AEC-3-5' (440-152462-5), AEC-3-10' (440-152462-6), AEC-3-15' (440-152462-7), AEC-3-20' (440-152462-8), AEC-4-5' (440-152462-9), AEC-4-10' (440-152462-10), AEC-4-15' (440-152462-11), AEC-4-20' (440-152462-12), (440-152462-A-1 MS) and (440-152462-A-1 MSD). Elevated reporting limits (RLs) are provided.

Method(s) 3546: The following samples was diluted due to the nature of the sample matrix: AEC-5-5' (440-152462-1), AEC-5-10' (440-152462-2), AEC-5-15' (440-152462-3), AEC-5-20' (440-152462-4), AEC-3-5' (440-152462-5), AEC-3-10' (440-152462-6), AEC-3-15' (440-152462-7), AEC-3-20' (440-152462-8), AEC-4-5' (440-152462-9), AEC-4-10' (440-152462-10), AEC-4-15' (440-152462-11), AEC-4-20' (440-152462-12), (440-152462-A-1 MS) and (440-152462-A-1 MSD). Elevated reporting limits (RLs) are provided.

Method(s) 3546: Due to the matrix, the following sample could not be concentrated to the final method required volume: AEC-3-5' (440-152462-5). The reporting limits (RLs) are elevated proportionately.

Method(s) 3546: The following samples was diluted due to the nature of the sample matrix: AEC-5-15' (440-152462-3) and AEC-3-15' (440-152462-7). Elevated reporting limits (RLs) are provided.

Method(s) 3546: The following sample was diluted due to the nature of the sample matrix: AEC-4-15' (440-152462-11). 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.

VOA Prep

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

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-5-5'

Date Collected: 07/12/16 09:00

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-1

Matrix: Solid

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		0.099	0.069	mg/Kg			07/14/16 16:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	107		60 - 120					07/14/16 16:53	1
4-Bromofluorobenzene (Surr)	95		79 - 120					07/14/16 16:53	1
Toluene-d8 (Surr)	104		79 - 123					07/14/16 16:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0	0.99	ug/Kg			07/14/16 16:53	1
1,1,1-Trichloroethane	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1
1,1,2-Trichloroethane	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1
1,1-Dichloroethane	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1
1,1-Dichloroethene	ND		5.0	0.99	ug/Kg			07/14/16 16:53	1
1,1-Dichloropropene	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1
1,2,3-Trichlorobenzene	ND		5.0	0.99	ug/Kg			07/14/16 16:53	1
1,2,3-Trichloropropane	ND		9.9	0.99	ug/Kg			07/14/16 16:53	1
1,2,4-Trichlorobenzene	ND		5.0	0.99	ug/Kg			07/14/16 16:53	1
1,2,4-Trimethylbenzene	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.0	ug/Kg			07/14/16 16:53	1
1,2-Dibromoethane (EDB)	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1
1,2-Dichlorobenzene	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1
1,2-Dichloroethane	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1
1,2-Dichloropropane	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1
1,3,5-Trimethylbenzene	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1
1,3-Dichlorobenzene	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1
1,3-Dichloropropane	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1
1,4-Dichlorobenzene	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1
2,2-Dichloropropane	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1
2-Chlorotoluene	ND		5.0	0.99	ug/Kg			07/14/16 16:53	1
4-Chlorotoluene	ND		5.0	0.99	ug/Kg			07/14/16 16:53	1
Benzene	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1
Bromobenzene	ND		5.0	0.99	ug/Kg			07/14/16 16:53	1
Bromochloromethane	ND		5.0	0.99	ug/Kg			07/14/16 16:53	1
Bromodichloromethane	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1
Bromoform	ND		5.0	2.0	ug/Kg			07/14/16 16:53	1
Bromomethane	ND		5.0	0.99	ug/Kg			07/14/16 16:53	1
Carbon tetrachloride	ND		5.0	0.99	ug/Kg			07/14/16 16:53	1
Chlorobenzene	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1
Chloroethane	ND		5.0	2.0	ug/Kg			07/14/16 16:53	1
Chloroform	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1
Chloromethane	ND		5.0	0.99	ug/Kg			07/14/16 16:53	1
cis-1,2-Dichloroethene	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1
cis-1,3-Dichloropropene	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1
Dibromochloromethane	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1
Dibromomethane	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1
Dichlorodifluoromethane	ND		5.0	2.0	ug/Kg			07/14/16 16:53	1
Isopropyl Ether (DIPE)	ND		5.0	0.99	ug/Kg			07/14/16 16:53	1
Ethanol	ND		300	99	ug/Kg			07/14/16 16:53	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-5-5'

Date Collected: 07/12/16 09:00

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-1

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl-t-butyl ether (ETBE)	ND		5.0	0.99	ug/Kg			07/14/16 16:53	1
Ethylbenzene	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1
Hexachlorobutadiene	ND		5.0	0.99	ug/Kg			07/14/16 16:53	1
Isopropylbenzene	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1
m,p-Xylene	ND		4.0	2.0	ug/Kg			07/14/16 16:53	1
Methylene Chloride	ND		20	5.0	ug/Kg			07/14/16 16:53	1
Methyl-t-Butyl Ether (MTBE)	ND		5.0	0.99	ug/Kg			07/14/16 16:53	1
Naphthalene	ND		5.0	2.0	ug/Kg			07/14/16 16:53	1
n-Butylbenzene	ND		5.0	0.99	ug/Kg			07/14/16 16:53	1
N-Propylbenzene	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1
o-Xylene	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1
sec-Butylbenzene	ND		5.0	0.99	ug/Kg			07/14/16 16:53	1
Styrene	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1
Tert-amyl-methyl ether (TAME)	ND		5.0	0.99	ug/Kg			07/14/16 16:53	1
tert-Butyl alcohol (TBA)	ND		99	9.9	ug/Kg			07/14/16 16:53	1
tert-Butylbenzene	ND		5.0	0.99	ug/Kg			07/14/16 16:53	1
Tetrachloroethene	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1
Toluene	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1
trans-1,2-Dichloroethene	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1
trans-1,3-Dichloropropene	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1
Trichloroethene	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1
Trichlorofluoromethane	ND		5.0	0.99	ug/Kg			07/14/16 16:53	1
Vinyl chloride	ND		5.0	0.99	ug/Kg			07/14/16 16:53	1
Xylenes, Total	ND		4.0	2.0	ug/Kg			07/14/16 16:53	1
p-Isopropyltoluene	ND		2.0	0.99	ug/Kg			07/14/16 16:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		79 - 123		07/14/16 16:53	1
4-Bromofluorobenzene (Surr)	95		79 - 120		07/14/16 16:53	1
Dibromofluoromethane (Surr)	107		60 - 120		07/14/16 16:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 12:11	1
Acenaphthylene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 12:11	1
Anthracene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 12:11	1
Benzo[a]anthracene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 12:11	1
Benzo[a]pyrene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 12:11	1
Benzo[b]fluoranthene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 12:11	1
Benzo[g,h,i]perylene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 12:11	1
Benzo[k]fluoranthene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 12:11	1
Chrysene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 12:11	1
Dibenz(a,h)anthracene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 12:11	1
Fluoranthene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 12:11	1
Fluorene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 12:11	1
Indeno[1,2,3-cd]pyrene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 12:11	1
Naphthalene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 12:11	1
Phenanthrene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 12:11	1
Pyrene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 12:11	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-5-5'

Date Collected: 07/12/16 09:00

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-1

Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	68		39 - 111	07/14/16 09:28	07/15/16 12:11	1
Nitrobenzene-d5	66		41 - 119	07/14/16 09:28	07/15/16 12:11	1
Terphenyl-d14	77		43 - 150	07/14/16 09:28	07/15/16 12:11	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		10	5.2	mg/Kg		07/13/16 18:24	07/14/16 11:54	1
C23-C40	ND		10	5.2	mg/Kg		07/13/16 18:24	07/14/16 11:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	37	X	40 - 140	07/13/16 18:24	07/14/16 11:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		110	36	ug/Kg		07/13/16 18:43	07/15/16 14:26	1
Aroclor 1221	ND		110	36	ug/Kg		07/13/16 18:43	07/15/16 14:26	1
Aroclor 1232	ND		110	36	ug/Kg		07/13/16 18:43	07/15/16 14:26	1
Aroclor 1242	ND		110	36	ug/Kg		07/13/16 18:43	07/15/16 14:26	1
Aroclor 1248	ND		110	36	ug/Kg		07/13/16 18:43	07/15/16 14:26	1
Aroclor 1254	ND		110	36	ug/Kg		07/13/16 18:43	07/15/16 14:26	1
Aroclor 1260	ND		110	36	ug/Kg		07/13/16 18:43	07/15/16 14:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	72		45 - 120	07/13/16 18:43	07/15/16 14:26	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.50	0.099	mg/Kg		07/14/16 08:05	07/15/16 09:34	20
Arsenic	4.5		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 09:34	20
Barium	130	F1	0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 09:34	20
Beryllium	0.46		0.30	0.15	mg/Kg		07/14/16 08:05	07/15/16 09:34	20
Cadmium	ND		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 09:34	20
Chromium	18	F1	0.99	0.50	mg/Kg		07/14/16 08:05	07/15/16 09:34	20
Cobalt	7.1	F1	0.50	0.21	mg/Kg		07/14/16 08:05	07/15/16 09:34	20
Copper	18	F1	0.99	0.50	mg/Kg		07/14/16 08:05	07/15/16 09:34	20
Lead	5.5		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 09:34	20
Molybdenum	0.77	J	0.99	0.50	mg/Kg		07/14/16 08:05	07/15/16 09:34	20
Nickel	13	F1	0.99	0.50	mg/Kg		07/14/16 08:05	07/15/16 09:34	20
Selenium	0.47	J	0.99	0.20	mg/Kg		07/14/16 08:05	07/15/16 09:34	20
Thallium	ND		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 09:34	20
Vanadium	35		0.99	0.50	mg/Kg		07/14/16 08:05	07/15/16 09:34	20
Zinc	49	F1	9.9	5.0	mg/Kg		07/14/16 08:05	07/15/16 09:34	20
Antimony	0.40	J F1	0.99	0.27	mg/Kg		07/14/16 08:05	07/15/16 09:34	20

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.031		0.020	0.012	mg/Kg		07/13/16 23:32	07/14/16 20:40	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-5-10'

Date Collected: 07/12/16 09:05

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-2

Matrix: Solid

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		0.10	0.070	mg/Kg			07/14/16 20:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	105		60 - 120					07/14/16 20:47	1
4-Bromofluorobenzene (Surr)	101		79 - 120					07/14/16 20:47	1
Toluene-d8 (Surr)	106		79 - 123					07/14/16 20:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0	1.0	ug/Kg			07/14/16 20:47	1
1,1,1-Trichloroethane	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1
1,1,2,2-Tetrachloroethane	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1
1,1,2-Trichloroethane	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1
1,1-Dichloroethane	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1
1,1-Dichloroethene	ND		5.0	1.0	ug/Kg			07/14/16 20:47	1
1,1-Dichloropropene	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1
1,2,3-Trichlorobenzene	ND		5.0	1.0	ug/Kg			07/14/16 20:47	1
1,2,3-Trichloropropane	ND		10	1.0	ug/Kg			07/14/16 20:47	1
1,2,4-Trichlorobenzene	ND		5.0	1.0	ug/Kg			07/14/16 20:47	1
1,2,4-Trimethylbenzene	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.0	ug/Kg			07/14/16 20:47	1
1,2-Dibromoethane (EDB)	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1
1,2-Dichlorobenzene	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1
1,2-Dichloroethane	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1
1,2-Dichloropropane	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1
1,3,5-Trimethylbenzene	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1
1,3-Dichlorobenzene	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1
1,3-Dichloropropane	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1
1,4-Dichlorobenzene	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1
2,2-Dichloropropane	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1
2-Chlorotoluene	ND		5.0	1.0	ug/Kg			07/14/16 20:47	1
4-Chlorotoluene	ND		5.0	1.0	ug/Kg			07/14/16 20:47	1
Benzene	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1
Bromobenzene	ND		5.0	1.0	ug/Kg			07/14/16 20:47	1
Bromochloromethane	ND		5.0	1.0	ug/Kg			07/14/16 20:47	1
Bromodichloromethane	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1
Bromoform	ND		5.0	2.0	ug/Kg			07/14/16 20:47	1
Bromomethane	ND		5.0	1.0	ug/Kg			07/14/16 20:47	1
Carbon tetrachloride	ND		5.0	1.0	ug/Kg			07/14/16 20:47	1
Chlorobenzene	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1
Chloroethane	ND		5.0	2.0	ug/Kg			07/14/16 20:47	1
Chloroform	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1
Chloromethane	ND		5.0	1.0	ug/Kg			07/14/16 20:47	1
cis-1,2-Dichloroethene	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1
cis-1,3-Dichloropropene	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1
Dibromochloromethane	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1
Dibromomethane	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1
Dichlorodifluoromethane	ND		5.0	2.0	ug/Kg			07/14/16 20:47	1
Isopropyl Ether (DIPE)	ND		5.0	1.0	ug/Kg			07/14/16 20:47	1
Ethanol	ND		300	100	ug/Kg			07/14/16 20:47	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-5-10'

Lab Sample ID: 440-152462-2

Date Collected: 07/12/16 09:05

Matrix: Solid

Date Received: 07/12/16 18:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl-t-butyl ether (ETBE)	ND		5.0	1.0	ug/Kg			07/14/16 20:47	1
Ethylbenzene	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1
Hexachlorobutadiene	ND		5.0	1.0	ug/Kg			07/14/16 20:47	1
Isopropylbenzene	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1
m,p-Xylene	ND		4.0	2.0	ug/Kg			07/14/16 20:47	1
Methylene Chloride	ND		20	5.0	ug/Kg			07/14/16 20:47	1
Methyl-t-Butyl Ether (MTBE)	ND		5.0	1.0	ug/Kg			07/14/16 20:47	1
Naphthalene	ND		5.0	2.0	ug/Kg			07/14/16 20:47	1
n-Butylbenzene	ND		5.0	1.0	ug/Kg			07/14/16 20:47	1
N-Propylbenzene	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1
o-Xylene	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1
sec-Butylbenzene	ND		5.0	1.0	ug/Kg			07/14/16 20:47	1
Styrene	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1
Tert-amyl-methyl ether (TAME)	ND		5.0	1.0	ug/Kg			07/14/16 20:47	1
tert-Butyl alcohol (TBA)	ND		100	10	ug/Kg			07/14/16 20:47	1
tert-Butylbenzene	ND		5.0	1.0	ug/Kg			07/14/16 20:47	1
Tetrachloroethene	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1
Toluene	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1
trans-1,2-Dichloroethene	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1
trans-1,3-Dichloropropene	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1
Trichloroethene	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1
Trichlorofluoromethane	ND		5.0	1.0	ug/Kg			07/14/16 20:47	1
Vinyl chloride	ND		5.0	1.0	ug/Kg			07/14/16 20:47	1
Xylenes, Total	ND		4.0	2.0	ug/Kg			07/14/16 20:47	1
p-Isopropyltoluene	ND		2.0	1.0	ug/Kg			07/14/16 20:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	106		79 - 123		07/14/16 20:47	1
4-Bromofluorobenzene (Surr)	101		79 - 120		07/14/16 20:47	1
Dibromofluoromethane (Surr)	105		60 - 120		07/14/16 20:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 13:13	1
Acenaphthylene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 13:13	1
Anthracene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 13:13	1
Benzo[a]anthracene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 13:13	1
Benzo[a]pyrene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 13:13	1
Benzo[b]fluoranthene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 13:13	1
Benzo[g,h,i]perylene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 13:13	1
Benzo[k]fluoranthene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 13:13	1
Chrysene	4.5	J	30	4.0	ug/Kg		07/14/16 09:28	07/15/16 13:13	1
Dibenz(a,h)anthracene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 13:13	1
Fluoranthene	12	J	30	4.0	ug/Kg		07/14/16 09:28	07/15/16 13:13	1
Fluorene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 13:13	1
Indeno[1,2,3-cd]pyrene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 13:13	1
Naphthalene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 13:13	1
Phenanthrene	31		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 13:13	1
Pyrene	8.8	J	30	4.0	ug/Kg		07/14/16 09:28	07/15/16 13:13	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-5-10'

Date Collected: 07/12/16 09:05

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-2

Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	67		39 - 111	07/14/16 09:28	07/15/16 13:13	1
Nitrobenzene-d5	66		41 - 119	07/14/16 09:28	07/15/16 13:13	1
Terphenyl-d14	83		43 - 150	07/14/16 09:28	07/15/16 13:13	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	22		11	5.3	mg/Kg		07/13/16 18:24	07/14/16 14:39	1
C23-C40	45		11	5.3	mg/Kg		07/13/16 18:24	07/14/16 14:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	52		40 - 140	07/13/16 18:24	07/14/16 14:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		110	36	ug/Kg		07/13/16 18:43	07/15/16 14:41	1
Aroclor 1221	ND		110	36	ug/Kg		07/13/16 18:43	07/15/16 14:41	1
Aroclor 1232	ND		110	36	ug/Kg		07/13/16 18:43	07/15/16 14:41	1
Aroclor 1242	ND		110	36	ug/Kg		07/13/16 18:43	07/15/16 14:41	1
Aroclor 1248	ND		110	36	ug/Kg		07/13/16 18:43	07/15/16 14:41	1
Aroclor 1254	ND		110	36	ug/Kg		07/13/16 18:43	07/15/16 14:41	1
Aroclor 1260	ND		110	36	ug/Kg		07/13/16 18:43	07/15/16 14:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	77		45 - 120	07/13/16 18:43	07/15/16 14:41	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.50	0.10	mg/Kg		07/14/16 08:05	07/15/16 09:46	20
Arsenic	6.2		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 09:46	20
Barium	110		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 09:46	20
Beryllium	0.58		0.30	0.15	mg/Kg		07/14/16 08:05	07/15/16 09:46	20
Cadmium	ND		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 09:46	20
Chromium	24		1.0	0.50	mg/Kg		07/14/16 08:05	07/15/16 09:46	20
Cobalt	8.7		0.50	0.21	mg/Kg		07/14/16 08:05	07/15/16 09:46	20
Copper	23		1.0	0.50	mg/Kg		07/14/16 08:05	07/15/16 09:46	20
Lead	10		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 09:46	20
Molybdenum	1.3		1.0	0.50	mg/Kg		07/14/16 08:05	07/15/16 09:46	20
Nickel	16		1.0	0.50	mg/Kg		07/14/16 08:05	07/15/16 09:46	20
Selenium	0.84 J		1.0	0.20	mg/Kg		07/14/16 08:05	07/15/16 09:46	20
Thallium	ND		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 09:46	20
Vanadium	45		1.0	0.50	mg/Kg		07/14/16 08:05	07/15/16 09:46	20
Zinc	67		10	5.0	mg/Kg		07/14/16 08:05	07/15/16 09:46	20
Antimony	0.30 J		1.0	0.27	mg/Kg		07/14/16 08:05	07/15/16 09:46	20

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.048		0.020	0.012	mg/Kg		07/13/16 23:32	07/14/16 20:43	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-5-15'

Date Collected: 07/12/16 09:08

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-3

Matrix: Solid

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		0.099	0.070	mg/Kg			07/14/16 21:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	111		60 - 120					07/14/16 21:15	1
4-Bromofluorobenzene (Surr)	100		79 - 120					07/14/16 21:15	1
Toluene-d8 (Surr)	104		79 - 123					07/14/16 21:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0	0.99	ug/Kg			07/14/16 21:15	1
1,1,1-Trichloroethane	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1
1,1,2-Trichloroethane	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1
1,1-Dichloroethane	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1
1,1-Dichloroethene	ND		5.0	0.99	ug/Kg			07/14/16 21:15	1
1,1-Dichloropropene	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1
1,2,3-Trichlorobenzene	ND		5.0	0.99	ug/Kg			07/14/16 21:15	1
1,2,3-Trichloropropane	ND		9.9	0.99	ug/Kg			07/14/16 21:15	1
1,2,4-Trichlorobenzene	ND		5.0	0.99	ug/Kg			07/14/16 21:15	1
1,2,4-Trimethylbenzene	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.0	ug/Kg			07/14/16 21:15	1
1,2-Dibromoethane (EDB)	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1
1,2-Dichlorobenzene	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1
1,2-Dichloroethane	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1
1,2-Dichloropropane	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1
1,3,5-Trimethylbenzene	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1
1,3-Dichlorobenzene	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1
1,3-Dichloropropane	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1
1,4-Dichlorobenzene	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1
2,2-Dichloropropane	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1
2-Chlorotoluene	ND		5.0	0.99	ug/Kg			07/14/16 21:15	1
4-Chlorotoluene	ND		5.0	0.99	ug/Kg			07/14/16 21:15	1
Benzene	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1
Bromobenzene	ND		5.0	0.99	ug/Kg			07/14/16 21:15	1
Bromochloromethane	ND		5.0	0.99	ug/Kg			07/14/16 21:15	1
Bromodichloromethane	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1
Bromoform	ND		5.0	2.0	ug/Kg			07/14/16 21:15	1
Bromomethane	ND		5.0	0.99	ug/Kg			07/14/16 21:15	1
Carbon tetrachloride	ND		5.0	0.99	ug/Kg			07/14/16 21:15	1
Chlorobenzene	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1
Chloroethane	ND		5.0	2.0	ug/Kg			07/14/16 21:15	1
Chloroform	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1
Chloromethane	ND		5.0	0.99	ug/Kg			07/14/16 21:15	1
cis-1,2-Dichloroethene	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1
cis-1,3-Dichloropropene	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1
Dibromochloromethane	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1
Dibromomethane	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1
Dichlorodifluoromethane	ND		5.0	2.0	ug/Kg			07/14/16 21:15	1
Isopropyl Ether (DIPE)	ND		5.0	0.99	ug/Kg			07/14/16 21:15	1
Ethanol	ND		300	99	ug/Kg			07/14/16 21:15	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-5-15'

Lab Sample ID: 440-152462-3

Date Collected: 07/12/16 09:08

Matrix: Solid

Date Received: 07/12/16 18:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl-t-butyl ether (ETBE)	ND		5.0	0.99	ug/Kg			07/14/16 21:15	1
Ethylbenzene	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1
Hexachlorobutadiene	ND		5.0	0.99	ug/Kg			07/14/16 21:15	1
Isopropylbenzene	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1
m,p-Xylene	ND		4.0	2.0	ug/Kg			07/14/16 21:15	1
Methylene Chloride	ND		20	5.0	ug/Kg			07/14/16 21:15	1
Methyl-t-Butyl Ether (MTBE)	ND		5.0	0.99	ug/Kg			07/14/16 21:15	1
Naphthalene	ND		5.0	2.0	ug/Kg			07/14/16 21:15	1
n-Butylbenzene	ND		5.0	0.99	ug/Kg			07/14/16 21:15	1
N-Propylbenzene	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1
o-Xylene	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1
sec-Butylbenzene	ND		5.0	0.99	ug/Kg			07/14/16 21:15	1
Styrene	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1
Tert-amyl-methyl ether (TAME)	ND		5.0	0.99	ug/Kg			07/14/16 21:15	1
tert-Butyl alcohol (TBA)	ND		99	9.9	ug/Kg			07/14/16 21:15	1
tert-Butylbenzene	ND		5.0	0.99	ug/Kg			07/14/16 21:15	1
Tetrachloroethene	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1
Toluene	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1
trans-1,2-Dichloroethene	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1
trans-1,3-Dichloropropene	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1
Trichloroethene	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1
Trichlorofluoromethane	ND		5.0	0.99	ug/Kg			07/14/16 21:15	1
Vinyl chloride	ND		5.0	0.99	ug/Kg			07/14/16 21:15	1
Xylenes, Total	ND		4.0	2.0	ug/Kg			07/14/16 21:15	1
p-Isopropyltoluene	ND		2.0	0.99	ug/Kg			07/14/16 21:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		79 - 123		07/14/16 21:15	1
4-Bromofluorobenzene (Surr)	100		79 - 120		07/14/16 21:15	1
Dibromofluoromethane (Surr)	111		60 - 120		07/14/16 21:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		60	8.0	ug/Kg		07/14/16 09:28	07/15/16 13:34	1
Acenaphthylene	ND		60	8.0	ug/Kg		07/14/16 09:28	07/15/16 13:34	1
Anthracene	ND		60	8.0	ug/Kg		07/14/16 09:28	07/15/16 13:34	1
Benzo[a]anthracene	ND		60	8.0	ug/Kg		07/14/16 09:28	07/15/16 13:34	1
Benzo[a]pyrene	ND		60	8.0	ug/Kg		07/14/16 09:28	07/15/16 13:34	1
Benzo[b]fluoranthene	ND		60	8.0	ug/Kg		07/14/16 09:28	07/15/16 13:34	1
Benzo[g,h,i]perylene	ND		60	8.0	ug/Kg		07/14/16 09:28	07/15/16 13:34	1
Benzo[k]fluoranthene	ND		60	8.0	ug/Kg		07/14/16 09:28	07/15/16 13:34	1
Chrysene	ND		60	8.0	ug/Kg		07/14/16 09:28	07/15/16 13:34	1
Dibenz(a,h)anthracene	ND		60	8.0	ug/Kg		07/14/16 09:28	07/15/16 13:34	1
Fluoranthene	ND		60	8.0	ug/Kg		07/14/16 09:28	07/15/16 13:34	1
Fluorene	ND		60	8.0	ug/Kg		07/14/16 09:28	07/15/16 13:34	1
Indeno[1,2,3-cd]pyrene	ND		60	8.0	ug/Kg		07/14/16 09:28	07/15/16 13:34	1
Naphthalene	ND		60	8.0	ug/Kg		07/14/16 09:28	07/15/16 13:34	1
Phenanthrene	ND		60	8.0	ug/Kg		07/14/16 09:28	07/15/16 13:34	1
Pyrene	ND		60	8.0	ug/Kg		07/14/16 09:28	07/15/16 13:34	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-5-15'

Date Collected: 07/12/16 09:08

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-3

Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	64		39 - 111	07/14/16 09:28	07/15/16 13:34	1
Nitrobenzene-d5	64		41 - 119	07/14/16 09:28	07/15/16 13:34	1
Terphenyl-d14	66		43 - 150	07/14/16 09:28	07/15/16 13:34	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		10	5.1	mg/Kg		07/13/16 18:24	07/14/16 13:52	1
C23-C40	ND		10	5.1	mg/Kg		07/13/16 18:24	07/14/16 13:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	51		40 - 140	07/13/16 18:24	07/14/16 13:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		220	76	ug/Kg		07/13/16 18:43	07/15/16 14:56	1
Aroclor 1221	ND		220	76	ug/Kg		07/13/16 18:43	07/15/16 14:56	1
Aroclor 1232	ND		220	76	ug/Kg		07/13/16 18:43	07/15/16 14:56	1
Aroclor 1242	ND		220	76	ug/Kg		07/13/16 18:43	07/15/16 14:56	1
Aroclor 1248	ND		220	76	ug/Kg		07/13/16 18:43	07/15/16 14:56	1
Aroclor 1254	ND		220	76	ug/Kg		07/13/16 18:43	07/15/16 14:56	1
Aroclor 1260	ND		220	76	ug/Kg		07/13/16 18:43	07/15/16 14:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	76		45 - 120	07/13/16 18:43	07/15/16 14:56	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.50	0.10	mg/Kg		07/14/16 08:05	07/15/16 10:29	20
Arsenic	8.3		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:29	20
Barium	76		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:29	20
Beryllium	0.53		0.30	0.15	mg/Kg		07/14/16 08:05	07/15/16 10:29	20
Cadmium	ND		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:29	20
Chromium	24		1.0	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:29	20
Cobalt	7.8		0.50	0.21	mg/Kg		07/14/16 08:05	07/15/16 10:29	20
Copper	17		1.0	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:29	20
Lead	8.8		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:29	20
Molybdenum	3.0		1.0	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:29	20
Nickel	16		1.0	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:29	20
Selenium	0.78 J		1.0	0.20	mg/Kg		07/14/16 08:05	07/15/16 10:29	20
Thallium	ND		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:29	20
Vanadium	49		1.0	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:29	20
Zinc	61		10	5.0	mg/Kg		07/14/16 08:05	07/15/16 10:29	20
Antimony	0.30 J		1.0	0.27	mg/Kg		07/14/16 08:05	07/15/16 10:29	20

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.049		0.020	0.012	mg/Kg		07/13/16 23:32	07/14/16 20:51	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-5-20'

Date Collected: 07/12/16 09:12

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-4

Matrix: Solid

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		0.10	0.070	mg/Kg			07/14/16 21:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	110		60 - 120					07/14/16 21:44	1
4-Bromofluorobenzene (Surr)	101		79 - 120					07/14/16 21:44	1
Toluene-d8 (Surr)	105		79 - 123					07/14/16 21:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0	1.0	ug/Kg			07/14/16 21:44	1
1,1,1-Trichloroethane	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1
1,1,1,2,2-Tetrachloroethane	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1
1,1,1,2-Trichloroethane	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1
1,1-Dichloroethane	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1
1,1-Dichloroethene	ND		5.0	1.0	ug/Kg			07/14/16 21:44	1
1,1-Dichloropropene	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1
1,2,3-Trichlorobenzene	ND		5.0	1.0	ug/Kg			07/14/16 21:44	1
1,2,3-Trichloropropane	ND		10	1.0	ug/Kg			07/14/16 21:44	1
1,2,4-Trichlorobenzene	ND		5.0	1.0	ug/Kg			07/14/16 21:44	1
1,2,4-Trimethylbenzene	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.0	ug/Kg			07/14/16 21:44	1
1,2-Dibromoethane (EDB)	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1
1,2-Dichlorobenzene	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1
1,2-Dichloroethane	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1
1,2-Dichloropropane	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1
1,3,5-Trimethylbenzene	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1
1,3-Dichlorobenzene	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1
1,3-Dichloropropane	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1
1,4-Dichlorobenzene	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1
2,2-Dichloropropane	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1
2-Chlorotoluene	ND		5.0	1.0	ug/Kg			07/14/16 21:44	1
4-Chlorotoluene	ND		5.0	1.0	ug/Kg			07/14/16 21:44	1
Benzene	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1
Bromobenzene	ND		5.0	1.0	ug/Kg			07/14/16 21:44	1
Bromochloromethane	ND		5.0	1.0	ug/Kg			07/14/16 21:44	1
Bromodichloromethane	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1
Bromoform	ND		5.0	2.0	ug/Kg			07/14/16 21:44	1
Bromomethane	ND		5.0	1.0	ug/Kg			07/14/16 21:44	1
Carbon tetrachloride	ND		5.0	1.0	ug/Kg			07/14/16 21:44	1
Chlorobenzene	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1
Chloroethane	ND		5.0	2.0	ug/Kg			07/14/16 21:44	1
Chloroform	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1
Chloromethane	ND		5.0	1.0	ug/Kg			07/14/16 21:44	1
cis-1,2-Dichloroethene	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1
cis-1,3-Dichloropropene	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1
Dibromochloromethane	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1
Dibromomethane	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1
Dichlorodifluoromethane	ND		5.0	2.0	ug/Kg			07/14/16 21:44	1
Isopropyl Ether (DIPE)	ND		5.0	1.0	ug/Kg			07/14/16 21:44	1
Ethanol	ND		300	100	ug/Kg			07/14/16 21:44	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-5-20'

Lab Sample ID: 440-152462-4

Date Collected: 07/12/16 09:12

Matrix: Solid

Date Received: 07/12/16 18:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl-t-butyl ether (ETBE)	ND		5.0	1.0	ug/Kg			07/14/16 21:44	1
Ethylbenzene	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1
Hexachlorobutadiene	ND		5.0	1.0	ug/Kg			07/14/16 21:44	1
Isopropylbenzene	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1
m,p-Xylene	ND		4.0	2.0	ug/Kg			07/14/16 21:44	1
Methylene Chloride	ND		20	5.0	ug/Kg			07/14/16 21:44	1
Methyl-t-Butyl Ether (MTBE)	ND		5.0	1.0	ug/Kg			07/14/16 21:44	1
Naphthalene	ND		5.0	2.0	ug/Kg			07/14/16 21:44	1
n-Butylbenzene	ND		5.0	1.0	ug/Kg			07/14/16 21:44	1
N-Propylbenzene	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1
o-Xylene	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1
sec-Butylbenzene	ND		5.0	1.0	ug/Kg			07/14/16 21:44	1
Styrene	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1
Tert-amyl-methyl ether (TAME)	ND		5.0	1.0	ug/Kg			07/14/16 21:44	1
tert-Butyl alcohol (TBA)	ND		100	10	ug/Kg			07/14/16 21:44	1
tert-Butylbenzene	ND		5.0	1.0	ug/Kg			07/14/16 21:44	1
Tetrachloroethene	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1
Toluene	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1
trans-1,2-Dichloroethene	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1
trans-1,3-Dichloropropene	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1
Trichloroethene	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1
Trichlorofluoromethane	ND		5.0	1.0	ug/Kg			07/14/16 21:44	1
Vinyl chloride	ND		5.0	1.0	ug/Kg			07/14/16 21:44	1
Xylenes, Total	ND		4.0	2.0	ug/Kg			07/14/16 21:44	1
p-Isopropyltoluene	ND		2.0	1.0	ug/Kg			07/14/16 21:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	105		79 - 123		07/14/16 21:44	1
4-Bromofluorobenzene (Surr)	101		79 - 120		07/14/16 21:44	1
Dibromofluoromethane (Surr)	110		60 - 120		07/14/16 21:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 13:54	1
Acenaphthylene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 13:54	1
Anthracene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 13:54	1
Benzo[a]anthracene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 13:54	1
Benzo[a]pyrene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 13:54	1
Benzo[b]fluoranthene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 13:54	1
Benzo[g,h,i]perylene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 13:54	1
Benzo[k]fluoranthene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 13:54	1
Chrysene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 13:54	1
Dibenz(a,h)anthracene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 13:54	1
Fluoranthene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 13:54	1
Fluorene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 13:54	1
Indeno[1,2,3-cd]pyrene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 13:54	1
Naphthalene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 13:54	1
Phenanthrene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 13:54	1
Pyrene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 13:54	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-5-20'

Date Collected: 07/12/16 09:12

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-4

Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	69		39 - 111	07/14/16 09:28	07/15/16 13:54	1
Nitrobenzene-d5	68		41 - 119	07/14/16 09:28	07/15/16 13:54	1
Terphenyl-d14	84		43 - 150	07/14/16 09:28	07/15/16 13:54	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		10	5.1	mg/Kg		07/13/16 18:24	07/14/16 14:12	1
C23-C40	ND		10	5.1	mg/Kg		07/13/16 18:24	07/14/16 14:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	51		40 - 140	07/13/16 18:24	07/14/16 14:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 15:12	1
Aroclor 1221	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 15:12	1
Aroclor 1232	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 15:12	1
Aroclor 1242	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 15:12	1
Aroclor 1248	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 15:12	1
Aroclor 1254	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 15:12	1
Aroclor 1260	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 15:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	84		45 - 120	07/13/16 18:43	07/15/16 15:12	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.50	0.099	mg/Kg		07/14/16 08:05	07/15/16 09:51	20
Arsenic	2.6		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 09:51	20
Barium	110		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 09:51	20
Beryllium	0.37		0.30	0.15	mg/Kg		07/14/16 08:05	07/15/16 09:51	20
Cadmium	ND		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 09:51	20
Chromium	20		0.99	0.50	mg/Kg		07/14/16 08:05	07/15/16 09:51	20
Cobalt	7.6		0.50	0.21	mg/Kg		07/14/16 08:05	07/15/16 09:51	20
Copper	15		0.99	0.50	mg/Kg		07/14/16 08:05	07/15/16 09:51	20
Lead	3.7		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 09:51	20
Molybdenum	0.79	J	0.99	0.50	mg/Kg		07/14/16 08:05	07/15/16 09:51	20
Nickel	15		0.99	0.50	mg/Kg		07/14/16 08:05	07/15/16 09:51	20
Selenium	0.52	J	0.99	0.20	mg/Kg		07/14/16 08:05	07/15/16 09:51	20
Thallium	ND		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 09:51	20
Vanadium	37		0.99	0.50	mg/Kg		07/14/16 08:05	07/15/16 09:51	20
Zinc	54		9.9	5.0	mg/Kg		07/14/16 08:05	07/15/16 09:51	20
Antimony	0.29	J	0.99	0.27	mg/Kg		07/14/16 08:05	07/15/16 09:51	20

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.034		0.020	0.012	mg/Kg		07/13/16 23:32	07/14/16 20:53	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-3-5'

Date Collected: 07/12/16 11:05

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-5

Matrix: Solid

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		95	67	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	124	X	60 - 120				07/13/16 11:20	07/15/16 22:54	1
4-Bromofluorobenzene (Surr)	149	* X	79 - 120				07/13/16 11:20	07/15/16 22:54	1
Toluene-d8 (Surr)	127	X	79 - 123				07/13/16 11:20	07/15/16 22:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		4.8	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
1,1,1-Trichloroethane	ND		1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
1,1,1,2,2-Tetrachloroethane	ND	*	1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
1,1,2-Trichloroethane	ND		1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
1,1-Dichloroethane	ND		1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
1,1-Dichloroethene	ND		4.8	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
1,1-Dichloropropene	ND		1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
1,2,3-Trichlorobenzene	ND	*	4.8	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
1,2,3-Trichloropropane	ND	*	9.5	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
1,2,4-Trichlorobenzene	ND	*	4.8	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
1,2,4-Trimethylbenzene	ND	*	1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
1,2-Dibromo-3-Chloropropane	ND	*	4.8	1.9	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
1,2-Dibromoethane (EDB)	ND		1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
1,2-Dichlorobenzene	ND	*	1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
1,2-Dichloroethane	ND		1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
1,2-Dichloropropane	ND		1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
1,3,5-Trimethylbenzene	ND	*	1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
1,3-Dichlorobenzene	ND	*	1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
1,3-Dichloropropane	ND		1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
1,4-Dichlorobenzene	ND	*	1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
2,2-Dichloropropane	ND		1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
2-Chlorotoluene	ND	*	4.8	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
4-Chlorotoluene	ND	*	4.8	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
Benzene	ND		1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
Bromobenzene	ND	*	4.8	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
Bromochloromethane	ND		4.8	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
Bromodichloromethane	ND		1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
Bromoform	ND		4.8	1.9	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
Bromomethane	ND		4.8	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
Carbon tetrachloride	ND		4.8	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
Chlorobenzene	ND		1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
Chloroethane	ND		4.8	1.9	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
Chloroform	ND		1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
Chloromethane	ND		4.8	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
cis-1,2-Dichloroethene	ND		1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
cis-1,3-Dichloropropene	ND		1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
Dibromochloromethane	ND		1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
Dibromomethane	ND		1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
Dichlorodifluoromethane	ND		4.8	1.9	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
Isopropyl Ether (DIPE)	ND		4.8	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
Ethanol	ND		290	95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-3-5'

Date Collected: 07/12/16 11:05

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-5

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl-t-butyl ether (ETBE)	ND		4.8	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
Ethylbenzene	ND		1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
Hexachlorobutadiene	ND	*	4.8	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
Isopropylbenzene	ND		1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
m,p-Xylene	ND		3.8	1.9	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
Methylene Chloride	ND		19	4.8	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
Methyl-t-Butyl Ether (MTBE)	ND		4.8	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
Naphthalene	ND	*	4.8	1.9	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
n-Butylbenzene	ND	*	4.8	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
N-Propylbenzene	ND	*	1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
o-Xylene	ND		1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
sec-Butylbenzene	ND	*	4.8	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
Styrene	ND		1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
Tert-amyl-methyl ether (TAME)	ND		4.8	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
tert-Butyl alcohol (TBA)	ND		95	9.5	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
tert-Butylbenzene	ND	*	4.8	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
Tetrachloroethene	ND		1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
Toluene	ND		1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
trans-1,2-Dichloroethene	ND		1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
trans-1,3-Dichloropropene	ND		1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
Trichloroethene	1.7	J	1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
Trichlorofluoromethane	ND		4.8	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
Vinyl chloride	ND		4.8	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
Xylenes, Total	ND		3.8	1.9	ug/Kg		07/13/16 11:20	07/15/16 22:54	1
p-Isopropyltoluene	ND	*	1.9	0.95	ug/Kg		07/13/16 11:20	07/15/16 22:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	127	X	79 - 123	07/13/16 11:20	07/15/16 22:54	1
4-Bromofluorobenzene (Surr)	149	* X	79 - 120	07/13/16 11:20	07/15/16 22:54	1
Dibromofluoromethane (Surr)	124	X	60 - 120	07/13/16 11:20	07/15/16 22:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		2300	310	ug/Kg		07/14/16 09:28	07/15/16 14:15	40
Acenaphthylene	ND		2300	310	ug/Kg		07/14/16 09:28	07/15/16 14:15	40
Anthracene	ND		2300	310	ug/Kg		07/14/16 09:28	07/15/16 14:15	40
Benzo[a]anthracene	ND		2300	310	ug/Kg		07/14/16 09:28	07/15/16 14:15	40
Benzo[a]pyrene	ND		2300	310	ug/Kg		07/14/16 09:28	07/15/16 14:15	40
Benzo[b]fluoranthene	ND		2300	310	ug/Kg		07/14/16 09:28	07/15/16 14:15	40
Benzo[g,h,i]perylene	ND		2300	310	ug/Kg		07/14/16 09:28	07/15/16 14:15	40
Benzo[k]fluoranthene	ND		2300	310	ug/Kg		07/14/16 09:28	07/15/16 14:15	40
Chrysene	ND		2300	310	ug/Kg		07/14/16 09:28	07/15/16 14:15	40
Dibenz(a,h)anthracene	ND		2300	310	ug/Kg		07/14/16 09:28	07/15/16 14:15	40
Fluoranthene	ND		2300	310	ug/Kg		07/14/16 09:28	07/15/16 14:15	40
Fluorene	ND		2300	310	ug/Kg		07/14/16 09:28	07/15/16 14:15	40
Indeno[1,2,3-cd]pyrene	ND		2300	310	ug/Kg		07/14/16 09:28	07/15/16 14:15	40
Naphthalene	ND		2300	310	ug/Kg		07/14/16 09:28	07/15/16 14:15	40
Phenanthrene	ND		2300	310	ug/Kg		07/14/16 09:28	07/15/16 14:15	40
Pyrene	ND		2300	310	ug/Kg		07/14/16 09:28	07/15/16 14:15	40

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-3-5'

Date Collected: 07/12/16 11:05

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-5

Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	60		39 - 111	07/14/16 09:28	07/15/16 14:15	40
Nitrobenzene-d5	75		41 - 119	07/14/16 09:28	07/15/16 14:15	40
Terphenyl-d14	88		43 - 150	07/14/16 09:28	07/15/16 14:15	40

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	89	J	100	52	mg/Kg		07/13/16 18:24	07/14/16 15:44	10
C23-C40	1700		100	52	mg/Kg		07/13/16 18:24	07/14/16 15:44	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	457	X	40 - 140	07/13/16 18:24	07/14/16 15:44	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 15:28	1
Aroclor 1221	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 15:28	1
Aroclor 1232	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 15:28	1
Aroclor 1242	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 15:28	1
Aroclor 1248	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 15:28	1
Aroclor 1254	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 15:28	1
Aroclor 1260	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 15:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	59		45 - 120	07/13/16 18:43	07/15/16 15:28	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.49	0.099	mg/Kg		07/14/16 08:05	07/15/16 09:59	20
Arsenic	12		0.49	0.25	mg/Kg		07/14/16 08:05	07/15/16 09:59	20
Barium	79		0.49	0.25	mg/Kg		07/14/16 08:05	07/15/16 09:59	20
Beryllium	0.20	J	0.30	0.15	mg/Kg		07/14/16 08:05	07/15/16 09:59	20
Cadmium	ND		0.49	0.25	mg/Kg		07/14/16 08:05	07/15/16 09:59	20
Chromium	14		0.99	0.49	mg/Kg		07/14/16 08:05	07/15/16 09:59	20
Cobalt	4.7		0.49	0.21	mg/Kg		07/14/16 08:05	07/15/16 09:59	20
Copper	12		0.99	0.49	mg/Kg		07/14/16 08:05	07/15/16 09:59	20
Lead	14		0.49	0.25	mg/Kg		07/14/16 08:05	07/15/16 09:59	20
Molybdenum	1.2		0.99	0.49	mg/Kg		07/14/16 08:05	07/15/16 09:59	20
Nickel	13		0.99	0.49	mg/Kg		07/14/16 08:05	07/15/16 09:59	20
Selenium	0.50	J	0.99	0.20	mg/Kg		07/14/16 08:05	07/15/16 09:59	20
Thallium	ND		0.49	0.25	mg/Kg		07/14/16 08:05	07/15/16 09:59	20
Vanadium	30		0.99	0.49	mg/Kg		07/14/16 08:05	07/15/16 09:59	20
Zinc	38		9.9	4.9	mg/Kg		07/14/16 08:05	07/15/16 09:59	20
Antimony	ND		0.99	0.27	mg/Kg		07/14/16 08:05	07/15/16 09:59	20

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.048		0.020	0.012	mg/Kg		07/13/16 23:32	07/14/16 20:56	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-3-10'

Date Collected: 07/12/16 11:10

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-6

Matrix: Solid

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		99	69	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	115		60 - 120				07/13/16 11:20	07/15/16 23:24	1
4-Bromofluorobenzene (Surr)	105		79 - 120				07/13/16 11:20	07/15/16 23:24	1
Toluene-d8 (Surr)	108		79 - 123				07/13/16 11:20	07/15/16 23:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		4.9	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
1,1,1-Trichloroethane	ND		2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
1,1,2-Trichloroethane	ND		2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
1,1-Dichloroethane	ND		2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
1,1-Dichloroethene	ND		4.9	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
1,1-Dichloropropene	ND		2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
1,2,3-Trichlorobenzene	ND		4.9	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
1,2,3-Trichloropropane	ND		9.9	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
1,2,4-Trichlorobenzene	ND		4.9	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
1,2,4-Trimethylbenzene	ND		2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
1,2-Dibromo-3-Chloropropane	ND		4.9	2.0	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
1,2-Dibromoethane (EDB)	ND		2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
1,2-Dichlorobenzene	ND		2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
1,2-Dichloroethane	ND		2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
1,2-Dichloropropane	ND		2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
1,3,5-Trimethylbenzene	ND		2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
1,3-Dichlorobenzene	ND		2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
1,3-Dichloropropane	ND		2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
1,4-Dichlorobenzene	ND		2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
2,2-Dichloropropane	ND		2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
2-Chlorotoluene	ND		4.9	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
4-Chlorotoluene	ND		4.9	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
Benzene	ND		2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
Bromobenzene	ND		4.9	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
Bromochloromethane	ND		4.9	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
Bromodichloromethane	ND		2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
Bromoform	ND		4.9	2.0	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
Bromomethane	ND		4.9	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
Carbon tetrachloride	ND		4.9	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
Chlorobenzene	ND		2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
Chloroethane	ND		4.9	2.0	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
Chloroform	ND		2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
Chloromethane	ND		4.9	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
cis-1,2-Dichloroethene	ND		2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
cis-1,3-Dichloropropene	ND		2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
Dibromochloromethane	ND		2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
Dibromomethane	ND		2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
Dichlorodifluoromethane	ND		4.9	2.0	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
Isopropyl Ether (DIPE)	ND		4.9	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
Ethanol	ND		300	99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-3-10'

Date Collected: 07/12/16 11:10

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-6

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl-t-butyl ether (ETBE)	ND		4.9	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
Ethylbenzene	ND		2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
Hexachlorobutadiene	ND		4.9	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
Isopropylbenzene	ND		2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
m,p-Xylene	ND		3.9	2.0	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
Methylene Chloride	ND		20	4.9	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
Methyl-t-Butyl Ether (MTBE)	ND		4.9	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
Naphthalene	ND		4.9	2.0	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
n-Butylbenzene	ND		4.9	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
N-Propylbenzene	ND		2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
o-Xylene	ND		2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
sec-Butylbenzene	ND		4.9	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
Styrene	ND		2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
Tert-amyl-methyl ether (TAME)	ND		4.9	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
tert-Butyl alcohol (TBA)	ND		99	9.9	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
tert-Butylbenzene	ND		4.9	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
Tetrachloroethene	ND		2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
Toluene	ND		2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
trans-1,2-Dichloroethene	ND		2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
trans-1,3-Dichloropropene	ND		2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
Trichloroethene	1.1	J	2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
Trichlorofluoromethane	ND		4.9	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
Vinyl chloride	ND		4.9	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
Xylenes, Total	ND		3.9	2.0	ug/Kg		07/13/16 11:20	07/15/16 23:24	1
p-Isopropyltoluene	ND		2.0	0.99	ug/Kg		07/13/16 11:20	07/15/16 23:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	108		79 - 123	07/13/16 11:20	07/15/16 23:24	1
4-Bromofluorobenzene (Surr)	105		79 - 120	07/13/16 11:20	07/15/16 23:24	1
Dibromofluoromethane (Surr)	115		60 - 120	07/13/16 11:20	07/15/16 23:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 14:36	1
Acenaphthylene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 14:36	1
Anthracene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 14:36	1
Benzo[a]anthracene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 14:36	1
Benzo[a]pyrene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 14:36	1
Benzo[b]fluoranthene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 14:36	1
Benzo[g,h,i]perylene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 14:36	1
Benzo[k]fluoranthene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 14:36	1
Chrysene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 14:36	1
Dibenz(a,h)anthracene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 14:36	1
Fluoranthene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 14:36	1
Fluorene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 14:36	1
Indeno[1,2,3-cd]pyrene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 14:36	1
Naphthalene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 14:36	1
Phenanthrene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 14:36	1
Pyrene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 14:36	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-3-10'

Date Collected: 07/12/16 11:10

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-6

Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	67		39 - 111	07/14/16 09:28	07/15/16 14:36	1
Nitrobenzene-d5	66		41 - 119	07/14/16 09:28	07/15/16 14:36	1
Terphenyl-d14	83		43 - 150	07/14/16 09:28	07/15/16 14:36	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		10	5.1	mg/Kg		07/13/16 18:24	07/14/16 15:01	1
C23-C40	8.6	J	10	5.1	mg/Kg		07/13/16 18:24	07/14/16 15:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	36	X	40 - 140	07/13/16 18:24	07/14/16 15:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 15:43	1
Aroclor 1221	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 15:43	1
Aroclor 1232	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 15:43	1
Aroclor 1242	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 15:43	1
Aroclor 1248	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 15:43	1
Aroclor 1254	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 15:43	1
Aroclor 1260	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 15:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	68		45 - 120	07/13/16 18:43	07/15/16 15:43	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.50	0.099	mg/Kg		07/14/16 08:05	07/15/16 10:01	20
Arsenic	3.7		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:01	20
Barium	100		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:01	20
Beryllium	0.47		0.30	0.15	mg/Kg		07/14/16 08:05	07/15/16 10:01	20
Cadmium	ND		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:01	20
Chromium	22		0.99	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:01	20
Cobalt	8.2		0.50	0.21	mg/Kg		07/14/16 08:05	07/15/16 10:01	20
Copper	18		0.99	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:01	20
Lead	6.1		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:01	20
Molybdenum	0.66	J	0.99	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:01	20
Nickel	15		0.99	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:01	20
Selenium	0.68	J	0.99	0.20	mg/Kg		07/14/16 08:05	07/15/16 10:01	20
Thallium	ND		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:01	20
Vanadium	42		0.99	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:01	20
Zinc	59		9.9	5.0	mg/Kg		07/14/16 08:05	07/15/16 10:01	20
Antimony	ND		0.99	0.27	mg/Kg		07/14/16 08:05	07/15/16 10:01	20

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.013	J	0.020	0.012	mg/Kg		07/13/16 23:32	07/14/16 20:59	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-3-15'

Date Collected: 07/12/16 11:14

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-7

Matrix: Solid

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		89	63	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	115		60 - 120				07/13/16 11:20	07/15/16 23:54	1
4-Bromofluorobenzene (Surr)	108		79 - 120				07/13/16 11:20	07/15/16 23:54	1
Toluene-d8 (Surr)	109		79 - 123				07/13/16 11:20	07/15/16 23:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		4.5	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
1,1,1-Trichloroethane	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
1,1,2,2-Tetrachloroethane	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
1,1,2-Trichloroethane	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
1,1-Dichloroethane	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
1,1-Dichloroethene	ND		4.5	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
1,1-Dichloropropene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
1,2,3-Trichlorobenzene	ND		4.5	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
1,2,3-Trichloropropane	ND		8.9	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
1,2,4-Trichlorobenzene	ND		4.5	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
1,2,4-Trimethylbenzene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
1,2-Dibromo-3-Chloropropane	ND		4.5	1.8	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
1,2-Dibromoethane (EDB)	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
1,2-Dichlorobenzene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
1,2-Dichloroethane	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
1,2-Dichloropropane	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
1,3,5-Trimethylbenzene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
1,3-Dichlorobenzene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
1,3-Dichloropropane	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
1,4-Dichlorobenzene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
2,2-Dichloropropane	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
2-Chlorotoluene	ND		4.5	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
4-Chlorotoluene	ND		4.5	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
Benzene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
Bromobenzene	ND		4.5	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
Bromochloromethane	ND		4.5	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
Bromodichloromethane	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
Bromoform	ND		4.5	1.8	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
Bromomethane	ND		4.5	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
Carbon tetrachloride	ND		4.5	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
Chlorobenzene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
Chloroethane	ND		4.5	1.8	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
Chloroform	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
Chloromethane	ND		4.5	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
cis-1,2-Dichloroethene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
cis-1,3-Dichloropropene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
Dibromochloromethane	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
Dibromomethane	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
Dichlorodifluoromethane	ND		4.5	1.8	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
Isopropyl Ether (DIPE)	ND		4.5	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
Ethanol	ND		270	89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-3-15'

Date Collected: 07/12/16 11:14

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-7

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl-t-butyl ether (ETBE)	ND		4.5	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
Ethylbenzene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
Hexachlorobutadiene	ND		4.5	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
Isopropylbenzene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
m,p-Xylene	ND		3.6	1.8	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
Methylene Chloride	ND		18	4.5	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
Methyl-t-Butyl Ether (MTBE)	ND		4.5	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
Naphthalene	ND		4.5	1.8	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
n-Butylbenzene	ND		4.5	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
N-Propylbenzene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
o-Xylene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
sec-Butylbenzene	ND		4.5	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
Styrene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
Tert-amyl-methyl ether (TAME)	ND		4.5	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
tert-Butyl alcohol (TBA)	ND		89	8.9	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
tert-Butylbenzene	ND		4.5	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
Tetrachloroethene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
Toluene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
trans-1,2-Dichloroethene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
trans-1,3-Dichloropropene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
Trichloroethene	0.89	J	1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
Trichlorofluoromethane	ND		4.5	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
Vinyl chloride	ND		4.5	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
Xylenes, Total	ND		3.6	1.8	ug/Kg		07/13/16 11:20	07/15/16 23:54	1
p-Isopropyltoluene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/15/16 23:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	109		79 - 123	07/13/16 11:20	07/15/16 23:54	1
4-Bromofluorobenzene (Surr)	108		79 - 120	07/13/16 11:20	07/15/16 23:54	1
Dibromofluoromethane (Surr)	115		60 - 120	07/13/16 11:20	07/15/16 23:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		63	8.4	ug/Kg		07/14/16 09:28	07/15/16 14:56	1
Acenaphthylene	ND		63	8.4	ug/Kg		07/14/16 09:28	07/15/16 14:56	1
Anthracene	ND		63	8.4	ug/Kg		07/14/16 09:28	07/15/16 14:56	1
Benzo[a]anthracene	ND		63	8.4	ug/Kg		07/14/16 09:28	07/15/16 14:56	1
Benzo[a]pyrene	ND		63	8.4	ug/Kg		07/14/16 09:28	07/15/16 14:56	1
Benzo[b]fluoranthene	ND		63	8.4	ug/Kg		07/14/16 09:28	07/15/16 14:56	1
Benzo[g,h,i]perylene	ND		63	8.4	ug/Kg		07/14/16 09:28	07/15/16 14:56	1
Benzo[k]fluoranthene	ND		63	8.4	ug/Kg		07/14/16 09:28	07/15/16 14:56	1
Chrysene	ND		63	8.4	ug/Kg		07/14/16 09:28	07/15/16 14:56	1
Dibenz(a,h)anthracene	ND		63	8.4	ug/Kg		07/14/16 09:28	07/15/16 14:56	1
Fluoranthene	ND		63	8.4	ug/Kg		07/14/16 09:28	07/15/16 14:56	1
Fluorene	ND		63	8.4	ug/Kg		07/14/16 09:28	07/15/16 14:56	1
Indeno[1,2,3-cd]pyrene	ND		63	8.4	ug/Kg		07/14/16 09:28	07/15/16 14:56	1
Naphthalene	ND		63	8.4	ug/Kg		07/14/16 09:28	07/15/16 14:56	1
Phenanthrene	ND		63	8.4	ug/Kg		07/14/16 09:28	07/15/16 14:56	1
Pyrene	ND		63	8.4	ug/Kg		07/14/16 09:28	07/15/16 14:56	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-3-15'

Date Collected: 07/12/16 11:14

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-7

Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	67		39 - 111	07/14/16 09:28	07/15/16 14:56	1
Nitrobenzene-d5	66		41 - 119	07/14/16 09:28	07/15/16 14:56	1
Terphenyl-d14	74		43 - 150	07/14/16 09:28	07/15/16 14:56	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		11	5.4	mg/Kg		07/13/16 18:24	07/14/16 14:31	1
C23-C40	ND		11	5.4	mg/Kg		07/13/16 18:24	07/14/16 14:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	59		40 - 140	07/13/16 18:24	07/14/16 14:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		110	36	ug/Kg		07/13/16 18:43	07/15/16 15:58	1
Aroclor 1221	ND		110	36	ug/Kg		07/13/16 18:43	07/15/16 15:58	1
Aroclor 1232	ND		110	36	ug/Kg		07/13/16 18:43	07/15/16 15:58	1
Aroclor 1242	ND		110	36	ug/Kg		07/13/16 18:43	07/15/16 15:58	1
Aroclor 1248	ND		110	36	ug/Kg		07/13/16 18:43	07/15/16 15:58	1
Aroclor 1254	ND		110	36	ug/Kg		07/13/16 18:43	07/15/16 15:58	1
Aroclor 1260	ND		110	36	ug/Kg		07/13/16 18:43	07/15/16 15:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	44	X	45 - 120	07/13/16 18:43	07/15/16 15:58	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.50	0.099	mg/Kg		07/14/16 08:05	07/15/16 10:04	20
Arsenic	23		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:04	20
Barium	110		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:04	20
Beryllium	0.51		0.30	0.15	mg/Kg		07/14/16 08:05	07/15/16 10:04	20
Cadmium	ND		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:04	20
Chromium	25		0.99	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:04	20
Cobalt	9.1		0.50	0.21	mg/Kg		07/14/16 08:05	07/15/16 10:04	20
Copper	25		0.99	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:04	20
Lead	11		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:04	20
Molybdenum	3.7		0.99	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:04	20
Nickel	17		0.99	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:04	20
Selenium	0.84	J	0.99	0.20	mg/Kg		07/14/16 08:05	07/15/16 10:04	20
Thallium	ND		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:04	20
Vanadium	63		0.99	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:04	20
Zinc	62		9.9	5.0	mg/Kg		07/14/16 08:05	07/15/16 10:04	20
Antimony	0.54	J	0.99	0.27	mg/Kg		07/14/16 08:05	07/15/16 10:04	20

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.018	J	0.020	0.012	mg/Kg		07/13/16 23:32	07/14/16 21:02	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-3-20'

Date Collected: 07/12/16 11:21

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-8

Matrix: Solid

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		91	64	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	113		60 - 120				07/13/16 11:20	07/16/16 00:24	1
4-Bromofluorobenzene (Surr)	113	*	79 - 120				07/13/16 11:20	07/16/16 00:24	1
Toluene-d8 (Surr)	114		79 - 123				07/13/16 11:20	07/16/16 00:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		4.6	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
1,1,1-Trichloroethane	ND		1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
1,1,1,2,2-Tetrachloroethane	ND	*	1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
1,1,2-Trichloroethane	ND		1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
1,1-Dichloroethane	ND		1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
1,1-Dichloroethene	ND		4.6	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
1,1-Dichloropropene	ND		1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
1,2,3-Trichlorobenzene	ND	*	4.6	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
1,2,3-Trichloropropane	ND	*	9.1	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
1,2,4-Trichlorobenzene	ND	*	4.6	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
1,2,4-Trimethylbenzene	ND	*	1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
1,2-Dibromo-3-Chloropropane	ND	*	4.6	1.8	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
1,2-Dibromoethane (EDB)	ND		1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
1,2-Dichlorobenzene	ND	*	1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
1,2-Dichloroethane	ND		1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
1,2-Dichloropropane	ND		1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
1,3,5-Trimethylbenzene	ND	*	1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
1,3-Dichlorobenzene	ND	*	1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
1,3-Dichloropropane	ND		1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
1,4-Dichlorobenzene	ND	*	1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
2,2-Dichloropropane	ND		1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
2-Chlorotoluene	ND	*	4.6	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
4-Chlorotoluene	ND	*	4.6	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
Benzene	ND		1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
Bromobenzene	ND	*	4.6	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
Bromochloromethane	ND		4.6	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
Bromodichloromethane	ND		1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
Bromoform	ND		4.6	1.8	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
Bromomethane	ND		4.6	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
Carbon tetrachloride	ND		4.6	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
Chlorobenzene	ND		1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
Chloroethane	ND		4.6	1.8	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
Chloroform	ND		1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
Chloromethane	ND		4.6	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
cis-1,2-Dichloroethene	ND		1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
cis-1,3-Dichloropropene	ND		1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
Dibromochloromethane	ND		1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
Dibromomethane	ND		1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
Dichlorodifluoromethane	ND		4.6	1.8	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
Isopropyl Ether (DIPE)	ND		4.6	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
Ethanol	ND		270	91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-3-20'

Lab Sample ID: 440-152462-8

Date Collected: 07/12/16 11:21

Matrix: Solid

Date Received: 07/12/16 18:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl-t-butyl ether (ETBE)	ND		4.6	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
Ethylbenzene	ND		1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
Hexachlorobutadiene	ND	*	4.6	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
Isopropylbenzene	ND		1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
m,p-Xylene	ND		3.7	1.8	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
Methylene Chloride	ND		18	4.6	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
Methyl-t-Butyl Ether (MTBE)	ND		4.6	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
Naphthalene	ND	*	4.6	1.8	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
n-Butylbenzene	ND	*	4.6	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
N-Propylbenzene	ND	*	1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
o-Xylene	ND		1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
sec-Butylbenzene	ND	*	4.6	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
Styrene	ND		1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
Tert-amyl-methyl ether (TAME)	ND		4.6	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
tert-Butyl alcohol (TBA)	ND		91	9.1	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
tert-Butylbenzene	ND	*	4.6	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
Tetrachloroethene	ND		1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
Toluene	ND		1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
trans-1,2-Dichloroethene	ND		1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
trans-1,3-Dichloropropene	ND		1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
Trichloroethene	2.4		1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
Trichlorofluoromethane	ND		4.6	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
Vinyl chloride	ND		4.6	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
Xylenes, Total	ND		3.7	1.8	ug/Kg		07/13/16 11:20	07/16/16 00:24	1
p-Isopropyltoluene	ND	*	1.8	0.91	ug/Kg		07/13/16 11:20	07/16/16 00:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	114		79 - 123	07/13/16 11:20	07/16/16 00:24	1
4-Bromofluorobenzene (Surr)	113	*	79 - 120	07/13/16 11:20	07/16/16 00:24	1
Dibromofluoromethane (Surr)	113		60 - 120	07/13/16 11:20	07/16/16 00:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 15:17	1
Acenaphthylene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 15:17	1
Anthracene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 15:17	1
Benzo[a]anthracene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 15:17	1
Benzo[a]pyrene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 15:17	1
Benzo[b]fluoranthene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 15:17	1
Benzo[g,h,i]perylene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 15:17	1
Benzo[k]fluoranthene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 15:17	1
Chrysene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 15:17	1
Dibenz(a,h)anthracene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 15:17	1
Fluoranthene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 15:17	1
Fluorene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 15:17	1
Indeno[1,2,3-cd]pyrene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 15:17	1
Naphthalene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 15:17	1
Phenanthrene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 15:17	1
Pyrene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 15:17	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-3-20'

Date Collected: 07/12/16 11:21

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-8

Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	68		39 - 111	07/14/16 09:28	07/15/16 15:17	1
Nitrobenzene-d5	65		41 - 119	07/14/16 09:28	07/15/16 15:17	1
Terphenyl-d14	81		43 - 150	07/14/16 09:28	07/15/16 15:17	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		11	5.3	mg/Kg		07/13/16 18:24	07/14/16 15:30	1
C23-C40	ND		11	5.3	mg/Kg		07/13/16 18:24	07/14/16 15:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	89		40 - 140	07/13/16 18:24	07/14/16 15:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		100	34	ug/Kg		07/13/16 18:43	07/15/16 16:13	1
Aroclor 1221	ND		100	34	ug/Kg		07/13/16 18:43	07/15/16 16:13	1
Aroclor 1232	ND		100	34	ug/Kg		07/13/16 18:43	07/15/16 16:13	1
Aroclor 1242	ND		100	34	ug/Kg		07/13/16 18:43	07/15/16 16:13	1
Aroclor 1248	ND		100	34	ug/Kg		07/13/16 18:43	07/15/16 16:13	1
Aroclor 1254	ND		100	34	ug/Kg		07/13/16 18:43	07/15/16 16:13	1
Aroclor 1260	ND		100	34	ug/Kg		07/13/16 18:43	07/15/16 16:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	69		45 - 120	07/13/16 18:43	07/15/16 16:13	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.50	0.10	mg/Kg		07/14/16 08:05	07/15/16 10:06	20
Arsenic	2.0		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:06	20
Barium	120		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:06	20
Beryllium	0.50		0.30	0.15	mg/Kg		07/14/16 08:05	07/15/16 10:06	20
Cadmium	ND		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:06	20
Chromium	26		1.0	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:06	20
Cobalt	8.6		0.50	0.21	mg/Kg		07/14/16 08:05	07/15/16 10:06	20
Copper	17		1.0	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:06	20
Lead	5.4		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:06	20
Molybdenum	0.61	J	1.0	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:06	20
Nickel	17		1.0	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:06	20
Selenium	0.72	J	1.0	0.20	mg/Kg		07/14/16 08:05	07/15/16 10:06	20
Thallium	ND		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:06	20
Vanadium	48		1.0	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:06	20
Zinc	68		10	5.0	mg/Kg		07/14/16 08:05	07/15/16 10:06	20
Antimony	ND		1.0	0.27	mg/Kg		07/14/16 08:05	07/15/16 10:06	20

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.012	mg/Kg		07/14/16 01:08	07/14/16 21:36	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-4-5'

Date Collected: 07/12/16 13:15

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-9

Matrix: Solid

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		89	62	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	116		60 - 120				07/13/16 11:20	07/16/16 00:53	1
4-Bromofluorobenzene (Surr)	109		79 - 120				07/13/16 11:20	07/16/16 00:53	1
Toluene-d8 (Surr)	110		79 - 123				07/13/16 11:20	07/16/16 00:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		4.4	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
1,1,1-Trichloroethane	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
1,1,2,2-Tetrachloroethane	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
1,1,2-Trichloroethane	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
1,1-Dichloroethane	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
1,1-Dichloroethene	ND		4.4	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
1,1-Dichloropropene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
1,2,3-Trichlorobenzene	ND		4.4	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
1,2,3-Trichloropropane	ND		8.9	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
1,2,4-Trichlorobenzene	ND		4.4	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
1,2,4-Trimethylbenzene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
1,2-Dibromo-3-Chloropropane	ND		4.4	1.8	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
1,2-Dibromoethane (EDB)	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
1,2-Dichlorobenzene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
1,2-Dichloroethane	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
1,2-Dichloropropane	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
1,3,5-Trimethylbenzene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
1,3-Dichlorobenzene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
1,3-Dichloropropane	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
1,4-Dichlorobenzene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
2,2-Dichloropropane	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
2-Chlorotoluene	ND		4.4	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
4-Chlorotoluene	ND		4.4	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
Benzene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
Bromobenzene	ND		4.4	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
Bromochloromethane	ND		4.4	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
Bromodichloromethane	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
Bromoform	ND		4.4	1.8	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
Bromomethane	ND		4.4	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
Carbon tetrachloride	ND		4.4	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
Chlorobenzene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
Chloroethane	ND		4.4	1.8	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
Chloroform	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
Chloromethane	ND		4.4	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
cis-1,2-Dichloroethene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
cis-1,3-Dichloropropene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
Dibromochloromethane	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
Dibromomethane	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
Dichlorodifluoromethane	ND		4.4	1.8	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
Isopropyl Ether (DIPE)	ND		4.4	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
Ethanol	ND		270	89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-4-5'

Date Collected: 07/12/16 13:15

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-9

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl-t-butyl ether (ETBE)	ND		4.4	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
Ethylbenzene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
Hexachlorobutadiene	ND		4.4	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
Isopropylbenzene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
m,p-Xylene	ND		3.5	1.8	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
Methylene Chloride	ND		18	4.4	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
Methyl-t-Butyl Ether (MTBE)	ND		4.4	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
Naphthalene	ND		4.4	1.8	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
n-Butylbenzene	ND		4.4	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
N-Propylbenzene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
o-Xylene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
sec-Butylbenzene	ND		4.4	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
Styrene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
Tert-amyl-methyl ether (TAME)	ND		4.4	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
tert-Butyl alcohol (TBA)	ND		89	8.9	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
tert-Butylbenzene	ND		4.4	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
Tetrachloroethene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
Toluene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
trans-1,2-Dichloroethene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
trans-1,3-Dichloropropene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
Trichloroethene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
Trichlorofluoromethane	ND		4.4	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
Vinyl chloride	ND		4.4	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
Xylenes, Total	ND		3.5	1.8	ug/Kg		07/13/16 11:20	07/16/16 00:53	1
p-Isopropyltoluene	ND		1.8	0.89	ug/Kg		07/13/16 11:20	07/16/16 00:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	110		79 - 123	07/13/16 11:20	07/16/16 00:53	1
4-Bromofluorobenzene (Surr)	109		79 - 120	07/13/16 11:20	07/16/16 00:53	1
Dibromofluoromethane (Surr)	116		60 - 120	07/13/16 11:20	07/16/16 00:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 15:37	1
Acenaphthylene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 15:37	1
Anthracene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 15:37	1
Benzo[a]anthracene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 15:37	1
Benzo[a]pyrene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 15:37	1
Benzo[b]fluoranthene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 15:37	1
Benzo[g,h,i]perylene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 15:37	1
Benzo[k]fluoranthene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 15:37	1
Chrysene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 15:37	1
Dibenz(a,h)anthracene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 15:37	1
Fluoranthene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 15:37	1
Fluorene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 15:37	1
Indeno[1,2,3-cd]pyrene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 15:37	1
Naphthalene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 15:37	1
Phenanthrene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 15:37	1
Pyrene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 15:37	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-4-5'

Date Collected: 07/12/16 13:15

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-9

Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	74		39 - 111	07/14/16 09:28	07/15/16 15:37	1
Nitrobenzene-d5	72		41 - 119	07/14/16 09:28	07/15/16 15:37	1
Terphenyl-d14	87		43 - 150	07/14/16 09:28	07/15/16 15:37	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		10	5.0	mg/Kg		07/13/16 18:24	07/14/16 15:49	1
C23-C40	ND		10	5.0	mg/Kg		07/13/16 18:24	07/14/16 15:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	73		40 - 140	07/13/16 18:24	07/14/16 15:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		100	34	ug/Kg		07/13/16 18:43	07/15/16 16:29	1
Aroclor 1221	ND		100	34	ug/Kg		07/13/16 18:43	07/15/16 16:29	1
Aroclor 1232	ND		100	34	ug/Kg		07/13/16 18:43	07/15/16 16:29	1
Aroclor 1242	ND		100	34	ug/Kg		07/13/16 18:43	07/15/16 16:29	1
Aroclor 1248	ND		100	34	ug/Kg		07/13/16 18:43	07/15/16 16:29	1
Aroclor 1254	ND		100	34	ug/Kg		07/13/16 18:43	07/15/16 16:29	1
Aroclor 1260	ND		100	34	ug/Kg		07/13/16 18:43	07/15/16 16:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	66		45 - 120	07/13/16 18:43	07/15/16 16:29	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.50	0.099	mg/Kg		07/14/16 08:05	07/15/16 10:09	20
Arsenic	3.1		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:09	20
Barium	47		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:09	20
Beryllium	0.42		0.30	0.15	mg/Kg		07/14/16 08:05	07/15/16 10:09	20
Cadmium	ND		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:09	20
Chromium	18		0.99	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:09	20
Cobalt	7.0		0.50	0.21	mg/Kg		07/14/16 08:05	07/15/16 10:09	20
Copper	12		0.99	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:09	20
Lead	3.9		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:09	20
Molybdenum	0.53	J	0.99	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:09	20
Nickel	12		0.99	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:09	20
Selenium	0.46	J	0.99	0.20	mg/Kg		07/14/16 08:05	07/15/16 10:09	20
Thallium	ND		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:09	20
Vanadium	36		0.99	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:09	20
Zinc	49		9.9	5.0	mg/Kg		07/14/16 08:05	07/15/16 10:09	20
Antimony	ND		0.99	0.27	mg/Kg		07/14/16 08:05	07/15/16 10:09	20

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.012	mg/Kg		07/14/16 01:08	07/14/16 21:39	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-4-10'

Lab Sample ID: 440-152462-10

Date Collected: 07/12/16 13:19

Matrix: Solid

Date Received: 07/12/16 18:30

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		90	63	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	115		60 - 120				07/13/16 11:20	07/16/16 01:23	1
4-Bromofluorobenzene (Surr)	109		79 - 120				07/13/16 11:20	07/16/16 01:23	1
Toluene-d8 (Surr)	112		79 - 123				07/13/16 11:20	07/16/16 01:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		4.5	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
1,1,1-Trichloroethane	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
1,1,2,2-Tetrachloroethane	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
1,1,2-Trichloroethane	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
1,1-Dichloroethane	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
1,1-Dichloroethene	ND		4.5	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
1,1-Dichloropropene	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
1,2,3-Trichlorobenzene	ND		4.5	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
1,2,3-Trichloropropane	ND		9.0	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
1,2,4-Trichlorobenzene	ND		4.5	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
1,2,4-Trimethylbenzene	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
1,2-Dibromo-3-Chloropropane	ND		4.5	1.8	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
1,2-Dibromoethane (EDB)	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
1,2-Dichlorobenzene	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
1,2-Dichloroethane	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
1,2-Dichloropropane	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
1,3,5-Trimethylbenzene	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
1,3-Dichlorobenzene	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
1,3-Dichloropropane	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
1,4-Dichlorobenzene	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
2,2-Dichloropropane	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
2-Chlorotoluene	ND		4.5	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
4-Chlorotoluene	ND		4.5	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
Benzene	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
Bromobenzene	ND		4.5	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
Bromochloromethane	ND		4.5	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
Bromodichloromethane	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
Bromoform	ND		4.5	1.8	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
Bromomethane	ND		4.5	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
Carbon tetrachloride	ND		4.5	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
Chlorobenzene	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
Chloroethane	ND		4.5	1.8	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
Chloroform	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
Chloromethane	ND		4.5	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
cis-1,2-Dichloroethene	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
cis-1,3-Dichloropropene	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
Dibromochloromethane	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
Dibromomethane	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
Dichlorodifluoromethane	ND		4.5	1.8	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
Isopropyl Ether (DIPE)	ND		4.5	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
Ethanol	ND		270	90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-4-10'

Lab Sample ID: 440-152462-10

Date Collected: 07/12/16 13:19

Matrix: Solid

Date Received: 07/12/16 18:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl-t-butyl ether (ETBE)	ND		4.5	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
Ethylbenzene	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
Hexachlorobutadiene	ND		4.5	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
Isopropylbenzene	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
m,p-Xylene	ND		3.6	1.8	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
Methylene Chloride	ND		18	4.5	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
Methyl-t-Butyl Ether (MTBE)	ND		4.5	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
Naphthalene	ND		4.5	1.8	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
n-Butylbenzene	ND		4.5	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
N-Propylbenzene	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
o-Xylene	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
sec-Butylbenzene	ND		4.5	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
Styrene	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
Tert-amyl-methyl ether (TAME)	ND		4.5	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
tert-Butyl alcohol (TBA)	ND		90	9.0	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
tert-Butylbenzene	ND		4.5	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
Tetrachloroethene	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
Toluene	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
trans-1,2-Dichloroethene	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
trans-1,3-Dichloropropene	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
Trichloroethene	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
Trichlorofluoromethane	ND		4.5	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
Vinyl chloride	ND		4.5	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
Xylenes, Total	ND		3.6	1.8	ug/Kg		07/13/16 11:20	07/16/16 01:23	1
p-Isopropyltoluene	ND		1.8	0.90	ug/Kg		07/13/16 11:20	07/16/16 01:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	112		79 - 123	07/13/16 11:20	07/16/16 01:23	1
4-Bromofluorobenzene (Surr)	109		79 - 120	07/13/16 11:20	07/16/16 01:23	1
Dibromofluoromethane (Surr)	115		60 - 120	07/13/16 11:20	07/16/16 01:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 15:58	1
Acenaphthylene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 15:58	1
Anthracene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 15:58	1
Benzo[a]anthracene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 15:58	1
Benzo[a]pyrene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 15:58	1
Benzo[b]fluoranthene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 15:58	1
Benzo[g,h,i]perylene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 15:58	1
Benzo[k]fluoranthene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 15:58	1
Chrysene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 15:58	1
Dibenz(a,h)anthracene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 15:58	1
Fluoranthene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 15:58	1
Fluorene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 15:58	1
Indeno[1,2,3-cd]pyrene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 15:58	1
Naphthalene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 15:58	1
Phenanthrene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 15:58	1
Pyrene	ND		29	3.9	ug/Kg		07/14/16 09:28	07/15/16 15:58	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-4-10'

Date Collected: 07/12/16 13:19

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-10

Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	62		39 - 111	07/14/16 09:28	07/15/16 15:58	1
Nitrobenzene-d5	61		41 - 119	07/14/16 09:28	07/15/16 15:58	1
Terphenyl-d14	75		43 - 150	07/14/16 09:28	07/15/16 15:58	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		10	5.2	mg/Kg		07/13/16 18:24	07/14/16 15:10	1
C23-C40	ND		10	5.2	mg/Kg		07/13/16 18:24	07/14/16 15:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	76		40 - 140	07/13/16 18:24	07/14/16 15:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 16:44	1
Aroclor 1221	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 16:44	1
Aroclor 1232	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 16:44	1
Aroclor 1242	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 16:44	1
Aroclor 1248	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 16:44	1
Aroclor 1254	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 16:44	1
Aroclor 1260	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 16:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	70		45 - 120	07/13/16 18:43	07/15/16 16:44	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.49	0.099	mg/Kg		07/14/16 08:05	07/15/16 10:11	20
Arsenic	6.0		0.49	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:11	20
Barium	110		0.49	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:11	20
Beryllium	0.31		0.30	0.15	mg/Kg		07/14/16 08:05	07/15/16 10:11	20
Cadmium	ND		0.49	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:11	20
Chromium	21		0.99	0.49	mg/Kg		07/14/16 08:05	07/15/16 10:11	20
Cobalt	6.5		0.49	0.21	mg/Kg		07/14/16 08:05	07/15/16 10:11	20
Copper	18		0.99	0.49	mg/Kg		07/14/16 08:05	07/15/16 10:11	20
Lead	5.4		0.49	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:11	20
Molybdenum	1.8		0.99	0.49	mg/Kg		07/14/16 08:05	07/15/16 10:11	20
Nickel	12		0.99	0.49	mg/Kg		07/14/16 08:05	07/15/16 10:11	20
Selenium	0.40 J		0.99	0.20	mg/Kg		07/14/16 08:05	07/15/16 10:11	20
Thallium	ND		0.49	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:11	20
Vanadium	42		0.99	0.49	mg/Kg		07/14/16 08:05	07/15/16 10:11	20
Zinc	50		9.9	4.9	mg/Kg		07/14/16 08:05	07/15/16 10:11	20
Antimony	0.29 J		0.99	0.27	mg/Kg		07/14/16 08:05	07/15/16 10:11	20

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.027		0.020	0.012	mg/Kg		07/14/16 01:08	07/14/16 21:42	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-4-15'

Lab Sample ID: 440-152462-11

Date Collected: 07/12/16 13:25

Matrix: Solid

Date Received: 07/12/16 18:30

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		97	68	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	117		60 - 120				07/13/16 11:20	07/16/16 01:52	1
4-Bromofluorobenzene (Surr)	106		79 - 120				07/13/16 11:20	07/16/16 01:52	1
Toluene-d8 (Surr)	110		79 - 123				07/13/16 11:20	07/16/16 01:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
1,1,1-Trichloroethane	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
1,1,2,2-Tetrachloroethane	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
1,1,2-Trichloroethane	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
1,1-Dichloroethane	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
1,1-Dichloroethene	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
1,1-Dichloropropene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
1,2,3-Trichlorobenzene	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
1,2,3-Trichloropropane	ND		9.7	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
1,2,4-Trichlorobenzene	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
1,2,4-Trimethylbenzene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
1,2-Dibromo-3-Chloropropane	ND		4.8	1.9	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
1,2-Dibromoethane (EDB)	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
1,2-Dichlorobenzene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
1,2-Dichloroethane	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
1,2-Dichloropropane	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
1,3,5-Trimethylbenzene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
1,3-Dichlorobenzene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
1,3-Dichloropropane	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
1,4-Dichlorobenzene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
2,2-Dichloropropane	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
2-Chlorotoluene	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
4-Chlorotoluene	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
Benzene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
Bromobenzene	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
Bromochloromethane	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
Bromodichloromethane	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
Bromoform	ND		4.8	1.9	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
Bromomethane	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
Carbon tetrachloride	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
Chlorobenzene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
Chloroethane	ND		4.8	1.9	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
Chloroform	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
Chloromethane	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
cis-1,2-Dichloroethene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
cis-1,3-Dichloropropene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
Dibromochloromethane	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
Dibromomethane	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
Dichlorodifluoromethane	ND		4.8	1.9	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
Isopropyl Ether (DIPE)	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
Ethanol	ND		290	97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-4-15'

Lab Sample ID: 440-152462-11

Date Collected: 07/12/16 13:25

Matrix: Solid

Date Received: 07/12/16 18:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl-t-butyl ether (ETBE)	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
Ethylbenzene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
Hexachlorobutadiene	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
Isopropylbenzene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
m,p-Xylene	ND		3.9	1.9	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
Methylene Chloride	ND		19	4.8	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
Methyl-t-Butyl Ether (MTBE)	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
Naphthalene	ND		4.8	1.9	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
n-Butylbenzene	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
N-Propylbenzene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
o-Xylene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
sec-Butylbenzene	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
Styrene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
Tert-amyl-methyl ether (TAME)	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
tert-Butyl alcohol (TBA)	ND		97	9.7	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
tert-Butylbenzene	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
Tetrachloroethene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
Toluene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
trans-1,2-Dichloroethene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
trans-1,3-Dichloropropene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
Trichloroethene	2.1		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
Trichlorofluoromethane	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
Vinyl chloride	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
Xylenes, Total	ND		3.9	1.9	ug/Kg		07/13/16 11:20	07/16/16 01:52	1
p-Isopropyltoluene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 01:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	110		79 - 123	07/13/16 11:20	07/16/16 01:52	1
4-Bromofluorobenzene (Surr)	106		79 - 120	07/13/16 11:20	07/16/16 01:52	1
Dibromofluoromethane (Surr)	117		60 - 120	07/13/16 11:20	07/16/16 01:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		64	8.5	ug/Kg		07/14/16 09:28	07/15/16 16:19	1
Acenaphthylene	ND		64	8.5	ug/Kg		07/14/16 09:28	07/15/16 16:19	1
Anthracene	ND		64	8.5	ug/Kg		07/14/16 09:28	07/15/16 16:19	1
Benzo[a]anthracene	ND		64	8.5	ug/Kg		07/14/16 09:28	07/15/16 16:19	1
Benzo[a]pyrene	ND		64	8.5	ug/Kg		07/14/16 09:28	07/15/16 16:19	1
Benzo[b]fluoranthene	ND		64	8.5	ug/Kg		07/14/16 09:28	07/15/16 16:19	1
Benzo[g,h,i]perylene	ND		64	8.5	ug/Kg		07/14/16 09:28	07/15/16 16:19	1
Benzo[k]fluoranthene	ND		64	8.5	ug/Kg		07/14/16 09:28	07/15/16 16:19	1
Chrysene	ND		64	8.5	ug/Kg		07/14/16 09:28	07/15/16 16:19	1
Dibenz(a,h)anthracene	ND		64	8.5	ug/Kg		07/14/16 09:28	07/15/16 16:19	1
Fluoranthene	ND		64	8.5	ug/Kg		07/14/16 09:28	07/15/16 16:19	1
Fluorene	ND		64	8.5	ug/Kg		07/14/16 09:28	07/15/16 16:19	1
Indeno[1,2,3-cd]pyrene	ND		64	8.5	ug/Kg		07/14/16 09:28	07/15/16 16:19	1
Naphthalene	ND		64	8.5	ug/Kg		07/14/16 09:28	07/15/16 16:19	1
Phenanthrene	ND		64	8.5	ug/Kg		07/14/16 09:28	07/15/16 16:19	1
Pyrene	ND		64	8.5	ug/Kg		07/14/16 09:28	07/15/16 16:19	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-4-15'

Date Collected: 07/12/16 13:25

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-11

Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	67		39 - 111	07/14/16 09:28	07/15/16 16:19	1
Nitrobenzene-d5	67		41 - 119	07/14/16 09:28	07/15/16 16:19	1
Terphenyl-d14	74		43 - 150	07/14/16 09:28	07/15/16 16:19	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		25	13	mg/Kg		07/19/16 08:02	07/19/16 22:51	1
C23-C40	13	J	25	13	mg/Kg		07/19/16 08:02	07/19/16 22:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	45		40 - 140	07/19/16 08:02	07/19/16 22:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 16:59	1
Aroclor 1221	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 16:59	1
Aroclor 1232	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 16:59	1
Aroclor 1242	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 16:59	1
Aroclor 1248	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 16:59	1
Aroclor 1254	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 16:59	1
Aroclor 1260	ND		100	35	ug/Kg		07/13/16 18:43	07/15/16 16:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	86		45 - 120	07/13/16 18:43	07/15/16 16:59	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.50	0.099	mg/Kg		07/14/16 08:05	07/15/16 10:14	20
Arsenic	3.1		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:14	20
Barium	55		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:14	20
Beryllium	0.72		0.30	0.15	mg/Kg		07/14/16 08:05	07/15/16 10:14	20
Cadmium	ND		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:14	20
Chromium	29		0.99	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:14	20
Cobalt	8.9		0.50	0.21	mg/Kg		07/14/16 08:05	07/15/16 10:14	20
Copper	19		0.99	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:14	20
Lead	5.7		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:14	20
Molybdenum	0.96	J	0.99	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:14	20
Nickel	17		0.99	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:14	20
Selenium	0.59	J	0.99	0.20	mg/Kg		07/14/16 08:05	07/15/16 10:14	20
Thallium	ND		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:14	20
Vanadium	45		0.99	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:14	20
Zinc	72		9.9	5.0	mg/Kg		07/14/16 08:05	07/15/16 10:14	20
Antimony	ND		0.99	0.27	mg/Kg		07/14/16 08:05	07/15/16 10:14	20

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.065		0.020	0.012	mg/Kg		07/14/16 01:08	07/14/16 21:44	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-4-20'

Date Collected: 07/12/16 13:30

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-12

Matrix: Solid

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		97	68	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	98		60 - 120				07/13/16 11:20	07/16/16 12:46	1
4-Bromofluorobenzene (Surr)	101		79 - 120				07/13/16 11:20	07/16/16 12:46	1
Toluene-d8 (Surr)	109		79 - 123				07/13/16 11:20	07/16/16 12:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
1,1,1-Trichloroethane	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
1,1,2,2-Tetrachloroethane	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
1,1,2-Trichloroethane	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
1,1-Dichloroethane	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
1,1-Dichloroethene	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
1,1-Dichloropropene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
1,2,3-Trichlorobenzene	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
1,2,3-Trichloropropane	ND		9.7	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
1,2,4-Trichlorobenzene	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
1,2,4-Trimethylbenzene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
1,2-Dibromo-3-Chloropropane	ND		4.8	1.9	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
1,2-Dibromoethane (EDB)	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
1,2-Dichlorobenzene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
1,2-Dichloroethane	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
1,2-Dichloropropane	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
1,3,5-Trimethylbenzene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
1,3-Dichlorobenzene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
1,3-Dichloropropane	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
1,4-Dichlorobenzene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
2,2-Dichloropropane	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
2-Chlorotoluene	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
4-Chlorotoluene	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
Benzene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
Bromobenzene	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
Bromochloromethane	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
Bromodichloromethane	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
Bromoform	ND		4.8	1.9	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
Bromomethane	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
Carbon tetrachloride	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
Chlorobenzene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
Chloroethane	ND		4.8	1.9	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
Chloroform	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
Chloromethane	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
cis-1,2-Dichloroethene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
cis-1,3-Dichloropropene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
Dibromochloromethane	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
Dibromomethane	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
Dichlorodifluoromethane	ND		4.8	1.9	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
Isopropyl Ether (DIPE)	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
Ethanol	ND		290	97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-4-20'

Lab Sample ID: 440-152462-12

Date Collected: 07/12/16 13:30

Matrix: Solid

Date Received: 07/12/16 18:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl-t-butyl ether (ETBE)	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
Ethylbenzene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
Hexachlorobutadiene	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
Isopropylbenzene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
m,p-Xylene	ND		3.9	1.9	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
Methylene Chloride	ND		19	4.8	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
Methyl-t-Butyl Ether (MTBE)	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
Naphthalene	ND		4.8	1.9	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
n-Butylbenzene	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
N-Propylbenzene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
o-Xylene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
sec-Butylbenzene	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
Styrene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
Tert-amyl-methyl ether (TAME)	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
tert-Butyl alcohol (TBA)	ND		97	9.7	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
tert-Butylbenzene	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
Tetrachloroethene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
Toluene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
trans-1,2-Dichloroethene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
trans-1,3-Dichloropropene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
Trichloroethene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
Trichlorofluoromethane	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
Vinyl chloride	ND		4.8	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
Xylenes, Total	ND		3.9	1.9	ug/Kg		07/13/16 11:20	07/16/16 12:46	1
p-Isopropyltoluene	ND		1.9	0.97	ug/Kg		07/13/16 11:20	07/16/16 12:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	109		79 - 123	07/13/16 11:20	07/16/16 12:46	1
4-Bromofluorobenzene (Surr)	101		79 - 120	07/13/16 11:20	07/16/16 12:46	1
Dibromofluoromethane (Surr)	98		60 - 120	07/13/16 11:20	07/16/16 12:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		59	7.9	ug/Kg		07/14/16 09:28	07/15/16 16:39	1
Acenaphthylene	ND		59	7.9	ug/Kg		07/14/16 09:28	07/15/16 16:39	1
Anthracene	ND		59	7.9	ug/Kg		07/14/16 09:28	07/15/16 16:39	1
Benzo[a]anthracene	ND		59	7.9	ug/Kg		07/14/16 09:28	07/15/16 16:39	1
Benzo[a]pyrene	ND		59	7.9	ug/Kg		07/14/16 09:28	07/15/16 16:39	1
Benzo[b]fluoranthene	ND		59	7.9	ug/Kg		07/14/16 09:28	07/15/16 16:39	1
Benzo[g,h,i]perylene	ND		59	7.9	ug/Kg		07/14/16 09:28	07/15/16 16:39	1
Benzo[k]fluoranthene	ND		59	7.9	ug/Kg		07/14/16 09:28	07/15/16 16:39	1
Chrysene	ND		59	7.9	ug/Kg		07/14/16 09:28	07/15/16 16:39	1
Dibenz(a,h)anthracene	ND		59	7.9	ug/Kg		07/14/16 09:28	07/15/16 16:39	1
Fluoranthene	ND		59	7.9	ug/Kg		07/14/16 09:28	07/15/16 16:39	1
Fluorene	ND		59	7.9	ug/Kg		07/14/16 09:28	07/15/16 16:39	1
Indeno[1,2,3-cd]pyrene	ND		59	7.9	ug/Kg		07/14/16 09:28	07/15/16 16:39	1
Naphthalene	ND		59	7.9	ug/Kg		07/14/16 09:28	07/15/16 16:39	1
Phenanthrene	ND		59	7.9	ug/Kg		07/14/16 09:28	07/15/16 16:39	1
Pyrene	ND		59	7.9	ug/Kg		07/14/16 09:28	07/15/16 16:39	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-4-20'

Date Collected: 07/12/16 13:30

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-12

Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	61		39 - 111	07/14/16 09:28	07/15/16 16:39	1
Nitrobenzene-d5	60		41 - 119	07/14/16 09:28	07/15/16 16:39	1
Terphenyl-d14	71		43 - 150	07/14/16 09:28	07/15/16 16:39	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		10	5.2	mg/Kg		07/13/16 18:24	07/14/16 17:47	1
C23-C40	ND		10	5.2	mg/Kg		07/13/16 18:24	07/14/16 17:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	51		40 - 140	07/13/16 18:24	07/14/16 17:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		110	36	ug/Kg		07/13/16 18:43	07/15/16 17:14	1
Aroclor 1221	ND		110	36	ug/Kg		07/13/16 18:43	07/15/16 17:14	1
Aroclor 1232	ND		110	36	ug/Kg		07/13/16 18:43	07/15/16 17:14	1
Aroclor 1242	ND		110	36	ug/Kg		07/13/16 18:43	07/15/16 17:14	1
Aroclor 1248	ND		110	36	ug/Kg		07/13/16 18:43	07/15/16 17:14	1
Aroclor 1254	ND		110	36	ug/Kg		07/13/16 18:43	07/15/16 17:14	1
Aroclor 1260	ND		110	36	ug/Kg		07/13/16 18:43	07/15/16 17:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	53		45 - 120	07/13/16 18:43	07/15/16 17:14	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.50	0.10	mg/Kg		07/14/16 08:05	07/15/16 10:16	20
Arsenic	8.4		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:16	20
Barium	100		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:16	20
Beryllium	0.45		0.30	0.15	mg/Kg		07/14/16 08:05	07/15/16 10:16	20
Cadmium	ND		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:16	20
Chromium	24		1.0	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:16	20
Cobalt	11		0.50	0.21	mg/Kg		07/14/16 08:05	07/15/16 10:16	20
Copper	21		1.0	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:16	20
Lead	7.7		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:16	20
Molybdenum	2.6		1.0	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:16	20
Nickel	18		1.0	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:16	20
Selenium	0.67 J		1.0	0.20	mg/Kg		07/14/16 08:05	07/15/16 10:16	20
Thallium	ND		0.50	0.25	mg/Kg		07/14/16 08:05	07/15/16 10:16	20
Vanadium	46		1.0	0.50	mg/Kg		07/14/16 08:05	07/15/16 10:16	20
Zinc	63		10	5.0	mg/Kg		07/14/16 08:05	07/15/16 10:16	20
Antimony	ND		1.0	0.27	mg/Kg		07/14/16 08:05	07/15/16 10:16	20

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.016 J		0.020	0.012	mg/Kg		07/14/16 01:08	07/14/16 21:47	1

TestAmerica Irvine

Method Summary

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8260B/CA_LUFTMS	Volatile Organic Compounds by GC/MS	SW846	TAL IRV
8270C SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL IRV
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL IRV
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL IRV
6020	Metals (ICP/MS)	SW846	TAL IRV
7471A	Mercury (CVAA)	SW846	TAL IRV

Protocol References:

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

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-5-5'

Date Collected: 07/12/16 09:00

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5.05 g	10 mL	342265	07/14/16 16:53	ATL	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTV S		1	5.05 g	10 mL	342266	07/14/16 16:53	ATL	TAL IRV
Total/NA	Prep	3546			15.40 g	1 mL	342338	07/14/16 09:28	LEG	TAL IRV
Total/NA	Analysis	8270C SIM		1			342622	07/15/16 12:11	AI	TAL IRV
Total/NA	Prep	3546			7.23 g	1 mL	342178	07/13/16 18:24	VA	TAL IRV
Total/NA	Analysis	8015B		1			342359	07/14/16 11:54	AMH	TAL IRV
Total/NA	Prep	3546			7.13 g	2 mL	342185	07/13/16 18:43	VA	TAL IRV
Total/NA	Analysis	8082		1			342640	07/15/16 14:26	JM	TAL IRV
Total/NA	Prep	3050B			2.02 g	50 mL	342294	07/14/16 08:05	DT	TAL IRV
Total/NA	Analysis	6020		20			342656	07/15/16 09:34	EN	TAL IRV
Total/NA	Prep	7471A			0.51 g	50 mL	342230	07/13/16 23:32	DB	TAL IRV
Total/NA	Analysis	7471A		1			342524	07/14/16 20:40	DB	TAL IRV

Client Sample ID: AEC-5-10'

Date Collected: 07/12/16 09:05

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5.02 g	10 mL	342463	07/14/16 20:47	WK	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTV S		1	5.02 g	10 mL	342464	07/14/16 20:47	WK	TAL IRV
Total/NA	Prep	3546			15.08 g	1 mL	342338	07/14/16 09:28	LEG	TAL IRV
Total/NA	Analysis	8270C SIM		1			342622	07/15/16 13:13	AI	TAL IRV
Total/NA	Prep	3546			7.11 g	1 mL	342178	07/13/16 18:24	VA	TAL IRV
Total/NA	Analysis	8015B		1			342361	07/14/16 14:39	AMH	TAL IRV
Total/NA	Prep	3546			7.04 g	2 mL	342185	07/13/16 18:43	VA	TAL IRV
Total/NA	Analysis	8082		1			342640	07/15/16 14:41	JM	TAL IRV
Total/NA	Prep	3050B			2.01 g	50 mL	342294	07/14/16 08:05	DT	TAL IRV
Total/NA	Analysis	6020		20			342656	07/15/16 09:46	EN	TAL IRV
Total/NA	Prep	7471A			0.50 g	50 mL	342230	07/13/16 23:32	DB	TAL IRV
Total/NA	Analysis	7471A		1			342524	07/14/16 20:43	DB	TAL IRV

Client Sample ID: AEC-5-15'

Date Collected: 07/12/16 09:08

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5.03 g	10 mL	342463	07/14/16 21:15	WK	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTV S		1	5.03 g	10 mL	342464	07/14/16 21:15	WK	TAL IRV
Total/NA	Prep	3546			7.47 g	1 mL	342338	07/14/16 09:28	LEG	TAL IRV
Total/NA	Analysis	8270C SIM		1			342622	07/15/16 13:34	AI	TAL IRV

TestAmerica Irvine

Lab Chronicle

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-5-15'

Date Collected: 07/12/16 09:08

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			7.31 g	1 mL	342178	07/13/16 18:24	VA	TAL IRV
Total/NA	Analysis	8015B		1			342359	07/14/16 13:52	AMH	TAL IRV
Total/NA	Prep	3546			3.37 g	2 mL	342185	07/13/16 18:43	VA	TAL IRV
Total/NA	Analysis	8082		1			342640	07/15/16 14:56	JM	TAL IRV
Total/NA	Prep	3050B			2.01 g	50 mL	342294	07/14/16 08:05	DT	TAL IRV
Total/NA	Analysis	6020		20			342656	07/15/16 10:29	EN	TAL IRV
Total/NA	Prep	7471A			0.50 g	50 mL	342230	07/13/16 23:32	DB	TAL IRV
Total/NA	Analysis	7471A		1			342524	07/14/16 20:51	DB	TAL IRV

Client Sample ID: AEC-5-20'

Date Collected: 07/12/16 09:12

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5.01 g	10 mL	342463	07/14/16 21:44	WK	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTV S		1	5.01 g	10 mL	342464	07/14/16 21:44	WK	TAL IRV
Total/NA	Prep	3546			15.34 g	1 mL	342338	07/14/16 09:28	LEG	TAL IRV
Total/NA	Analysis	8270C SIM		1			342622	07/15/16 13:54	AI	TAL IRV
Total/NA	Prep	3546			7.29 g	1 mL	342178	07/13/16 18:24	VA	TAL IRV
Total/NA	Analysis	8015B		1			342359	07/14/16 14:12	AMH	TAL IRV
Total/NA	Prep	3546			7.24 g	2 mL	342185	07/13/16 18:43	VA	TAL IRV
Total/NA	Analysis	8082		1			342640	07/15/16 15:12	JM	TAL IRV
Total/NA	Prep	3050B			2.02 g	50 mL	342294	07/14/16 08:05	DT	TAL IRV
Total/NA	Analysis	6020		20			342656	07/15/16 09:51	EN	TAL IRV
Total/NA	Prep	7471A			0.50 g	50 mL	342230	07/13/16 23:32	DB	TAL IRV
Total/NA	Analysis	7471A		1			342524	07/14/16 20:53	DB	TAL IRV

Client Sample ID: AEC-3-5'

Date Collected: 07/12/16 11:05

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.26 g	10 mL	342024	07/13/16 11:20	ATL	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	342769	07/15/16 22:54	AA	TAL IRV
Total/NA	Prep	5035			5.26 g	10 mL	342024	07/13/16 11:20	ATL	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTV S		1	10 mL	10 mL	342770	07/15/16 22:54	AA	TAL IRV
Total/NA	Prep	3546			15.40 g	2 mL	342338	07/14/16 09:28	LEG	TAL IRV
Total/NA	Analysis	8270C SIM		40			342622	07/15/16 14:15	AI	TAL IRV
Total/NA	Prep	3546			7.17 g	1 mL	342178	07/13/16 18:24	VA	TAL IRV
Total/NA	Analysis	8015B		10			342361	07/14/16 15:44	AMH	TAL IRV
Total/NA	Prep	3546			7.28 g	2 mL	342185	07/13/16 18:43	VA	TAL IRV
Total/NA	Analysis	8082		1			342640	07/15/16 15:28	JM	TAL IRV

TestAmerica Irvine

Lab Chronicle

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-3-5'

Date Collected: 07/12/16 11:05

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.03 g	50 mL	342294	07/14/16 08:05	DT	TAL IRV
Total/NA	Analysis	6020		20			342656	07/15/16 09:59	EN	TAL IRV
Total/NA	Prep	7471A			0.50 g	50 mL	342230	07/13/16 23:32	DB	TAL IRV
Total/NA	Analysis	7471A		1			342524	07/14/16 20:56	DB	TAL IRV

Client Sample ID: AEC-3-10'

Date Collected: 07/12/16 11:10

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-6

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.07 g	10 mL	342024	07/13/16 11:20	ATL	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	342769	07/15/16 23:24	AA	TAL IRV
Total/NA	Prep	5035			5.07 g	10 mL	342024	07/13/16 11:20	ATL	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTV S		1	10 mL	10 mL	342770	07/15/16 23:24	AA	TAL IRV
Total/NA	Prep	3546			15.10 g	1 mL	342338	07/14/16 09:28	LEG	TAL IRV
Total/NA	Analysis	8270C SIM		1			342622	07/15/16 14:36	AI	TAL IRV
Total/NA	Prep	3546			7.29 g	1 mL	342178	07/13/16 18:24	VA	TAL IRV
Total/NA	Analysis	8015B		1			342361	07/14/16 15:01	AMH	TAL IRV
Total/NA	Prep	3546			7.36 g	2 mL	342185	07/13/16 18:43	VA	TAL IRV
Total/NA	Analysis	8082		1			342640	07/15/16 15:43	JM	TAL IRV
Total/NA	Prep	3050B			2.02 g	50 mL	342294	07/14/16 08:05	DT	TAL IRV
Total/NA	Analysis	6020		20			342656	07/15/16 10:01	EN	TAL IRV
Total/NA	Prep	7471A			0.49 g	50 mL	342230	07/13/16 23:32	DB	TAL IRV
Total/NA	Analysis	7471A		1			342524	07/14/16 20:59	DB	TAL IRV

Client Sample ID: AEC-3-15'

Date Collected: 07/12/16 11:14

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.59 g	10 mL	342024	07/13/16 11:20	ATL	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	342769	07/15/16 23:54	AA	TAL IRV
Total/NA	Prep	5035			5.59 g	10 mL	342024	07/13/16 11:20	ATL	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTV S		1	10 mL	10 mL	342770	07/15/16 23:54	AA	TAL IRV
Total/NA	Prep	3546			7.12 g	1 mL	342338	07/14/16 09:28	LEG	TAL IRV
Total/NA	Analysis	8270C SIM		1			342622	07/15/16 14:56	AI	TAL IRV
Total/NA	Prep	3546			7.00 g	1 mL	342178	07/13/16 18:24	VA	TAL IRV
Total/NA	Analysis	8015B		1			342359	07/14/16 14:31	AMH	TAL IRV
Total/NA	Prep	3546			7.02 g	2 mL	342185	07/13/16 18:43	VA	TAL IRV
Total/NA	Analysis	8082		1			342640	07/15/16 15:58	JM	TAL IRV
Total/NA	Prep	3050B			2.02 g	50 mL	342294	07/14/16 08:05	DT	TAL IRV
Total/NA	Analysis	6020		20			342656	07/15/16 10:04	EN	TAL IRV

TestAmerica Irvine

Lab Chronicle

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-3-15'

Date Collected: 07/12/16 11:14

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.50 g	50 mL	342230	07/13/16 23:32	DB	TAL IRV
Total/NA	Analysis	7471A		1			342524	07/14/16 21:02	DB	TAL IRV

Client Sample ID: AEC-3-20'

Date Collected: 07/12/16 11:21

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-8

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.47 g	10 mL	342024	07/13/16 11:20	ATL	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	342769	07/16/16 00:24	AA	TAL IRV
Total/NA	Prep	5035			5.47 g	10 mL	342024	07/13/16 11:20	ATL	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTM S		1	10 mL	10 mL	342770	07/16/16 00:24	AA	TAL IRV
Total/NA	Prep	3546			15.37 g	1 mL	342338	07/14/16 09:28	LEG	TAL IRV
Total/NA	Analysis	8270C SIM		1			342622	07/15/16 15:17	AI	TAL IRV
Total/NA	Prep	3546			7.02 g	1 mL	342178	07/13/16 18:24	VA	TAL IRV
Total/NA	Analysis	8015B		1			342359	07/14/16 15:30	AMH	TAL IRV
Total/NA	Prep	3546			7.48 g	2 mL	342185	07/13/16 18:43	VA	TAL IRV
Total/NA	Analysis	8082		1			342640	07/15/16 16:13	JM	TAL IRV
Total/NA	Prep	3050B			2.01 g	50 mL	342294	07/14/16 08:05	DT	TAL IRV
Total/NA	Analysis	6020		20			342656	07/15/16 10:06	EN	TAL IRV
Total/NA	Prep	7471A			0.50 g	50 mL	342231	07/14/16 01:08	DB	TAL IRV
Total/NA	Analysis	7471A		1			342525	07/14/16 21:36	DB	TAL IRV

Client Sample ID: AEC-4-5'

Date Collected: 07/12/16 13:15

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-9

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.64 g	10 mL	342024	07/13/16 11:20	ATL	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	342769	07/16/16 00:53	AA	TAL IRV
Total/NA	Prep	5035			5.64 g	10 mL	342024	07/13/16 11:20	ATL	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTM S		1	10 mL	10 mL	342770	07/16/16 00:53	AA	TAL IRV
Total/NA	Prep	3546			15.04 g	1 mL	342338	07/14/16 09:28	LEG	TAL IRV
Total/NA	Analysis	8270C SIM		1			342622	07/15/16 15:37	AI	TAL IRV
Total/NA	Prep	3546			7.43 g	1 mL	342178	07/13/16 18:24	VA	TAL IRV
Total/NA	Analysis	8015B		1			342359	07/14/16 15:49	AMH	TAL IRV
Total/NA	Prep	3546			7.45 g	2 mL	342185	07/13/16 18:43	VA	TAL IRV
Total/NA	Analysis	8082		1			342640	07/15/16 16:29	JM	TAL IRV
Total/NA	Prep	3050B			2.02 g	50 mL	342294	07/14/16 08:05	DT	TAL IRV
Total/NA	Analysis	6020		20			342656	07/15/16 10:09	EN	TAL IRV
Total/NA	Prep	7471A			0.50 g	50 mL	342231	07/14/16 01:08	DB	TAL IRV
Total/NA	Analysis	7471A		1			342525	07/14/16 21:39	DB	TAL IRV

TestAmerica Irvine

Lab Chronicle

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-4-10'

Date Collected: 07/12/16 13:19

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-10

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.53 g	10 mL	342024	07/13/16 11:20	ATL	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	342769	07/16/16 01:23	AA	TAL IRV
Total/NA	Prep	5035			5.53 g	10 mL	342024	07/13/16 11:20	ATL	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTM S		1	10 mL	10 mL	342770	07/16/16 01:23	AA	TAL IRV
Total/NA	Prep	3546			15.38 g	1 mL	342338	07/14/16 09:28	LEG	TAL IRV
Total/NA	Analysis	8270C SIM		1			342622	07/15/16 15:58	AI	TAL IRV
Total/NA	Prep	3546			7.16 g	1 mL	342178	07/13/16 18:24	VA	TAL IRV
Total/NA	Analysis	8015B		1			342359	07/14/16 15:10	AMH	TAL IRV
Total/NA	Prep	3546			7.22 g	2 mL	342185	07/13/16 18:43	VA	TAL IRV
Total/NA	Analysis	8082		1			342640	07/15/16 16:44	JM	TAL IRV
Total/NA	Prep	3050B			2.03 g	50 mL	342294	07/14/16 08:05	DT	TAL IRV
Total/NA	Analysis	6020		20			342656	07/15/16 10:11	EN	TAL IRV
Total/NA	Prep	7471A			0.51 g	50 mL	342231	07/14/16 01:08	DB	TAL IRV
Total/NA	Analysis	7471A		1			342525	07/14/16 21:42	DB	TAL IRV

Client Sample ID: AEC-4-15'

Date Collected: 07/12/16 13:25

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-11

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.16 g	10 mL	342024	07/13/16 11:20	ATL	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	342769	07/16/16 01:52	AA	TAL IRV
Total/NA	Prep	5035			5.16 g	10 mL	342024	07/13/16 11:20	ATL	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTM S		1	10 mL	10 mL	342770	07/16/16 01:52	AA	TAL IRV
Total/NA	Prep	3546			7.03 g	1 mL	342338	07/14/16 09:28	LEG	TAL IRV
Total/NA	Analysis	8270C SIM		1			342622	07/15/16 16:19	AI	TAL IRV
Total/NA	Prep	3546			3.00 g	1 mL	343307	07/19/16 08:02	LEG	TAL IRV
Total/NA	Analysis	8015B		1			343451	07/19/16 22:51	JM	TAL IRV
Total/NA	Prep	3546			7.34 g	2 mL	342185	07/13/16 18:43	VA	TAL IRV
Total/NA	Analysis	8082		1			342640	07/15/16 16:59	JM	TAL IRV
Total/NA	Prep	3050B			2.02 g	50 mL	342294	07/14/16 08:05	DT	TAL IRV
Total/NA	Analysis	6020		20			342656	07/15/16 10:14	EN	TAL IRV
Total/NA	Prep	7471A			0.50 g	50 mL	342231	07/14/16 01:08	DB	TAL IRV
Total/NA	Analysis	7471A		1			342525	07/14/16 21:44	DB	TAL IRV

Client Sample ID: AEC-4-20'

Date Collected: 07/12/16 13:30

Date Received: 07/12/16 18:30

Lab Sample ID: 440-152462-12

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.17 g	10 mL	342024	07/13/16 11:20	ATL	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	342846	07/16/16 12:46	SHS	TAL IRV

TestAmerica Irvine

Lab Chronicle

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Client Sample ID: AEC-4-20'

Lab Sample ID: 440-152462-12

Date Collected: 07/12/16 13:30

Matrix: Solid

Date Received: 07/12/16 18:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.17 g	10 mL	342024	07/13/16 11:20	ATL	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTV S		1	10 mL	10 mL	342847	07/16/16 12:46	SHS	TAL IRV
Total/NA	Prep	3546			7.57 g	1 mL	342338	07/14/16 09:28	LEG	TAL IRV
Total/NA	Analysis	8270C SIM		1			342622	07/15/16 16:39	AI	TAL IRV
Total/NA	Prep	3546			7.16 g	1 mL	342178	07/13/16 18:24	VA	TAL IRV
Total/NA	Analysis	8015B		1			342359	07/14/16 17:47	AMH	TAL IRV
Total/NA	Prep	3546			7.02 g	2 mL	342185	07/13/16 18:43	VA	TAL IRV
Total/NA	Analysis	8082		1			342640	07/15/16 17:14	JM	TAL IRV
Total/NA	Prep	3050B			2.01 g	50 mL	342294	07/14/16 08:05	DT	TAL IRV
Total/NA	Analysis	6020		20			342656	07/15/16 10:16	EN	TAL IRV
Total/NA	Prep	7471A			0.49 g	50 mL	342231	07/14/16 01:08	DB	TAL IRV
Total/NA	Analysis	7471A		1			342525	07/14/16 21:47	DB	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

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

Lab Sample ID: MB 440-342265/4

Matrix: Solid

Analysis Batch: 342265

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0	1.0	ug/Kg			07/14/16 08:20	1
1,1,1-Trichloroethane	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1
1,1,2,2-Tetrachloroethane	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1
1,1,2-Trichloroethane	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1
1,1-Dichloroethane	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1
1,1-Dichloroethene	ND		5.0	1.0	ug/Kg			07/14/16 08:20	1
1,1-Dichloropropene	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1
1,2,3-Trichlorobenzene	ND		5.0	1.0	ug/Kg			07/14/16 08:20	1
1,2,3-Trichloropropane	ND		10	1.0	ug/Kg			07/14/16 08:20	1
1,2,4-Trichlorobenzene	ND		5.0	1.0	ug/Kg			07/14/16 08:20	1
1,2,4-Trimethylbenzene	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.0	ug/Kg			07/14/16 08:20	1
1,2-Dibromoethane (EDB)	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1
1,2-Dichlorobenzene	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1
1,2-Dichloroethane	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1
1,2-Dichloropropane	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1
1,3,5-Trimethylbenzene	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1
1,3-Dichlorobenzene	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1
1,3-Dichloropropane	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1
1,4-Dichlorobenzene	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1
2,2-Dichloropropane	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1
2-Chlorotoluene	ND		5.0	1.0	ug/Kg			07/14/16 08:20	1
4-Chlorotoluene	ND		5.0	1.0	ug/Kg			07/14/16 08:20	1
Benzene	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1
Bromobenzene	ND		5.0	1.0	ug/Kg			07/14/16 08:20	1
Bromochloromethane	ND		5.0	1.0	ug/Kg			07/14/16 08:20	1
Bromodichloromethane	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1
Bromoform	ND		5.0	2.0	ug/Kg			07/14/16 08:20	1
Bromomethane	ND		5.0	1.0	ug/Kg			07/14/16 08:20	1
Carbon tetrachloride	ND		5.0	1.0	ug/Kg			07/14/16 08:20	1
Chlorobenzene	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1
Chloroethane	ND		5.0	2.0	ug/Kg			07/14/16 08:20	1
Chloroform	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1
Chloromethane	ND		5.0	1.0	ug/Kg			07/14/16 08:20	1
cis-1,2-Dichloroethene	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1
cis-1,3-Dichloropropene	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1
Dibromochloromethane	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1
Dibromomethane	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1
Dichlorodifluoromethane	ND		5.0	2.0	ug/Kg			07/14/16 08:20	1
Isopropyl Ether (DIPE)	ND		5.0	1.0	ug/Kg			07/14/16 08:20	1
Ethanol	ND		300	100	ug/Kg			07/14/16 08:20	1
Ethyl-t-butyl ether (ETBE)	ND		5.0	1.0	ug/Kg			07/14/16 08:20	1
Ethylbenzene	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1
Hexachlorobutadiene	ND		5.0	1.0	ug/Kg			07/14/16 08:20	1
Isopropylbenzene	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1
m,p-Xylene	ND		4.0	2.0	ug/Kg			07/14/16 08:20	1
Methylene Chloride	ND		20	5.0	ug/Kg			07/14/16 08:20	1
Methyl-t-Butyl Ether (MTBE)	ND		5.0	1.0	ug/Kg			07/14/16 08:20	1

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

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

Lab Sample ID: MB 440-342265/4

Matrix: Solid

Analysis Batch: 342265

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	2.0	ug/Kg			07/14/16 08:20	1
n-Butylbenzene	ND		5.0	1.0	ug/Kg			07/14/16 08:20	1
N-Propylbenzene	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1
o-Xylene	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1
sec-Butylbenzene	ND		5.0	1.0	ug/Kg			07/14/16 08:20	1
Styrene	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1
Tert-amyl-methyl ether (TAME)	ND		5.0	1.0	ug/Kg			07/14/16 08:20	1
tert-Butyl alcohol (TBA)	ND		100	10	ug/Kg			07/14/16 08:20	1
tert-Butylbenzene	ND		5.0	1.0	ug/Kg			07/14/16 08:20	1
Tetrachloroethene	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1
Toluene	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1
trans-1,2-Dichloroethene	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1
trans-1,3-Dichloropropene	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1
Trichloroethene	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1
Trichlorofluoromethane	ND		5.0	1.0	ug/Kg			07/14/16 08:20	1
Vinyl chloride	ND		5.0	1.0	ug/Kg			07/14/16 08:20	1
Xylenes, Total	ND		4.0	2.0	ug/Kg			07/14/16 08:20	1
p-Isopropyltoluene	ND		2.0	1.0	ug/Kg			07/14/16 08:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	106		79 - 123		07/14/16 08:20	1
4-Bromofluorobenzene (Surr)	100		79 - 120		07/14/16 08:20	1
Dibromofluoromethane (Surr)	102		60 - 120		07/14/16 08:20	1

Lab Sample ID: LCS 440-342265/5

Matrix: Solid

Analysis Batch: 342265

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	50.0	51.4		ug/Kg		103	70 - 130
1,1,1-Trichloroethane	50.0	50.1		ug/Kg		100	65 - 135
1,1,2,2-Tetrachloroethane	50.0	52.6		ug/Kg		105	55 - 140
1,1,2-Trichloroethane	50.0	50.4		ug/Kg		101	65 - 135
1,1-Dichloroethane	50.0	47.0		ug/Kg		94	70 - 130
1,1-Dichloroethene	50.0	52.3		ug/Kg		105	70 - 125
1,1-Dichloropropene	50.0	53.7		ug/Kg		107	70 - 130
1,2,3-Trichlorobenzene	50.0	54.5		ug/Kg		109	60 - 130
1,2,3-Trichloropropane	50.0	52.4		ug/Kg		105	60 - 135
1,2,4-Trichlorobenzene	50.0	56.3		ug/Kg		113	70 - 135
1,2,4-Trimethylbenzene	50.0	48.8		ug/Kg		98	70 - 125
1,2-Dibromo-3-Chloropropane	50.0	51.2		ug/Kg		102	50 - 135
1,2-Dibromoethane (EDB)	50.0	56.2		ug/Kg		112	70 - 130
1,2-Dichlorobenzene	50.0	50.6		ug/Kg		101	75 - 120
1,2-Dichloroethane	50.0	52.5		ug/Kg		105	60 - 140
1,2-Dichloropropane	50.0	52.5		ug/Kg		105	70 - 130
1,3,5-Trimethylbenzene	50.0	48.8		ug/Kg		98	70 - 125
1,3-Dichlorobenzene	50.0	49.8		ug/Kg		100	75 - 125
1,3-Dichloropropane	50.0	52.9		ug/Kg		106	70 - 125

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

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

Lab Sample ID: LCS 440-342265/5

Matrix: Solid

Analysis Batch: 342265

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	50.0	48.1		ug/Kg		96	75 - 120
2,2-Dichloropropane	50.0	52.9		ug/Kg		106	60 - 145
2-Chlorotoluene	50.0	54.4		ug/Kg		109	70 - 125
4-Chlorotoluene	50.0	55.0		ug/Kg		110	75 - 125
Benzene	50.0	49.4		ug/Kg		99	65 - 120
Bromobenzene	50.0	54.8		ug/Kg		110	75 - 120
Bromochloromethane	50.0	55.2		ug/Kg		110	70 - 135
Bromodichloromethane	50.0	53.0		ug/Kg		106	70 - 135
Bromoform	50.0	58.2		ug/Kg		116	55 - 135
Bromomethane	50.0	47.4		ug/Kg		95	60 - 145
Carbon tetrachloride	50.0	51.6		ug/Kg		103	65 - 140
Chlorobenzene	50.0	48.4		ug/Kg		97	75 - 120
Chloroethane	50.0	49.0		ug/Kg		98	60 - 140
Chloroform	50.0	49.3		ug/Kg		99	70 - 130
Chloromethane	50.0	39.8		ug/Kg		80	45 - 145
cis-1,2-Dichloroethene	50.0	54.7		ug/Kg		109	70 - 125
cis-1,3-Dichloropropene	50.0	55.7		ug/Kg		111	75 - 125
Dibromochloromethane	50.0	51.7		ug/Kg		103	65 - 140
Dibromomethane	50.0	54.1		ug/Kg		108	70 - 130
Dichlorodifluoromethane	50.0	41.5		ug/Kg		83	35 - 160
Isopropyl Ether (DIPE)	50.0	59.7		ug/Kg		119	60 - 140
Ethanol	2000	1810		ug/Kg		91	35 - 160
Ethyl-t-butyl ether (ETBE)	50.0	63.2		ug/Kg		126	60 - 140
Ethylbenzene	50.0	54.4		ug/Kg		109	70 - 125
Hexachlorobutadiene	50.0	49.3		ug/Kg		99	60 - 135
Isopropylbenzene	50.0	51.7		ug/Kg		103	75 - 130
m,p-Xylene	50.0	50.0		ug/Kg		100	70 - 125
Methylene Chloride	50.0	51.0		ug/Kg		102	55 - 135
Methyl-t-Butyl Ether (MTBE)	50.0	61.7		ug/Kg		123	60 - 140
Naphthalene	50.0	50.7		ug/Kg		101	55 - 135
n-Butylbenzene	50.0	48.1		ug/Kg		96	70 - 130
N-Propylbenzene	50.0	49.3		ug/Kg		99	70 - 130
o-Xylene	50.0	49.2		ug/Kg		98	70 - 125
sec-Butylbenzene	50.0	51.5		ug/Kg		103	70 - 125
Styrene	50.0	47.4		ug/Kg		95	75 - 130
Tert-amyl-methyl ether (TAME)	50.0	57.0		ug/Kg		114	60 - 145
tert-Butyl alcohol (TBA)	500	513		ug/Kg		103	70 - 135
tert-Butylbenzene	50.0	50.0		ug/Kg		100	70 - 125
Tetrachloroethene	50.0	50.0		ug/Kg		100	70 - 125
Toluene	50.0	54.2		ug/Kg		108	70 - 125
trans-1,2-Dichloroethene	50.0	54.0		ug/Kg		108	70 - 125
trans-1,3-Dichloropropene	50.0	54.4		ug/Kg		109	70 - 135
Trichloroethene	50.0	51.5		ug/Kg		103	70 - 125
Trichlorofluoromethane	50.0	48.4		ug/Kg		97	60 - 145
Vinyl chloride	50.0	42.7		ug/Kg		85	55 - 135
p-Isopropyltoluene	50.0	54.3		ug/Kg		109	75 - 125

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

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

Lab Sample ID: LCS 440-342265/5

Matrix: Solid

Analysis Batch: 342265

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	106		79 - 123
4-Bromofluorobenzene (Surr)	102		79 - 120
Dibromofluoromethane (Surr)	103		60 - 120

Lab Sample ID: 440-152537-A-3 MS

Matrix: Solid

Analysis Batch: 342265

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	ND		49.8	51.5		ug/Kg		103	65 - 145
1,1,1-Trichloroethane	ND		49.8	48.9		ug/Kg		98	65 - 145
1,1,2,2-Tetrachloroethane	ND		49.8	52.5		ug/Kg		105	40 - 160
1,1,2-Trichloroethane	ND		49.8	49.7		ug/Kg		100	65 - 140
1,1-Dichloroethane	ND		49.8	46.6		ug/Kg		93	65 - 135
1,1-Dichloroethene	ND		49.8	49.1		ug/Kg		99	65 - 135
1,1-Dichloropropene	ND		49.8	53.2		ug/Kg		107	65 - 135
1,2,3-Trichlorobenzene	ND		49.8	54.1		ug/Kg		109	45 - 145
1,2,3-Trichloropropane	ND		49.8	51.8		ug/Kg		104	50 - 150
1,2,4-Trichlorobenzene	ND		49.8	55.1		ug/Kg		111	50 - 140
1,2,4-Trimethylbenzene	ND		49.8	49.0		ug/Kg		98	65 - 140
1,2-Dibromo-3-Chloropropane	ND		49.8	46.7		ug/Kg		94	40 - 150
1,2-Dibromoethane (EDB)	ND		49.8	56.7		ug/Kg		114	65 - 140
1,2-Dichlorobenzene	ND		49.8	50.6		ug/Kg		102	70 - 130
1,2-Dichloroethane	ND		49.8	52.5		ug/Kg		105	60 - 150
1,2-Dichloropropane	ND		49.8	53.1		ug/Kg		107	65 - 130
1,3,5-Trimethylbenzene	ND		49.8	49.2		ug/Kg		99	65 - 135
1,3-Dichlorobenzene	ND		49.8	50.3		ug/Kg		101	70 - 130
1,3-Dichloropropane	ND		49.8	53.0		ug/Kg		106	65 - 140
1,4-Dichlorobenzene	ND		49.8	48.3		ug/Kg		97	70 - 130
2,2-Dichloropropane	ND		49.8	52.4		ug/Kg		105	65 - 150
2-Chlorotoluene	ND		49.8	54.2		ug/Kg		109	60 - 135
4-Chlorotoluene	ND		49.8	54.8		ug/Kg		110	65 - 135
Benzene	ND		49.8	48.6		ug/Kg		98	65 - 130
Bromobenzene	ND		49.8	55.4		ug/Kg		111	65 - 140
Bromochloromethane	ND		49.8	54.2		ug/Kg		109	65 - 145
Bromodichloromethane	ND		49.8	52.6		ug/Kg		106	65 - 145
Bromoform	ND		49.8	56.3		ug/Kg		113	50 - 145
Bromomethane	ND		49.8	45.8		ug/Kg		92	60 - 155
Carbon tetrachloride	ND		49.8	50.6		ug/Kg		102	60 - 145
Chlorobenzene	ND		49.8	48.5		ug/Kg		97	70 - 130
Chloroethane	ND		49.8	46.4		ug/Kg		93	60 - 150
Chloroform	ND		49.8	48.5		ug/Kg		97	65 - 135
Chloromethane	ND		49.8	39.2		ug/Kg		79	40 - 145
cis-1,2-Dichloroethene	ND		49.8	54.5		ug/Kg		109	65 - 135
cis-1,3-Dichloropropene	ND		49.8	56.1		ug/Kg		113	70 - 135
Dibromochloromethane	ND		49.8	51.9		ug/Kg		104	60 - 145
Dibromomethane	ND		49.8	53.8		ug/Kg		108	65 - 140
Dichlorodifluoromethane	ND		49.8	40.0		ug/Kg		80	30 - 160

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

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

Lab Sample ID: 440-152537-A-3 MS

Matrix: Solid

Analysis Batch: 342265

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropyl Ether (DIPE)	ND		49.8	58.5		ug/Kg		117	60 - 150
Ethanol	ND		1990	1920		ug/Kg		96	30 - 165
Ethyl-t-butyl ether (ETBE)	ND		49.8	60.3		ug/Kg		121	60 - 145
Ethylbenzene	ND		49.8	54.4		ug/Kg		109	70 - 135
Hexachlorobutadiene	ND		49.8	48.0		ug/Kg		96	50 - 145
Isopropylbenzene	ND		49.8	51.8		ug/Kg		104	70 - 145
m,p-Xylene	ND		49.8	50.1		ug/Kg		101	70 - 130
Methylene Chloride	ND		49.8	49.3		ug/Kg		99	55 - 145
Methyl-t-Butyl Ether (MTBE)	ND		49.8	59.5		ug/Kg		120	55 - 155
Naphthalene	ND		49.8	49.2		ug/Kg		99	40 - 150
n-Butylbenzene	ND		49.8	48.6		ug/Kg		98	55 - 145
N-Propylbenzene	ND		49.8	49.1		ug/Kg		99	65 - 140
o-Xylene	ND		49.8	49.8		ug/Kg		100	65 - 130
sec-Butylbenzene	ND		49.8	51.9		ug/Kg		104	60 - 135
Styrene	ND		49.8	48.4		ug/Kg		97	70 - 140
Tert-amyl-methyl ether (TAME)	ND		49.8	55.3		ug/Kg		111	60 - 150
tert-Butyl alcohol (TBA)	ND		498	520		ug/Kg		104	65 - 145
tert-Butylbenzene	ND		49.8	49.9		ug/Kg		100	60 - 140
Tetrachloroethene	ND		49.8	51.3		ug/Kg		103	65 - 135
Toluene	ND		49.8	54.4		ug/Kg		109	70 - 130
trans-1,2-Dichloroethene	ND		49.8	51.2		ug/Kg		103	70 - 135
trans-1,3-Dichloropropene	ND		49.8	54.6		ug/Kg		110	60 - 145
Trichloroethene	ND		49.8	51.0		ug/Kg		102	65 - 140
Trichlorofluoromethane	ND		49.8	46.1		ug/Kg		93	55 - 155
Vinyl chloride	ND		49.8	41.9		ug/Kg		84	55 - 140
p-Isopropyltoluene	ND		49.8	53.9		ug/Kg		108	60 - 140

Surrogate	MS %Recovery	MS Qualifier	Limits
Toluene-d8 (Surr)	106		79 - 123
4-Bromofluorobenzene (Surr)	102		79 - 120
Dibromofluoromethane (Surr)	102		60 - 120

Lab Sample ID: 440-152537-A-3 MSD

Matrix: Solid

Analysis Batch: 342265

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND		49.6	50.0		ug/Kg		101	65 - 145	3	20
1,1,1-Trichloroethane	ND		49.6	46.6		ug/Kg		94	65 - 145	5	20
1,1,2,2-Tetrachloroethane	ND		49.6	51.1		ug/Kg		103	40 - 160	3	30
1,1,2-Trichloroethane	ND		49.6	48.6		ug/Kg		98	65 - 140	2	30
1,1-Dichloroethane	ND		49.6	43.6		ug/Kg		88	65 - 135	7	25
1,1-Dichloroethene	ND		49.6	45.2		ug/Kg		91	65 - 135	8	25
1,1-Dichloropropene	ND		49.6	50.0		ug/Kg		101	65 - 135	6	20
1,2,3-Trichlorobenzene	ND		49.6	51.5		ug/Kg		104	45 - 145	5	30
1,2,3-Trichloropropane	ND		49.6	50.1		ug/Kg		101	50 - 150	3	30
1,2,4-Trichlorobenzene	ND		49.6	52.1		ug/Kg		105	50 - 140	6	30
1,2,4-Trimethylbenzene	ND		49.6	47.7		ug/Kg		96	65 - 140	3	25

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

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

Lab Sample ID: 440-152537-A-3 MSD

Matrix: Solid

Analysis Batch: 342265

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	ND		49.6	45.0		ug/Kg		91	40 - 150	4	30
1,2-Dibromoethane (EDB)	ND		49.6	54.8		ug/Kg		110	65 - 140	3	25
1,2-Dichlorobenzene	ND		49.6	49.8		ug/Kg		100	70 - 130	2	25
1,2-Dichloroethane	ND		49.6	51.7		ug/Kg		104	60 - 150	1	25
1,2-Dichloropropane	ND		49.6	50.5		ug/Kg		102	65 - 130	5	20
1,3,5-Trimethylbenzene	ND		49.6	46.8		ug/Kg		94	65 - 135	5	25
1,3-Dichlorobenzene	ND		49.6	49.0		ug/Kg		99	70 - 130	3	25
1,3-Dichloropropane	ND		49.6	50.4		ug/Kg		102	65 - 140	5	25
1,4-Dichlorobenzene	ND		49.6	47.6		ug/Kg		96	70 - 130	1	25
2,2-Dichloropropane	ND		49.6	49.3		ug/Kg		99	65 - 150	6	25
2-Chlorotoluene	ND		49.6	53.2		ug/Kg		107	60 - 135	2	25
4-Chlorotoluene	ND		49.6	53.6		ug/Kg		108	65 - 135	2	25
Benzene	ND		49.6	47.1		ug/Kg		95	65 - 130	3	20
Bromobenzene	ND		49.6	54.2		ug/Kg		109	65 - 140	2	25
Bromochloromethane	ND		49.6	52.1		ug/Kg		105	65 - 145	4	25
Bromodichloromethane	ND		49.6	50.7		ug/Kg		102	65 - 145	4	20
Bromoform	ND		49.6	54.8		ug/Kg		111	50 - 145	3	30
Bromomethane	ND		49.6	45.3		ug/Kg		91	60 - 155	1	25
Carbon tetrachloride	ND		49.6	48.8		ug/Kg		98	60 - 145	4	25
Chlorobenzene	ND		49.6	46.3		ug/Kg		93	70 - 130	5	25
Chloroethane	ND		49.6	44.7		ug/Kg		90	60 - 150	4	25
Chloroform	ND		49.6	47.6		ug/Kg		96	65 - 135	2	20
Chloromethane	ND		49.6	39.5		ug/Kg		80	40 - 145	1	25
cis-1,2-Dichloroethene	ND		49.6	52.8		ug/Kg		107	65 - 135	3	25
cis-1,3-Dichloropropene	ND		49.6	54.4		ug/Kg		110	70 - 135	3	25
Dibromochloromethane	ND		49.6	50.5		ug/Kg		102	60 - 145	3	25
Dibromomethane	ND		49.6	52.8		ug/Kg		106	65 - 140	2	25
Dichlorodifluoromethane	ND		49.6	38.9		ug/Kg		78	30 - 160	3	35
Isopropyl Ether (DIPE)	ND		49.6	57.2		ug/Kg		115	60 - 150	2	25
Ethanol	ND		1980	1900		ug/Kg		96	30 - 165	1	40
Ethyl-t-butyl ether (ETBE)	ND		49.6	59.9		ug/Kg		121	60 - 145	1	30
Ethylbenzene	ND		49.6	52.2		ug/Kg		105	70 - 135	4	25
Hexachlorobutadiene	ND		49.6	45.4		ug/Kg		92	50 - 145	5	35
Isopropylbenzene	ND		49.6	49.0		ug/Kg		99	70 - 145	6	25
m,p-Xylene	ND		49.6	47.8		ug/Kg		96	70 - 130	5	25
Methylene Chloride	ND		49.6	45.8		ug/Kg		92	55 - 145	7	25
Methyl-t-Butyl Ether (MTBE)	ND		49.6	58.4		ug/Kg		118	55 - 155	2	35
Naphthalene	ND		49.6	48.1		ug/Kg		97	40 - 150	2	40
n-Butylbenzene	ND		49.6	45.8		ug/Kg		92	55 - 145	6	30
N-Propylbenzene	ND		49.6	48.2		ug/Kg		97	65 - 140	2	25
o-Xylene	ND		49.6	48.6		ug/Kg		98	65 - 130	2	25
sec-Butylbenzene	ND		49.6	49.1		ug/Kg		99	60 - 135	5	25
Styrene	ND		49.6	46.6		ug/Kg		94	70 - 140	4	25
Tert-amyl-methyl ether (TAME)	ND		49.6	54.4		ug/Kg		110	60 - 150	1	25
tert-Butyl alcohol (TBA)	ND		496	520		ug/Kg		105	65 - 145	0	30
tert-Butylbenzene	ND		49.6	48.0		ug/Kg		97	60 - 140	4	25
Tetrachloroethene	ND		49.6	48.0		ug/Kg		97	65 - 135	7	25
Toluene	ND		49.6	51.9		ug/Kg		105	70 - 130	5	20

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

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

Lab Sample ID: 440-152537-A-3 MSD

Matrix: Solid

Analysis Batch: 342265

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
trans-1,2-Dichloroethene	ND		49.6	50.6		ug/Kg		102	70 - 135	1	25
trans-1,3-Dichloropropene	ND		49.6	52.9		ug/Kg		107	60 - 145	3	25
Trichloroethene	ND		49.6	49.0		ug/Kg		99	65 - 140	4	25
Trichlorofluoromethane	ND		49.6	44.2		ug/Kg		89	55 - 155	4	25
Vinyl chloride	ND		49.6	42.4		ug/Kg		85	55 - 140	1	30
p-Isopropyltoluene	ND		49.6	51.7		ug/Kg		104	60 - 140	4	25

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Toluene-d8 (Surr)	105		79 - 123
4-Bromofluorobenzene (Surr)	102		79 - 120
Dibromofluoromethane (Surr)	104		60 - 120

Lab Sample ID: MB 440-342463/4

Matrix: Solid

Analysis Batch: 342463

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0	1.0	ug/Kg			07/14/16 19:21	1
1,1,1-Trichloroethane	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1
1,1,2,2-Tetrachloroethane	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1
1,1,2-Trichloroethane	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1
1,1-Dichloroethane	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1
1,1-Dichloroethene	ND		5.0	1.0	ug/Kg			07/14/16 19:21	1
1,1-Dichloropropene	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1
1,2,3-Trichlorobenzene	ND		5.0	1.0	ug/Kg			07/14/16 19:21	1
1,2,3-Trichloropropane	ND		10	1.0	ug/Kg			07/14/16 19:21	1
1,2,4-Trichlorobenzene	ND		5.0	1.0	ug/Kg			07/14/16 19:21	1
1,2,4-Trimethylbenzene	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.0	ug/Kg			07/14/16 19:21	1
1,2-Dibromoethane (EDB)	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1
1,2-Dichlorobenzene	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1
1,2-Dichloroethane	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1
1,2-Dichloropropane	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1
1,3,5-Trimethylbenzene	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1
1,3-Dichlorobenzene	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1
1,3-Dichloropropane	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1
1,4-Dichlorobenzene	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1
2,2-Dichloropropane	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1
2-Chlorotoluene	ND		5.0	1.0	ug/Kg			07/14/16 19:21	1
4-Chlorotoluene	ND		5.0	1.0	ug/Kg			07/14/16 19:21	1
Benzene	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1
Bromobenzene	ND		5.0	1.0	ug/Kg			07/14/16 19:21	1
Bromochloromethane	ND		5.0	1.0	ug/Kg			07/14/16 19:21	1
Bromodichloromethane	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1
Bromoform	ND		5.0	2.0	ug/Kg			07/14/16 19:21	1
Bromomethane	ND		5.0	1.0	ug/Kg			07/14/16 19:21	1
Carbon tetrachloride	ND		5.0	1.0	ug/Kg			07/14/16 19:21	1
Chlorobenzene	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

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

Lab Sample ID: MB 440-342463/4

Matrix: Solid

Analysis Batch: 342463

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	ND		5.0	2.0	ug/Kg			07/14/16 19:21	1
Chloroform	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1
Chloromethane	ND		5.0	1.0	ug/Kg			07/14/16 19:21	1
cis-1,2-Dichloroethene	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1
cis-1,3-Dichloropropene	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1
Dibromochloromethane	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1
Dibromomethane	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1
Dichlorodifluoromethane	ND		5.0	2.0	ug/Kg			07/14/16 19:21	1
Isopropyl Ether (DIPE)	ND		5.0	1.0	ug/Kg			07/14/16 19:21	1
Ethanol	ND		300	100	ug/Kg			07/14/16 19:21	1
Ethyl-t-butyl ether (ETBE)	ND		5.0	1.0	ug/Kg			07/14/16 19:21	1
Ethylbenzene	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1
Hexachlorobutadiene	ND		5.0	1.0	ug/Kg			07/14/16 19:21	1
Isopropylbenzene	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1
m,p-Xylene	ND		4.0	2.0	ug/Kg			07/14/16 19:21	1
Methylene Chloride	ND		20	5.0	ug/Kg			07/14/16 19:21	1
Methyl-t-Butyl Ether (MTBE)	ND		5.0	1.0	ug/Kg			07/14/16 19:21	1
Naphthalene	ND		5.0	2.0	ug/Kg			07/14/16 19:21	1
n-Butylbenzene	ND		5.0	1.0	ug/Kg			07/14/16 19:21	1
N-Propylbenzene	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1
o-Xylene	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1
sec-Butylbenzene	ND		5.0	1.0	ug/Kg			07/14/16 19:21	1
Styrene	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1
Tert-amyl-methyl ether (TAME)	ND		5.0	1.0	ug/Kg			07/14/16 19:21	1
tert-Butyl alcohol (TBA)	ND		100	10	ug/Kg			07/14/16 19:21	1
tert-Butylbenzene	ND		5.0	1.0	ug/Kg			07/14/16 19:21	1
Tetrachloroethene	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1
Toluene	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1
trans-1,2-Dichloroethene	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1
trans-1,3-Dichloropropene	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1
Trichloroethene	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1
Trichlorofluoromethane	ND		5.0	1.0	ug/Kg			07/14/16 19:21	1
Vinyl chloride	ND		5.0	1.0	ug/Kg			07/14/16 19:21	1
Xylenes, Total	ND		4.0	2.0	ug/Kg			07/14/16 19:21	1
p-Isopropyltoluene	ND		2.0	1.0	ug/Kg			07/14/16 19:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		79 - 123		07/14/16 19:21	1
4-Bromofluorobenzene (Surr)	95		79 - 120		07/14/16 19:21	1
Dibromofluoromethane (Surr)	108		60 - 120		07/14/16 19:21	1

Lab Sample ID: LCS 440-342463/5

Matrix: Solid

Analysis Batch: 342463

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	50.0	52.8		ug/Kg		106	70 - 130
1,1,1-Trichloroethane	50.0	48.7		ug/Kg		97	65 - 135

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

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

Lab Sample ID: LCS 440-342463/5

Matrix: Solid

Analysis Batch: 342463

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2,2-Tetrachloroethane	50.0	55.0		ug/Kg		110	55 - 140
1,1,2-Trichloroethane	50.0	51.2		ug/Kg		102	65 - 135
1,1-Dichloroethane	50.0	48.3		ug/Kg		97	70 - 130
1,1-Dichloroethene	50.0	48.3		ug/Kg		97	70 - 125
1,1-Dichloropropene	50.0	52.6		ug/Kg		105	70 - 130
1,2,3-Trichlorobenzene	50.0	57.8		ug/Kg		116	60 - 130
1,2,3-Trichloropropane	50.0	55.0		ug/Kg		110	60 - 135
1,2,4-Trichlorobenzene	50.0	57.3		ug/Kg		115	70 - 135
1,2,4-Trimethylbenzene	50.0	50.2		ug/Kg		100	70 - 125
1,2-Dibromo-3-Chloropropane	50.0	47.6		ug/Kg		95	50 - 135
1,2-Dibromoethane (EDB)	50.0	56.9		ug/Kg		114	70 - 130
1,2-Dichlorobenzene	50.0	53.6		ug/Kg		107	75 - 120
1,2-Dichloroethane	50.0	55.6		ug/Kg		111	60 - 140
1,2-Dichloropropane	50.0	55.0		ug/Kg		110	70 - 130
1,3,5-Trimethylbenzene	50.0	49.9		ug/Kg		100	70 - 125
1,3-Dichlorobenzene	50.0	52.3		ug/Kg		105	75 - 125
1,3-Dichloropropane	50.0	55.3		ug/Kg		111	70 - 125
1,4-Dichlorobenzene	50.0	51.2		ug/Kg		102	75 - 120
2,2-Dichloropropane	50.0	49.8		ug/Kg		100	60 - 145
2-Chlorotoluene	50.0	56.7		ug/Kg		113	70 - 125
4-Chlorotoluene	50.0	55.9		ug/Kg		112	75 - 125
Benzene	50.0	50.8		ug/Kg		102	65 - 120
Bromobenzene	50.0	57.2		ug/Kg		114	75 - 120
Bromochloromethane	50.0	56.0		ug/Kg		112	70 - 135
Bromodichloromethane	50.0	55.1		ug/Kg		110	70 - 135
Bromoform	50.0	58.9		ug/Kg		118	55 - 135
Bromomethane	50.0	48.3		ug/Kg		97	60 - 145
Carbon tetrachloride	50.0	49.5		ug/Kg		99	65 - 140
Chlorobenzene	50.0	49.6		ug/Kg		99	75 - 120
Chloroethane	50.0	46.4		ug/Kg		93	60 - 140
Chloroform	50.0	51.8		ug/Kg		104	70 - 130
Chloromethane	50.0	42.5		ug/Kg		85	45 - 145
cis-1,2-Dichloroethene	50.0	56.0		ug/Kg		112	70 - 125
cis-1,3-Dichloropropene	50.0	57.3		ug/Kg		115	75 - 125
Dibromochloromethane	50.0	52.6		ug/Kg		105	65 - 140
Dibromomethane	50.0	55.5		ug/Kg		111	70 - 130
Dichlorodifluoromethane	50.0	41.1		ug/Kg		82	35 - 160
Isopropyl Ether (DIPE)	50.0	60.9		ug/Kg		122	60 - 140
Ethanol	2000	2170		ug/Kg		108	35 - 160
Ethyl-t-butyl ether (ETBE)	50.0	60.4		ug/Kg		121	60 - 140
Ethylbenzene	50.0	54.7		ug/Kg		109	70 - 125
Hexachlorobutadiene	50.0	50.0		ug/Kg		100	60 - 135
Isopropylbenzene	50.0	51.7		ug/Kg		103	75 - 130
m,p-Xylene	50.0	49.7		ug/Kg		99	70 - 125
Methylene Chloride	50.0	52.5		ug/Kg		105	55 - 135
Methyl-t-Butyl Ether (MTBE)	50.0	58.5		ug/Kg		117	60 - 140
Naphthalene	50.0	50.9		ug/Kg		102	55 - 135
n-Butylbenzene	50.0	48.9		ug/Kg		98	70 - 130

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

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

Lab Sample ID: LCS 440-342463/5

Matrix: Solid

Analysis Batch: 342463

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
N-Propylbenzene	50.0	49.6		ug/Kg		99	70 - 130
o-Xylene	50.0	51.4		ug/Kg		103	70 - 125
sec-Butylbenzene	50.0	52.2		ug/Kg		104	70 - 125
Styrene	50.0	48.9		ug/Kg		98	75 - 130
Tert-amyl-methyl ether (TAME)	50.0	54.8		ug/Kg		110	60 - 145
tert-Butyl alcohol (TBA)	500	585		ug/Kg		117	70 - 135
tert-Butylbenzene	50.0	50.3		ug/Kg		101	70 - 125
Tetrachloroethene	50.0	50.8		ug/Kg		102	70 - 125
Toluene	50.0	56.5		ug/Kg		113	70 - 125
trans-1,2-Dichloroethene	50.0	50.5		ug/Kg		101	70 - 125
trans-1,3-Dichloropropene	50.0	55.0		ug/Kg		110	70 - 135
Trichloroethene	50.0	52.1		ug/Kg		104	70 - 125
Trichlorofluoromethane	50.0	46.6		ug/Kg		93	60 - 145
Vinyl chloride	50.0	45.0		ug/Kg		90	55 - 135
p-Isopropyltoluene	50.0	55.1		ug/Kg		110	75 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	107		79 - 123
4-Bromofluorobenzene (Surr)	102		79 - 120
Dibromofluoromethane (Surr)	107		60 - 120

Lab Sample ID: 440-152462-2 MS

Matrix: Solid

Analysis Batch: 342463

Client Sample ID: AEC-5-10'

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	ND		50.2	53.9		ug/Kg		107	65 - 145
1,1,1-Trichloroethane	ND		50.2	50.3		ug/Kg		100	65 - 145
1,1,2,2-Tetrachloroethane	ND		50.2	54.1		ug/Kg		108	40 - 160
1,1,2-Trichloroethane	ND		50.2	53.8		ug/Kg		107	65 - 140
1,1-Dichloroethane	ND		50.2	48.2		ug/Kg		96	65 - 135
1,1-Dichloroethene	ND		50.2	49.7		ug/Kg		99	65 - 135
1,1-Dichloropropene	ND		50.2	52.1		ug/Kg		104	65 - 135
1,2,3-Trichlorobenzene	ND		50.2	53.9		ug/Kg		107	45 - 145
1,2,3-Trichloropropane	ND		50.2	55.7		ug/Kg		111	50 - 150
1,2,4-Trichlorobenzene	ND		50.2	56.1		ug/Kg		112	50 - 140
1,2,4-Trimethylbenzene	ND		50.2	47.4		ug/Kg		94	65 - 140
1,2-Dibromo-3-Chloropropane	ND		50.2	50.6		ug/Kg		101	40 - 150
1,2-Dibromoethane (EDB)	ND		50.2	61.1		ug/Kg		122	65 - 140
1,2-Dichlorobenzene	ND		50.2	51.2		ug/Kg		102	70 - 130
1,2-Dichloroethane	ND		50.2	57.4		ug/Kg		114	60 - 150
1,2-Dichloropropane	ND		50.2	53.8		ug/Kg		107	65 - 130
1,3,5-Trimethylbenzene	ND		50.2	47.4		ug/Kg		94	65 - 135
1,3-Dichlorobenzene	ND		50.2	50.0		ug/Kg		100	70 - 130
1,3-Dichloropropane	ND		50.2	58.2		ug/Kg		116	65 - 140
1,4-Dichlorobenzene	ND		50.2	49.3		ug/Kg		98	70 - 130
2,2-Dichloropropane	ND		50.2	54.1		ug/Kg		108	65 - 150
2-Chlorotoluene	ND		50.2	52.8		ug/Kg		105	60 - 135

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

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

Lab Sample ID: 440-152462-2 MS

Matrix: Solid

Analysis Batch: 342463

Client Sample ID: AEC-5-10'

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chlorotoluene	ND		50.2	54.0		ug/Kg		108	65 - 135
Benzene	ND		50.2	50.3		ug/Kg		100	65 - 130
Bromobenzene	ND		50.2	53.0		ug/Kg		106	65 - 140
Bromochloromethane	ND		50.2	56.0		ug/Kg		112	65 - 145
Bromodichloromethane	ND		50.2	54.2		ug/Kg		108	65 - 145
Bromoform	ND		50.2	63.1		ug/Kg		126	50 - 145
Bromomethane	ND		50.2	44.5		ug/Kg		89	60 - 155
Carbon tetrachloride	ND		50.2	51.9		ug/Kg		103	60 - 145
Chlorobenzene	ND		50.2	49.5		ug/Kg		99	70 - 130
Chloroethane	ND		50.2	46.6		ug/Kg		93	60 - 150
Chloroform	ND		50.2	50.8		ug/Kg		101	65 - 135
Chloromethane	ND		50.2	39.0		ug/Kg		78	40 - 145
cis-1,2-Dichloroethene	ND		50.2	54.2		ug/Kg		108	65 - 135
cis-1,3-Dichloropropene	ND		50.2	57.2		ug/Kg		114	70 - 135
Dibromochloromethane	ND		50.2	55.6		ug/Kg		111	60 - 145
Dibromomethane	ND		50.2	58.0		ug/Kg		116	65 - 140
Dichlorodifluoromethane	ND		50.2	40.1		ug/Kg		80	30 - 160
Isopropyl Ether (DIPE)	ND		50.2	61.5		ug/Kg		123	60 - 150
Ethanol	ND		2010	1970		ug/Kg		98	30 - 165
Ethyl-t-butyl ether (ETBE)	ND		50.2	62.7		ug/Kg		125	60 - 145
Ethylbenzene	ND		50.2	55.3		ug/Kg		110	70 - 135
Hexachlorobutadiene	ND		50.2	47.4		ug/Kg		94	50 - 145
Isopropylbenzene	ND		50.2	52.8		ug/Kg		105	70 - 145
m,p-Xylene	ND		50.2	50.7		ug/Kg		101	70 - 130
Methylene Chloride	ND		50.2	52.4		ug/Kg		104	55 - 145
Methyl-t-Butyl Ether (MTBE)	ND		50.2	62.1		ug/Kg		124	55 - 155
Naphthalene	ND		50.2	50.4		ug/Kg		100	40 - 150
n-Butylbenzene	ND		50.2	48.4		ug/Kg		96	55 - 145
N-Propylbenzene	ND		50.2	47.7		ug/Kg		95	65 - 140
o-Xylene	ND		50.2	51.8		ug/Kg		103	65 - 130
sec-Butylbenzene	ND		50.2	49.8		ug/Kg		99	60 - 135
Styrene	ND		50.2	48.9		ug/Kg		97	70 - 140
Tert-amyl-methyl ether (TAME)	ND		50.2	56.8		ug/Kg		113	60 - 150
tert-Butyl alcohol (TBA)	ND		502	533		ug/Kg		106	65 - 145
tert-Butylbenzene	ND		50.2	47.3		ug/Kg		94	60 - 140
Tetrachloroethene	ND		50.2	50.9		ug/Kg		101	65 - 135
Toluene	ND		50.2	55.4		ug/Kg		110	70 - 130
trans-1,2-Dichloroethene	ND		50.2	51.4		ug/Kg		102	70 - 135
trans-1,3-Dichloropropene	ND		50.2	56.4		ug/Kg		112	60 - 145
Trichloroethene	ND		50.2	52.5		ug/Kg		104	65 - 140
Trichlorofluoromethane	ND		50.2	45.9		ug/Kg		91	55 - 155
Vinyl chloride	ND		50.2	43.3		ug/Kg		86	55 - 140
p-Isopropyltoluene	ND		50.2	52.9		ug/Kg		105	60 - 140

Surrogate	MS %Recovery	MS Qualifier	Limits
Toluene-d8 (Surr)	107		79 - 123
4-Bromofluorobenzene (Surr)	98		79 - 120
Dibromofluoromethane (Surr)	106		60 - 120

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Lab Sample ID: 440-152462-2 MSD

Matrix: Solid

Analysis Batch: 342463

Client Sample ID: AEC-5-10'

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND		50.1	53.7		ug/Kg		107	65 - 145	0	20
1,1,1-Trichloroethane	ND		50.1	51.4		ug/Kg		103	65 - 145	2	20
1,1,2,2-Tetrachloroethane	ND		50.1	56.1		ug/Kg		112	40 - 160	4	30
1,1,2-Trichloroethane	ND		50.1	54.9		ug/Kg		110	65 - 140	2	30
1,1-Dichloroethane	ND		50.1	49.4		ug/Kg		99	65 - 135	3	25
1,1-Dichloroethene	ND		50.1	48.9		ug/Kg		98	65 - 135	2	25
1,1-Dichloropropene	ND		50.1	54.0		ug/Kg		108	65 - 135	4	20
1,2,3-Trichlorobenzene	ND		50.1	56.1		ug/Kg		112	45 - 145	4	30
1,2,3-Trichloropropane	ND		50.1	56.7		ug/Kg		113	50 - 150	2	30
1,2,4-Trichlorobenzene	ND		50.1	56.3		ug/Kg		112	50 - 140	0	30
1,2,4-Trimethylbenzene	ND		50.1	47.9		ug/Kg		96	65 - 140	1	25
1,2-Dibromo-3-Chloropropane	ND		50.1	51.7		ug/Kg		103	40 - 150	2	30
1,2-Dibromoethane (EDB)	ND		50.1	61.9		ug/Kg		123	65 - 140	1	25
1,2-Dichlorobenzene	ND		50.1	52.0		ug/Kg		104	70 - 130	2	25
1,2-Dichloroethane	ND		50.1	60.0		ug/Kg		120	60 - 150	5	25
1,2-Dichloropropane	ND		50.1	56.5		ug/Kg		113	65 - 130	5	20
1,3,5-Trimethylbenzene	ND		50.1	48.2		ug/Kg		96	65 - 135	2	25
1,3-Dichlorobenzene	ND		50.1	50.7		ug/Kg		101	70 - 130	1	25
1,3-Dichloropropane	ND		50.1	58.8		ug/Kg		117	65 - 140	1	25
1,4-Dichlorobenzene	ND		50.1	50.3		ug/Kg		100	70 - 130	2	25
2,2-Dichloropropane	ND		50.1	54.3		ug/Kg		108	65 - 150	0	25
2-Chlorotoluene	ND		50.1	53.7		ug/Kg		107	60 - 135	2	25
4-Chlorotoluene	ND		50.1	54.7		ug/Kg		109	65 - 135	1	25
Benzene	ND		50.1	51.1		ug/Kg		102	65 - 130	2	20
Bromobenzene	ND		50.1	55.3		ug/Kg		110	65 - 140	4	25
Bromochloromethane	ND		50.1	58.2		ug/Kg		116	65 - 145	4	25
Bromodichloromethane	ND		50.1	57.5		ug/Kg		115	65 - 145	6	20
Bromoform	ND		50.1	63.7		ug/Kg		127	50 - 145	1	30
Bromomethane	ND		50.1	46.6		ug/Kg		93	60 - 155	4	25
Carbon tetrachloride	ND		50.1	53.3		ug/Kg		106	60 - 145	3	25
Chlorobenzene	ND		50.1	49.8		ug/Kg		99	70 - 130	0	25
Chloroethane	ND		50.1	46.4		ug/Kg		93	60 - 150	0	25
Chloroform	ND		50.1	52.8		ug/Kg		105	65 - 135	4	20
Chloromethane	ND		50.1	39.0		ug/Kg		78	40 - 145	0	25
cis-1,2-Dichloroethene	ND		50.1	57.0		ug/Kg		114	65 - 135	5	25
cis-1,3-Dichloropropene	ND		50.1	58.2		ug/Kg		116	70 - 135	2	25
Dibromochloromethane	ND		50.1	56.5		ug/Kg		113	60 - 145	2	25
Dibromomethane	ND		50.1	61.0		ug/Kg		122	65 - 140	5	25
Dichlorodifluoromethane	ND		50.1	40.2		ug/Kg		80	30 - 160	0	35
Isopropyl Ether (DIPE)	ND		50.1	63.4		ug/Kg		126	60 - 150	3	25
Ethanol	ND		2000	2010		ug/Kg		100	30 - 165	2	40
Ethyl-t-butyl ether (ETBE)	ND		50.1	65.8		ug/Kg		131	60 - 145	5	30
Ethylbenzene	ND		50.1	55.4		ug/Kg		111	70 - 135	0	25
Hexachlorobutadiene	ND		50.1	45.4		ug/Kg		91	50 - 145	4	35
Isopropylbenzene	ND		50.1	52.0		ug/Kg		104	70 - 145	2	25
m,p-Xylene	ND		50.1	49.7		ug/Kg		99	70 - 130	2	25
Methylene Chloride	ND		50.1	54.1		ug/Kg		108	55 - 145	3	25
Methyl-t-Butyl Ether (MTBE)	ND		50.1	65.7		ug/Kg		131	55 - 155	6	35
Naphthalene	ND		50.1	53.0		ug/Kg		106	40 - 150	5	40
n-Butylbenzene	ND		50.1	47.9		ug/Kg		96	55 - 145	1	30

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

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

Lab Sample ID: 440-152462-2 MSD

Matrix: Solid

Analysis Batch: 342463

Client Sample ID: AEC-5-10'

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
N-Propylbenzene	ND		50.1	48.4		ug/Kg		97	65 - 140	1	25
o-Xylene	ND		50.1	51.7		ug/Kg		103	65 - 130	0	25
sec-Butylbenzene	ND		50.1	49.3		ug/Kg		98	60 - 135	1	25
Styrene	ND		50.1	49.8		ug/Kg		99	70 - 140	2	25
Tert-amyl-methyl ether (TAME)	ND		50.1	59.8		ug/Kg		119	60 - 150	5	25
tert-Butyl alcohol (TBA)	ND		50.1	54.1		ug/Kg		108	65 - 145	1	30
tert-Butylbenzene	ND		50.1	46.9		ug/Kg		94	60 - 140	1	25
Tetrachloroethene	ND		50.1	50.1		ug/Kg		100	65 - 135	2	25
Toluene	ND		50.1	55.3		ug/Kg		110	70 - 130	0	20
trans-1,2-Dichloroethene	ND		50.1	53.7		ug/Kg		107	70 - 135	4	25
trans-1,3-Dichloropropene	ND		50.1	57.0		ug/Kg		114	60 - 145	1	25
Trichloroethene	ND		50.1	53.5		ug/Kg		107	65 - 140	2	25
Trichlorofluoromethane	ND		50.1	47.1		ug/Kg		94	55 - 155	2	25
Vinyl chloride	ND		50.1	43.2		ug/Kg		86	55 - 140	0	30
p-Isopropyltoluene	ND		50.1	53.5		ug/Kg		107	60 - 140	1	25

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Toluene-d8 (Surr)	105		79 - 123
4-Bromofluorobenzene (Surr)	100		79 - 120
Dibromofluoromethane (Surr)	109		60 - 120

Lab Sample ID: MB 440-342769/4

Matrix: Solid

Analysis Batch: 342769

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0	1.0	ug/Kg			07/15/16 18:55	1
1,1,1-Trichloroethane	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1
1,1,2,2-Tetrachloroethane	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1
1,1,2-Trichloroethane	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1
1,1-Dichloroethane	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1
1,1-Dichloroethene	ND		5.0	1.0	ug/Kg			07/15/16 18:55	1
1,1-Dichloropropene	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1
1,2,3-Trichlorobenzene	ND		5.0	1.0	ug/Kg			07/15/16 18:55	1
1,2,3-Trichloropropane	ND		10	1.0	ug/Kg			07/15/16 18:55	1
1,2,4-Trichlorobenzene	ND		5.0	1.0	ug/Kg			07/15/16 18:55	1
1,2,4-Trimethylbenzene	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.0	ug/Kg			07/15/16 18:55	1
1,2-Dibromoethane (EDB)	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1
1,2-Dichlorobenzene	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1
1,2-Dichloroethane	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1
1,2-Dichloropropane	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1
1,3,5-Trimethylbenzene	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1
1,3-Dichlorobenzene	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1
1,3-Dichloropropane	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1
1,4-Dichlorobenzene	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1
2,2-Dichloropropane	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1
2-Chlorotoluene	ND		5.0	1.0	ug/Kg			07/15/16 18:55	1

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

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

Lab Sample ID: MB 440-342769/4

Matrix: Solid

Analysis Batch: 342769

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	ND		5.0	1.0	ug/Kg			07/15/16 18:55	1
Benzene	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1
Bromobenzene	ND		5.0	1.0	ug/Kg			07/15/16 18:55	1
Bromochloromethane	ND		5.0	1.0	ug/Kg			07/15/16 18:55	1
Bromodichloromethane	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1
Bromoform	ND		5.0	2.0	ug/Kg			07/15/16 18:55	1
Bromomethane	ND		5.0	1.0	ug/Kg			07/15/16 18:55	1
Carbon tetrachloride	ND		5.0	1.0	ug/Kg			07/15/16 18:55	1
Chlorobenzene	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1
Chloroethane	ND		5.0	2.0	ug/Kg			07/15/16 18:55	1
Chloroform	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1
Chloromethane	ND		5.0	1.0	ug/Kg			07/15/16 18:55	1
cis-1,2-Dichloroethene	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1
cis-1,3-Dichloropropene	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1
Dibromochloromethane	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1
Dibromomethane	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1
Dichlorodifluoromethane	ND		5.0	2.0	ug/Kg			07/15/16 18:55	1
Isopropyl Ether (DIPE)	ND		5.0	1.0	ug/Kg			07/15/16 18:55	1
Ethanol	ND		300	100	ug/Kg			07/15/16 18:55	1
Ethyl-t-butyl ether (ETBE)	ND		5.0	1.0	ug/Kg			07/15/16 18:55	1
Ethylbenzene	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1
Hexachlorobutadiene	ND		5.0	1.0	ug/Kg			07/15/16 18:55	1
Isopropylbenzene	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1
m,p-Xylene	ND		4.0	2.0	ug/Kg			07/15/16 18:55	1
Methylene Chloride	ND		20	5.0	ug/Kg			07/15/16 18:55	1
Methyl-t-Butyl Ether (MTBE)	ND		5.0	1.0	ug/Kg			07/15/16 18:55	1
Naphthalene	ND		5.0	2.0	ug/Kg			07/15/16 18:55	1
n-Butylbenzene	ND		5.0	1.0	ug/Kg			07/15/16 18:55	1
N-Propylbenzene	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1
o-Xylene	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1
sec-Butylbenzene	ND		5.0	1.0	ug/Kg			07/15/16 18:55	1
Styrene	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1
Tert-amyl-methyl ether (TAME)	ND		5.0	1.0	ug/Kg			07/15/16 18:55	1
tert-Butyl alcohol (TBA)	ND		100	10	ug/Kg			07/15/16 18:55	1
tert-Butylbenzene	ND		5.0	1.0	ug/Kg			07/15/16 18:55	1
Tetrachloroethene	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1
Toluene	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1
trans-1,2-Dichloroethene	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1
trans-1,3-Dichloropropene	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1
Trichloroethene	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1
Trichlorofluoromethane	ND		5.0	1.0	ug/Kg			07/15/16 18:55	1
Vinyl chloride	ND		5.0	1.0	ug/Kg			07/15/16 18:55	1
Xylenes, Total	ND		4.0	2.0	ug/Kg			07/15/16 18:55	1
p-Isopropyltoluene	ND		2.0	1.0	ug/Kg			07/15/16 18:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	110		79 - 123		07/15/16 18:55	1
4-Bromofluorobenzene (Surr)	105		79 - 120		07/15/16 18:55	1

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

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

Lab Sample ID: MB 440-342769/4

Matrix: Solid

Analysis Batch: 342769

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	112		60 - 120		07/15/16 18:55	1

Lab Sample ID: LCS 440-342769/5

Matrix: Solid

Analysis Batch: 342769

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	50.0	51.3		ug/Kg		103	70 - 130
1,1,1-Trichloroethane	50.0	46.6		ug/Kg		93	65 - 135
1,1,2,2-Tetrachloroethane	50.0	45.4		ug/Kg		91	55 - 140
1,1,2-Trichloroethane	50.0	47.4		ug/Kg		95	65 - 135
1,1-Dichloroethane	50.0	47.7		ug/Kg		95	70 - 130
1,1-Dichloroethene	50.0	47.1		ug/Kg		94	70 - 125
1,1-Dichloropropene	50.0	45.2		ug/Kg		90	70 - 130
1,2,3-Trichlorobenzene	50.0	48.2		ug/Kg		96	60 - 130
1,2,3-Trichloropropane	50.0	42.0		ug/Kg		84	60 - 135
1,2,4-Trichlorobenzene	50.0	49.6		ug/Kg		99	70 - 135
1,2,4-Trimethylbenzene	50.0	45.7		ug/Kg		91	70 - 125
1,2-Dibromo-3-Chloropropane	50.0	37.6		ug/Kg		75	50 - 135
1,2-Dibromoethane (EDB)	50.0	50.6		ug/Kg		101	70 - 130
1,2-Dichlorobenzene	50.0	49.6		ug/Kg		99	75 - 120
1,2-Dichloroethane	50.0	49.1		ug/Kg		98	60 - 140
1,2-Dichloropropane	50.0	52.9		ug/Kg		106	70 - 130
1,3,5-Trimethylbenzene	50.0	44.9		ug/Kg		90	70 - 125
1,3-Dichlorobenzene	50.0	47.6		ug/Kg		95	75 - 125
1,3-Dichloropropane	50.0	44.7		ug/Kg		89	70 - 125
1,4-Dichlorobenzene	50.0	48.2		ug/Kg		96	75 - 120
2,2-Dichloropropane	50.0	42.6		ug/Kg		85	60 - 145
2-Chlorotoluene	50.0	45.5		ug/Kg		91	70 - 125
4-Chlorotoluene	50.0	48.0		ug/Kg		96	75 - 125
Benzene	50.0	49.2		ug/Kg		98	65 - 120
Bromobenzene	50.0	51.1		ug/Kg		102	75 - 120
Bromochloromethane	50.0	49.2		ug/Kg		98	70 - 135
Bromodichloromethane	50.0	52.0		ug/Kg		104	70 - 135
Bromoform	50.0	51.1		ug/Kg		102	55 - 135
Bromomethane	50.0	42.0		ug/Kg		84	60 - 145
Carbon tetrachloride	50.0	46.4		ug/Kg		93	65 - 140
Chlorobenzene	50.0	48.7		ug/Kg		97	75 - 120
Chloroethane	50.0	42.7		ug/Kg		85	60 - 140
Chloroform	50.0	50.5		ug/Kg		101	70 - 130
Chloromethane	50.0	42.8		ug/Kg		86	45 - 145
cis-1,2-Dichloroethene	50.0	47.3		ug/Kg		95	70 - 125
cis-1,3-Dichloropropene	50.0	53.4		ug/Kg		107	75 - 125
Dibromochloromethane	50.0	50.9		ug/Kg		102	65 - 140
Dibromomethane	50.0	47.2		ug/Kg		94	70 - 130
Dichlorodifluoromethane	50.0	33.9		ug/Kg		68	35 - 160
Isopropyl Ether (DIPE)	50.0	55.7		ug/Kg		111	60 - 140
Ethanol	2000	1910		ug/Kg		96	35 - 160

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

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

Lab Sample ID: LCS 440-342769/5

Matrix: Solid

Analysis Batch: 342769

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethyl-t-butyl ether (ETBE)	50.0	54.7		ug/Kg		109	60 - 140
Ethylbenzene	50.0	46.1		ug/Kg		92	70 - 125
Hexachlorobutadiene	50.0	34.9		ug/Kg		70	60 - 135
Isopropylbenzene	50.0	45.6		ug/Kg		91	75 - 130
m,p-Xylene	50.0	49.5		ug/Kg		99	70 - 125
Methylene Chloride	50.0	50.4		ug/Kg		101	55 - 135
Methyl-t-Butyl Ether (MTBE)	50.0	52.0		ug/Kg		104	60 - 140
Naphthalene	50.0	46.2		ug/Kg		92	55 - 135
n-Butylbenzene	50.0	39.6		ug/Kg		79	70 - 130
N-Propylbenzene	50.0	42.7		ug/Kg		85	70 - 130
o-Xylene	50.0	49.5		ug/Kg		99	70 - 125
sec-Butylbenzene	50.0	40.2		ug/Kg		80	70 - 125
Styrene	50.0	52.6		ug/Kg		105	75 - 130
Tert-amyl-methyl ether (TAME)	50.0	55.2		ug/Kg		110	60 - 145
tert-Butyl alcohol (TBA)	500	513		ug/Kg		103	70 - 135
tert-Butylbenzene	50.0	42.6		ug/Kg		85	70 - 125
Tetrachloroethene	50.0	47.5		ug/Kg		95	70 - 125
Toluene	50.0	47.4		ug/Kg		95	70 - 125
trans-1,2-Dichloroethene	50.0	48.6		ug/Kg		97	70 - 125
trans-1,3-Dichloropropene	50.0	52.5		ug/Kg		105	70 - 135
Trichloroethene	50.0	42.9		ug/Kg		86	70 - 125
Trichlorofluoromethane	50.0	41.4		ug/Kg		83	60 - 145
Vinyl chloride	50.0	41.6		ug/Kg		83	55 - 135
p-Isopropyltoluene	50.0	41.1		ug/Kg		82	75 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	108		79 - 123
4-Bromofluorobenzene (Surr)	105		79 - 120
Dibromofluoromethane (Surr)	111		60 - 120

Lab Sample ID: 440-152557-B-2-B MS

Matrix: Solid

Analysis Batch: 342769

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 342782

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	ND		41.2	40.7		ug/Kg		99	65 - 145
1,1,1-Trichloroethane	ND		41.2	38.8		ug/Kg		94	65 - 145
1,1,2,2-Tetrachloroethane	ND		41.2	39.1		ug/Kg		95	40 - 160
1,1,2-Trichloroethane	ND		41.2	39.4		ug/Kg		96	65 - 140
1,1-Dichloroethane	ND		41.2	39.3		ug/Kg		95	65 - 135
1,1-Dichloroethene	ND		41.2	38.2		ug/Kg		93	65 - 135
1,1-Dichloropropene	ND		41.2	37.6		ug/Kg		91	65 - 135
1,2,3-Trichlorobenzene	ND		41.2	40.8		ug/Kg		99	45 - 145
1,2,3-Trichloropropane	ND		41.2	38.5		ug/Kg		93	50 - 150
1,2,4-Trichlorobenzene	ND		41.2	42.6		ug/Kg		103	50 - 140
1,2,4-Trimethylbenzene	ND		41.2	37.2		ug/Kg		90	65 - 140
1,2-Dibromo-3-Chloropropane	ND		41.2	33.8		ug/Kg		82	40 - 150
1,2-Dibromoethane (EDB)	ND		41.2	43.0		ug/Kg		105	65 - 140

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

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

Lab Sample ID: 440-152557-B-2-B MS

Matrix: Solid

Analysis Batch: 342769

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 342782

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichlorobenzene	ND		41.2	40.2		ug/Kg		98	70 - 130
1,2-Dichloroethane	ND		41.2	41.7		ug/Kg		101	60 - 150
1,2-Dichloropropane	ND		41.2	43.1		ug/Kg		105	65 - 130
1,3,5-Trimethylbenzene	ND		41.2	37.1		ug/Kg		90	65 - 135
1,3-Dichlorobenzene	ND		41.2	39.2		ug/Kg		95	70 - 130
1,3-Dichloropropane	ND		41.2	37.3		ug/Kg		90	65 - 140
1,4-Dichlorobenzene	ND		41.2	39.2		ug/Kg		95	70 - 130
2,2-Dichloropropane	ND		41.2	35.5		ug/Kg		86	65 - 150
2-Chlorotoluene	ND		41.2	36.5		ug/Kg		89	60 - 135
4-Chlorotoluene	ND		41.2	38.9		ug/Kg		94	65 - 135
Benzene	ND		41.2	40.5		ug/Kg		98	65 - 130
Bromobenzene	ND		41.2	40.4		ug/Kg		98	65 - 140
Bromochloromethane	ND		41.2	42.2		ug/Kg		102	65 - 145
Bromodichloromethane	ND		41.2	43.7		ug/Kg		106	65 - 145
Bromoform	ND		41.2	44.9		ug/Kg		109	50 - 145
Bromomethane	ND		41.2	34.4		ug/Kg		83	60 - 155
Carbon tetrachloride	ND		41.2	38.3		ug/Kg		93	60 - 145
Chlorobenzene	ND		41.2	39.2		ug/Kg		95	70 - 130
Chloroethane	ND		41.2	35.3		ug/Kg		86	60 - 150
Chloroform	ND		41.2	41.6		ug/Kg		101	65 - 135
Chloromethane	ND		41.2	35.4		ug/Kg		86	40 - 145
cis-1,2-Dichloroethene	ND		41.2	39.2		ug/Kg		95	65 - 135
cis-1,3-Dichloropropene	ND		41.2	43.9		ug/Kg		107	70 - 135
Dibromochloromethane	ND		41.2	42.0		ug/Kg		102	60 - 145
Dibromomethane	ND		41.2	40.9		ug/Kg		99	65 - 140
Dichlorodifluoromethane	ND		41.2	29.4		ug/Kg		71	30 - 160
Isopropyl Ether (DIPE)	ND		41.2	46.5		ug/Kg		113	60 - 150
Ethanol	ND		1650	1370		ug/Kg		83	30 - 165
Ethyl-t-butyl ether (ETBE)	ND		41.2	46.4		ug/Kg		113	60 - 145
Ethylbenzene	ND		41.2	37.4		ug/Kg		91	70 - 135
Hexachlorobutadiene	ND		41.2	35.4		ug/Kg		86	50 - 145
Isopropylbenzene	ND		41.2	37.3		ug/Kg		91	70 - 145
m,p-Xylene	ND		41.2	40.5		ug/Kg		98	70 - 130
Methylene Chloride	ND		41.2	41.7		ug/Kg		101	55 - 145
Methyl-t-Butyl Ether (MTBE)	ND		41.2	45.0		ug/Kg		109	55 - 155
Naphthalene	ND		41.2	40.3		ug/Kg		98	40 - 150
n-Butylbenzene	ND		41.2	35.4		ug/Kg		86	55 - 145
N-Propylbenzene	ND		41.2	35.1		ug/Kg		85	65 - 140
o-Xylene	ND		41.2	40.5		ug/Kg		98	65 - 130
sec-Butylbenzene	ND		41.2	34.7		ug/Kg		84	60 - 135
Styrene	ND		41.2	42.7		ug/Kg		104	70 - 140
Tert-amyl-methyl ether (TAME)	ND		41.2	47.0		ug/Kg		114	60 - 150
tert-Butyl alcohol (TBA)	ND		412	405		ug/Kg		98	65 - 145
tert-Butylbenzene	ND		41.2	35.9		ug/Kg		87	60 - 140
Tetrachloroethene	ND		41.2	38.4		ug/Kg		93	65 - 135
Toluene	ND		41.2	38.0		ug/Kg		92	70 - 130
trans-1,2-Dichloroethene	ND		41.2	39.4		ug/Kg		96	70 - 135
trans-1,3-Dichloropropene	ND		41.2	44.0		ug/Kg		107	60 - 145

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

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

Lab Sample ID: 440-152557-B-2-B MS

Matrix: Solid

Analysis Batch: 342769

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 342782

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Trichloroethene	ND		41.2	36.2		ug/Kg		88	65 - 140
Trichlorofluoromethane	ND		41.2	35.0		ug/Kg		85	55 - 155
Vinyl chloride	ND		41.2	33.3		ug/Kg		81	55 - 140
p-Isopropyltoluene	ND		41.2	35.8		ug/Kg		87	60 - 140

Surrogate	MS %Recovery	MS Qualifier	Limits
Toluene-d8 (Surr)	105		79 - 123
4-Bromofluorobenzene (Surr)	103		79 - 120
Dibromofluoromethane (Surr)	113		60 - 120

Lab Sample ID: 440-152557-D-2-A MSD

Matrix: Solid

Analysis Batch: 342769

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 342782

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
1,1,1,2-Tetrachloroethane	ND		45.0	47.6		ug/Kg		106	65 - 145	16	20
1,1,1-Trichloroethane	ND		45.0	42.9		ug/Kg		95	65 - 145	10	20
1,1,2,2-Tetrachloroethane	ND		45.0	43.8		ug/Kg		97	40 - 160	11	30
1,1,2-Trichloroethane	ND		45.0	45.0		ug/Kg		100	65 - 140	13	30
1,1-Dichloroethane	ND		45.0	43.6		ug/Kg		97	65 - 135	10	25
1,1-Dichloroethene	ND		45.0	43.3		ug/Kg		96	65 - 135	13	25
1,1-Dichloropropene	ND		45.0	42.0		ug/Kg		94	65 - 135	11	20
1,2,3-Trichlorobenzene	ND		45.0	47.2		ug/Kg		105	45 - 145	14	30
1,2,3-Trichloropropane	ND		45.0	42.4		ug/Kg		94	50 - 150	10	30
1,2,4-Trichlorobenzene	ND		45.0	48.2		ug/Kg		107	50 - 140	12	30
1,2,4-Trimethylbenzene	ND		45.0	42.1		ug/Kg		94	65 - 140	12	25
1,2-Dibromo-3-Chloropropane	ND		45.0	37.6		ug/Kg		84	40 - 150	11	30
1,2-Dibromoethane (EDB)	ND		45.0	49.8		ug/Kg		111	65 - 140	15	25
1,2-Dichlorobenzene	ND		45.0	46.0		ug/Kg		102	70 - 130	13	25
1,2-Dichloroethane	ND		45.0	47.0		ug/Kg		104	60 - 150	12	25
1,2-Dichloropropane	ND		45.0	48.4		ug/Kg		108	65 - 130	12	20
1,3,5-Trimethylbenzene	ND		45.0	41.2		ug/Kg		92	65 - 135	10	25
1,3-Dichlorobenzene	ND		45.0	44.3		ug/Kg		99	70 - 130	12	25
1,3-Dichloropropane	ND		45.0	43.1		ug/Kg		96	65 - 140	14	25
1,4-Dichlorobenzene	ND		45.0	44.6		ug/Kg		99	70 - 130	13	25
2,2-Dichloropropane	ND		45.0	40.2		ug/Kg		89	65 - 150	13	25
2-Chlorotoluene	ND		45.0	41.3		ug/Kg		92	60 - 135	12	25
4-Chlorotoluene	ND		45.0	43.7		ug/Kg		97	65 - 135	12	25
Benzene	ND		45.0	44.8		ug/Kg		100	65 - 130	10	20
Bromobenzene	ND		45.0	46.9		ug/Kg		104	65 - 140	15	25
Bromochloromethane	ND		45.0	47.4		ug/Kg		105	65 - 145	12	25
Bromodichloromethane	ND		45.0	48.2		ug/Kg		107	65 - 145	10	20
Bromoform	ND		45.0	51.0		ug/Kg		113	50 - 145	13	30
Bromomethane	ND		45.0	37.2		ug/Kg		83	60 - 155	8	25
Carbon tetrachloride	ND		45.0	42.3		ug/Kg		94	60 - 145	10	25
Chlorobenzene	ND		45.0	44.7		ug/Kg		99	70 - 130	13	25
Chloroethane	ND		45.0	38.0		ug/Kg		84	60 - 150	7	25
Chloroform	ND		45.0	46.5		ug/Kg		103	65 - 135	11	20

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

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

Lab Sample ID: 440-152557-D-2-A MSD

Matrix: Solid

Analysis Batch: 342769

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 342782

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloromethane	ND		45.0	37.4		ug/Kg		83	40 - 145	6	25
cis-1,2-Dichloroethene	ND		45.0	44.5		ug/Kg		99	65 - 135	13	25
cis-1,3-Dichloropropene	ND		45.0	50.8		ug/Kg		113	70 - 135	15	25
Dibromochloromethane	ND		45.0	48.2		ug/Kg		107	60 - 145	14	25
Dibromomethane	ND		45.0	46.2		ug/Kg		103	65 - 140	12	25
Dichlorodifluoromethane	ND		45.0	32.2		ug/Kg		72	30 - 160	9	35
Isopropyl Ether (DIPE)	ND		45.0	52.0		ug/Kg		116	60 - 150	11	25
Ethanol	ND		1800	1680		ug/Kg		94	30 - 165	21	40
Ethyl-t-butyl ether (ETBE)	ND		45.0	52.2		ug/Kg		116	60 - 145	12	30
Ethylbenzene	ND		45.0	42.1		ug/Kg		94	70 - 135	12	25
Hexachlorobutadiene	ND		45.0	40.8		ug/Kg		91	50 - 145	14	35
Isopropylbenzene	ND		45.0	42.2		ug/Kg		94	70 - 145	12	25
m,p-Xylene	ND		45.0	45.1		ug/Kg		100	70 - 130	11	25
Methylene Chloride	ND		45.0	47.1		ug/Kg		105	55 - 145	12	25
Methyl-t-Butyl Ether (MTBE)	ND		45.0	50.6		ug/Kg		113	55 - 155	12	35
Naphthalene	ND		45.0	46.0		ug/Kg		102	40 - 150	13	40
n-Butylbenzene	ND		45.0	39.5		ug/Kg		88	55 - 145	11	30
N-Propylbenzene	ND		45.0	39.6		ug/Kg		88	65 - 140	12	25
o-Xylene	ND		45.0	45.8		ug/Kg		102	65 - 130	12	25
sec-Butylbenzene	ND		45.0	38.7		ug/Kg		86	60 - 135	11	25
Styrene	ND		45.0	48.5		ug/Kg		108	70 - 140	13	25
Tert-amyl-methyl ether (TAME)	ND		45.0	53.2		ug/Kg		118	60 - 150	12	25
tert-Butyl alcohol (TBA)	ND		450	428		ug/Kg		95	65 - 145	6	30
tert-Butylbenzene	ND		45.0	40.5		ug/Kg		90	60 - 140	12	25
Tetrachloroethene	ND		45.0	43.8		ug/Kg		97	65 - 135	13	25
Toluene	ND		45.0	43.2		ug/Kg		96	70 - 130	13	20
trans-1,2-Dichloroethene	ND		45.0	44.8		ug/Kg		100	70 - 135	13	25
trans-1,3-Dichloropropene	ND		45.0	50.4		ug/Kg		112	60 - 145	14	25
Trichloroethene	ND		45.0	40.2		ug/Kg		89	65 - 140	11	25
Trichlorofluoromethane	ND		45.0	38.8		ug/Kg		86	55 - 155	10	25
Vinyl chloride	ND		45.0	36.9		ug/Kg		82	55 - 140	10	30
p-Isopropyltoluene	ND		45.0	39.6		ug/Kg		88	60 - 140	10	25

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Toluene-d8 (Surr)	107		79 - 123
4-Bromofluorobenzene (Surr)	106		79 - 120
Dibromofluoromethane (Surr)	114		60 - 120

Lab Sample ID: MB 440-342846/4

Matrix: Solid

Analysis Batch: 342846

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0	1.0	ug/Kg			07/16/16 09:55	1
1,1,1-Trichloroethane	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1
1,1,2,2-Tetrachloroethane	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1
1,1,2-Trichloroethane	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1
1,1-Dichloroethane	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

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

Lab Sample ID: MB 440-342846/4

Matrix: Solid

Analysis Batch: 342846

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		5.0	1.0	ug/Kg			07/16/16 09:55	1
1,1-Dichloropropene	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1
1,2,3-Trichlorobenzene	ND		5.0	1.0	ug/Kg			07/16/16 09:55	1
1,2,3-Trichloropropane	ND		10	1.0	ug/Kg			07/16/16 09:55	1
1,2,4-Trichlorobenzene	ND		5.0	1.0	ug/Kg			07/16/16 09:55	1
1,2,4-Trimethylbenzene	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.0	ug/Kg			07/16/16 09:55	1
1,2-Dibromoethane (EDB)	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1
1,2-Dichlorobenzene	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1
1,2-Dichloroethane	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1
1,2-Dichloropropane	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1
1,3,5-Trimethylbenzene	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1
1,3-Dichlorobenzene	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1
1,3-Dichloropropane	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1
1,4-Dichlorobenzene	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1
2,2-Dichloropropane	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1
2-Chlorotoluene	ND		5.0	1.0	ug/Kg			07/16/16 09:55	1
4-Chlorotoluene	ND		5.0	1.0	ug/Kg			07/16/16 09:55	1
Benzene	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1
Bromobenzene	ND		5.0	1.0	ug/Kg			07/16/16 09:55	1
Bromochloromethane	ND		5.0	1.0	ug/Kg			07/16/16 09:55	1
Bromodichloromethane	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1
Bromoform	ND		5.0	2.0	ug/Kg			07/16/16 09:55	1
Bromomethane	ND		5.0	1.0	ug/Kg			07/16/16 09:55	1
Carbon tetrachloride	ND		5.0	1.0	ug/Kg			07/16/16 09:55	1
Chlorobenzene	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1
Chloroethane	ND		5.0	2.0	ug/Kg			07/16/16 09:55	1
Chloroform	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1
Chloromethane	ND		5.0	1.0	ug/Kg			07/16/16 09:55	1
cis-1,2-Dichloroethene	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1
cis-1,3-Dichloropropene	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1
Dibromochloromethane	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1
Dibromomethane	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1
Dichlorodifluoromethane	ND		5.0	2.0	ug/Kg			07/16/16 09:55	1
Isopropyl Ether (DIPE)	ND		5.0	1.0	ug/Kg			07/16/16 09:55	1
Ethanol	ND		300	100	ug/Kg			07/16/16 09:55	1
Ethyl-t-butyl ether (ETBE)	ND		5.0	1.0	ug/Kg			07/16/16 09:55	1
Ethylbenzene	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1
Hexachlorobutadiene	ND		5.0	1.0	ug/Kg			07/16/16 09:55	1
Isopropylbenzene	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1
m,p-Xylene	ND		4.0	2.0	ug/Kg			07/16/16 09:55	1
Methylene Chloride	ND		20	5.0	ug/Kg			07/16/16 09:55	1
Methyl-t-Butyl Ether (MTBE)	ND		5.0	1.0	ug/Kg			07/16/16 09:55	1
Naphthalene	ND		5.0	2.0	ug/Kg			07/16/16 09:55	1
n-Butylbenzene	ND		5.0	1.0	ug/Kg			07/16/16 09:55	1
N-Propylbenzene	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1
o-Xylene	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1
sec-Butylbenzene	ND		5.0	1.0	ug/Kg			07/16/16 09:55	1

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

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

Lab Sample ID: MB 440-342846/4

Matrix: Solid

Analysis Batch: 342846

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1
Tert-amyl-methyl ether (TAME)	ND		5.0	1.0	ug/Kg			07/16/16 09:55	1
tert-Butyl alcohol (TBA)	ND		100	10	ug/Kg			07/16/16 09:55	1
tert-Butylbenzene	ND		5.0	1.0	ug/Kg			07/16/16 09:55	1
Tetrachloroethene	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1
Toluene	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1
trans-1,2-Dichloroethene	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1
trans-1,3-Dichloropropene	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1
Trichloroethene	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1
Trichlorofluoromethane	ND		5.0	1.0	ug/Kg			07/16/16 09:55	1
Vinyl chloride	ND		5.0	1.0	ug/Kg			07/16/16 09:55	1
Xylenes, Total	ND		4.0	2.0	ug/Kg			07/16/16 09:55	1
p-Isopropyltoluene	ND		2.0	1.0	ug/Kg			07/16/16 09:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	108		79 - 123		07/16/16 09:55	1
4-Bromofluorobenzene (Surr)	102		79 - 120		07/16/16 09:55	1
Dibromofluoromethane (Surr)	104		60 - 120		07/16/16 09:55	1

Lab Sample ID: LCS 440-342846/5

Matrix: Solid

Analysis Batch: 342846

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	50.0	46.0		ug/Kg		92	70 - 130
1,1,1-Trichloroethane	50.0	41.6		ug/Kg		83	65 - 135
1,1,2,2-Tetrachloroethane	50.0	45.2		ug/Kg		90	55 - 140
1,1,2-Trichloroethane	50.0	43.8		ug/Kg		88	65 - 135
1,1-Dichloroethane	50.0	41.8		ug/Kg		84	70 - 130
1,1-Dichloroethene	50.0	45.3		ug/Kg		91	70 - 125
1,1-Dichloropropene	50.0	45.2		ug/Kg		90	70 - 130
1,2,3-Trichlorobenzene	50.0	51.3		ug/Kg		103	60 - 130
1,2,3-Trichloropropane	50.0	44.4		ug/Kg		89	60 - 135
1,2,4-Trichlorobenzene	50.0	52.4		ug/Kg		105	70 - 135
1,2,4-Trimethylbenzene	50.0	45.4		ug/Kg		91	70 - 125
1,2-Dibromo-3-Chloropropane	50.0	44.5		ug/Kg		89	50 - 135
1,2-Dibromoethane (EDB)	50.0	44.2		ug/Kg		88	70 - 130
1,2-Dichlorobenzene	50.0	46.7		ug/Kg		93	75 - 120
1,2-Dichloroethane	50.0	42.2		ug/Kg		84	60 - 140
1,2-Dichloropropane	50.0	47.6		ug/Kg		95	70 - 130
1,3,5-Trimethylbenzene	50.0	44.9		ug/Kg		90	70 - 125
1,3-Dichlorobenzene	50.0	45.4		ug/Kg		91	75 - 125
1,3-Dichloropropane	50.0	45.0		ug/Kg		90	70 - 125
1,4-Dichlorobenzene	50.0	46.9		ug/Kg		94	75 - 120
2,2-Dichloropropane	50.0	50.4		ug/Kg		101	60 - 145
2-Chlorotoluene	50.0	41.4		ug/Kg		83	70 - 125
4-Chlorotoluene	50.0	43.4		ug/Kg		87	75 - 125
Benzene	50.0	44.5		ug/Kg		89	65 - 120

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

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

Lab Sample ID: LCS 440-342846/5

Matrix: Solid

Analysis Batch: 342846

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromobenzene	50.0	46.7		ug/Kg		93	75 - 120
Bromochloromethane	50.0	48.7		ug/Kg		97	70 - 135
Bromodichloromethane	50.0	42.1		ug/Kg		84	70 - 135
Bromoform	50.0	44.9		ug/Kg		90	55 - 135
Bromomethane	50.0	56.0		ug/Kg		112	60 - 145
Carbon tetrachloride	50.0	43.9		ug/Kg		88	65 - 140
Chlorobenzene	50.0	43.2		ug/Kg		86	75 - 120
Chloroethane	50.0	60.0		ug/Kg		120	60 - 140
Chloroform	50.0	45.4		ug/Kg		91	70 - 130
Chloromethane	50.0	52.5		ug/Kg		105	45 - 145
cis-1,2-Dichloroethene	50.0	47.7		ug/Kg		95	70 - 125
cis-1,3-Dichloropropene	50.0	50.6		ug/Kg		101	75 - 125
Dibromochloromethane	50.0	46.4		ug/Kg		93	65 - 140
Dibromomethane	50.0	45.2		ug/Kg		90	70 - 130
Dichlorodifluoromethane	50.0	34.6		ug/Kg		69	35 - 160
Isopropyl Ether (DIPE)	50.0	46.1		ug/Kg		92	60 - 140
Ethanol	2000	2490		ug/Kg		125	35 - 160
Ethyl-t-butyl ether (ETBE)	50.0	46.4		ug/Kg		93	60 - 140
Ethylbenzene	50.0	42.4		ug/Kg		85	70 - 125
Hexachlorobutadiene	50.0	47.0		ug/Kg		94	60 - 135
Isopropylbenzene	50.0	45.0		ug/Kg		90	75 - 130
m,p-Xylene	50.0	46.7		ug/Kg		93	70 - 125
Methylene Chloride	50.0	44.4		ug/Kg		89	55 - 135
Methyl-t-Butyl Ether (MTBE)	50.0	47.0		ug/Kg		94	60 - 140
Naphthalene	50.0	52.3		ug/Kg		105	55 - 135
n-Butylbenzene	50.0	46.1		ug/Kg		92	70 - 130
N-Propylbenzene	50.0	44.0		ug/Kg		88	70 - 130
o-Xylene	50.0	44.8		ug/Kg		90	70 - 125
sec-Butylbenzene	50.0	44.0		ug/Kg		88	70 - 125
Styrene	50.0	46.1		ug/Kg		92	75 - 130
Tert-amyl-methyl ether (TAME)	50.0	48.1		ug/Kg		96	60 - 145
tert-Butyl alcohol (TBA)	500	480		ug/Kg		96	70 - 135
tert-Butylbenzene	50.0	46.4		ug/Kg		93	70 - 125
Tetrachloroethene	50.0	49.1		ug/Kg		98	70 - 125
Toluene	50.0	44.1		ug/Kg		88	70 - 125
trans-1,2-Dichloroethene	50.0	44.9		ug/Kg		90	70 - 125
trans-1,3-Dichloropropene	50.0	46.8		ug/Kg		94	70 - 135
Trichloroethene	50.0	45.9		ug/Kg		92	70 - 125
Trichlorofluoromethane	50.0	36.3		ug/Kg		73	60 - 145
Vinyl chloride	50.0	43.7		ug/Kg		87	55 - 135
p-Isopropyltoluene	50.0	45.2		ug/Kg		90	75 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	102		79 - 123
4-Bromofluorobenzene (Surr)	92		79 - 120
Dibromofluoromethane (Surr)	99		60 - 120

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

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

Lab Sample ID: LCSD 440-342846/7

Matrix: Solid

Analysis Batch: 342846

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	50.0	47.9		ug/Kg		96	70 - 130	4	20
1,1,1-Trichloroethane	50.0	45.0		ug/Kg		90	65 - 135	8	20
1,1,2,2-Tetrachloroethane	50.0	46.0		ug/Kg		92	55 - 140	2	30
1,1,2-Trichloroethane	50.0	44.9		ug/Kg		90	65 - 135	2	20
1,1-Dichloroethane	50.0	44.5		ug/Kg		89	70 - 130	6	20
1,1-Dichloroethene	50.0	50.2		ug/Kg		100	70 - 125	10	20
1,1-Dichloropropene	50.0	50.4		ug/Kg		101	70 - 130	11	20
1,2,3-Trichlorobenzene	50.0	50.8		ug/Kg		102	60 - 130	1	20
1,2,3-Trichloropropane	50.0	46.0		ug/Kg		92	60 - 135	4	25
1,2,4-Trichlorobenzene	50.0	53.7		ug/Kg		107	70 - 135	2	20
1,2,4-Trimethylbenzene	50.0	48.2		ug/Kg		96	70 - 125	6	20
1,2-Dibromo-3-Chloropropane	50.0	47.9		ug/Kg		96	50 - 135	7	30
1,2-Dibromoethane (EDB)	50.0	44.5		ug/Kg		89	70 - 130	1	20
1,2-Dichlorobenzene	50.0	45.8		ug/Kg		92	75 - 120	2	20
1,2-Dichloroethane	50.0	40.8		ug/Kg		82	60 - 140	3	20
1,2-Dichloropropane	50.0	47.6		ug/Kg		95	70 - 130	0	20
1,3,5-Trimethylbenzene	50.0	48.5		ug/Kg		97	70 - 125	8	20
1,3-Dichlorobenzene	50.0	46.8		ug/Kg		94	75 - 125	3	20
1,3-Dichloropropane	50.0	44.6		ug/Kg		89	70 - 125	1	20
1,4-Dichlorobenzene	50.0	48.1		ug/Kg		96	75 - 120	3	20
2,2-Dichloropropane	50.0	55.1		ug/Kg		110	60 - 145	9	20
2-Chlorotoluene	50.0	43.8		ug/Kg		88	70 - 125	6	20
4-Chlorotoluene	50.0	45.5		ug/Kg		91	75 - 125	5	20
Benzene	50.0	47.1		ug/Kg		94	65 - 120	6	20
Bromobenzene	50.0	48.0		ug/Kg		96	75 - 120	3	20
Bromochloromethane	50.0	47.9		ug/Kg		96	70 - 135	2	20
Bromodichloromethane	50.0	42.5		ug/Kg		85	70 - 135	1	20
Bromoform	50.0	46.0		ug/Kg		92	55 - 135	2	25
Bromomethane	50.0	56.8		ug/Kg		114	60 - 145	1	20
Carbon tetrachloride	50.0	48.3		ug/Kg		97	65 - 140	10	20
Chlorobenzene	50.0	46.2		ug/Kg		92	75 - 120	7	20
Chloroethane	50.0	60.4		ug/Kg		121	60 - 140	1	25
Chloroform	50.0	45.2		ug/Kg		90	70 - 130	1	20
Chloromethane	50.0	57.7		ug/Kg		115	45 - 145	10	25
cis-1,2-Dichloroethene	50.0	47.8		ug/Kg		96	70 - 125	0	20
cis-1,3-Dichloropropene	50.0	50.7		ug/Kg		101	75 - 125	0	20
Dibromochloromethane	50.0	46.3		ug/Kg		93	65 - 140	0	20
Dibromomethane	50.0	43.0		ug/Kg		86	70 - 130	5	20
Dichlorodifluoromethane	50.0	36.3		ug/Kg		73	35 - 160	5	30
Isopropyl Ether (DIPE)	50.0	45.9		ug/Kg		92	60 - 140	1	20
Ethanol	2000	2070		ug/Kg		104	35 - 160	18	30
Ethyl-t-butyl ether (ETBE)	50.0	45.9		ug/Kg		92	60 - 140	1	20
Ethylbenzene	50.0	47.1		ug/Kg		94	70 - 125	11	20
Hexachlorobutadiene	50.0	50.0		ug/Kg		100	60 - 135	6	20
Isopropylbenzene	50.0	49.4		ug/Kg		99	75 - 130	9	20
m,p-Xylene	50.0	52.6		ug/Kg		105	70 - 125	12	20
Methylene Chloride	50.0	46.4		ug/Kg		93	55 - 135	4	20
Methyl-t-Butyl Ether (MTBE)	50.0	46.8		ug/Kg		94	60 - 140	0	25

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

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

Lab Sample ID: LCSD 440-342846/7

Matrix: Solid

Analysis Batch: 342846

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene	50.0	53.7		ug/Kg		107	55 - 135	3	25
n-Butylbenzene	50.0	48.7		ug/Kg		97	70 - 130	6	20
N-Propylbenzene	50.0	47.9		ug/Kg		96	70 - 130	8	20
o-Xylene	50.0	47.7		ug/Kg		95	70 - 125	6	20
sec-Butylbenzene	50.0	47.8		ug/Kg		96	70 - 125	8	20
Styrene	50.0	48.7		ug/Kg		97	75 - 130	6	20
Tert-amyl-methyl ether (TAME)	50.0	48.1		ug/Kg		96	60 - 145	0	20
tert-Butyl alcohol (TBA)	500	503		ug/Kg		101	70 - 135	5	20
tert-Butylbenzene	50.0	49.9		ug/Kg		100	70 - 125	7	20
Tetrachloroethene	50.0	54.3		ug/Kg		109	70 - 125	10	20
Toluene	50.0	47.6		ug/Kg		95	70 - 125	8	20
trans-1,2-Dichloroethene	50.0	49.8		ug/Kg		100	70 - 125	10	20
trans-1,3-Dichloropropene	50.0	48.6		ug/Kg		97	70 - 135	4	20
Trichloroethene	50.0	48.1		ug/Kg		96	70 - 125	5	20
Trichlorofluoromethane	50.0	39.6		ug/Kg		79	60 - 145	9	25
Vinyl chloride	50.0	46.4		ug/Kg		93	55 - 135	6	25
p-Isopropyltoluene	50.0	48.4		ug/Kg		97	75 - 125	7	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	105		79 - 123
4-Bromofluorobenzene (Surr)	93		79 - 120
Dibromofluoromethane (Surr)	95		60 - 120

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 440-342266/4

Matrix: Solid

Analysis Batch: 342266

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		0.10	0.070	mg/Kg			07/14/16 08:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	102		60 - 120		07/14/16 08:20	1
4-Bromofluorobenzene (Surr)	100		79 - 120		07/14/16 08:20	1
Toluene-d8 (Surr)	106		79 - 123		07/14/16 08:20	1

Lab Sample ID: LCS 440-342266/6

Matrix: Solid

Analysis Batch: 342266

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Volatile Fuel Hydrocarbons (C4-C12)	1.00	0.768		mg/Kg		77	60 - 135

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane (Surr)	101		60 - 120

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QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

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

Lab Sample ID: LCS 440-342266/6

Matrix: Solid

Analysis Batch: 342266

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		79 - 120
Toluene-d8 (Surr)	106		79 - 123

Lab Sample ID: 440-152537-A-3 MS

Matrix: Solid

Analysis Batch: 342266

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Volatile Fuel Hydrocarbons (C4-C12)	ND		3.44	3.41		mg/Kg		99	55 - 140

Surrogate	MS %Recovery	MS Qualifier	Limits
Dibromofluoromethane (Surr)	102		60 - 120
4-Bromofluorobenzene (Surr)	102		79 - 120
Toluene-d8 (Surr)	106		79 - 123

Lab Sample ID: 440-152537-A-3 MSD

Matrix: Solid

Analysis Batch: 342266

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Volatile Fuel Hydrocarbons (C4-C12)	ND		3.42	3.29		mg/Kg		96	55 - 140	4	25

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Dibromofluoromethane (Surr)	104		60 - 120
4-Bromofluorobenzene (Surr)	102		79 - 120
Toluene-d8 (Surr)	105		79 - 123

Lab Sample ID: MB 440-342464/4

Matrix: Solid

Analysis Batch: 342464

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		0.10	0.070	mg/Kg			07/14/16 19:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	108		60 - 120		07/14/16 19:21	1
4-Bromofluorobenzene (Surr)	95		79 - 120		07/14/16 19:21	1
Toluene-d8 (Surr)	102		79 - 123		07/14/16 19:21	1

Lab Sample ID: LCS 440-342464/6

Matrix: Solid

Analysis Batch: 342464

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Volatile Fuel Hydrocarbons (C4-C12)	1.00	0.763		mg/Kg		76	60 - 135

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QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
Dibromofluoromethane (Surr)	105		60 - 120
4-Bromofluorobenzene (Surr)	101		79 - 120
Toluene-d8 (Surr)	105		79 - 123

Lab Sample ID: 440-152462-2 MS

Matrix: Solid

Analysis Batch: 342464

Client Sample ID: AEC-5-10'

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Volatile Fuel Hydrocarbons (C4-C12)	ND		3.46	3.60		mg/Kg		104	55 - 140

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
Dibromofluoromethane (Surr)	106		60 - 120
4-Bromofluorobenzene (Surr)	98		79 - 120
Toluene-d8 (Surr)	107		79 - 123

Lab Sample ID: 440-152462-2 MSD

Matrix: Solid

Analysis Batch: 342464

Client Sample ID: AEC-5-10'

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Volatile Fuel Hydrocarbons (C4-C12)	ND		3.46	3.73		mg/Kg		108	55 - 140	3	25

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
Dibromofluoromethane (Surr)	109		60 - 120
4-Bromofluorobenzene (Surr)	100		79 - 120
Toluene-d8 (Surr)	105		79 - 123

Lab Sample ID: MB 440-342770/4

Matrix: Solid

Analysis Batch: 342770

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		100	70	ug/Kg			07/15/16 18:55	1

	MB	MB							
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
Dibromofluoromethane (Surr)	112		60 - 120		07/15/16 18:55	1			
4-Bromofluorobenzene (Surr)	105		79 - 120		07/15/16 18:55	1			
Toluene-d8 (Surr)	110		79 - 123		07/15/16 18:55	1			

Lab Sample ID: LCS 440-342770/6

Matrix: Solid

Analysis Batch: 342770

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Volatile Fuel Hydrocarbons (C4-C12)	1000	808		ug/Kg		81	60 - 135

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
Dibromofluoromethane (Surr)	111		60 - 120
4-Bromofluorobenzene (Surr)	107		79 - 120

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QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

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

Lab Sample ID: LCS 440-342770/6

Matrix: Solid

Analysis Batch: 342770

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	108		79 - 123

Lab Sample ID: 440-152557-B-2-B MS

Matrix: Solid

Analysis Batch: 342770

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 342782

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Volatile Fuel Hydrocarbons (C4-C12)	ND		2840	2500		ug/Kg		88	55 - 140

Surrogate	MS %Recovery	MS Qualifier	Limits
Dibromofluoromethane (Surr)	113		60 - 120
4-Bromofluorobenzene (Surr)	103		79 - 120
Toluene-d8 (Surr)	105		79 - 123

Lab Sample ID: 440-152557-D-2-A MSD

Matrix: Solid

Analysis Batch: 342770

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 342782

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Volatile Fuel Hydrocarbons (C4-C12)	ND		3100	2760		ug/Kg		89	55 - 140	10	25

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Dibromofluoromethane (Surr)	114		60 - 120
4-Bromofluorobenzene (Surr)	106		79 - 120
Toluene-d8 (Surr)	107		79 - 123

Lab Sample ID: MB 440-342847/4

Matrix: Solid

Analysis Batch: 342847

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		100	70	ug/Kg			07/16/16 09:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	104		60 - 120		07/16/16 09:55	1
4-Bromofluorobenzene (Surr)	102		79 - 120		07/16/16 09:55	1
Toluene-d8 (Surr)	108		79 - 123		07/16/16 09:55	1

Lab Sample ID: LCS 440-342847/6

Matrix: Solid

Analysis Batch: 342847

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Volatile Fuel Hydrocarbons (C4-C12)	1000	899		ug/Kg		90	60 - 135

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QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

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

Lab Sample ID: LCS 440-342847/6

Matrix: Solid

Analysis Batch: 342847

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
Dibromofluoromethane (Surr)	97		60 - 120
4-Bromofluorobenzene (Surr)	95		79 - 120
Toluene-d8 (Surr)	104		79 - 123

Lab Sample ID: LCSD 440-342847/8

Matrix: Solid

Analysis Batch: 342847

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Volatile Fuel Hydrocarbons (C4-C12)	1000	882		ug/Kg		88	60 - 135	2	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
Dibromofluoromethane (Surr)	95		60 - 120
4-Bromofluorobenzene (Surr)	93		79 - 120
Toluene-d8 (Surr)	105		79 - 123

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

Lab Sample ID: MB 440-342338/1-A

Matrix: Solid

Analysis Batch: 342622

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 342338

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 11:30	1
Acenaphthylene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 11:30	1
Anthracene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 11:30	1
Benzo[a]anthracene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 11:30	1
Benzo[a]pyrene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 11:30	1
Benzo[b]fluoranthene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 11:30	1
Benzo[g,h,i]perylene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 11:30	1
Benzo[k]fluoranthene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 11:30	1
Chrysene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 11:30	1
Dibenz(a,h)anthracene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 11:30	1
Fluoranthene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 11:30	1
Fluorene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 11:30	1
Indeno[1,2,3-cd]pyrene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 11:30	1
Naphthalene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 11:30	1
Phenanthrene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 11:30	1
Pyrene	ND		30	4.0	ug/Kg		07/14/16 09:28	07/15/16 11:30	1

	MB	MB							
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
2-Fluorobiphenyl (Surr)	62		39 - 111	07/14/16 09:28	07/15/16 11:30	1			
Nitrobenzene-d5	60		41 - 119	07/14/16 09:28	07/15/16 11:30	1			
Terphenyl-d14	74		43 - 150	07/14/16 09:28	07/15/16 11:30	1			

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

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

Lab Sample ID: LCS 440-342338/2-A

Matrix: Solid

Analysis Batch: 342622

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 342338

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	66.7	49.8		ug/Kg		75	53 - 120
Acenaphthylene	66.7	50.3		ug/Kg		75	54 - 120
Anthracene	66.7	48.0		ug/Kg		72	53 - 120
Benzo[a]anthracene	66.7	53.3		ug/Kg		80	56 - 120
Benzo[a]pyrene	66.7	52.1		ug/Kg		78	53 - 120
Benzo[b]fluoranthene	66.7	53.5		ug/Kg		80	53 - 120
Benzo[g,h,i]perylene	66.7	76.5		ug/Kg		115	51 - 150
Benzo[k]fluoranthene	66.7	54.3		ug/Kg		81	53 - 124
Chrysene	66.7	53.5		ug/Kg		80	56 - 120
Dibenz(a,h)anthracene	66.7	55.7		ug/Kg		84	51 - 131
Fluoranthene	66.7	50.5		ug/Kg		76	57 - 120
Fluorene	66.7	50.5		ug/Kg		76	54 - 120
Indeno[1,2,3-cd]pyrene	66.7	58.2		ug/Kg		87	50 - 137
Naphthalene	66.7	49.0		ug/Kg		74	49 - 120
Phenanthrene	66.7	49.2		ug/Kg		74	55 - 120
Pyrene	66.7	51.0		ug/Kg		76	56 - 121

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	72		39 - 111
Nitrobenzene-d5	70		41 - 119
Terphenyl-d14	83		43 - 150

Lab Sample ID: 440-152462-1 MS

Matrix: Solid

Analysis Batch: 342622

Client Sample ID: AEC-5-5'

Prep Type: Total/NA

Prep Batch: 342338

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	ND		66.0	43.5		ug/Kg		66	45 - 120
Acenaphthylene	ND		66.0	43.6		ug/Kg		66	45 - 120
Anthracene	ND		66.0	41.5		ug/Kg		63	55 - 120
Benzo[a]anthracene	ND		66.0	43.2		ug/Kg		65	50 - 120
Benzo[a]pyrene	ND		66.0	40.8		ug/Kg		62	45 - 125
Benzo[b]fluoranthene	ND		66.0	44.1		ug/Kg		67	45 - 125
Benzo[g,h,i]perylene	ND		66.0	54.4		ug/Kg		82	25 - 130
Benzo[k]fluoranthene	ND		66.0	42.3		ug/Kg		64	45 - 125
Chrysene	ND		66.0	43.5		ug/Kg		66	55 - 120
Dibenz(a,h)anthracene	ND		66.0	40.7		ug/Kg		62	25 - 135
Fluoranthene	ND		66.0	44.4		ug/Kg		67	45 - 120
Fluorene	ND		66.0	44.7		ug/Kg		68	50 - 120
Indeno[1,2,3-cd]pyrene	ND		66.0	42.7		ug/Kg		65	20 - 130
Naphthalene	ND		66.0	43.2		ug/Kg		65	40 - 120
Phenanthrene	ND		66.0	43.4		ug/Kg		66	50 - 120
Pyrene	ND		66.0	43.8		ug/Kg		66	40 - 125

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl (Surr)	63		39 - 111
Nitrobenzene-d5	63		41 - 119

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

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

Lab Sample ID: 440-152462-1 MS

Matrix: Solid

Analysis Batch: 342622

Client Sample ID: AEC-5-5'

Prep Type: Total/NA

Prep Batch: 342338

Surrogate	MS %Recovery	MS Qualifier	Limits
Terphenyl-d14	68		43 - 150

Lab Sample ID: 440-152462-1 MSD

Matrix: Solid

Analysis Batch: 342622

Client Sample ID: AEC-5-5'

Prep Type: Total/NA

Prep Batch: 342338

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	ND		65.7	44.8		ug/Kg		68	45 - 120	3	25
Acenaphthylene	ND		65.7	44.8		ug/Kg		68	45 - 120	3	20
Anthracene	ND		65.7	43.2		ug/Kg		66	55 - 120	4	25
Benzo[a]anthracene	ND		65.7	45.0		ug/Kg		68	50 - 120	4	25
Benzo[a]pyrene	ND		65.7	43.5		ug/Kg		66	45 - 125	6	25
Benzo[b]fluoranthene	ND		65.7	45.3		ug/Kg		69	45 - 125	3	30
Benzo[g,h,i]perylene	ND		65.7	58.1		ug/Kg		89	25 - 130	7	30
Benzo[k]fluoranthene	ND		65.7	46.2		ug/Kg		70	45 - 125	9	30
Chrysene	ND		65.7	45.5		ug/Kg		69	55 - 120	4	25
Dibenz(a,h)anthracene	ND		65.7	43.0		ug/Kg		65	25 - 135	5	30
Fluoranthene	ND		65.7	46.2		ug/Kg		70	45 - 120	4	25
Fluorene	ND		65.7	46.8		ug/Kg		71	50 - 120	5	25
Indeno[1,2,3-cd]pyrene	ND		65.7	45.0		ug/Kg		68	20 - 130	5	30
Naphthalene	ND		65.7	43.8		ug/Kg		67	40 - 120	1	25
Phenanthrene	ND		65.7	45.1		ug/Kg		69	50 - 120	4	25
Pyrene	ND		65.7	46.1		ug/Kg		70	40 - 125	5	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	63		39 - 111
Nitrobenzene-d5	63		41 - 119
Terphenyl-d14	72		43 - 150

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 440-342178/1-A

Matrix: Solid

Analysis Batch: 342359

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 342178

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	2.5	mg/Kg		07/13/16 18:24	07/14/16 10:35	1
C23-C40	ND		5.0	2.5	mg/Kg		07/13/16 18:24	07/14/16 10:35	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	90		40 - 140	07/13/16 18:24	07/14/16 10:35	1

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 440-342178/2-A

Matrix: Solid

Analysis Batch: 342359

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 342178

			Spike	LCS	LCS				%Rec.		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
C10-C28			66.7	52.3		mg/Kg		78	45 - 115		

Lab Sample ID: 440-152462-1 MS

Matrix: Solid

Analysis Batch: 342359

Client Sample ID: AEC-5-5'

Prep Type: Total/NA

Prep Batch: 342178

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
C10-C28	ND		139	64.7		mg/Kg	-	47	40 - 120		
Surrogate	MS %Recovery	MS Qualifier	Limits								
n-Octacosane	45		40 - 140								

Lab Sample ID: 440-152462-1 MSD

Matrix: Solid

Analysis Batch: 342359

Client Sample ID: AEC-5-5'

Prep Type: Total/NA

Prep Batch: 342178

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C10-C28	ND		134	61.2		mg/Kg	-	46	40 - 120	6	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
n-Octacosane	42		40 - 140								

Lab Sample ID: MB 440-343307/1-A

Matrix: Solid

Analysis Batch: 343350

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 343307

Top Data: 3/15/2016									
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	2.5	mg/Kg		07/19/16 08:02	07/19/16 20:20	1
C23-C40	ND		5.0	2.5	mg/Kg		07/19/16 08:02	07/19/16 20:20	1
Bottom Data: 3/15/2016									
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane	81		40 - 140				07/19/16 08:02	07/19/16 20:20	1

Lab Sample ID: LCS 440-343307/2-A

Matrix: Solid

Analysis Batch: 343350

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 343307

			Spike	LCS	LCS				
Analyte			Added	Result	Qualifier	Unit	D	%Rec	%Rec.
C10-C28			66.7	48.2		mg/Kg	-	72	Limits 45 - 115
Surrogate	LCS	LCS							
	%Recovery	Qualifier	Limits						
n-Octacosane	79		40 - 140						

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 440-152753-A-1-C MS

Matrix: Solid

Analysis Batch: 343450

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 343307

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
C10-C28	38	F1	66.5	54.9	F1	mg/Kg		26	40 - 120
Surrogate	MS %Recovery	MS Qualifier	Limits						
n-Octacosane	76		40 - 140						

Lab Sample ID: 440-152753-A-1-D MSD

Matrix: Solid

Analysis Batch: 343450

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 343307

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
C10-C28	38	F1	66.6	53.4	F1	mg/Kg		24	40 - 120	3	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
n-Octacosane	79		40 - 140								

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

Lab Sample ID: MB 440-342185/1-A

Matrix: Solid

Analysis Batch: 342640

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 342185

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		50	17	ug/Kg		07/13/16 18:43	07/15/16 13:26	1
Aroclor 1221	ND		50	17	ug/Kg		07/13/16 18:43	07/15/16 13:26	1
Aroclor 1232	ND		50	17	ug/Kg		07/13/16 18:43	07/15/16 13:26	1
Aroclor 1242	ND		50	17	ug/Kg		07/13/16 18:43	07/15/16 13:26	1
Aroclor 1248	ND		50	17	ug/Kg		07/13/16 18:43	07/15/16 13:26	1
Aroclor 1254	ND		50	17	ug/Kg		07/13/16 18:43	07/15/16 13:26	1
Aroclor 1260	ND		50	17	ug/Kg		07/13/16 18:43	07/15/16 13:26	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac	
DCB Decachlorobiphenyl (Surr)	88		45 - 120			07/13/16 18:43	07/15/16 13:26	1	

Lab Sample ID: LCS 440-342185/2-A

Matrix: Solid

Analysis Batch: 342640

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 342185

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Aroclor 1016	267	237		ug/Kg		89	65 - 115
Aroclor 1260	267	240		ug/Kg		90	65 - 115
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
DCB Decachlorobiphenyl (Surr)	92		45 - 120				

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

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

Lab Sample ID: 440-152462-1 MS

Matrix: Solid

Analysis Batch: 342640

Client Sample ID: AEC-5-5'

Prep Type: Total/NA

Prep Batch: 342185

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Aroclor 1016	ND		539	448		ug/Kg		83	50 - 120
Aroclor 1260	ND		539	453		ug/Kg		84	50 - 125
Surrogate	MS %Recovery	MS Qualifier	Limits						
DCB Decachlorobiphenyl (Surr)	82		45 - 120						

Lab Sample ID: 440-152462-1 MSD

Matrix: Solid

Analysis Batch: 342640

Client Sample ID: AEC-5-5'

Prep Type: Total/NA

Prep Batch: 342185

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Aroclor 1016	ND		556	460		ug/Kg		83	50 - 120	3	30
Aroclor 1260	ND		556	467		ug/Kg		84	50 - 125	3	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
DCB Decachlorobiphenyl (Surr)	82		45 - 120								

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 440-342294/1-A ^20

Matrix: Solid

Analysis Batch: 342656

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 342294

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.49	0.099	mg/Kg		07/14/16 08:05	07/15/16 09:29	20
Arsenic	ND		0.49	0.25	mg/Kg		07/14/16 08:05	07/15/16 09:29	20
Barium	ND		0.49	0.25	mg/Kg		07/14/16 08:05	07/15/16 09:29	20
Beryllium	ND		0.30	0.15	mg/Kg		07/14/16 08:05	07/15/16 09:29	20
Cadmium	ND		0.49	0.25	mg/Kg		07/14/16 08:05	07/15/16 09:29	20
Chromium	ND		0.99	0.49	mg/Kg		07/14/16 08:05	07/15/16 09:29	20
Cobalt	ND		0.49	0.21	mg/Kg		07/14/16 08:05	07/15/16 09:29	20
Copper	ND		0.99	0.49	mg/Kg		07/14/16 08:05	07/15/16 09:29	20
Lead	ND		0.49	0.25	mg/Kg		07/14/16 08:05	07/15/16 09:29	20
Molybdenum	ND		0.99	0.49	mg/Kg		07/14/16 08:05	07/15/16 09:29	20
Nickel	ND		0.99	0.49	mg/Kg		07/14/16 08:05	07/15/16 09:29	20
Selenium	ND		0.99	0.20	mg/Kg		07/14/16 08:05	07/15/16 09:29	20
Thallium	ND		0.49	0.25	mg/Kg		07/14/16 08:05	07/15/16 09:29	20
Vanadium	ND		0.99	0.49	mg/Kg		07/14/16 08:05	07/15/16 09:29	20
Zinc	ND		9.9	4.9	mg/Kg		07/14/16 08:05	07/15/16 09:29	20
Antimony	ND		0.99	0.27	mg/Kg		07/14/16 08:05	07/15/16 09:29	20

Lab Sample ID: LCS 440-342294/2-A ^20

Matrix: Solid

Analysis Batch: 342656

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 342294

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Silver	24.8	23.7		mg/Kg		96	80 - 120

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 440-342294/2-A ^20

Matrix: Solid

Analysis Batch: 342656

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 342294

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	49.5	46.9		mg/Kg		95	80 - 120
Barium	49.5	48.4		mg/Kg		98	80 - 120
Beryllium	49.5	45.1		mg/Kg		91	80 - 120
Cadmium	49.5	47.2		mg/Kg		95	80 - 120
Chromium	49.5	47.4		mg/Kg		96	80 - 120
Cobalt	49.5	46.6		mg/Kg		94	80 - 120
Copper	49.5	46.6		mg/Kg		94	80 - 120
Lead	49.5	48.2		mg/Kg		97	80 - 120
Molybdenum	49.5	49.1		mg/Kg		99	80 - 120
Nickel	49.5	45.9		mg/Kg		93	80 - 120
Selenium	49.5	48.2		mg/Kg		97	80 - 120
Thallium	49.5	46.9		mg/Kg		95	80 - 120
Vanadium	49.5	46.9		mg/Kg		95	80 - 120
Zinc	49.5	46.5		mg/Kg		94	80 - 120
Antimony	49.5	49.3		mg/Kg		100	80 - 120

Lab Sample ID: 440-152462-1 MS

Matrix: Solid

Analysis Batch: 342656

Client Sample ID: AEC-5-5'

Prep Type: Total/NA

Prep Batch: 342294

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	ND		24.9	24.0		mg/Kg		96	80 - 120
Arsenic	4.5		49.8	51.8		mg/Kg		95	80 - 120
Barium	130	F1	49.8	169		mg/Kg		89	80 - 120
Beryllium	0.46		49.8	43.2		mg/Kg		86	80 - 120
Cadmium	ND		49.8	48.2		mg/Kg		97	80 - 120
Chromium	18	F1	49.8	62.7		mg/Kg		90	80 - 120
Cobalt	7.1	F1	49.8	52.2		mg/Kg		91	80 - 120
Copper	18	F1	49.8	58.2		mg/Kg		80	80 - 120
Lead	5.5		49.8	55.4		mg/Kg		100	80 - 120
Molybdenum	0.77	J	49.8	50.8		mg/Kg		101	80 - 120
Nickel	13	F1	49.8	54.5		mg/Kg		83	80 - 120
Selenium	0.47	J	49.8	48.4		mg/Kg		96	80 - 120
Thallium	ND		49.8	46.8		mg/Kg		94	80 - 120
Vanadium	35		49.8	84.3		mg/Kg		99	80 - 120
Zinc	49	F1	49.8	92.2		mg/Kg		86	80 - 120
Antimony	0.40	J F1	49.8	32.4	F1	mg/Kg		64	80 - 120

Lab Sample ID: 440-152462-1 MSD

Matrix: Solid

Analysis Batch: 342656

Client Sample ID: AEC-5-5'

Prep Type: Total/NA

Prep Batch: 342294

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Silver	ND		24.6	22.4		mg/Kg		91	80 - 120	7	20
Arsenic	4.5		49.3	48.0		mg/Kg		88	80 - 120	8	20
Barium	130	F1	49.3	150	F1	mg/Kg		50	80 - 120	12	20
Beryllium	0.46		49.3	40.3		mg/Kg		81	80 - 120	7	20
Cadmium	ND		49.3	44.9		mg/Kg		91	80 - 120	7	20
Chromium	18	F1	49.3	57.1	F1	mg/Kg		79	80 - 120	9	20

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 440-152462-1 MSD

Matrix: Solid

Analysis Batch: 342656

Client Sample ID: AEC-5-5'

Prep Type: Total/NA

Prep Batch: 342294

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cobalt	7.1	F1	49.3	45.8	F1	mg/Kg		79	80 - 120	13	20
Copper	18	F1	49.3	53.0	F1	mg/Kg		70	80 - 120	9	20
Lead	5.5		49.3	50.5		mg/Kg		91	80 - 120	9	20
Molybdenum	0.77	J	49.3	47.2		mg/Kg		94	80 - 120	7	20
Nickel	13	F1	49.3	50.0	F1	mg/Kg		75	80 - 120	9	20
Selenium	0.47	J	49.3	45.1		mg/Kg		91	80 - 120	7	20
Thallium	ND		49.3	43.3		mg/Kg		88	80 - 120	8	20
Vanadium	35		49.3	79.3		mg/Kg		90	80 - 120	6	20
Zinc	49	F1	49.3	83.9	F1	mg/Kg		70	80 - 120	9	20
Antimony	0.40	J F1	49.3	31.0	F1	mg/Kg		62	80 - 120	4	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 440-342230/1-A

Matrix: Solid

Analysis Batch: 342524

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 342230

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.012	mg/Kg		07/13/16 23:32	07/14/16 19:49	1

Lab Sample ID: LCS 440-342230/2-A

Matrix: Solid

Analysis Batch: 342524

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 342230

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.800	0.807		mg/Kg		101	80 - 120

Lab Sample ID: 440-152165-G-1-F MS

Matrix: Solid

Analysis Batch: 342524

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 342230

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.015	J	0.784	0.798		mg/Kg		100	70 - 130

Lab Sample ID: 440-152165-G-1-G MSD

Matrix: Solid

Analysis Batch: 342524

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 342230

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.015	J	0.800	0.820		mg/Kg		101	70 - 130	3	20

Lab Sample ID: MB 440-342231/1-A

Matrix: Solid

Analysis Batch: 342525

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 342231

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.012	mg/Kg		07/13/16 23:38	07/14/16 21:04	1

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

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

Lab Sample ID: LCS 440-342231/2-A

Matrix: Solid

Analysis Batch: 342525

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 342231

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.800	0.865		mg/Kg		108	80 - 120

Lab Sample ID: 440-152307-A-1-C MS

Matrix: Solid

Analysis Batch: 342525

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 342231

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		0.784	0.805		mg/Kg		103	70 - 130

Lab Sample ID: 440-152307-A-1-D MSD

Matrix: Solid

Analysis Batch: 342525

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 342231

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.800	0.802		mg/Kg		100	70 - 130	0	20

QC Association Summary

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

GC/MS VOA

Prep Batch: 342024

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152462-5	AEC-3-5'	Total/NA	Solid	5035	
440-152462-6	AEC-3-10'	Total/NA	Solid	5035	
440-152462-7	AEC-3-15'	Total/NA	Solid	5035	
440-152462-8	AEC-3-20'	Total/NA	Solid	5035	
440-152462-9	AEC-4-5'	Total/NA	Solid	5035	
440-152462-10	AEC-4-10'	Total/NA	Solid	5035	
440-152462-11	AEC-4-15'	Total/NA	Solid	5035	
440-152462-12	AEC-4-20'	Total/NA	Solid	5035	

Analysis Batch: 342265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152462-1	AEC-5-5'	Total/NA	Solid	8260B	
MB 440-342265/4	Method Blank	Total/NA	Solid	8260B	
LCS 440-342265/5	Lab Control Sample	Total/NA	Solid	8260B	
440-152537-A-3 MS	Matrix Spike	Total/NA	Solid	8260B	
440-152537-A-3 MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	

Analysis Batch: 342266

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152462-1	AEC-5-5'	Total/NA	Solid	8260B/CA_LUFT MS	
MB 440-342266/4	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	
LCS 440-342266/6	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	
440-152537-A-3 MS	Matrix Spike	Total/NA	Solid	8260B/CA_LUFT MS	
440-152537-A-3 MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B/CA_LUFT MS	

Analysis Batch: 342463

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152462-2	AEC-5-10'	Total/NA	Solid	8260B	
440-152462-3	AEC-5-15'	Total/NA	Solid	8260B	
440-152462-4	AEC-5-20'	Total/NA	Solid	8260B	
MB 440-342463/4	Method Blank	Total/NA	Solid	8260B	
LCS 440-342463/5	Lab Control Sample	Total/NA	Solid	8260B	
440-152462-2 MS	AEC-5-10'	Total/NA	Solid	8260B	
440-152462-2 MSD	AEC-5-10'	Total/NA	Solid	8260B	

Analysis Batch: 342464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152462-2	AEC-5-10'	Total/NA	Solid	8260B/CA_LUFT MS	
440-152462-3	AEC-5-15'	Total/NA	Solid	8260B/CA_LUFT MS	
440-152462-4	AEC-5-20'	Total/NA	Solid	8260B/CA_LUFT MS	
MB 440-342464/4	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	
LCS 440-342464/6	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	

TestAmerica Irvine

QC Association Summary

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

GC/MS VOA (Continued)

Analysis Batch: 342464 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152462-2 MS	AEC-5-10'	Total/NA	Solid	8260B/CA_LUFT MS	
440-152462-2 MSD	AEC-5-10'	Total/NA	Solid	8260B/CA_LUFT MS	

Analysis Batch: 342769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152462-5	AEC-3-5'	Total/NA	Solid	8260B	342024
440-152462-6	AEC-3-10'	Total/NA	Solid	8260B	342024
440-152462-7	AEC-3-15'	Total/NA	Solid	8260B	342024
440-152462-8	AEC-3-20'	Total/NA	Solid	8260B	342024
440-152462-9	AEC-4-5'	Total/NA	Solid	8260B	342024
440-152462-10	AEC-4-10'	Total/NA	Solid	8260B	342024
440-152462-11	AEC-4-15'	Total/NA	Solid	8260B	342024
MB 440-342769/4	Method Blank	Total/NA	Solid	8260B	
LCS 440-342769/5	Lab Control Sample	Total/NA	Solid	8260B	
440-152557-B-2-B MS	Matrix Spike	Total/NA	Solid	8260B	342782
440-152557-D-2-A MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	342782

Analysis Batch: 342770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152462-5	AEC-3-5'	Total/NA	Solid	8260B/CA_LUFT MS	342024
440-152462-6	AEC-3-10'	Total/NA	Solid	8260B/CA_LUFT MS	342024
440-152462-7	AEC-3-15'	Total/NA	Solid	8260B/CA_LUFT MS	342024
440-152462-8	AEC-3-20'	Total/NA	Solid	8260B/CA_LUFT MS	342024
440-152462-9	AEC-4-5'	Total/NA	Solid	8260B/CA_LUFT MS	342024
440-152462-10	AEC-4-10'	Total/NA	Solid	8260B/CA_LUFT MS	342024
440-152462-11	AEC-4-15'	Total/NA	Solid	8260B/CA_LUFT MS	342024
MB 440-342770/4	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	
LCS 440-342770/6	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	
440-152557-B-2-B MS	Matrix Spike	Total/NA	Solid	8260B/CA_LUFT MS	342782
440-152557-D-2-A MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B/CA_LUFT MS	342782

Prep Batch: 342782

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152557-B-2-B MS	Matrix Spike	Total/NA	Solid	5035	
440-152557-D-2-A MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 342846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152462-12	AEC-4-20'	Total/NA	Solid	8260B	342024
MB 440-342846/4	Method Blank	Total/NA	Solid	8260B	
LCS 440-342846/5	Lab Control Sample	Total/NA	Solid	8260B	

TestAmerica Irvine

QC Association Summary

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

GC/MS VOA (Continued)

Analysis Batch: 342846 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 440-342846/7	Lab Control Sample Dup	Total/NA	Solid	8260B	

Analysis Batch: 342847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152462-12	AEC-4-20'	Total/NA	Solid	8260B/CA_LUFT MS	342024
MB 440-342847/4	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	
LCS 440-342847/6	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	
LCSD 440-342847/8	Lab Control Sample Dup	Total/NA	Solid	8260B/CA_LUFT MS	

GC/MS Semi VOA

Prep Batch: 342338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152462-1	AEC-5-5'	Total/NA	Solid	3546	
440-152462-2	AEC-5-10'	Total/NA	Solid	3546	
440-152462-3	AEC-5-15'	Total/NA	Solid	3546	
440-152462-4	AEC-5-20'	Total/NA	Solid	3546	
440-152462-5	AEC-3-5'	Total/NA	Solid	3546	
440-152462-6	AEC-3-10'	Total/NA	Solid	3546	
440-152462-7	AEC-3-15'	Total/NA	Solid	3546	
440-152462-8	AEC-3-20'	Total/NA	Solid	3546	
440-152462-9	AEC-4-5'	Total/NA	Solid	3546	
440-152462-10	AEC-4-10'	Total/NA	Solid	3546	
440-152462-11	AEC-4-15'	Total/NA	Solid	3546	
440-152462-12	AEC-4-20'	Total/NA	Solid	3546	
MB 440-342338/1-A	Method Blank	Total/NA	Solid	3546	
LCS 440-342338/2-A	Lab Control Sample	Total/NA	Solid	3546	
440-152462-1 MS	AEC-5-5'	Total/NA	Solid	3546	
440-152462-1 MSD	AEC-5-5'	Total/NA	Solid	3546	

Analysis Batch: 342622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152462-1	AEC-5-5'	Total/NA	Solid	8270C SIM	342338
440-152462-2	AEC-5-10'	Total/NA	Solid	8270C SIM	342338
440-152462-3	AEC-5-15'	Total/NA	Solid	8270C SIM	342338
440-152462-4	AEC-5-20'	Total/NA	Solid	8270C SIM	342338
440-152462-5	AEC-3-5'	Total/NA	Solid	8270C SIM	342338
440-152462-6	AEC-3-10'	Total/NA	Solid	8270C SIM	342338
440-152462-7	AEC-3-15'	Total/NA	Solid	8270C SIM	342338
440-152462-8	AEC-3-20'	Total/NA	Solid	8270C SIM	342338
440-152462-9	AEC-4-5'	Total/NA	Solid	8270C SIM	342338
440-152462-10	AEC-4-10'	Total/NA	Solid	8270C SIM	342338
440-152462-11	AEC-4-15'	Total/NA	Solid	8270C SIM	342338
440-152462-12	AEC-4-20'	Total/NA	Solid	8270C SIM	342338
MB 440-342338/1-A	Method Blank	Total/NA	Solid	8270C SIM	342338
LCS 440-342338/2-A	Lab Control Sample	Total/NA	Solid	8270C SIM	342338
440-152462-1 MS	AEC-5-5'	Total/NA	Solid	8270C SIM	342338

TestAmerica Irvine

QC Association Summary

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

GC/MS Semi VOA (Continued)

Analysis Batch: 342622 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152462-1 MSD	AEC-5-5'	Total/NA	Solid	8270C SIM	342338

GC Semi VOA

Prep Batch: 342178

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152462-1	AEC-5-5'	Total/NA	Solid	3546	
440-152462-2	AEC-5-10'	Total/NA	Solid	3546	
440-152462-3	AEC-5-15'	Total/NA	Solid	3546	
440-152462-4	AEC-5-20'	Total/NA	Solid	3546	
440-152462-5	AEC-3-5'	Total/NA	Solid	3546	
440-152462-6	AEC-3-10'	Total/NA	Solid	3546	
440-152462-7	AEC-3-15'	Total/NA	Solid	3546	
440-152462-8	AEC-3-20'	Total/NA	Solid	3546	
440-152462-9	AEC-4-5'	Total/NA	Solid	3546	
440-152462-10	AEC-4-10'	Total/NA	Solid	3546	
440-152462-12	AEC-4-20'	Total/NA	Solid	3546	
MB 440-342178/1-A	Method Blank	Total/NA	Solid	3546	
LCS 440-342178/2-A	Lab Control Sample	Total/NA	Solid	3546	
440-152462-1 MS	AEC-5-5'	Total/NA	Solid	3546	
440-152462-1 MSD	AEC-5-5'	Total/NA	Solid	3546	

Prep Batch: 342185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152462-1	AEC-5-5'	Total/NA	Solid	3546	
440-152462-2	AEC-5-10'	Total/NA	Solid	3546	
440-152462-3	AEC-5-15'	Total/NA	Solid	3546	
440-152462-4	AEC-5-20'	Total/NA	Solid	3546	
440-152462-5	AEC-3-5'	Total/NA	Solid	3546	
440-152462-6	AEC-3-10'	Total/NA	Solid	3546	
440-152462-7	AEC-3-15'	Total/NA	Solid	3546	
440-152462-8	AEC-3-20'	Total/NA	Solid	3546	
440-152462-9	AEC-4-5'	Total/NA	Solid	3546	
440-152462-10	AEC-4-10'	Total/NA	Solid	3546	
440-152462-11	AEC-4-15'	Total/NA	Solid	3546	
440-152462-12	AEC-4-20'	Total/NA	Solid	3546	
MB 440-342185/1-A	Method Blank	Total/NA	Solid	3546	
LCS 440-342185/2-A	Lab Control Sample	Total/NA	Solid	3546	
440-152462-1 MS	AEC-5-5'	Total/NA	Solid	3546	
440-152462-1 MSD	AEC-5-5'	Total/NA	Solid	3546	

Analysis Batch: 342359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152462-1	AEC-5-5'	Total/NA	Solid	8015B	342178
440-152462-3	AEC-5-15'	Total/NA	Solid	8015B	342178
440-152462-4	AEC-5-20'	Total/NA	Solid	8015B	342178
440-152462-7	AEC-3-15'	Total/NA	Solid	8015B	342178
440-152462-8	AEC-3-20'	Total/NA	Solid	8015B	342178
440-152462-9	AEC-4-5'	Total/NA	Solid	8015B	342178
440-152462-10	AEC-4-10'	Total/NA	Solid	8015B	342178

TestAmerica Irvine

QC Association Summary

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

GC Semi VOA (Continued)

Analysis Batch: 342359 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152462-12	AEC-4-20'	Total/NA	Solid	8015B	342178
MB 440-342178/1-A	Method Blank	Total/NA	Solid	8015B	342178
LCS 440-342178/2-A	Lab Control Sample	Total/NA	Solid	8015B	342178
440-152462-1 MS	AEC-5-5'	Total/NA	Solid	8015B	342178
440-152462-1 MSD	AEC-5-5'	Total/NA	Solid	8015B	342178

Analysis Batch: 342361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152462-2	AEC-5-10'	Total/NA	Solid	8015B	342178
440-152462-5	AEC-3-5'	Total/NA	Solid	8015B	342178
440-152462-6	AEC-3-10'	Total/NA	Solid	8015B	342178

Analysis Batch: 342640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152462-1	AEC-5-5'	Total/NA	Solid	8082	342185
440-152462-2	AEC-5-10'	Total/NA	Solid	8082	342185
440-152462-3	AEC-5-15'	Total/NA	Solid	8082	342185
440-152462-4	AEC-5-20'	Total/NA	Solid	8082	342185
440-152462-5	AEC-3-5'	Total/NA	Solid	8082	342185
440-152462-6	AEC-3-10'	Total/NA	Solid	8082	342185
440-152462-7	AEC-3-15'	Total/NA	Solid	8082	342185
440-152462-8	AEC-3-20'	Total/NA	Solid	8082	342185
440-152462-9	AEC-4-5'	Total/NA	Solid	8082	342185
440-152462-10	AEC-4-10'	Total/NA	Solid	8082	342185
440-152462-11	AEC-4-15'	Total/NA	Solid	8082	342185
440-152462-12	AEC-4-20'	Total/NA	Solid	8082	342185
MB 440-342185/1-A	Method Blank	Total/NA	Solid	8082	342185
LCS 440-342185/2-A	Lab Control Sample	Total/NA	Solid	8082	342185
440-152462-1 MS	AEC-5-5'	Total/NA	Solid	8082	342185
440-152462-1 MSD	AEC-5-5'	Total/NA	Solid	8082	342185

Prep Batch: 343307

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152462-11	AEC-4-15'	Total/NA	Solid	3546	
MB 440-343307/1-A	Method Blank	Total/NA	Solid	3546	
LCS 440-343307/2-A	Lab Control Sample	Total/NA	Solid	3546	
440-152753-A-1-C MS	Matrix Spike	Total/NA	Solid	3546	
440-152753-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Analysis Batch: 343350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-343307/1-A	Method Blank	Total/NA	Solid	8015B	343307
LCS 440-343307/2-A	Lab Control Sample	Total/NA	Solid	8015B	343307

Analysis Batch: 343450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152753-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B	343307
440-152753-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B	343307

TestAmerica Irvine

QC Association Summary

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

GC Semi VOA (Continued)

Analysis Batch: 343451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152462-11	AEC-4-15'	Total/NA	Solid	8015B	343307

Metals

Prep Batch: 342230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152462-1	AEC-5-5'	Total/NA	Solid	7471A	
440-152462-2	AEC-5-10'	Total/NA	Solid	7471A	
440-152462-3	AEC-5-15'	Total/NA	Solid	7471A	
440-152462-4	AEC-5-20'	Total/NA	Solid	7471A	
440-152462-5	AEC-3-5'	Total/NA	Solid	7471A	
440-152462-6	AEC-3-10'	Total/NA	Solid	7471A	
440-152462-7	AEC-3-15'	Total/NA	Solid	7471A	
MB 440-342230/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 440-342230/2-A	Lab Control Sample	Total/NA	Solid	7471A	
440-152165-G-1-F MS	Matrix Spike	Total/NA	Solid	7471A	
440-152165-G-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	

Prep Batch: 342231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152462-8	AEC-3-20'	Total/NA	Solid	7471A	
440-152462-9	AEC-4-5'	Total/NA	Solid	7471A	
440-152462-10	AEC-4-10'	Total/NA	Solid	7471A	
440-152462-11	AEC-4-15'	Total/NA	Solid	7471A	
440-152462-12	AEC-4-20'	Total/NA	Solid	7471A	
MB 440-342231/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 440-342231/2-A	Lab Control Sample	Total/NA	Solid	7471A	
440-152307-A-1-C MS	Matrix Spike	Total/NA	Solid	7471A	
440-152307-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	

Prep Batch: 342294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152462-1	AEC-5-5'	Total/NA	Solid	3050B	
440-152462-2	AEC-5-10'	Total/NA	Solid	3050B	
440-152462-3	AEC-5-15'	Total/NA	Solid	3050B	
440-152462-4	AEC-5-20'	Total/NA	Solid	3050B	
440-152462-5	AEC-3-5'	Total/NA	Solid	3050B	
440-152462-6	AEC-3-10'	Total/NA	Solid	3050B	
440-152462-7	AEC-3-15'	Total/NA	Solid	3050B	
440-152462-8	AEC-3-20'	Total/NA	Solid	3050B	
440-152462-9	AEC-4-5'	Total/NA	Solid	3050B	
440-152462-10	AEC-4-10'	Total/NA	Solid	3050B	
440-152462-11	AEC-4-15'	Total/NA	Solid	3050B	
440-152462-12	AEC-4-20'	Total/NA	Solid	3050B	
MB 440-342294/1-A ^20	Method Blank	Total/NA	Solid	3050B	
LCS 440-342294/2-A ^20	Lab Control Sample	Total/NA	Solid	3050B	
440-152462-1 MS	AEC-5-5'	Total/NA	Solid	3050B	
440-152462-1 MSD	AEC-5-5'	Total/NA	Solid	3050B	

TestAmerica Irvine

QC Association Summary

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Metals (Continued)

Analysis Batch: 342524

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152462-1	AEC-5-5'	Total/NA	Solid	7471A	342230
440-152462-2	AEC-5-10'	Total/NA	Solid	7471A	342230
440-152462-3	AEC-5-15'	Total/NA	Solid	7471A	342230
440-152462-4	AEC-5-20'	Total/NA	Solid	7471A	342230
440-152462-5	AEC-3-5'	Total/NA	Solid	7471A	342230
440-152462-6	AEC-3-10'	Total/NA	Solid	7471A	342230
440-152462-7	AEC-3-15'	Total/NA	Solid	7471A	342230
MB 440-342230/1-A	Method Blank	Total/NA	Solid	7471A	342230
LCS 440-342230/2-A	Lab Control Sample	Total/NA	Solid	7471A	342230
440-152165-G-1-F MS	Matrix Spike	Total/NA	Solid	7471A	342230
440-152165-G-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	342230

Analysis Batch: 342525

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152462-8	AEC-3-20'	Total/NA	Solid	7471A	342231
440-152462-9	AEC-4-5'	Total/NA	Solid	7471A	342231
440-152462-10	AEC-4-10'	Total/NA	Solid	7471A	342231
440-152462-11	AEC-4-15'	Total/NA	Solid	7471A	342231
440-152462-12	AEC-4-20'	Total/NA	Solid	7471A	342231
MB 440-342231/1-A	Method Blank	Total/NA	Solid	7471A	342231
LCS 440-342231/2-A	Lab Control Sample	Total/NA	Solid	7471A	342231
440-152307-A-1-C MS	Matrix Spike	Total/NA	Solid	7471A	342231
440-152307-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	342231

Analysis Batch: 342656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152462-1	AEC-5-5'	Total/NA	Solid	6020	342294
440-152462-2	AEC-5-10'	Total/NA	Solid	6020	342294
440-152462-3	AEC-5-15'	Total/NA	Solid	6020	342294
440-152462-4	AEC-5-20'	Total/NA	Solid	6020	342294
440-152462-5	AEC-3-5'	Total/NA	Solid	6020	342294
440-152462-6	AEC-3-10'	Total/NA	Solid	6020	342294
440-152462-7	AEC-3-15'	Total/NA	Solid	6020	342294
440-152462-8	AEC-3-20'	Total/NA	Solid	6020	342294
440-152462-9	AEC-4-5'	Total/NA	Solid	6020	342294
440-152462-10	AEC-4-10'	Total/NA	Solid	6020	342294
440-152462-11	AEC-4-15'	Total/NA	Solid	6020	342294
440-152462-12	AEC-4-20'	Total/NA	Solid	6020	342294
MB 440-342294/1-A ^20	Method Blank	Total/NA	Solid	6020	342294
LCS 440-342294/2-A ^20	Lab Control Sample	Total/NA	Solid	6020	342294
440-152462-1 MS	AEC-5-5'	Total/NA	Solid	6020	342294
440-152462-1 MSD	AEC-5-5'	Total/NA	Solid	6020	342294

Definitions/Glossary

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	ISTD response or retention time outside acceptable limits
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

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 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.

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.

Glossary

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

Certification Summary

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152462-1

Laboratory: TestAmerica Irvine

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-17
Arizona	State Program	9	AZ0671	10-13-16
California	LA Cty Sanitation Districts	9	10256	01-31-17 *
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 12.002r	01-23-17
Hawaii	State Program	9	N/A	01-29-17
Kansas	NELAP Secondary AB	7	E-10420	07-31-16 *
Nevada	State Program	9	CA015312016-2	07-31-16 *
New Mexico	State Program	6	N/A	01-29-17
Northern Mariana Islands	State Program	9	MP0002	01-29-17
Oregon	NELAP	10	4028	01-29-17
USDA	Federal		P330-09-00080	07-08-18
Washington	State Program	10	C900	09-03-16

* Certification renewal pending - certification considered valid.

TestAmerica Irvine

Chain of Custody Record

141611

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

Company Name: AEC		Client Contact		Project Manager: Jon Buck		Site Contact: Jon Buck		Date: 7/12/16		COC No: _____ of _____ COCs	
Address: 220 E Truitt Ave		Tel/Fax: _____		Analysis Turnaround Time		Lab Contact: _____		Carrier: _____		Sampler: _____	
City/State/Zip: Bakersfield, CA 93305		Phone: 661 345 1646		☐ CALENDAR DAYS ☐ WORKING DAYS TAT if different from Below _____ ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		For Lab Use Only: Walk-in Client: _____ Lab Sampling: _____		Job / SDG No.: _____		Sample Specific Notes:	
Project Name: Pumpkin Patch		Site: 700 E. PCH		PO # Long Beach, CA		Filtered Sample (Y / N) _____ Perform MS / MSD (Y / N) _____		Job / SDG No.: _____ Sample Specific Notes: _____		Sample Specific Notes: _____	
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.					
AEC-5-5'		7/12/16	0900	G	Soil	1					
AEC-5-10'		7/12/16	0905	G	Soil	1					
AEC-5-15'		7/12/16	0908	G	Soil	1					
AEC-5-20'		7/12/16	0912	G	Soil	1					
AEC-3-5'		7/12/16	1103	G	Soil	3					
AEC-3-10'		7/12/16	1110	G	Soil	3					
AEC-3-15'		7/12/16	1114	G	Soil	3					
AEC-3-20'		7/12/16	1121	G	Soil	3					
AEC-4-5'		7/12/16	1315	G	Soil	3					
AEC-4-10'		7/12/16	1315	G	Soil	3					
AEC-4-15'		7/12/16	1325	G	Soil	3					
AEC-4-20'		7/12/16	1330	G	Soil	3					
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. _____											
Special Instructions/QC Requirements & Comments: _____											
Custody Seal No: _____		Custody Seal No: _____		Cooler Temp. (°C): _____		Obs'd: _____		Corr'd: _____		Therm ID No.: _____	
Relinquished by: Jon Buck		Company: AEC		Date/Time: 7/12/16 1545		Received by: Jon Buck		Company: AEC		Date/Time: 7/12/16 1545	
Relinquished by: Jon Buck		Company: AEC		Date/Time: 7/12/16 1830		Received by: Jon Buck		Company: AEC		Date/Time: 7/12/16 1830	
Relinquished by: Jon Buck		Company: AEC		Date/Time: 7/12/16 1830		Received by: Jon Buck		Company: AEC		Date/Time: 7/12/16 1830	

42/40 1878

JTC
RJ

Login Sample Receipt Checklist

Client: Advanced Environmental Concepts Inc

Job Number: 440-152462-1

Login Number: 152462

List Source: TestAmerica Irvine

List Number: 1

Creator: Soderblom, Tim

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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	Refer to Job Narrative for details.
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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Irvine

17461 Derian Ave

Suite 100

Irvine, CA 92614-5817

Tel: (949)261-1022

TestAmerica Job ID: 440-152586-1

Client Project/Site: Pumpkin Patch

For:

Advanced Environmental Concepts Inc

220 E. Truxtun Ave.

Bakersfield, California 93305

Attn: Jonathan Buck



Authorized for release by:

7/25/2016 12:34:29 PM

Danielle Roberts, Senior Project Manager

(949)261-1022

danielle.roberts@testamericainc.com

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results through

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

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



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Sample Summary

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-152586-1	AEC-2-5'	Solid	07/13/16 07:40	07/13/16 18:30
440-152586-2	AEC-2-10'	Solid	07/13/16 07:45	07/13/16 18:30
440-152586-3	AEC-2-15'	Solid	07/13/16 07:50	07/13/16 18:30
440-152586-4	AEC-2-20'	Solid	07/13/16 07:58	07/13/16 18:30
440-152586-5	AEC-1-5'	Solid	07/13/16 09:45	07/13/16 18:30
440-152586-6	AEC-4-W	Water	07/13/16 11:30	07/13/16 18:30
440-152586-7	AEC-3-W	Water	07/13/16 12:50	07/13/16 18:30
440-152586-8	AEC-5-W	Water	07/13/16 14:00	07/13/16 18:30

Case Narrative

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Job ID: 440-152586-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative 440-152586-1

Comments

No additional comments.

Receipt

The samples were received on 7/13/2016 6:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.6° C and 3.2° C.

Receipt Exceptions

The Field Sampler was not listed on the Chain of Custody.

GC/MS VOA

Method(s) 8260B/CA_LUFTMS: The following samples were collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH of 6 was outside the required criteria when verified by the laboratory, and corrective action was not possible: AEC-4-W (440-152586-6).

The sample was analyzed within 7 days per EPA recommendation.

Method(s) 8260B/CA_LUFTMS: TBA-d9 internal standard (ISTD) response for the following sample was above control limits: AEC-5-W (440-152586-8). The sample was re-analyzed with concurring results, and the re-analysis been reported.

Method(s) 8260B: Internal standard (ISTD) response for the following sample(s) was outside of acceptance limits fro TBA-d9. This internal standard is associated with Ethanol and tert-Butyl alcohol (TBA): (440-152586-A-7 MSD). All recoveries were within limits for the MSD.

Method(s) 8260B: Internal standard (ISTD) response for the following sample was outside control limit: TBA-d9 is high AEC-5-W (440-152586-8). The sample was re-analyzed with concurring results. Matrix interference was confirmed.

Method(s) 8260B: The following samples were collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH of 6 was outside the required criteria when verified by the laboratory, and corrective action was not possible: AEC-4-W (440-152586-6).

The sample was analyzed within 7 days per EPA recommendation.

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

GC/MS Semi VOA

Method(s) 8270C SIM: The continuing calibration verification (CCV) associated with batch 440-342622 recovered above the upper control limit for Benzo[g,h,i]perylene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) 8270C SIM: The following sample required a dilution due to the nature of the sample matrix: AEC-1-5' (440-152586-5). 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) 8270C SIM: Surrogate recovery for the following sample was outside control limits: AEC-2-15' (440-152586-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8270C SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-342864 and analytical batch 440-343497. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

Case Narrative

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Job ID: 440-152586-1 (Continued)

Laboratory: TestAmerica Irvine (Continued)

Method(s) 8270C SIM: The following sample was diluted due to the abundance of non-target analytes: AEC-1-5' (440-152586-5). 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.

HPLC/IC

Method(s) 300.0: Due to the high concentration of Sulfate, the matrix spike / matrix spike duplicate (MS/MSD) for analytical batch 440-342634 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

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

GC Semi VOA

Method(s) 8015B: The following sample required a dilution due to the nature of the sample matrix: AEC-1-5' (440-152586-5). 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) 8015B: The following sample required a dilution due to the nature of the sample matrix: AEC-2-20' (440-152586-4). 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) 8015B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-343009 and analytical batch 440-343351. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

Method(s) 8015B: The following sample required a dilution due to the nature of the sample matrix: AEC-3-W (440-152586-7). 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) 8082: Surrogate recovery for the following samples was outside control limits: AEC-1-5' (440-152586-5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8082: The following samples required a copper clean-up to reduce matrix interferences caused by sulfur: AEC-2-20' (440-152586-4), (LCS 440-342185/2-A), (MB 440-342185/1-A), (440-152462-A-1-F), (440-152462-A-1-D MS) and (440-152462-A-1-E MSD).

Method(s) 8082: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-343105 and analytical batch 440-344252. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch. (LCS 440-343105/4-A)

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

Metals

Method(s) 200.7 Rev 4.4: The following sample was diluted due to the nature of the sample matrix: AEC-3-W (440-152586-7). Elevated reporting limits (RLs) are provided.

Method(s) 200.7 Rev 4.4: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision of Vanadium for preparation batch 440-342888 and analytical batch 440-343234 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) was within acceptance limits.

Method(s) 200.7 Rev 4.4: The initial calibration verification (ICV) result for batch 440-343712 was above the upper control limit for Molybdenum. Sample results were non-detects, and have been reported as qualified data. AEC-4-W (440-152586-6) and AEC-5-W

Case Narrative

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Job ID: 440-152586-1 (Continued)

Laboratory: TestAmerica Irvine (Continued)

(440-152586-8)

Method(s) 200.7 Rev 4.4: The following samples was diluted due to the nature of the sample matrix: AEC-4-W (440-152586-6) and AEC-5-W (440-152586-8). 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.

General Chemistry

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

Organic Prep

Method(s) 3510C: Due to the matrix, the following sample could not be concentrated to the final method required volume: 2AEC-3-W (440-152586-7). The reporting limits (RLs) are elevated proportionately.

Method(s) 3546: The following samples was diluted due to the nature of the sample matrix: AEC-2-15' (440-152586-3) and AEC-2-20' (440-152586-4). Elevated reporting limits (RLs) are provided.

Method(s) 3546: AEC-2-20' (440-152586-4) Due to the matrix, the following sample could not be concentrated to the final method required volume: AEC-2-20' (440-152586-4). The reporting limits (RLs) are elevated proportionately.

Method(s) 3546: The following samples was diluted due to the nature of the sample matrix: AEC-2-10' (440-152586-2), AEC-2-15' (440-152586-3) and AEC-2-20' (440-152586-4). 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.

VOA Prep

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

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Client Sample ID: AEC-2-5'

Date Collected: 07/13/16 07:40

Date Received: 07/13/16 18:30

Lab Sample ID: 440-152586-1

Matrix: Solid

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		88	62	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	99		60 - 120				07/14/16 15:46	07/18/16 12:25	1
4-Bromofluorobenzene (Surr)	98		79 - 120				07/14/16 15:46	07/18/16 12:25	1
Toluene-d8 (Surr)	103		79 - 123				07/14/16 15:46	07/18/16 12:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		4.4	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
1,1,1-Trichloroethane	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
1,1,2,2-Tetrachloroethane	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
1,1,2-Trichloroethane	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
1,1-Dichloroethane	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
1,1-Dichloroethene	ND		4.4	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
1,1-Dichloropropene	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
1,2,3-Trichlorobenzene	ND		4.4	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
1,2,3-Trichloropropane	ND		8.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
1,2,4-Trichlorobenzene	ND		4.4	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
1,2,4-Trimethylbenzene	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
1,2-Dibromo-3-Chloropropane	ND		4.4	1.8	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
1,2-Dibromoethane (EDB)	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
1,2-Dichlorobenzene	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
1,2-Dichloroethane	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
1,2-Dichloropropane	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
1,3,5-Trimethylbenzene	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
1,3-Dichlorobenzene	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
1,3-Dichloropropane	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
1,4-Dichlorobenzene	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
2,2-Dichloropropane	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
2-Chlorotoluene	ND		4.4	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
4-Chlorotoluene	ND		4.4	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
Benzene	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
Bromobenzene	ND		4.4	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
Bromochloromethane	ND		4.4	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
Bromodichloromethane	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
Bromoform	ND		4.4	1.8	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
Bromomethane	ND		4.4	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
Carbon tetrachloride	ND		4.4	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
Chlorobenzene	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
Chloroethane	ND		4.4	1.8	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
Chloroform	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
Chloromethane	ND		4.4	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
cis-1,2-Dichloroethene	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
cis-1,3-Dichloropropene	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
Dibromochloromethane	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
Dibromomethane	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
Dichlorodifluoromethane	ND		4.4	1.8	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
Isopropyl Ether (DIPE)	ND		4.4	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
Ethanol	ND		260	88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Client Sample ID: AEC-2-5'

Date Collected: 07/13/16 07:40

Date Received: 07/13/16 18:30

Lab Sample ID: 440-152586-1

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl-t-butyl ether (ETBE)	ND		4.4	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
Ethylbenzene	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
Hexachlorobutadiene	ND		4.4	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
Isopropylbenzene	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
m,p-Xylene	ND		3.5	1.8	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
Methylene Chloride	ND		18	4.4	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
Methyl-t-Butyl Ether (MTBE)	ND		4.4	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
Naphthalene	ND		4.4	1.8	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
n-Butylbenzene	ND		4.4	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
N-Propylbenzene	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
o-Xylene	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
sec-Butylbenzene	ND		4.4	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
Styrene	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
Tert-amyl-methyl ether (TAME)	ND		4.4	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
tert-Butyl alcohol (TBA)	ND		88	8.8	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
tert-Butylbenzene	ND		4.4	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
Tetrachloroethene	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
Toluene	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
trans-1,2-Dichloroethene	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
trans-1,3-Dichloropropene	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
Trichloroethene	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
Trichlorofluoromethane	ND		4.4	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
Vinyl chloride	ND		4.4	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
Xylenes, Total	ND		3.5	1.8	ug/Kg		07/14/16 15:46	07/18/16 12:25	1
p-Isopropyltoluene	ND		1.8	0.88	ug/Kg		07/14/16 15:46	07/18/16 12:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		79 - 123	07/14/16 15:46	07/18/16 12:25	1
4-Bromofluorobenzene (Surr)	98		79 - 120	07/14/16 15:46	07/18/16 12:25	1
Dibromofluoromethane (Surr)	99		60 - 120	07/14/16 15:46	07/18/16 12:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		29	3.9	ug/Kg		07/14/16 09:34	07/15/16 20:47	1
Acenaphthylene	ND		29	3.9	ug/Kg		07/14/16 09:34	07/15/16 20:47	1
Anthracene	ND		29	3.9	ug/Kg		07/14/16 09:34	07/15/16 20:47	1
Benzo[a]anthracene	ND		29	3.9	ug/Kg		07/14/16 09:34	07/15/16 20:47	1
Benzo[a]pyrene	ND		29	3.9	ug/Kg		07/14/16 09:34	07/15/16 20:47	1
Benzo[b]fluoranthene	ND		29	3.9	ug/Kg		07/14/16 09:34	07/15/16 20:47	1
Benzo[g,h,i]perylene	ND	F2	29	3.9	ug/Kg		07/14/16 09:34	07/15/16 20:47	1
Benzo[k]fluoranthene	ND		29	3.9	ug/Kg		07/14/16 09:34	07/15/16 20:47	1
Chrysene	ND		29	3.9	ug/Kg		07/14/16 09:34	07/15/16 20:47	1
Dibenz(a,h)anthracene	ND		29	3.9	ug/Kg		07/14/16 09:34	07/15/16 20:47	1
Fluoranthene	ND		29	3.9	ug/Kg		07/14/16 09:34	07/15/16 20:47	1
Fluorene	ND		29	3.9	ug/Kg		07/14/16 09:34	07/15/16 20:47	1
Indeno[1,2,3-cd]pyrene	ND		29	3.9	ug/Kg		07/14/16 09:34	07/15/16 20:47	1
Naphthalene	ND		29	3.9	ug/Kg		07/14/16 09:34	07/15/16 20:47	1
Phenanthrene	ND		29	3.9	ug/Kg		07/14/16 09:34	07/15/16 20:47	1
Pyrene	5.5	J	29	3.9	ug/Kg		07/14/16 09:34	07/15/16 20:47	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Client Sample ID: AEC-2-5'

Date Collected: 07/13/16 07:40

Date Received: 07/13/16 18:30

Lab Sample ID: 440-152586-1

Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	66		39 - 111	07/14/16 09:34	07/15/16 20:47	1
Nitrobenzene-d5	61		41 - 119	07/14/16 09:34	07/15/16 20:47	1
Terphenyl-d14	98		43 - 150	07/14/16 09:34	07/15/16 20:47	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	3.0	J	5.0	2.5	mg/Kg		07/14/16 09:20	07/15/16 21:59	1
C23-C40	11		5.0	2.5	mg/Kg		07/14/16 09:20	07/15/16 21:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	84		40 - 140	07/14/16 09:20	07/15/16 21:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		49	17	ug/Kg		07/14/16 09:18	07/15/16 18:31	1
Aroclor 1221	ND		49	17	ug/Kg		07/14/16 09:18	07/15/16 18:31	1
Aroclor 1232	ND		49	17	ug/Kg		07/14/16 09:18	07/15/16 18:31	1
Aroclor 1242	ND		49	17	ug/Kg		07/14/16 09:18	07/15/16 18:31	1
Aroclor 1248	ND		49	17	ug/Kg		07/14/16 09:18	07/15/16 18:31	1
Aroclor 1254	ND		49	17	ug/Kg		07/14/16 09:18	07/15/16 18:31	1
Aroclor 1260	ND		49	17	ug/Kg		07/14/16 09:18	07/15/16 18:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	52		45 - 120	07/14/16 09:18	07/15/16 18:31	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.50	0.10	mg/Kg		07/14/16 08:13	07/15/16 12:58	20
Arsenic	15		0.50	0.25	mg/Kg		07/14/16 08:13	07/15/16 12:58	20
Barium	90		0.50	0.25	mg/Kg		07/14/16 08:13	07/15/16 12:58	20
Beryllium	0.37		0.30	0.15	mg/Kg		07/14/16 08:13	07/15/16 12:58	20
Cadmium	ND		0.50	0.25	mg/Kg		07/14/16 08:13	07/15/16 12:58	20
Chromium	20		1.0	0.50	mg/Kg		07/14/16 08:13	07/15/16 12:58	20
Cobalt	7.4		0.50	0.21	mg/Kg		07/14/16 08:13	07/15/16 12:58	20
Copper	16		1.0	0.50	mg/Kg		07/14/16 08:13	07/15/16 12:58	20
Lead	6.4		0.50	0.25	mg/Kg		07/14/16 08:13	07/15/16 12:58	20
Molybdenum	0.64	J	1.0	0.50	mg/Kg		07/14/16 08:13	07/15/16 22:55	20
Nickel	14		1.0	0.50	mg/Kg		07/14/16 08:13	07/15/16 12:58	20
Selenium	0.31	J	1.0	0.20	mg/Kg		07/14/16 08:13	07/15/16 12:58	20
Thallium	ND		0.50	0.25	mg/Kg		07/14/16 08:13	07/15/16 12:58	20
Vanadium	36		1.0	0.50	mg/Kg		07/14/16 08:13	07/15/16 12:58	20
Zinc	53		10	5.0	mg/Kg		07/14/16 08:13	07/15/16 12:58	20
Antimony	0.30	J	1.0	0.27	mg/Kg		07/14/16 08:13	07/15/16 12:58	20

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.050		0.020	0.012	mg/Kg		07/14/16 21:26	07/15/16 00:23	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Client Sample ID: AEC-2-10'

Date Collected: 07/13/16 07:45

Date Received: 07/13/16 18:30

Lab Sample ID: 440-152586-2

Matrix: Solid

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		85	59	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	95		60 - 120				07/14/16 15:46	07/18/16 12:56	1
4-Bromofluorobenzene (Surr)	100		79 - 120				07/14/16 15:46	07/18/16 12:56	1
Toluene-d8 (Surr)	106		79 - 123				07/14/16 15:46	07/18/16 12:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		4.2	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
1,1,1-Trichloroethane	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
1,1,2,2-Tetrachloroethane	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
1,1,2-Trichloroethane	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
1,1-Dichloroethane	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
1,1-Dichloroethene	ND		4.2	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
1,1-Dichloropropene	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
1,2,3-Trichlorobenzene	ND		4.2	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
1,2,3-Trichloropropane	ND		8.5	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
1,2,4-Trichlorobenzene	ND		4.2	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
1,2,4-Trimethylbenzene	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
1,2-Dibromo-3-Chloropropane	ND		4.2	1.7	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
1,2-Dibromoethane (EDB)	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
1,2-Dichlorobenzene	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
1,2-Dichloroethane	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
1,2-Dichloropropane	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
1,3,5-Trimethylbenzene	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
1,3-Dichlorobenzene	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
1,3-Dichloropropane	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
1,4-Dichlorobenzene	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
2,2-Dichloropropane	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
2-Chlorotoluene	ND		4.2	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
4-Chlorotoluene	ND		4.2	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
Benzene	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
Bromobenzene	ND		4.2	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
Bromochloromethane	ND		4.2	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
Bromodichloromethane	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
Bromoform	ND		4.2	1.7	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
Bromomethane	ND		4.2	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
Carbon tetrachloride	ND		4.2	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
Chlorobenzene	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
Chloroethane	ND		4.2	1.7	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
Chloroform	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
Chloromethane	ND		4.2	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
cis-1,2-Dichloroethene	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
cis-1,3-Dichloropropene	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
Dibromochloromethane	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
Dibromomethane	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
Dichlorodifluoromethane	ND		4.2	1.7	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
Isopropyl Ether (DIPE)	ND		4.2	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
Ethanol	ND		250	85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Client Sample ID: AEC-2-10'

Lab Sample ID: 440-152586-2

Date Collected: 07/13/16 07:45

Matrix: Solid

Date Received: 07/13/16 18:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl-t-butyl ether (ETBE)	ND		4.2	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
Ethylbenzene	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
Hexachlorobutadiene	ND		4.2	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
Isopropylbenzene	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
m,p-Xylene	ND		3.4	1.7	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
Methylene Chloride	ND		17	4.2	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
Methyl-t-Butyl Ether (MTBE)	ND		4.2	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
Naphthalene	ND		4.2	1.7	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
n-Butylbenzene	ND		4.2	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
N-Propylbenzene	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
o-Xylene	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
sec-Butylbenzene	ND		4.2	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
Styrene	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
Tert-amyl-methyl ether (TAME)	ND		4.2	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
tert-Butyl alcohol (TBA)	ND		85	8.5	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
tert-Butylbenzene	ND		4.2	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
Tetrachloroethene	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
Toluene	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
trans-1,2-Dichloroethene	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
trans-1,3-Dichloropropene	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
Trichloroethene	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
Trichlorofluoromethane	ND		4.2	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
Vinyl chloride	ND		4.2	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
Xylenes, Total	ND		3.4	1.7	ug/Kg		07/14/16 15:46	07/18/16 12:56	1
p-Isopropyltoluene	ND		1.7	0.85	ug/Kg		07/14/16 15:46	07/18/16 12:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	106		79 - 123	07/14/16 15:46	07/18/16 12:56	1
4-Bromofluorobenzene (Surr)	100		79 - 120	07/14/16 15:46	07/18/16 12:56	1
Dibromofluoromethane (Surr)	95		60 - 120	07/14/16 15:46	07/18/16 12:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		61	8.1	ug/Kg		07/14/16 09:34	07/15/16 22:09	1
Acenaphthylene	ND		61	8.1	ug/Kg		07/14/16 09:34	07/15/16 22:09	1
Anthracene	ND		61	8.1	ug/Kg		07/14/16 09:34	07/15/16 22:09	1
Benzo[a]anthracene	ND		61	8.1	ug/Kg		07/14/16 09:34	07/15/16 22:09	1
Benzo[a]pyrene	ND		61	8.1	ug/Kg		07/14/16 09:34	07/15/16 22:09	1
Benzo[b]fluoranthene	9.4	J	61	8.1	ug/Kg		07/14/16 09:34	07/15/16 22:09	1
Benzo[g,h,i]perylene	ND		61	8.1	ug/Kg		07/14/16 09:34	07/15/16 22:09	1
Benzo[k]fluoranthene	ND		61	8.1	ug/Kg		07/14/16 09:34	07/15/16 22:09	1
Chrysene	20	J	61	8.1	ug/Kg		07/14/16 09:34	07/15/16 22:09	1
Dibenz(a,h)anthracene	ND		61	8.1	ug/Kg		07/14/16 09:34	07/15/16 22:09	1
Fluoranthene	ND		61	8.1	ug/Kg		07/14/16 09:34	07/15/16 22:09	1
Fluorene	ND		61	8.1	ug/Kg		07/14/16 09:34	07/15/16 22:09	1
Indeno[1,2,3-cd]pyrene	ND		61	8.1	ug/Kg		07/14/16 09:34	07/15/16 22:09	1
Naphthalene	14	J	61	8.1	ug/Kg		07/14/16 09:34	07/15/16 22:09	1
Phenanthrene	10	J	61	8.1	ug/Kg		07/14/16 09:34	07/15/16 22:09	1
Pyrene	15	J	61	8.1	ug/Kg		07/14/16 09:34	07/15/16 22:09	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Client Sample ID: AEC-2-10'

Date Collected: 07/13/16 07:45

Date Received: 07/13/16 18:30

Lab Sample ID: 440-152586-2

Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	72		39 - 111	07/14/16 09:34	07/15/16 22:09	1
Nitrobenzene-d5	56		41 - 119	07/14/16 09:34	07/15/16 22:09	1
Terphenyl-d14	104		43 - 150	07/14/16 09:34	07/15/16 22:09	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	3.5	J	5.0	2.5	mg/Kg		07/14/16 09:20	07/15/16 21:38	1
C23-C40	11		5.0	2.5	mg/Kg		07/14/16 09:20	07/15/16 21:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	57		40 - 140	07/14/16 09:20	07/15/16 21:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		110	36	ug/Kg		07/14/16 09:18	07/15/16 18:46	1
Aroclor 1221	ND		110	36	ug/Kg		07/14/16 09:18	07/15/16 18:46	1
Aroclor 1232	ND		110	36	ug/Kg		07/14/16 09:18	07/15/16 18:46	1
Aroclor 1242	ND		110	36	ug/Kg		07/14/16 09:18	07/15/16 18:46	1
Aroclor 1248	ND		110	36	ug/Kg		07/14/16 09:18	07/15/16 18:46	1
Aroclor 1254	ND		110	36	ug/Kg		07/14/16 09:18	07/15/16 18:46	1
Aroclor 1260	ND		110	36	ug/Kg		07/14/16 09:18	07/15/16 18:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	51		45 - 120	07/14/16 09:18	07/15/16 18:46	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.50	0.10	mg/Kg		07/14/16 08:13	07/15/16 13:01	20
Arsenic	5.7		0.50	0.25	mg/Kg		07/14/16 08:13	07/15/16 13:01	20
Barium	140		0.50	0.25	mg/Kg		07/14/16 08:13	07/15/16 13:01	20
Beryllium	0.75		0.30	0.15	mg/Kg		07/14/16 08:13	07/15/16 13:01	20
Cadmium	ND		0.50	0.25	mg/Kg		07/14/16 08:13	07/15/16 13:01	20
Chromium	32		1.0	0.50	mg/Kg		07/14/16 08:13	07/15/16 13:01	20
Cobalt	11		0.50	0.21	mg/Kg		07/14/16 08:13	07/15/16 13:01	20
Copper	34		1.0	0.50	mg/Kg		07/14/16 08:13	07/15/16 13:01	20
Lead	46		0.50	0.25	mg/Kg		07/14/16 08:13	07/15/16 13:01	20
Molybdenum	0.69	J	1.0	0.50	mg/Kg		07/14/16 08:13	07/15/16 22:58	20
Nickel	40		1.0	0.50	mg/Kg		07/14/16 08:13	07/15/16 13:01	20
Selenium	0.61	J	1.0	0.20	mg/Kg		07/14/16 08:13	07/15/16 13:01	20
Thallium	ND		0.50	0.25	mg/Kg		07/14/16 08:13	07/15/16 13:01	20
Vanadium	84		1.0	0.50	mg/Kg		07/14/16 08:13	07/15/16 13:01	20
Zinc	100		10	5.0	mg/Kg		07/14/16 08:13	07/15/16 13:01	20
Antimony	0.34	J	1.0	0.27	mg/Kg		07/14/16 08:13	07/15/16 13:01	20

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.043		0.020	0.012	mg/Kg		07/14/16 21:26	07/15/16 00:26	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Client Sample ID: AEC-2-15'

Lab Sample ID: 440-152586-3

Date Collected: 07/13/16 07:50

Matrix: Solid

Date Received: 07/13/16 18:30

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	87000		14000	9900	ug/Kg		07/14/16 14:51	07/18/16 12:16	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	94		55 - 140	07/14/16 14:51	07/18/16 12:16	100
4-Bromofluorobenzene (Surr)	100		65 - 140	07/14/16 14:51	07/18/16 12:16	100
Toluene-d8 (Surr)	111		60 - 140	07/14/16 14:51	07/18/16 12:16	100

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		350	140	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
1,1,1-Trichloroethane	ND		140	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
1,1,2,2-Tetrachloroethane	ND		140	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
1,1,2-Trichloroethane	ND		140	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
1,1-Dichloroethane	ND		140	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
1,1-Dichloroethene	ND		350	140	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
1,1-Dichloropropene	ND		140	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
1,2,3-Trichlorobenzene	ND		350	140	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
1,2,3-Trichloropropane	ND		710	140	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
1,2,4-Trichlorobenzene	ND		350	140	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
1,2,4-Trimethylbenzene	ND		140	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
1,2-Dibromo-3-Chloropropane	ND		350	140	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
1,2-Dibromoethane (EDB)	ND		140	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
1,2-Dichlorobenzene	ND		140	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
1,2-Dichloroethane	ND		140	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
1,2-Dichloropropane	ND		140	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
1,3,5-Trimethylbenzene	ND		140	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
1,3-Dichlorobenzene	ND		140	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
1,3-Dichloropropane	ND		140	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
1,4-Dichlorobenzene	380		140	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
2,2-Dichloropropane	ND		280	140	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
2-Chlorotoluene	ND		350	140	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
4-Chlorotoluene	ND		350	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
Benzene	ND		140	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
Bromobenzene	ND		350	140	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
Bromochloromethane	ND		350	140	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
Bromodichloromethane	ND		140	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
Bromoform	ND		350	140	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
Bromomethane	ND		350	140	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
Carbon tetrachloride	ND		350	140	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
Chlorobenzene	ND		140	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
Chloroethane	ND		350	140	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
Chloroform	ND		140	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
Chloromethane	ND		350	140	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
cis-1,2-Dichloroethene	ND		140	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
cis-1,3-Dichloropropene	ND		140	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
Dibromochloromethane	ND		140	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
Dibromomethane	ND		140	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
Dichlorodifluoromethane	ND		350	140	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
Isopropyl Ether (DIPE)	ND		350	140	ug/Kg		07/14/16 14:51	07/18/16 12:16	100

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Client Sample ID: AEC-2-15'

Date Collected: 07/13/16 07:50

Date Received: 07/13/16 18:30

Lab Sample ID: 440-152586-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		28000	11000	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
Ethyl-t-butyl ether (ETBE)	ND		350	140	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
Ethylbenzene	420		140	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
Hexachlorobutadiene	ND		350	140	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
Isopropylbenzene	96	J	140	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
m,p-Xylene	ND		280	140	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
Methylene Chloride	ND		1400	710	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
Methyl-t-Butyl Ether (MTBE)	ND		350	140	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
Naphthalene	2300		350	140	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
n-Butylbenzene	350		350	140	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
N-Propylbenzene	200		140	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
o-Xylene	ND		140	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
sec-Butylbenzene	180	J	350	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
Styrene	ND		140	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
Tert-amyl-methyl ether (TAME)	ND		350	140	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
tert-Butyl alcohol (TBA)	ND		7100	3500	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
tert-Butylbenzene	ND		350	140	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
Tetrachloroethene	ND		140	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
Toluene	ND		140	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
trans-1,2-Dichloroethene	ND		140	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
trans-1,3-Dichloropropene	ND		140	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
Trichloroethene	ND		140	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
Trichlorofluoromethane	ND		350	140	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
Vinyl chloride	ND		350	140	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
Xylenes, Total	ND		280	140	ug/Kg		07/14/16 14:51	07/18/16 12:16	100
p-Isopropyltoluene	ND		140	71	ug/Kg		07/14/16 14:51	07/18/16 12:16	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	111		60 - 140	07/14/16 14:51	07/18/16 12:16	100
4-Bromofluorobenzene (Surr)	100		65 - 140	07/14/16 14:51	07/18/16 12:16	100
Dibromofluoromethane (Surr)	94		55 - 140	07/14/16 14:51	07/18/16 12:16	100

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	92	J	660	88	ug/Kg		07/14/16 09:34	07/19/16 20:14	5
Acenaphthylene	ND		660	88	ug/Kg		07/14/16 09:34	07/19/16 20:14	5
Anthracene	ND		660	88	ug/Kg		07/14/16 09:34	07/19/16 20:14	5
Benzo[a]anthracene	ND		660	88	ug/Kg		07/14/16 09:34	07/19/16 20:14	5
Benzo[a]pyrene	ND		660	88	ug/Kg		07/14/16 09:34	07/19/16 20:14	5
Benzo[b]fluoranthene	ND		660	88	ug/Kg		07/14/16 09:34	07/19/16 20:14	5
Benzo[g,h,i]perylene	ND		660	88	ug/Kg		07/14/16 09:34	07/19/16 20:14	5
Benzo[k]fluoranthene	ND		660	88	ug/Kg		07/14/16 09:34	07/19/16 20:14	5
Chrysene	ND		660	88	ug/Kg		07/14/16 09:34	07/19/16 20:14	5
Dibenz(a,h)anthracene	ND		660	88	ug/Kg		07/14/16 09:34	07/19/16 20:14	5
Fluoranthene	280	J	660	88	ug/Kg		07/14/16 09:34	07/19/16 20:14	5
Fluorene	150	J	660	88	ug/Kg		07/14/16 09:34	07/19/16 20:14	5
Indeno[1,2,3-cd]pyrene	ND		660	88	ug/Kg		07/14/16 09:34	07/19/16 20:14	5
Naphthalene	1900		660	88	ug/Kg		07/14/16 09:34	07/19/16 20:14	5
Phenanthrene	330	J	660	88	ug/Kg		07/14/16 09:34	07/19/16 20:14	5
Pyrene	200	J	660	88	ug/Kg		07/14/16 09:34	07/19/16 20:14	5

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Client Sample ID: AEC-2-15'

Date Collected: 07/13/16 07:50

Date Received: 07/13/16 18:30

Lab Sample ID: 440-152586-3

Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	60		39 - 111	07/14/16 09:34	07/19/16 20:14	5
Nitrobenzene-d5	147	X	41 - 119	07/14/16 09:34	07/19/16 20:14	5
Terphenyl-d14	78		43 - 150	07/14/16 09:34	07/19/16 20:14	5

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	110		10	5.0	mg/Kg		07/14/16 09:20	07/15/16 22:20	1
C23-C40	700		10	5.0	mg/Kg		07/14/16 09:20	07/15/16 22:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	77		40 - 140	07/14/16 09:20	07/15/16 22:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		99	34	ug/Kg		07/14/16 09:18	07/15/16 19:02	1
Aroclor 1221	ND		99	34	ug/Kg		07/14/16 09:18	07/15/16 19:02	1
Aroclor 1232	ND		99	34	ug/Kg		07/14/16 09:18	07/15/16 19:02	1
Aroclor 1242	ND		99	34	ug/Kg		07/14/16 09:18	07/15/16 19:02	1
Aroclor 1248	ND		99	34	ug/Kg		07/14/16 09:18	07/15/16 19:02	1
Aroclor 1254	ND		99	34	ug/Kg		07/14/16 09:18	07/15/16 19:02	1
Aroclor 1260	76	J	99	34	ug/Kg		07/14/16 09:18	07/15/16 19:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	49		45 - 120	07/14/16 09:18	07/15/16 19:02	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.49	0.099	mg/Kg		07/14/16 08:13	07/15/16 13:03	20
Arsenic	6.9		0.49	0.25	mg/Kg		07/14/16 08:13	07/15/16 13:03	20
Barium	160		0.49	0.25	mg/Kg		07/14/16 08:13	07/15/16 13:03	20
Beryllium	ND		0.30	0.15	mg/Kg		07/14/16 08:13	07/15/16 13:03	20
Cadmium	0.26	J	0.49	0.25	mg/Kg		07/14/16 08:13	07/15/16 13:03	20
Chromium	18		0.99	0.49	mg/Kg		07/14/16 08:13	07/15/16 13:03	20
Cobalt	3.3		0.49	0.21	mg/Kg		07/14/16 08:13	07/15/16 13:03	20
Copper	31		0.99	0.49	mg/Kg		07/14/16 08:13	07/15/16 13:03	20
Lead	36		0.49	0.25	mg/Kg		07/14/16 08:13	07/15/16 13:03	20
Molybdenum	1.8		0.99	0.49	mg/Kg		07/14/16 08:13	07/15/16 23:00	20
Nickel	13		0.99	0.49	mg/Kg		07/14/16 08:13	07/15/16 13:03	20
Selenium	ND		0.99	0.20	mg/Kg		07/14/16 08:13	07/15/16 13:03	20
Thallium	ND		0.49	0.25	mg/Kg		07/14/16 08:13	07/15/16 13:03	20
Vanadium	3.5		0.99	0.49	mg/Kg		07/14/16 08:13	07/15/16 13:03	20
Zinc	250		9.9	4.9	mg/Kg		07/14/16 08:13	07/15/16 13:03	20
Antimony	0.63	J	0.99	0.27	mg/Kg		07/14/16 08:13	07/15/16 13:03	20

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.82		0.020	0.012	mg/Kg		07/14/16 21:26	07/15/16 00:34	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Client Sample ID: AEC-2-20'

Lab Sample ID: 440-152586-4

Date Collected: 07/13/16 07:58

Matrix: Solid

Date Received: 07/13/16 18:30

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	84000		17000	12000	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	89		55 - 140				07/14/16 14:51	07/18/16 12:45	100
4-Bromofluorobenzene (Surr)	99		65 - 140				07/14/16 14:51	07/18/16 12:45	100
Toluene-d8 (Surr)	112		60 - 140				07/14/16 14:51	07/18/16 12:45	100

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		410	170	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
1,1,1-Trichloroethane	ND		170	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
1,1,2,2-Tetrachloroethane	ND		170	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
1,1,2-Trichloroethane	ND		170	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
1,1-Dichloroethane	ND		170	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
1,1-Dichloroethene	ND		410	170	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
1,1-Dichloropropene	ND		170	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
1,2,3-Trichlorobenzene	ND		410	170	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
1,2,3-Trichloropropane	ND		830	170	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
1,2,4-Trichlorobenzene	ND		410	170	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
1,2,4-Trimethylbenzene	1200		170	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
1,2-Dibromo-3-Chloropropane	ND		410	170	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
1,2-Dibromoethane (EDB)	ND		170	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
1,2-Dichlorobenzene	ND		170	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
1,2-Dichloroethane	ND		170	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
1,2-Dichloropropane	ND		170	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
1,3,5-Trimethylbenzene	260		170	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
1,3-Dichlorobenzene	ND		170	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
1,3-Dichloropropane	ND		170	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
1,4-Dichlorobenzene	260		170	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
2,2-Dichloropropane	ND		330	170	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
2-Chlorotoluene	ND		410	170	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
4-Chlorotoluene	ND		410	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
Benzene	ND		170	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
Bromobenzene	ND		410	170	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
Bromochloromethane	ND		410	170	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
Bromodichloromethane	ND		170	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
Bromoform	ND		410	170	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
Bromomethane	ND		410	170	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
Carbon tetrachloride	ND		410	170	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
Chlorobenzene	ND		170	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
Chloroethane	ND		410	170	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
Chloroform	ND		170	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
Chloromethane	ND		410	170	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
cis-1,2-Dichloroethene	ND		170	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
cis-1,3-Dichloropropene	ND		170	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
Dibromochloromethane	ND		170	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
Dibromomethane	ND		170	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
Dichlorodifluoromethane	ND		410	170	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
Isopropyl Ether (DIPE)	ND		410	170	ug/Kg		07/14/16 14:51	07/18/16 12:45	100

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Client Sample ID: AEC-2-20'

Date Collected: 07/13/16 07:58

Date Received: 07/13/16 18:30

Lab Sample ID: 440-152586-4

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		33000	12000	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
Ethyl-t-butyl ether (ETBE)	ND		410	170	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
Ethylbenzene	450		170	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
Hexachlorobutadiene	ND		410	170	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
Isopropylbenzene	110 J		170	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
m,p-Xylene	240 J		330	170	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
Methylene Chloride	ND		1700	830	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
Methyl-t-Butyl Ether (MTBE)	ND		410	170	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
Naphthalene	2600		410	170	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
n-Butylbenzene	280 J		410	170	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
N-Propylbenzene	100 J		170	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
o-Xylene	120 J		170	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
sec-Butylbenzene	120 J		410	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
Styrene	130 J		170	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
Tert-amyl-methyl ether (TAME)	ND		410	170	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
tert-Butyl alcohol (TBA)	ND		8300	4100	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
tert-Butylbenzene	ND		410	170	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
Tetrachloroethene	ND		170	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
Toluene	620		170	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
trans-1,2-Dichloroethene	ND		170	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
trans-1,3-Dichloropropene	ND		170	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
Trichloroethene	ND		170	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
Trichlorofluoromethane	ND		410	170	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
Vinyl chloride	ND		410	170	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
Xylenes, Total	360		330	170	ug/Kg		07/14/16 14:51	07/18/16 12:45	100
p-Isopropyltoluene	700		170	83	ug/Kg		07/14/16 14:51	07/18/16 12:45	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Toluene-d8 (Surr)</i>	112		60 - 140	07/14/16 14:51	07/18/16 12:45	100
<i>4-Bromofluorobenzene (Surr)</i>	99		65 - 140	07/14/16 14:51	07/18/16 12:45	100
<i>Dibromofluoromethane (Surr)</i>	89		55 - 140	07/14/16 14:51	07/18/16 12:45	100

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		710	95	ug/Kg		07/14/16 09:34	07/19/16 20:35	5
Acenaphthylene	ND		710	95	ug/Kg		07/14/16 09:34	07/19/16 20:35	5
Anthracene	ND		710	95	ug/Kg		07/14/16 09:34	07/19/16 20:35	5
Benzo[a]anthracene	ND		710	95	ug/Kg		07/14/16 09:34	07/19/16 20:35	5
Benzo[a]pyrene	ND		710	95	ug/Kg		07/14/16 09:34	07/19/16 20:35	5
Benzo[b]fluoranthene	ND		710	95	ug/Kg		07/14/16 09:34	07/19/16 20:35	5
Benzo[g,h,i]perylene	ND		710	95	ug/Kg		07/14/16 09:34	07/19/16 20:35	5
Benzo[k]fluoranthene	ND		710	95	ug/Kg		07/14/16 09:34	07/19/16 20:35	5
Chrysene	ND		710	95	ug/Kg		07/14/16 09:34	07/19/16 20:35	5
Dibenz(a,h)anthracene	ND		710	95	ug/Kg		07/14/16 09:34	07/19/16 20:35	5
Fluoranthene	ND		710	95	ug/Kg		07/14/16 09:34	07/19/16 20:35	5
Fluorene	ND		710	95	ug/Kg		07/14/16 09:34	07/19/16 20:35	5
Indeno[1,2,3-cd]pyrene	ND		710	95	ug/Kg		07/14/16 09:34	07/19/16 20:35	5
Naphthalene	1300		710	95	ug/Kg		07/14/16 09:34	07/19/16 20:35	5
Phenanthrene	250 J		710	95	ug/Kg		07/14/16 09:34	07/19/16 20:35	5
Pyrene	ND		710	95	ug/Kg		07/14/16 09:34	07/19/16 20:35	5

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Client Sample ID: AEC-2-20'

Date Collected: 07/13/16 07:58

Date Received: 07/13/16 18:30

Lab Sample ID: 440-152586-4

Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	54		39 - 111	07/14/16 09:34	07/19/16 20:35	5
Nitrobenzene-d5	64		41 - 119	07/14/16 09:34	07/19/16 20:35	5
Terphenyl-d14	65		43 - 150	07/14/16 09:34	07/19/16 20:35	5

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	2000		200	100	mg/Kg		07/14/16 09:20	07/18/16 19:52	10
C23-C40	13000		200	100	mg/Kg		07/14/16 09:20	07/18/16 19:52	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	4039	X	40 - 140	07/14/16 09:20	07/18/16 19:52	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	550		230	79	ug/Kg		07/14/16 09:18	07/16/16 11:27	1
Aroclor 1221	ND		230	79	ug/Kg		07/14/16 09:18	07/16/16 11:27	1
Aroclor 1232	ND		230	79	ug/Kg		07/14/16 09:18	07/16/16 11:27	1
Aroclor 1242	ND		230	79	ug/Kg		07/14/16 09:18	07/16/16 11:27	1
Aroclor 1248	ND		230	79	ug/Kg		07/14/16 09:18	07/16/16 11:27	1
Aroclor 1254	340		230	79	ug/Kg		07/14/16 09:18	07/18/16 13:19	1
Aroclor 1260	300		230	79	ug/Kg		07/14/16 09:18	07/16/16 11:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	54		45 - 120	07/14/16 09:18	07/16/16 11:27	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.50	0.10	mg/Kg		07/14/16 08:13	07/15/16 13:06	20
Arsenic	2.8		0.50	0.25	mg/Kg		07/14/16 08:13	07/15/16 13:06	20
Barium	39		0.50	0.25	mg/Kg		07/14/16 08:13	07/15/16 13:06	20
Beryllium	ND		0.30	0.15	mg/Kg		07/14/16 08:13	07/15/16 13:06	20
Cadmium	0.37	J	0.50	0.25	mg/Kg		07/14/16 08:13	07/15/16 13:06	20
Chromium	61		1.0	0.50	mg/Kg		07/14/16 08:13	07/15/16 13:06	20
Cobalt	1.8		0.50	0.21	mg/Kg		07/14/16 08:13	07/15/16 13:06	20
Copper	14		1.0	0.50	mg/Kg		07/14/16 08:13	07/15/16 13:06	20
Lead	350		0.50	0.25	mg/Kg		07/14/16 08:13	07/15/16 13:06	20
Molybdenum	1.6		1.0	0.50	mg/Kg		07/14/16 08:13	07/15/16 23:03	20
Nickel	4.8		1.0	0.50	mg/Kg		07/14/16 08:13	07/15/16 13:06	20
Selenium	ND		1.0	0.20	mg/Kg		07/14/16 08:13	07/15/16 13:06	20
Thallium	ND		0.50	0.25	mg/Kg		07/14/16 08:13	07/15/16 13:06	20
Vanadium	3.8		1.0	0.50	mg/Kg		07/14/16 08:13	07/15/16 13:06	20
Zinc	200		10	5.0	mg/Kg		07/14/16 08:13	07/15/16 13:06	20
Antimony	0.35	J	1.0	0.27	mg/Kg		07/14/16 08:13	07/15/16 13:06	20

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.38		0.020	0.012	mg/Kg		07/14/16 21:26	07/15/16 00:36	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Client Sample ID: AEC-1-5'

Date Collected: 07/13/16 09:45

Date Received: 07/13/16 18:30

Lab Sample ID: 440-152586-5

Matrix: Solid

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	300000		27000	19000	ug/Kg		07/14/16 14:51	07/18/16 13:15	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	89		55 - 140	07/14/16 14:51	07/18/16 13:15	200
4-Bromofluorobenzene (Surr)	97		65 - 140	07/14/16 14:51	07/18/16 13:15	200
Toluene-d8 (Surr)	113		60 - 140	07/14/16 14:51	07/18/16 13:15	200

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		680	270	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
1,1,1-Trichloroethane	ND		270	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
1,1,2,2-Tetrachloroethane	ND		270	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
1,1,2-Trichloroethane	ND		270	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
1,1-Dichloroethane	ND		270	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
1,1-Dichloroethene	ND		680	270	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
1,1-Dichloropropene	ND		270	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
1,2,3-Trichlorobenzene	ND		680	270	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
1,2,3-Trichloropropane	ND		1400	270	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
1,2,4-Trichlorobenzene	ND		680	270	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
1,2,4-Trimethylbenzene	5000		270	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
1,2-Dibromo-3-Chloropropane	ND		680	270	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
1,2-Dibromoethane (EDB)	ND		270	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
1,2-Dichlorobenzene	ND		270	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
1,2-Dichloroethane	ND		270	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
1,2-Dichloropropane	ND		270	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
1,3,5-Trimethylbenzene	1700		270	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
1,3-Dichlorobenzene	ND		270	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
1,3-Dichloropropane	ND		270	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
1,4-Dichlorobenzene	1300		270	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
2,2-Dichloropropane	ND		550	270	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
2-Chlorotoluene	ND		680	270	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
4-Chlorotoluene	ND		680	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
Benzene	ND		270	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
Bromobenzene	ND		680	270	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
Bromochloromethane	ND		680	270	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
Bromodichloromethane	ND		270	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
Bromoform	ND		680	270	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
Bromomethane	ND		680	270	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
Carbon tetrachloride	ND		680	270	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
Chlorobenzene	ND		270	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
Chloroethane	ND		680	270	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
Chloroform	ND		270	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
Chloromethane	ND		680	270	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
cis-1,2-Dichloroethene	ND		270	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
cis-1,3-Dichloropropene	ND		270	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
Dibromochloromethane	ND		270	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
Dibromomethane	ND		270	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
Dichlorodifluoromethane	ND		680	270	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
Isopropyl Ether (DIPE)	ND		680	270	ug/Kg		07/14/16 14:51	07/18/16 13:15	200

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Client Sample ID: AEC-1-5'

Date Collected: 07/13/16 09:45

Date Received: 07/13/16 18:30

Lab Sample ID: 440-152586-5

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		55000	20000	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
Ethyl-t-butyl ether (ETBE)	ND		680	270	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
Ethylbenzene	540		270	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
Hexachlorobutadiene	ND		680	270	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
Isopropylbenzene	160	J	270	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
m,p-Xylene	1800		550	270	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
Methylene Chloride	ND		2700	1400	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
Methyl-t-Butyl Ether (MTBE)	ND		680	270	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
Naphthalene	5600		680	270	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
n-Butylbenzene	540	J	680	270	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
N-Propylbenzene	430		270	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
o-Xylene	1100		270	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
sec-Butylbenzene	510	J	680	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
Styrene	ND		270	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
Tert-amyl-methyl ether (TAME)	ND		680	270	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
tert-Butyl alcohol (TBA)	ND		14000	6800	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
tert-Butylbenzene	ND		680	270	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
Tetrachloroethene	ND		270	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
Toluene	320		270	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
trans-1,2-Dichloroethene	ND		270	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
trans-1,3-Dichloropropene	ND		270	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
Trichloroethene	ND		270	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
Trichlorofluoromethane	ND		680	270	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
Vinyl chloride	ND		680	270	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
Xylenes, Total	2900		550	270	ug/Kg		07/14/16 14:51	07/18/16 13:15	200
p-Isopropyltoluene	1900		270	140	ug/Kg		07/14/16 14:51	07/18/16 13:15	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	113		60 - 140	07/14/16 14:51	07/18/16 13:15	200
4-Bromofluorobenzene (Surr)	97		65 - 140	07/14/16 14:51	07/18/16 13:15	200
Dibromofluoromethane (Surr)	89		55 - 140	07/14/16 14:51	07/18/16 13:15	200

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	210	J	590	79	ug/Kg		07/14/16 09:34	07/19/16 20:55	20
Acenaphthylene	ND		590	79	ug/Kg		07/14/16 09:34	07/19/16 20:55	20
Anthracene	ND		590	79	ug/Kg		07/14/16 09:34	07/19/16 20:55	20
Benzo[a]anthracene	ND		590	79	ug/Kg		07/14/16 09:34	07/19/16 20:55	20
Benzo[a]pyrene	ND		590	79	ug/Kg		07/14/16 09:34	07/19/16 20:55	20
Benzo[b]fluoranthene	ND		590	79	ug/Kg		07/14/16 09:34	07/19/16 20:55	20
Benzo[g,h,i]perylene	ND		590	79	ug/Kg		07/14/16 09:34	07/19/16 20:55	20
Benzo[k]fluoranthene	ND		590	79	ug/Kg		07/14/16 09:34	07/19/16 20:55	20
Chrysene	ND		590	79	ug/Kg		07/14/16 09:34	07/19/16 20:55	20
Dibenz(a,h)anthracene	ND		590	79	ug/Kg		07/14/16 09:34	07/19/16 20:55	20
Fluoranthene	ND		590	79	ug/Kg		07/14/16 09:34	07/19/16 20:55	20
Fluorene	360	J	590	79	ug/Kg		07/14/16 09:34	07/19/16 20:55	20
Indeno[1,2,3-cd]pyrene	ND		590	79	ug/Kg		07/14/16 09:34	07/19/16 20:55	20
Naphthalene	400	J	590	79	ug/Kg		07/14/16 09:34	07/19/16 20:55	20
Phenanthrene	100	J	590	79	ug/Kg		07/14/16 09:34	07/19/16 20:55	20
Pyrene	ND		590	79	ug/Kg		07/14/16 09:34	07/19/16 20:55	20

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Client Sample ID: AEC-1-5'

Date Collected: 07/13/16 09:45

Date Received: 07/13/16 18:30

Lab Sample ID: 440-152586-5

Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	48		39 - 111	07/14/16 09:34	07/19/16 20:55	20
Nitrobenzene-d5	46		41 - 119	07/14/16 09:34	07/19/16 20:55	20
Terphenyl-d14	29	X	43 - 150	07/14/16 09:34	07/19/16 20:55	20

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	540		50	25	mg/Kg		07/14/16 09:20	07/15/16 17:40	10
C23-C40	850		50	25	mg/Kg		07/14/16 09:20	07/15/16 17:40	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	20	X	40 - 140	07/14/16 09:20	07/15/16 17:40	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		50	17	ug/Kg		07/14/16 09:18	07/15/16 19:34	1
Aroclor 1221	ND		50	17	ug/Kg		07/14/16 09:18	07/15/16 19:34	1
Aroclor 1232	ND		50	17	ug/Kg		07/14/16 09:18	07/15/16 19:34	1
Aroclor 1242	ND		50	17	ug/Kg		07/14/16 09:18	07/15/16 19:34	1
Aroclor 1248	ND		50	17	ug/Kg		07/14/16 09:18	07/15/16 19:34	1
Aroclor 1254	ND		50	17	ug/Kg		07/14/16 09:18	07/15/16 19:34	1
Aroclor 1260	ND		50	17	ug/Kg		07/14/16 09:18	07/15/16 19:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	42	X	45 - 120	07/14/16 09:18	07/15/16 19:34	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.50	0.10	mg/Kg		07/14/16 08:13	07/15/16 13:08	20
Arsenic	5.5		0.50	0.25	mg/Kg		07/14/16 08:13	07/15/16 13:08	20
Barium	110		0.50	0.25	mg/Kg		07/14/16 08:13	07/15/16 13:08	20
Beryllium	0.51		0.30	0.15	mg/Kg		07/14/16 08:13	07/15/16 13:08	20
Cadmium	ND		0.50	0.25	mg/Kg		07/14/16 08:13	07/15/16 13:08	20
Chromium	25		1.0	0.50	mg/Kg		07/14/16 08:13	07/15/16 13:08	20
Cobalt	9.1		0.50	0.21	mg/Kg		07/14/16 08:13	07/15/16 13:08	20
Copper	23		1.0	0.50	mg/Kg		07/14/16 08:13	07/15/16 13:08	20
Lead	15		0.50	0.25	mg/Kg		07/14/16 08:13	07/15/16 13:08	20
Molybdenum	0.97	J	1.0	0.50	mg/Kg		07/14/16 08:13	07/15/16 23:05	20
Nickel	19		1.0	0.50	mg/Kg		07/14/16 08:13	07/15/16 13:08	20
Selenium	0.61	J	1.0	0.20	mg/Kg		07/14/16 08:13	07/15/16 13:08	20
Thallium	ND		0.50	0.25	mg/Kg		07/14/16 08:13	07/15/16 13:08	20
Vanadium	47		1.0	0.50	mg/Kg		07/14/16 08:13	07/15/16 13:08	20
Zinc	69		10	5.0	mg/Kg		07/14/16 08:13	07/15/16 13:08	20
Antimony	ND		1.0	0.27	mg/Kg		07/14/16 08:13	07/15/16 13:08	20

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.064		0.020	0.012	mg/Kg		07/14/16 21:26	07/15/16 00:39	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Client Sample ID: AEC-4-W

Lab Sample ID: 440-152586-6

Date Collected: 07/13/16 11:30

Matrix: Water

Date Received: 07/13/16 18:30

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	92		50	35	ug/L			07/19/16 16:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	113		76 - 132		07/19/16 16:43	1
4-Bromofluorobenzene (Surr)	103		80 - 120		07/19/16 16:43	1
Toluene-d8 (Surr)	109		80 - 128		07/19/16 16:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			07/19/16 16:43	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			07/19/16 16:43	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			07/19/16 16:43	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			07/19/16 16:43	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			07/19/16 16:43	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			07/19/16 16:43	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			07/19/16 16:43	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			07/19/16 16:43	1
1,2,3-Trichloropropane	ND		1.0	0.25	ug/L			07/19/16 16:43	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			07/19/16 16:43	1
1,2,4-Trimethylbenzene	ND		0.50	0.25	ug/L			07/19/16 16:43	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			07/19/16 16:43	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			07/19/16 16:43	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			07/19/16 16:43	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			07/19/16 16:43	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			07/19/16 16:43	1
1,3,5-Trimethylbenzene	ND		0.50	0.25	ug/L			07/19/16 16:43	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			07/19/16 16:43	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			07/19/16 16:43	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			07/19/16 16:43	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			07/19/16 16:43	1
2-Chlorotoluene	ND		0.50	0.25	ug/L			07/19/16 16:43	1
4-Chlorotoluene	ND		0.50	0.25	ug/L			07/19/16 16:43	1
Benzene	1.1		0.50	0.25	ug/L			07/19/16 16:43	1
Bromobenzene	ND		0.50	0.25	ug/L			07/19/16 16:43	1
Bromochloromethane	ND		0.50	0.25	ug/L			07/19/16 16:43	1
Bromodichloromethane	ND		0.50	0.25	ug/L			07/19/16 16:43	1
Bromoform	ND		1.0	0.40	ug/L			07/19/16 16:43	1
Bromomethane	ND		0.50	0.25	ug/L			07/19/16 16:43	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			07/19/16 16:43	1
Chlorobenzene	ND		0.50	0.25	ug/L			07/19/16 16:43	1
Chloroethane	ND		1.0	0.40	ug/L			07/19/16 16:43	1
Chloroform	ND		0.50	0.25	ug/L			07/19/16 16:43	1
Chloromethane	ND		0.50	0.25	ug/L			07/19/16 16:43	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			07/19/16 16:43	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			07/19/16 16:43	1
Dibromochloromethane	ND		0.50	0.25	ug/L			07/19/16 16:43	1
Dibromomethane	ND		0.50	0.25	ug/L			07/19/16 16:43	1
Dichlorodifluoromethane	ND		1.0	0.25	ug/L			07/19/16 16:43	1
Ethanol	ND		150	75	ug/L			07/19/16 16:43	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Client Sample ID: AEC-4-W

Date Collected: 07/13/16 11:30

Date Received: 07/13/16 18:30

Lab Sample ID: 440-152586-6

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl Ether (DIPE)	ND		0.50	0.25	ug/L			07/19/16 16:43	1
Ethyl-t-butyl ether (ETBE)	ND		0.50	0.25	ug/L			07/19/16 16:43	1
Ethylbenzene	0.57		0.50	0.25	ug/L			07/19/16 16:43	1
Hexachlorobutadiene	ND		0.50	0.25	ug/L			07/19/16 16:43	1
Isopropylbenzene	ND		0.50	0.25	ug/L			07/19/16 16:43	1
m,p-Xylene	ND		1.0	0.50	ug/L			07/19/16 16:43	1
Methylene Chloride	ND		2.0	0.88	ug/L			07/19/16 16:43	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.25	ug/L			07/19/16 16:43	1
Naphthalene	ND		1.0	0.40	ug/L			07/19/16 16:43	1
n-Butylbenzene	ND		1.0	0.40	ug/L			07/19/16 16:43	1
N-Propylbenzene	ND		0.50	0.25	ug/L			07/19/16 16:43	1
o-Xylene	ND		0.50	0.25	ug/L			07/19/16 16:43	1
p-Isopropyltoluene	ND		0.50	0.25	ug/L			07/19/16 16:43	1
sec-Butylbenzene	ND		0.50	0.25	ug/L			07/19/16 16:43	1
Styrene	ND		0.50	0.25	ug/L			07/19/16 16:43	1
Tert-amyl-methyl ether (TAME)	ND		0.50	0.25	ug/L			07/19/16 16:43	1
tert-Butylbenzene	ND		0.50	0.25	ug/L			07/19/16 16:43	1
Tetrachloroethene	ND		0.50	0.25	ug/L			07/19/16 16:43	1
Toluene	ND		0.50	0.25	ug/L			07/19/16 16:43	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			07/19/16 16:43	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			07/19/16 16:43	1
Trichloroethene	ND		0.50	0.25	ug/L			07/19/16 16:43	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			07/19/16 16:43	1
Xylenes, Total	ND		1.0	0.50	ug/L			07/19/16 16:43	1
Vinyl chloride	ND		0.50	0.25	ug/L			07/19/16 16:43	1
tert-Butyl alcohol (TBA)	24		10	5.0	ug/L			07/19/16 16:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		80 - 120		07/19/16 16:43	1
Dibromofluoromethane (Surr)	113		76 - 132		07/19/16 16:43	1
Toluene-d8 (Surr)	109		80 - 128		07/19/16 16:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.18	0.091	ug/L		07/16/16 09:00	07/19/16 21:16	1
Acenaphthylene	ND		0.18	0.091	ug/L		07/16/16 09:00	07/19/16 21:16	1
Anthracene	ND		0.18	0.091	ug/L		07/16/16 09:00	07/19/16 21:16	1
Benzo[a]anthracene	ND		0.18	0.091	ug/L		07/16/16 09:00	07/19/16 21:16	1
Benzo[a]pyrene	ND		0.18	0.091	ug/L		07/16/16 09:00	07/19/16 21:16	1
Benzo[b]fluoranthene	ND		0.18	0.091	ug/L		07/16/16 09:00	07/19/16 21:16	1
Benzo[g,h,i]perylene	ND		0.18	0.091	ug/L		07/16/16 09:00	07/19/16 21:16	1
Benzo[k]fluoranthene	ND		0.18	0.091	ug/L		07/16/16 09:00	07/19/16 21:16	1
Chrysene	ND		0.18	0.091	ug/L		07/16/16 09:00	07/19/16 21:16	1
Dibenz(a,h)anthracene	ND		0.18	0.091	ug/L		07/16/16 09:00	07/19/16 21:16	1
Fluoranthene	ND		0.18	0.091	ug/L		07/16/16 09:00	07/19/16 21:16	1
Fluorene	ND		0.18	0.091	ug/L		07/16/16 09:00	07/19/16 21:16	1
Indeno[1,2,3-cd]pyrene	ND		0.18	0.091	ug/L		07/16/16 09:00	07/19/16 21:16	1
Naphthalene	0.62		0.18	0.091	ug/L		07/16/16 09:00	07/19/16 21:16	1
Phenanthrene	ND		0.18	0.091	ug/L		07/16/16 09:00	07/19/16 21:16	1
Pyrene	ND		0.18	0.091	ug/L		07/16/16 09:00	07/19/16 21:16	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Client Sample ID: AEC-4-W

Date Collected: 07/13/16 11:30

Date Received: 07/13/16 18:30

Lab Sample ID: 440-152586-6

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	55		50 - 104	07/16/16 09:00	07/19/16 21:16	1
Nitrobenzene-d5	79		46 - 109	07/16/16 09:00	07/19/16 21:16	1
Terphenyl-d14	80		28 - 124	07/16/16 09:00	07/19/16 21:16	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	0.73		0.46	0.092	mg/L		07/18/16 06:55	07/19/16 20:20	1
C23-C40	0.31	J	0.46	0.092	mg/L		07/18/16 06:55	07/19/16 20:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	61		45 - 120	07/18/16 06:55	07/19/16 20:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 18:37	1
Aroclor 1221	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 18:37	1
Aroclor 1232	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 18:37	1
Aroclor 1242	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 18:37	1
Aroclor 1248	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 18:37	1
Aroclor 1254	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 18:37	1
Aroclor 1260	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 18:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	71		26 - 115	07/18/16 12:42	07/22/16 18:37	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	35000		1000	500	mg/L			07/16/16 00:13	2000
Sulfate	2300		1000	500	mg/L			07/16/16 00:13	2000

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.050	0.030	mg/L		07/18/16 09:51	07/20/16 13:03	5
Arsenic	ND		0.050	0.025	mg/L		07/18/16 09:51	07/20/16 13:03	5
Barium	0.15		0.050	0.025	mg/L		07/18/16 09:51	07/20/16 13:03	5
Beryllium	ND		0.010	0.0050	mg/L		07/18/16 09:51	07/20/16 13:03	5
Cadmium	ND		0.025	0.010	mg/L		07/18/16 09:51	07/20/16 13:03	5
Chromium	ND		0.025	0.013	mg/L		07/18/16 09:51	07/20/16 13:03	5
Cobalt	ND		0.050	0.013	mg/L		07/18/16 09:51	07/20/16 13:03	5
Lead	ND		0.025	0.013	mg/L		07/18/16 09:51	07/20/16 13:03	5
Copper	0.026	J	0.050	0.025	mg/L		07/18/16 09:51	07/20/16 13:03	5
Molybdenum	ND	^	0.10	0.050	mg/L		07/18/16 09:51	07/20/16 13:03	5
Nickel	ND		0.050	0.025	mg/L		07/18/16 09:51	07/20/16 13:03	5
Selenium	ND		0.050	0.031	mg/L		07/18/16 09:51	07/20/16 13:03	5
Silver	ND		0.050	0.025	mg/L		07/18/16 09:51	07/20/16 13:03	5
Thallium	ND		0.050	0.025	mg/L		07/18/16 09:51	07/20/16 13:03	5
Vanadium	0.030	J	0.050	0.025	mg/L		07/18/16 09:51	07/20/16 13:03	5
Zinc	ND		0.10	0.050	mg/L		07/18/16 09:51	07/20/16 13:03	5

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		07/18/16 17:00	07/19/16 16:55	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	59000		2000	1000	mg/L			07/18/16 07:50	1

Client Sample ID: AEC-3-W

Date Collected: 07/13/16 12:50

Date Received: 07/13/16 18:30

Lab Sample ID: 440-152586-7

Matrix: Water

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	49	J	50	35	ug/L			07/19/16 10:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	115		76 - 132		07/19/16 10:16	1
4-Bromofluorobenzene (Surr)	105		80 - 120		07/19/16 10:16	1
Toluene-d8 (Surr)	110		80 - 128		07/19/16 10:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			07/19/16 10:16	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			07/19/16 10:16	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			07/19/16 10:16	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			07/19/16 10:16	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			07/19/16 10:16	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			07/19/16 10:16	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			07/19/16 10:16	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			07/19/16 10:16	1
1,2,3-Trichloropropane	ND		1.0	0.25	ug/L			07/19/16 10:16	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			07/19/16 10:16	1
1,2,4-Trimethylbenzene	ND		0.50	0.25	ug/L			07/19/16 10:16	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			07/19/16 10:16	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			07/19/16 10:16	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			07/19/16 10:16	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			07/19/16 10:16	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			07/19/16 10:16	1
1,3,5-Trimethylbenzene	ND		0.50	0.25	ug/L			07/19/16 10:16	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			07/19/16 10:16	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			07/19/16 10:16	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			07/19/16 10:16	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			07/19/16 10:16	1
2-Chlorotoluene	ND		0.50	0.25	ug/L			07/19/16 10:16	1
4-Chlorotoluene	ND		0.50	0.25	ug/L			07/19/16 10:16	1
Benzene	ND		0.50	0.25	ug/L			07/19/16 10:16	1
Bromobenzene	ND		0.50	0.25	ug/L			07/19/16 10:16	1
Bromochloromethane	ND		0.50	0.25	ug/L			07/19/16 10:16	1
Bromodichloromethane	ND		0.50	0.25	ug/L			07/19/16 10:16	1
Bromoform	ND		1.0	0.40	ug/L			07/19/16 10:16	1
Bromomethane	ND		0.50	0.25	ug/L			07/19/16 10:16	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			07/19/16 10:16	1
Chlorobenzene	ND		0.50	0.25	ug/L			07/19/16 10:16	1
Chloroethane	ND		1.0	0.40	ug/L			07/19/16 10:16	1
Chloroform	ND		0.50	0.25	ug/L			07/19/16 10:16	1
Chloromethane	ND		0.50	0.25	ug/L			07/19/16 10:16	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			07/19/16 10:16	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			07/19/16 10:16	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Client Sample ID: AEC-3-W

Lab Sample ID: 440-152586-7

Date Collected: 07/13/16 12:50

Matrix: Water

Date Received: 07/13/16 18:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		0.50	0.25	ug/L			07/19/16 10:16	1
Dibromomethane	ND		0.50	0.25	ug/L			07/19/16 10:16	1
Dichlorodifluoromethane	ND		1.0	0.25	ug/L			07/19/16 10:16	1
Ethanol	ND		150	75	ug/L			07/19/16 10:16	1
Isopropyl Ether (DIPE)	ND		0.50	0.25	ug/L			07/19/16 10:16	1
Ethyl-t-butyl ether (ETBE)	ND		0.50	0.25	ug/L			07/19/16 10:16	1
Ethylbenzene	ND		0.50	0.25	ug/L			07/19/16 10:16	1
Hexachlorobutadiene	ND		0.50	0.25	ug/L			07/19/16 10:16	1
Isopropylbenzene	ND		0.50	0.25	ug/L			07/19/16 10:16	1
m,p-Xylene	ND		1.0	0.50	ug/L			07/19/16 10:16	1
Methylene Chloride	ND		2.0	0.88	ug/L			07/19/16 10:16	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.25	ug/L			07/19/16 10:16	1
Naphthalene	ND		1.0	0.40	ug/L			07/19/16 10:16	1
n-Butylbenzene	ND		1.0	0.40	ug/L			07/19/16 10:16	1
N-Propylbenzene	ND		0.50	0.25	ug/L			07/19/16 10:16	1
o-Xylene	ND		0.50	0.25	ug/L			07/19/16 10:16	1
p-Isopropyltoluene	ND		0.50	0.25	ug/L			07/19/16 10:16	1
sec-Butylbenzene	ND		0.50	0.25	ug/L			07/19/16 10:16	1
Styrene	ND		0.50	0.25	ug/L			07/19/16 10:16	1
Tert-amyl-methyl ether (TAME)	ND		0.50	0.25	ug/L			07/19/16 10:16	1
tert-Butylbenzene	ND		0.50	0.25	ug/L			07/19/16 10:16	1
Tetrachloroethene	ND		0.50	0.25	ug/L			07/19/16 10:16	1
Toluene	ND		0.50	0.25	ug/L			07/19/16 10:16	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			07/19/16 10:16	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			07/19/16 10:16	1
Trichloroethene	ND		0.50	0.25	ug/L			07/19/16 10:16	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			07/19/16 10:16	1
Xylenes, Total	ND		1.0	0.50	ug/L			07/19/16 10:16	1
Vinyl chloride	ND		0.50	0.25	ug/L			07/19/16 10:16	1
tert-Butyl alcohol (TBA)	11	ID	10	5.0	ug/L			07/19/16 10:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		80 - 120		07/19/16 10:16	1
Dibromofluoromethane (Surr)	115		76 - 132		07/19/16 10:16	1
Toluene-d8 (Surr)	110		80 - 128		07/19/16 10:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.097	ug/L		07/16/16 09:00	07/19/16 21:37	1
Acenaphthylene	ND		0.19	0.097	ug/L		07/16/16 09:00	07/19/16 21:37	1
Anthracene	ND		0.19	0.097	ug/L		07/16/16 09:00	07/19/16 21:37	1
Benzo[a]anthracene	ND		0.19	0.097	ug/L		07/16/16 09:00	07/19/16 21:37	1
Benzo[a]pyrene	ND		0.19	0.097	ug/L		07/16/16 09:00	07/19/16 21:37	1
Benzo[b]fluoranthene	ND		0.19	0.097	ug/L		07/16/16 09:00	07/19/16 21:37	1
Benzo[g,h,i]perylene	ND		0.19	0.097	ug/L		07/16/16 09:00	07/19/16 21:37	1
Benzo[k]fluoranthene	ND		0.19	0.097	ug/L		07/16/16 09:00	07/19/16 21:37	1
Chrysene	ND		0.19	0.097	ug/L		07/16/16 09:00	07/19/16 21:37	1
Dibenz(a,h)anthracene	ND		0.19	0.097	ug/L		07/16/16 09:00	07/19/16 21:37	1
Fluoranthene	ND		0.19	0.097	ug/L		07/16/16 09:00	07/19/16 21:37	1
Fluorene	ND		0.19	0.097	ug/L		07/16/16 09:00	07/19/16 21:37	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Client Sample ID: AEC-3-W

Date Collected: 07/13/16 12:50

Date Received: 07/13/16 18:30

Lab Sample ID: 440-152586-7

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	ND		0.19	0.097	ug/L		07/16/16 09:00	07/19/16 21:37	1
Naphthalene	ND		0.19	0.097	ug/L		07/16/16 09:00	07/19/16 21:37	1
Phenanthrene	ND		0.19	0.097	ug/L		07/16/16 09:00	07/19/16 21:37	1
Pyrene	ND		0.19	0.097	ug/L		07/16/16 09:00	07/19/16 21:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	56		50 - 104				07/16/16 09:00	07/19/16 21:37	1
Nitrobenzene-d5	73		46 - 109				07/16/16 09:00	07/19/16 21:37	1
Terphenyl-d14	90		28 - 124				07/16/16 09:00	07/19/16 21:37	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	2.6	J	9.5	1.9	mg/L		07/18/16 06:55	07/19/16 22:04	10
C23-C40	40		9.5	1.9	mg/L		07/18/16 06:55	07/19/16 22:04	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane	698	X	45 - 120				07/18/16 06:55	07/19/16 22:04	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 18:50	1
Aroclor 1221	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 18:50	1
Aroclor 1232	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 18:50	1
Aroclor 1242	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 18:50	1
Aroclor 1248	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 18:50	1
Aroclor 1254	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 18:50	1
Aroclor 1260	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 18:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	67		26 - 115				07/18/16 12:42	07/22/16 18:50	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	36000		5000	2500	mg/L			07/16/16 15:02	10000
Sulfate	4800		1000	500	mg/L			07/16/16 00:33	2000

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.074		0.050	0.030	mg/L		07/16/16 11:58	07/18/16 18:43	5
Arsenic	0.093		0.050	0.025	mg/L		07/16/16 11:58	07/18/16 18:43	5
Barium	0.70		0.050	0.025	mg/L		07/16/16 11:58	07/18/16 18:43	5
Beryllium	ND		0.010	0.0050	mg/L		07/16/16 11:58	07/18/16 18:43	5
Cadmium	ND		0.025	0.010	mg/L		07/16/16 11:58	07/18/16 18:43	5
Chromium	0.15		0.025	0.013	mg/L		07/16/16 11:58	07/18/16 18:43	5
Cobalt	0.054		0.050	0.013	mg/L		07/16/16 11:58	07/18/16 18:43	5
Lead	0.14		0.025	0.013	mg/L		07/16/16 11:58	07/19/16 17:44	5
Copper	0.23		0.050	0.025	mg/L		07/16/16 11:58	07/18/16 18:43	5
Molybdenum	0.053	J	0.10	0.050	mg/L		07/16/16 11:58	07/18/16 18:43	5
Nickel	0.10		0.050	0.025	mg/L		07/16/16 11:58	07/18/16 18:43	5
Selenium	ND		0.050	0.031	mg/L		07/16/16 11:58	07/19/16 17:44	5
Silver	ND		0.050	0.025	mg/L		07/16/16 11:58	07/18/16 18:43	5

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Client Sample ID: AEC-3-W

Date Collected: 07/13/16 12:50

Date Received: 07/13/16 18:30

Lab Sample ID: 440-152586-7

Matrix: Water

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	ND		0.050	0.025	mg/L		07/16/16 11:58	07/18/16 18:43	5
Vanadium	0.29		0.050	0.025	mg/L		07/16/16 11:58	07/18/16 18:43	5
Zinc	0.35		0.10	0.050	mg/L		07/16/16 11:58	07/18/16 18:43	5

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00015	J	0.00020	0.00010	mg/L		07/18/16 17:00	07/19/16 16:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	62000		2000	1000	mg/L			07/18/16 07:50	1

Client Sample ID: AEC-5-W

Date Collected: 07/13/16 14:00

Date Received: 07/13/16 18:30

Lab Sample ID: 440-152586-8

Matrix: Water

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		50	35	ug/L			07/19/16 17:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	116		76 - 132		07/19/16 17:13	1
4-Bromofluorobenzene (Surr)	103		80 - 120		07/19/16 17:13	1
Toluene-d8 (Surr)	110		80 - 128		07/19/16 17:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			07/19/16 17:13	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			07/19/16 17:13	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			07/19/16 17:13	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			07/19/16 17:13	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			07/19/16 17:13	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			07/19/16 17:13	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			07/19/16 17:13	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			07/19/16 17:13	1
1,2,3-Trichloropropane	ND		1.0	0.25	ug/L			07/19/16 17:13	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			07/19/16 17:13	1
1,2,4-Trimethylbenzene	ND		0.50	0.25	ug/L			07/19/16 17:13	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			07/19/16 17:13	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			07/19/16 17:13	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			07/19/16 17:13	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			07/19/16 17:13	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			07/19/16 17:13	1
1,3,5-Trimethylbenzene	ND		0.50	0.25	ug/L			07/19/16 17:13	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			07/19/16 17:13	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			07/19/16 17:13	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			07/19/16 17:13	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			07/19/16 17:13	1
2-Chlorotoluene	ND		0.50	0.25	ug/L			07/19/16 17:13	1
4-Chlorotoluene	ND		0.50	0.25	ug/L			07/19/16 17:13	1
Benzene	ND		0.50	0.25	ug/L			07/19/16 17:13	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Client Sample ID: AEC-5-W

Lab Sample ID: 440-152586-8

Date Collected: 07/13/16 14:00

Matrix: Water

Date Received: 07/13/16 18:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	ND		0.50	0.25	ug/L			07/19/16 17:13	1
Bromochloromethane	ND		0.50	0.25	ug/L			07/19/16 17:13	1
Bromodichloromethane	ND		0.50	0.25	ug/L			07/19/16 17:13	1
Bromoform	ND		1.0	0.40	ug/L			07/19/16 17:13	1
Bromomethane	ND		0.50	0.25	ug/L			07/19/16 17:13	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			07/19/16 17:13	1
Chlorobenzene	ND		0.50	0.25	ug/L			07/19/16 17:13	1
Chloroethane	ND		1.0	0.40	ug/L			07/19/16 17:13	1
Chloroform	ND		0.50	0.25	ug/L			07/19/16 17:13	1
Chloromethane	ND		0.50	0.25	ug/L			07/19/16 17:13	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			07/19/16 17:13	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			07/19/16 17:13	1
Dibromochloromethane	ND		0.50	0.25	ug/L			07/19/16 17:13	1
Dibromomethane	ND		0.50	0.25	ug/L			07/19/16 17:13	1
Dichlorodifluoromethane	ND		1.0	0.25	ug/L			07/19/16 17:13	1
Ethanol	ND *		150	75	ug/L			07/19/16 17:13	1
Isopropyl Ether (DIPE)	ND		0.50	0.25	ug/L			07/19/16 17:13	1
Ethyl-t-butyl ether (ETBE)	ND		0.50	0.25	ug/L			07/19/16 17:13	1
Ethylbenzene	ND		0.50	0.25	ug/L			07/19/16 17:13	1
Hexachlorobutadiene	ND		0.50	0.25	ug/L			07/19/16 17:13	1
Isopropylbenzene	ND		0.50	0.25	ug/L			07/19/16 17:13	1
m,p-Xylene	ND		1.0	0.50	ug/L			07/19/16 17:13	1
Methylene Chloride	ND		2.0	0.88	ug/L			07/19/16 17:13	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.25	ug/L			07/19/16 17:13	1
Naphthalene	ND		1.0	0.40	ug/L			07/19/16 17:13	1
n-Butylbenzene	ND		1.0	0.40	ug/L			07/19/16 17:13	1
N-Propylbenzene	ND		0.50	0.25	ug/L			07/19/16 17:13	1
o-Xylene	ND		0.50	0.25	ug/L			07/19/16 17:13	1
p-Isopropyltoluene	ND		0.50	0.25	ug/L			07/19/16 17:13	1
sec-Butylbenzene	ND		0.50	0.25	ug/L			07/19/16 17:13	1
Styrene	ND		0.50	0.25	ug/L			07/19/16 17:13	1
Tert-amyl-methyl ether (TAME)	ND		0.50	0.25	ug/L			07/19/16 17:13	1
tert-Butylbenzene	ND		0.50	0.25	ug/L			07/19/16 17:13	1
Tetrachloroethene	ND		0.50	0.25	ug/L			07/19/16 17:13	1
Toluene	ND		0.50	0.25	ug/L			07/19/16 17:13	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			07/19/16 17:13	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			07/19/16 17:13	1
Trichloroethene	ND		0.50	0.25	ug/L			07/19/16 17:13	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			07/19/16 17:13	1
Xylenes, Total	ND		1.0	0.50	ug/L			07/19/16 17:13	1
Vinyl chloride	ND		0.50	0.25	ug/L			07/19/16 17:13	1
tert-Butyl alcohol (TBA)	ND *		10	5.0	ug/L			07/19/16 17:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		80 - 120		07/19/16 17:13	1
Dibromofluoromethane (Surr)	116		76 - 132		07/19/16 17:13	1
Toluene-d8 (Surr)	110		80 - 128		07/19/16 17:13	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Client Sample ID: AEC-5-W

Lab Sample ID: 440-152586-8

Date Collected: 07/13/16 14:00

Matrix: Water

Date Received: 07/13/16 18:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.17	0.087	ug/L	-	07/16/16 09:00	07/19/16 21:57	1
Acenaphthylene	ND		0.17	0.087	ug/L	-	07/16/16 09:00	07/19/16 21:57	1
Anthracene	ND		0.17	0.087	ug/L	-	07/16/16 09:00	07/19/16 21:57	1
Benzo[a]anthracene	ND		0.17	0.087	ug/L	-	07/16/16 09:00	07/19/16 21:57	1
Benzo[a]pyrene	ND		0.17	0.087	ug/L	-	07/16/16 09:00	07/19/16 21:57	1
Benzo[b]fluoranthene	ND		0.17	0.087	ug/L	-	07/16/16 09:00	07/19/16 21:57	1
Benzo[g,h,i]perylene	ND		0.17	0.087	ug/L	-	07/16/16 09:00	07/19/16 21:57	1
Benzo[k]fluoranthene	ND		0.17	0.087	ug/L	-	07/16/16 09:00	07/19/16 21:57	1
Chrysene	ND		0.17	0.087	ug/L	-	07/16/16 09:00	07/19/16 21:57	1
Dibenz(a,h)anthracene	ND		0.17	0.087	ug/L	-	07/16/16 09:00	07/19/16 21:57	1
Fluoranthene	ND		0.17	0.087	ug/L	-	07/16/16 09:00	07/19/16 21:57	1
Fluorene	ND		0.17	0.087	ug/L	-	07/16/16 09:00	07/19/16 21:57	1
Indeno[1,2,3-cd]pyrene	ND		0.17	0.087	ug/L	-	07/16/16 09:00	07/19/16 21:57	1
Naphthalene	ND		0.17	0.087	ug/L	-	07/16/16 09:00	07/19/16 21:57	1
Phenanthrene	ND		0.17	0.087	ug/L	-	07/16/16 09:00	07/19/16 21:57	1
Pyrene	ND		0.17	0.087	ug/L	-	07/16/16 09:00	07/19/16 21:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	59		50 - 104				07/16/16 09:00	07/19/16 21:57	1
Nitrobenzene-d5	61		46 - 109				07/16/16 09:00	07/19/16 21:57	1
Terphenyl-d14	64		28 - 124				07/16/16 09:00	07/19/16 21:57	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		0.44	0.088	mg/L	-	07/18/16 06:55	07/19/16 17:58	1
C23-C40	ND		0.44	0.088	mg/L	-	07/18/16 06:55	07/19/16 17:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane	77		45 - 120				07/18/16 06:55	07/19/16 17:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		1.0	0.50	ug/L	-	07/18/16 12:42	07/22/16 19:03	1
Aroclor 1221	ND		1.0	0.50	ug/L	-	07/18/16 12:42	07/22/16 19:03	1
Aroclor 1232	ND		1.0	0.50	ug/L	-	07/18/16 12:42	07/22/16 19:03	1
Aroclor 1242	ND		1.0	0.50	ug/L	-	07/18/16 12:42	07/22/16 19:03	1
Aroclor 1248	ND		1.0	0.50	ug/L	-	07/18/16 12:42	07/22/16 19:03	1
Aroclor 1254	ND		1.0	0.50	ug/L	-	07/18/16 12:42	07/22/16 19:03	1
Aroclor 1260	ND		1.0	0.50	ug/L	-	07/18/16 12:42	07/22/16 19:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	58		26 - 115				07/18/16 12:42	07/22/16 19:03	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	62000		10000	5000	mg/L	-		07/16/16 15:14	20000
Sulfate	7100		1000	500	mg/L	-		07/16/16 00:52	2000

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.10	0.060	mg/L	-	07/18/16 09:51	07/20/16 13:05	10

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Client Sample ID: AEC-5-W

Lab Sample ID: 440-152586-8

Date Collected: 07/13/16 14:00

Matrix: Water

Date Received: 07/13/16 18:30

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.10	0.050	mg/L		07/18/16 09:51	07/20/16 13:05	10
Barium	0.29		0.10	0.050	mg/L		07/18/16 09:51	07/20/16 13:05	10
Beryllium	ND		0.020	0.010	mg/L		07/18/16 09:51	07/20/16 13:05	10
Cadmium	ND		0.050	0.020	mg/L		07/18/16 09:51	07/20/16 13:05	10
Chromium	0.047	J	0.050	0.025	mg/L		07/18/16 09:51	07/20/16 13:05	10
Cobalt	ND		0.10	0.025	mg/L		07/18/16 09:51	07/20/16 13:05	10
Lead	ND		0.050	0.025	mg/L		07/18/16 09:51	07/20/16 13:05	10
Copper	0.096	J	0.10	0.050	mg/L		07/18/16 09:51	07/20/16 13:05	10
Molybdenum	ND	^	0.20	0.10	mg/L		07/18/16 09:51	07/20/16 13:05	10
Nickel	ND		0.10	0.050	mg/L		07/18/16 09:51	07/20/16 13:05	10
Selenium	ND		0.10	0.061	mg/L		07/18/16 09:51	07/20/16 13:05	10
Silver	ND		0.10	0.050	mg/L		07/18/16 09:51	07/20/16 13:05	10
Thallium	ND		0.10	0.050	mg/L		07/18/16 09:51	07/20/16 13:05	10
Vanadium	0.11		0.10	0.050	mg/L		07/18/16 09:51	07/20/16 13:05	10
Zinc	ND		0.20	0.10	mg/L		07/18/16 09:51	07/20/16 13:05	10

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		07/18/16 17:00	07/19/16 17:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	100000		2000	1000	mg/L			07/18/16 07:50	1

Method Summary

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8260B/CA_LUFTMS	Volatile Organic Compounds by GC/MS	SW846	TAL IRV
8270C SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL IRV
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL IRV
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL IRV
300.0	Anions, Ion Chromatography	MCAWW	TAL IRV
200.7 Rev 4.4	Metals (ICP)	EPA	TAL IRV
245.1	Mercury (CVAA)	EPA	TAL IRV
6020	Metals (ICP/MS)	SW846	TAL IRV
7471A	Mercury (CVAA)	SW846	TAL IRV
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL IRV

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

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

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Client Sample ID: AEC-2-5'

Date Collected: 07/13/16 07:40

Date Received: 07/13/16 18:30

Lab Sample ID: 440-152586-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.69 g	10 mL	342449	07/14/16 15:46	WK	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	343001	07/18/16 12:25	HR	TAL IRV
Total/NA	Prep	5035			5.69 g	10 mL	342449	07/14/16 15:46	WK	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTV S		1	10 mL	10 mL	343002	07/18/16 12:25	HR	TAL IRV
Total/NA	Prep	3546			15.47 g	1 mL	342341	07/14/16 09:34	LEG	TAL IRV
Total/NA	Analysis	8270C SIM		1			342622	07/15/16 20:47	AI	TAL IRV
Total/NA	Prep	3546			15.01 g	1 mL	342333	07/14/16 09:20	LEG	TAL IRV
Total/NA	Analysis	8015B		1			342644	07/15/16 21:59	VS	TAL IRV
Total/NA	Prep	3546			15.18 g	2 mL	342185	07/14/16 09:18	VA	TAL IRV
Total/NA	Analysis	8082		1			342640	07/15/16 18:31	JM	TAL IRV
Total/NA	Prep	3050B			2.01 g	50 mL	342296	07/14/16 08:13	DT	TAL IRV
Total/NA	Analysis	6020		20			342802	07/15/16 12:58	TK	TAL IRV
Total/NA	Prep	3050B			2.01 g	50 mL	342296	07/14/16 08:13	DT	TAL IRV
Total/NA	Analysis	6020		20			343028	07/15/16 22:55	RC	TAL IRV
Total/NA	Prep	7471A			0.51 g	50 mL	342507	07/14/16 21:26	DB	TAL IRV
Total/NA	Analysis	7471A		1			342536	07/15/16 00:23	DB	TAL IRV

Client Sample ID: AEC-2-10'

Date Collected: 07/13/16 07:45

Date Received: 07/13/16 18:30

Lab Sample ID: 440-152586-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.91 g	10 mL	342449	07/14/16 15:46	WK	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	343001	07/18/16 12:56	HR	TAL IRV
Total/NA	Prep	5035			5.91 g	10 mL	342449	07/14/16 15:46	WK	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTV S		1	10 mL	10 mL	343002	07/18/16 12:56	HR	TAL IRV
Total/NA	Prep	3546			7.41 g	1 mL	342341	07/14/16 09:34	LEG	TAL IRV
Total/NA	Analysis	8270C SIM		1			342622	07/15/16 22:09	AI	TAL IRV
Total/NA	Prep	3546			15.05 g	1 mL	342333	07/14/16 09:20	LEG	TAL IRV
Total/NA	Analysis	8015B		1			342644	07/15/16 21:38	VS	TAL IRV
Total/NA	Prep	3546			7.07 g	2 mL	342185	07/14/16 09:18	VA	TAL IRV
Total/NA	Analysis	8082		1			342640	07/15/16 18:46	JM	TAL IRV
Total/NA	Prep	3050B			2.01 g	50 mL	342296	07/14/16 08:13	DT	TAL IRV
Total/NA	Analysis	6020		20			342802	07/15/16 13:01	TK	TAL IRV
Total/NA	Prep	3050B			2.01 g	50 mL	342296	07/14/16 08:13	DT	TAL IRV
Total/NA	Analysis	6020		20			343028	07/15/16 22:58	RC	TAL IRV
Total/NA	Prep	7471A			0.51 g	50 mL	342507	07/14/16 21:26	DB	TAL IRV
Total/NA	Analysis	7471A		1			342536	07/15/16 00:26	DB	TAL IRV

TestAmerica Irvine

Lab Chronicle

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Client Sample ID: AEC-2-15'

Date Collected: 07/13/16 07:50

Date Received: 07/13/16 18:30

Lab Sample ID: 440-152586-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3.53 g	5 mL	342437	07/14/16 14:51	WK	TAL IRV
Total/NA	Analysis	8260B		100	10 mL	10 mL	342991	07/18/16 12:16	ATL	TAL IRV
Total/NA	Prep	5035			3.53 g	5 mL	342437	07/14/16 14:51	WK	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTM S		100	10 mL	10 mL	342992	07/18/16 12:16	ATL	TAL IRV
Total/NA	Prep	3546			3.39 g	1 mL	342341	07/14/16 09:34	LEG	TAL IRV
Total/NA	Analysis	8270C SIM		5			343497	07/19/16 20:14	AI	TAL IRV
Total/NA	Prep	3546			7.52 g	1 mL	342333	07/14/16 09:20	LEG	TAL IRV
Total/NA	Analysis	8015B		1			342644	07/15/16 22:20	VS	TAL IRV
Total/NA	Prep	3546			7.57 g	2 mL	342185	07/14/16 09:18	VA	TAL IRV
Total/NA	Analysis	8082		1			342640	07/15/16 19:02	JM	TAL IRV
Total/NA	Prep	3050B			2.03 g	50 mL	342296	07/14/16 08:13	DT	TAL IRV
Total/NA	Analysis	6020		20			342802	07/15/16 13:03	TK	TAL IRV
Total/NA	Prep	3050B			2.03 g	50 mL	342296	07/14/16 08:13	DT	TAL IRV
Total/NA	Analysis	6020		20			343028	07/15/16 23:00	RC	TAL IRV
Total/NA	Prep	7471A			0.51 g	50 mL	342507	07/14/16 21:26	DB	TAL IRV
Total/NA	Analysis	7471A		1			342536	07/15/16 00:34	DB	TAL IRV

Client Sample ID: AEC-2-20'

Date Collected: 07/13/16 07:58

Date Received: 07/13/16 18:30

Lab Sample ID: 440-152586-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3.03 g	5 mL	342437	07/14/16 14:51	WK	TAL IRV
Total/NA	Analysis	8260B		100	10 mL	10 mL	342991	07/18/16 12:45	ATL	TAL IRV
Total/NA	Prep	5035			3.03 g	5 mL	342437	07/14/16 14:51	WK	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTM S		100	10 mL	10 mL	342992	07/18/16 12:45	ATL	TAL IRV
Total/NA	Prep	3546			3.15 g	1 mL	342341	07/14/16 09:34	LEG	TAL IRV
Total/NA	Analysis	8270C SIM		5			343497	07/19/16 20:35	AI	TAL IRV
Total/NA	Prep	3546			7.52 g	2 mL	342333	07/14/16 09:20	LEG	TAL IRV
Total/NA	Analysis	8015B		10			343077	07/18/16 19:52	JM	TAL IRV
Total/NA	Prep	3546			3.22 g	2 mL	342185	07/14/16 09:18	VA	TAL IRV
Total/NA	Analysis	8082		1			342640	07/16/16 11:27	JM	TAL IRV
Total/NA	Prep	3546			3.22 g	2 mL	342185	07/14/16 09:18	VA	TAL IRV
Total/NA	Analysis	8082		1			343048	07/18/16 13:19	JM	TAL IRV
Total/NA	Prep	3050B			2.01 g	50 mL	342296	07/14/16 08:13	DT	TAL IRV
Total/NA	Analysis	6020		20			342802	07/15/16 13:06	TK	TAL IRV
Total/NA	Prep	3050B			2.01 g	50 mL	342296	07/14/16 08:13	DT	TAL IRV
Total/NA	Analysis	6020		20			343028	07/15/16 23:03	RC	TAL IRV
Total/NA	Prep	7471A			0.51 g	50 mL	342507	07/14/16 21:26	DB	TAL IRV
Total/NA	Analysis	7471A		1			342536	07/15/16 00:36	DB	TAL IRV

TestAmerica Irvine

Lab Chronicle

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Client Sample ID: AEC-1-5'

Date Collected: 07/13/16 09:45

Date Received: 07/13/16 18:30

Lab Sample ID: 440-152586-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3.66 g	5 mL	342437	07/14/16 14:51	WK	TAL IRV
Total/NA	Analysis	8260B		200	10 mL	10 mL	342991	07/18/16 13:15	ATL	TAL IRV
Total/NA	Prep	5035			3.66 g	5 mL	342437	07/14/16 14:51	WK	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTM S		200	10 mL	10 mL	342992	07/18/16 13:15	ATL	TAL IRV
Total/NA	Prep	3546			15.19 g	1 mL	342341	07/14/16 09:34	LEG	TAL IRV
Total/NA	Analysis	8270C SIM		20			343497	07/19/16 20:55	AI	TAL IRV
Total/NA	Prep	3546			15.00 g	1 mL	342333	07/14/16 09:20	LEG	TAL IRV
Total/NA	Analysis	8015B		10			342375	07/15/16 17:40	JM	TAL IRV
Total/NA	Prep	3546			15.01 g	2 mL	342185	07/14/16 09:18	VA	TAL IRV
Total/NA	Analysis	8082		1			342640	07/15/16 19:34	JM	TAL IRV
Total/NA	Prep	3050B			2.01 g	50 mL	342296	07/14/16 08:13	DT	TAL IRV
Total/NA	Analysis	6020		20			342802	07/15/16 13:08	TK	TAL IRV
Total/NA	Prep	3050B			2.01 g	50 mL	342296	07/14/16 08:13	DT	TAL IRV
Total/NA	Analysis	6020		20			343028	07/15/16 23:05	RC	TAL IRV
Total/NA	Prep	7471A			0.51 g	50 mL	342507	07/14/16 21:26	DB	TAL IRV
Total/NA	Analysis	7471A		1			342536	07/15/16 00:39	DB	TAL IRV

Client Sample ID: AEC-4-W

Date Collected: 07/13/16 11:30

Date Received: 07/13/16 18:30

Lab Sample ID: 440-152586-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	343275	07/19/16 16:43	MM1	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTM S		1	10 mL	10 mL	343276	07/19/16 16:43	AYL	TAL IRV
Total/NA	Prep	3520C			1100 mL	1 mL	342864	07/16/16 09:00	FTD	TAL IRV
Total/NA	Analysis	8270C SIM		1			343497	07/19/16 21:16	AI	TAL IRV
Total/NA	Prep	3510C			1090 mL	1 mL	343009	07/18/16 06:55	L2A	TAL IRV
Total/NA	Analysis	8015B		1			343351	07/19/16 20:20	EI	TAL IRV
Total/NA	Prep	3510C			125 mL	2 mL	343105	07/18/16 12:42	L2A	TAL IRV
Total/NA	Analysis	8082		1			344252	07/22/16 18:37	JM	TAL IRV
Total/NA	Analysis	300.0		2000			342634	07/16/16 00:13	NTN	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	343049	07/18/16 09:51	Q1N	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		5			343712	07/20/16 13:03	EN	TAL IRV
Total/NA	Prep	245.1			20 mL	20 mL	343189	07/18/16 17:00	DB	TAL IRV
Total/NA	Analysis	245.1		1			343504	07/19/16 16:55	DB	TAL IRV
Total/NA	Analysis	SM 2540C		1	0.5 mL	100 mL	343021	07/18/16 07:50	XL	TAL IRV

TestAmerica Irvine

Lab Chronicle

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Client Sample ID: AEC-3-W

Date Collected: 07/13/16 12:50

Date Received: 07/13/16 18:30

Lab Sample ID: 440-152586-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	343275	07/19/16 10:16	MM1	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTM S		1	10 mL	10 mL	343276	07/19/16 10:16	AYL	TAL IRV
Total/NA	Prep	3520C			1030 mL	1 mL	342864	07/16/16 09:00	FTD	TAL IRV
Total/NA	Analysis	8270C SIM		1			343497	07/19/16 21:37	AI	TAL IRV
Total/NA	Prep	3510C			1050 mL	2 mL	343009	07/18/16 06:55	L2A	TAL IRV
Total/NA	Analysis	8015B		10			343351	07/19/16 22:04	EI	TAL IRV
Total/NA	Prep	3510C			125 mL	2 mL	343105	07/18/16 12:42	L2A	TAL IRV
Total/NA	Analysis	8082		1			344252	07/22/16 18:50	JM	TAL IRV
Total/NA	Analysis	300.0		10000			342822	07/16/16 15:02	NTN	TAL IRV
Total/NA	Analysis	300.0		2000			342634	07/16/16 00:33	NTN	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	342888	07/16/16 11:58	Q1N	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		5			343234	07/18/16 18:43	EN	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	342888	07/16/16 11:58	Q1N	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		5			343507	07/19/16 17:44	EN	TAL IRV
Total/NA	Prep	245.1			20 mL	20 mL	343189	07/18/16 17:00	DB	TAL IRV
Total/NA	Analysis	245.1		1			343504	07/19/16 16:58	DB	TAL IRV
Total/NA	Analysis	SM 2540C		1	0.5 mL	100 mL	343021	07/18/16 07:50	XL	TAL IRV

Client Sample ID: AEC-5-W

Date Collected: 07/13/16 14:00

Date Received: 07/13/16 18:30

Lab Sample ID: 440-152586-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	343275	07/19/16 17:13	MM1	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTM S		1	10 mL	10 mL	343276	07/19/16 17:13	AYL	TAL IRV
Total/NA	Prep	3520C			1145 mL	1 mL	342864	07/16/16 09:00	FTD	TAL IRV
Total/NA	Analysis	8270C SIM		1			343497	07/19/16 21:57	AI	TAL IRV
Total/NA	Prep	3510C			1135 mL	1 mL	343009	07/18/16 06:55	L2A	TAL IRV
Total/NA	Analysis	8015B		1			343351	07/19/16 17:58	EI	TAL IRV
Total/NA	Prep	3510C			125 mL	2 mL	343105	07/18/16 12:42	L2A	TAL IRV
Total/NA	Analysis	8082		1			344252	07/22/16 19:03	JM	TAL IRV
Total/NA	Analysis	300.0		20000			342822	07/16/16 15:14	NTN	TAL IRV
Total/NA	Analysis	300.0		2000			342634	07/16/16 00:52	NTN	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	343049	07/18/16 09:51	Q1N	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		10			343712	07/20/16 13:05	EN	TAL IRV
Total/NA	Prep	245.1			20 mL	20 mL	343189	07/18/16 17:00	DB	TAL IRV
Total/NA	Analysis	245.1		1			343504	07/19/16 17:01	DB	TAL IRV
Total/NA	Analysis	SM 2540C		1	0.5 mL	100 mL	343021	07/18/16 07:50	XL	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

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

Lab Sample ID: MB 440-342991/6

Matrix: Solid

Analysis Batch: 342991

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		250	100	ug/Kg			07/18/16 09:48	100
1,1,1-Trichloroethane	ND		100	50	ug/Kg			07/18/16 09:48	100
1,1,2,2-Tetrachloroethane	ND		100	50	ug/Kg			07/18/16 09:48	100
1,1,2-Trichloroethane	ND		100	50	ug/Kg			07/18/16 09:48	100
1,1-Dichloroethane	ND		100	50	ug/Kg			07/18/16 09:48	100
1,1-Dichloroethene	ND		250	100	ug/Kg			07/18/16 09:48	100
1,1-Dichloropropene	ND		100	50	ug/Kg			07/18/16 09:48	100
1,2,3-Trichlorobenzene	ND		250	100	ug/Kg			07/18/16 09:48	100
1,2,3-Trichloropropane	ND		500	100	ug/Kg			07/18/16 09:48	100
1,2,4-Trichlorobenzene	ND		250	100	ug/Kg			07/18/16 09:48	100
1,2,4-Trimethylbenzene	ND		100	50	ug/Kg			07/18/16 09:48	100
1,2-Dibromo-3-Chloropropane	ND		250	100	ug/Kg			07/18/16 09:48	100
1,2-Dibromoethane (EDB)	ND		100	50	ug/Kg			07/18/16 09:48	100
1,2-Dichlorobenzene	ND		100	50	ug/Kg			07/18/16 09:48	100
1,2-Dichloroethane	ND		100	50	ug/Kg			07/18/16 09:48	100
1,2-Dichloropropane	ND		100	50	ug/Kg			07/18/16 09:48	100
1,3,5-Trimethylbenzene	ND		100	50	ug/Kg			07/18/16 09:48	100
1,3-Dichlorobenzene	ND		100	50	ug/Kg			07/18/16 09:48	100
1,3-Dichloropropane	ND		100	50	ug/Kg			07/18/16 09:48	100
1,4-Dichlorobenzene	ND		100	50	ug/Kg			07/18/16 09:48	100
2,2-Dichloropropane	ND		200	100	ug/Kg			07/18/16 09:48	100
2-Chlorotoluene	ND		250	100	ug/Kg			07/18/16 09:48	100
4-Chlorotoluene	ND		250	50	ug/Kg			07/18/16 09:48	100
Benzene	ND		100	50	ug/Kg			07/18/16 09:48	100
Bromobenzene	ND		250	100	ug/Kg			07/18/16 09:48	100
Bromochloromethane	ND		250	100	ug/Kg			07/18/16 09:48	100
Bromodichloromethane	ND		100	50	ug/Kg			07/18/16 09:48	100
Bromoform	ND		250	100	ug/Kg			07/18/16 09:48	100
Bromomethane	ND		250	100	ug/Kg			07/18/16 09:48	100
Carbon tetrachloride	ND		250	100	ug/Kg			07/18/16 09:48	100
Chlorobenzene	ND		100	50	ug/Kg			07/18/16 09:48	100
Chloroethane	ND		250	100	ug/Kg			07/18/16 09:48	100
Chloroform	ND		100	50	ug/Kg			07/18/16 09:48	100
Chloromethane	ND		250	100	ug/Kg			07/18/16 09:48	100
cis-1,2-Dichloroethene	ND		100	50	ug/Kg			07/18/16 09:48	100
cis-1,3-Dichloropropene	ND		100	50	ug/Kg			07/18/16 09:48	100
Dibromochloromethane	ND		100	50	ug/Kg			07/18/16 09:48	100
Dibromomethane	ND		100	50	ug/Kg			07/18/16 09:48	100
Dichlorodifluoromethane	ND		250	100	ug/Kg			07/18/16 09:48	100
Isopropyl Ether (DIPE)	ND		250	100	ug/Kg			07/18/16 09:48	100
Ethanol	ND		20000	7500	ug/Kg			07/18/16 09:48	100
Ethyl-t-butyl ether (ETBE)	ND		250	100	ug/Kg			07/18/16 09:48	100
Ethylbenzene	ND		100	50	ug/Kg			07/18/16 09:48	100
Hexachlorobutadiene	ND		250	100	ug/Kg			07/18/16 09:48	100
Isopropylbenzene	ND		100	50	ug/Kg			07/18/16 09:48	100
m,p-Xylene	ND		200	100	ug/Kg			07/18/16 09:48	100
Methylene Chloride	ND		1000	500	ug/Kg			07/18/16 09:48	100
Methyl-t-Butyl Ether (MTBE)	ND		250	100	ug/Kg			07/18/16 09:48	100

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

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

Lab Sample ID: MB 440-342991/6

Matrix: Solid

Analysis Batch: 342991

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		250	100	ug/Kg			07/18/16 09:48	100
n-Butylbenzene	ND		250	100	ug/Kg			07/18/16 09:48	100
N-Propylbenzene	ND		100	50	ug/Kg			07/18/16 09:48	100
o-Xylene	ND		100	50	ug/Kg			07/18/16 09:48	100
sec-Butylbenzene	ND		250	50	ug/Kg			07/18/16 09:48	100
Styrene	ND		100	50	ug/Kg			07/18/16 09:48	100
Tert-amyl-methyl ether (TAME)	ND		250	100	ug/Kg			07/18/16 09:48	100
tert-Butyl alcohol (TBA)	ND		5000	2500	ug/Kg			07/18/16 09:48	100
tert-Butylbenzene	ND		250	100	ug/Kg			07/18/16 09:48	100
Tetrachloroethene	ND		100	50	ug/Kg			07/18/16 09:48	100
Toluene	ND		100	50	ug/Kg			07/18/16 09:48	100
trans-1,2-Dichloroethene	ND		100	50	ug/Kg			07/18/16 09:48	100
trans-1,3-Dichloropropene	ND		100	50	ug/Kg			07/18/16 09:48	100
Trichloroethene	ND		100	50	ug/Kg			07/18/16 09:48	100
Trichlorofluoromethane	ND		250	100	ug/Kg			07/18/16 09:48	100
Vinyl chloride	ND		250	100	ug/Kg			07/18/16 09:48	100
Xylenes, Total	ND		200	100	ug/Kg			07/18/16 09:48	100
p-Isopropyltoluene	ND		100	50	ug/Kg			07/18/16 09:48	100

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	109		60 - 140		07/18/16 09:48	100
4-Bromofluorobenzene (Surr)	107		65 - 140		07/18/16 09:48	100
Dibromofluoromethane (Surr)	101		55 - 140		07/18/16 09:48	100

Lab Sample ID: LCS 440-342991/7

Matrix: Solid

Analysis Batch: 342991

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	2500	2580		ug/Kg		103	70 - 140
1,1,1-Trichloroethane	2500	2850		ug/Kg		114	65 - 140
1,1,1,2,2-Tetrachloroethane	2500	2640		ug/Kg		106	55 - 135
1,1,2-Trichloroethane	2500	2540		ug/Kg		102	65 - 130
1,1-Dichloroethane	2500	2630		ug/Kg		105	65 - 130
1,1-Dichloroethene	2500	2920		ug/Kg		117	75 - 140
1,1-Dichloropropene	2500	2940		ug/Kg		118	70 - 130
1,2,3-Trichlorobenzene	2500	2750		ug/Kg		110	60 - 135
1,2,3-Trichloropropane	2500	2590		ug/Kg		103	55 - 130
1,2,4-Trichlorobenzene	2500	2960		ug/Kg		119	65 - 135
1,2,4-Trimethylbenzene	2500	2780		ug/Kg		111	70 - 125
1,2-Dibromo-3-Chloropropane	2500	2500		ug/Kg		100	45 - 135
1,2-Dibromoethane (EDB)	2500	2650		ug/Kg		106	70 - 130
1,2-Dichlorobenzene	2500	2690		ug/Kg		108	70 - 120
1,2-Dichloroethane	2500	2650		ug/Kg		106	60 - 145
1,2-Dichloropropane	2500	2680		ug/Kg		107	75 - 125
1,3,5-Trimethylbenzene	2500	2840		ug/Kg		114	70 - 125
1,3-Dichlorobenzene	2500	2730		ug/Kg		109	70 - 125
1,3-Dichloropropane	2500	2540		ug/Kg		102	65 - 130

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

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

Lab Sample ID: LCS 440-342991/7

Matrix: Solid

Analysis Batch: 342991

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	2500	2630		ug/Kg		105	70 - 125
2,2-Dichloropropane	2500	2790		ug/Kg		112	60 - 145
2-Chlorotoluene	2500	2690		ug/Kg		108	70 - 125
4-Chlorotoluene	2500	2740		ug/Kg		110	70 - 125
Benzene	2500	2690		ug/Kg		108	65 - 120
Bromobenzene	2500	2690		ug/Kg		108	70 - 120
Bromochloromethane	2500	2650		ug/Kg		106	65 - 125
Bromodichloromethane	2500	2690		ug/Kg		108	65 - 135
Bromoform	2500	2770		ug/Kg		111	50 - 130
Bromomethane	2500	1760		ug/Kg		70	30 - 140
Carbon tetrachloride	2500	2970		ug/Kg		119	65 - 145
Chlorobenzene	2500	2560		ug/Kg		102	70 - 125
Chloroethane	2500	2340		ug/Kg		94	40 - 140
Chloroform	2500	2660		ug/Kg		106	75 - 130
Chloromethane	2500	1830		ug/Kg		73	30 - 140
cis-1,2-Dichloroethene	2500	2820		ug/Kg		113	65 - 130
cis-1,3-Dichloropropene	2500	2710		ug/Kg		108	70 - 130
Dibromochloromethane	2500	2620		ug/Kg		105	65 - 140
Dibromomethane	2500	2700		ug/Kg		108	65 - 130
Dichlorodifluoromethane	2500	1510		ug/Kg		60	10 - 155
Isopropyl Ether (DIPE)	2500	2720		ug/Kg		109	60 - 140
Ethanol	100000	119000		ug/Kg		119	35 - 160
Ethyl-t-butyl ether (ETBE)	2500	2680		ug/Kg		107	60 - 140
Ethylbenzene	2500	2630		ug/Kg		105	80 - 120
Hexachlorobutadiene	2500	3080		ug/Kg		123	60 - 135
Isopropylbenzene	2500	2790		ug/Kg		111	70 - 125
m,p-Xylene	2500	2680		ug/Kg		107	70 - 125
Methylene Chloride	2500	2700		ug/Kg		108	60 - 140
Methyl-t-Butyl Ether (MTBE)	2500	2610		ug/Kg		105	55 - 145
Naphthalene	2500	2700		ug/Kg		108	50 - 140
n-Butylbenzene	2500	3050		ug/Kg		122	70 - 130
N-Propylbenzene	2500	2880		ug/Kg		115	70 - 130
o-Xylene	2500	2630		ug/Kg		105	70 - 125
sec-Butylbenzene	2500	2920		ug/Kg		117	70 - 125
Styrene	2500	2670		ug/Kg		107	70 - 135
Tert-amyl-methyl ether (TAME)	2500	2770		ug/Kg		111	60 - 145
tert-Butyl alcohol (TBA)	25000	25100		ug/Kg		101	65 - 140
tert-Butylbenzene	2500	2880		ug/Kg		115	70 - 125
Tetrachloroethene	2500	2780		ug/Kg		111	65 - 125
Toluene	2500	2620		ug/Kg		105	80 - 120
trans-1,2-Dichloroethene	2500	3010		ug/Kg		120	65 - 130
trans-1,3-Dichloropropene	2500	2640		ug/Kg		106	65 - 135
Trichloroethene	2500	2740		ug/Kg		110	70 - 130
Trichlorofluoromethane	2500	2560		ug/Kg		102	50 - 145
Vinyl chloride	2500	1240		ug/Kg		50	10 - 120
p-Isopropyltoluene	2500	2920		ug/Kg		117	70 - 125

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

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

Lab Sample ID: LCS 440-342991/7

Matrix: Solid

Analysis Batch: 342991

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	100		60 - 140
4-Bromofluorobenzene (Surr)	102		65 - 140
Dibromofluoromethane (Surr)	102		55 - 140

Lab Sample ID: LCSD 440-342991/9

Matrix: Solid

Analysis Batch: 342991

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	2500	2760		ug/Kg		111	70 - 140	7	20
1,1,1-Trichloroethane	2500	2800		ug/Kg		112	65 - 140	2	20
1,1,2,2-Tetrachloroethane	2500	2630		ug/Kg		105	55 - 135	0	25
1,1,2-Trichloroethane	2500	2770		ug/Kg		111	65 - 130	9	20
1,1-Dichloroethane	2500	2670		ug/Kg		107	65 - 130	2	20
1,1-Dichloroethene	2500	2890		ug/Kg		116	75 - 140	1	20
1,1-Dichloropropene	2500	2880		ug/Kg		115	70 - 130	2	20
1,2,3-Trichlorobenzene	2500	2780		ug/Kg		111	60 - 135	1	20
1,2,3-Trichloropropane	2500	2580		ug/Kg		103	55 - 130	0	25
1,2,4-Trichlorobenzene	2500	2930		ug/Kg		117	65 - 135	1	20
1,2,4-Trimethylbenzene	2500	2790		ug/Kg		112	70 - 125	1	20
1,2-Dibromo-3-Chloropropane	2500	2340		ug/Kg		94	45 - 135	6	25
1,2-Dibromoethane (EDB)	2500	2810		ug/Kg		113	70 - 130	6	20
1,2-Dichlorobenzene	2500	2740		ug/Kg		110	70 - 120	2	20
1,2-Dichloroethane	2500	2580		ug/Kg		103	60 - 145	3	20
1,2-Dichloropropane	2500	2690		ug/Kg		108	75 - 125	0	20
1,3,5-Trimethylbenzene	2500	2850		ug/Kg		114	70 - 125	0	20
1,3-Dichlorobenzene	2500	2720		ug/Kg		109	70 - 125	0	20
1,3-Dichloropropane	2500	2720		ug/Kg		109	65 - 130	7	20
1,4-Dichlorobenzene	2500	2680		ug/Kg		107	70 - 125	2	20
2,2-Dichloropropane	2500	2720		ug/Kg		109	60 - 145	3	25
2-Chlorotoluene	2500	2700		ug/Kg		108	70 - 125	0	20
4-Chlorotoluene	2500	2710		ug/Kg		108	70 - 125	1	20
Benzene	2500	2700		ug/Kg		108	65 - 120	0	20
Bromobenzene	2500	2690		ug/Kg		108	70 - 120	0	20
Bromochloromethane	2500	2640		ug/Kg		106	65 - 125	0	20
Bromodichloromethane	2500	2670		ug/Kg		107	65 - 135	1	20
Bromoform	2500	2940		ug/Kg		118	50 - 130	6	25
Bromomethane	2500	1730		ug/Kg		69	30 - 140	2	30
Carbon tetrachloride	2500	2860		ug/Kg		114	65 - 145	4	20
Chlorobenzene	2500	2720		ug/Kg		109	70 - 125	6	20
Chloroethane	2500	2350		ug/Kg		94	40 - 140	1	25
Chloroform	2500	2620		ug/Kg		105	75 - 130	2	20
Chloromethane	2500	1930		ug/Kg		77	30 - 140	6	25
cis-1,2-Dichloroethene	2500	2780		ug/Kg		111	65 - 130	1	20
cis-1,3-Dichloropropene	2500	2980		ug/Kg		119	70 - 130	9	20
Dibromochloromethane	2500	2780		ug/Kg		111	65 - 140	6	20
Dibromomethane	2500	2620		ug/Kg		105	65 - 130	3	20
Dichlorodifluoromethane	2500	1510		ug/Kg		60	10 - 155	0	30

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

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

Lab Sample ID: LCSD 440-342991/9

Matrix: Solid

Analysis Batch: 342991

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Isopropyl Ether (DIPE)	2500	2750		ug/Kg		110	60 - 140	1	20
Ethanol	100000	120000		ug/Kg		120	35 - 160	1	30
Ethyl-t-butyl ether (ETBE)	2500	2630		ug/Kg		105	60 - 140	2	20
Ethylbenzene	2500	2840		ug/Kg		114	80 - 120	7	20
Hexachlorobutadiene	2500	3040		ug/Kg		121	60 - 135	2	20
Isopropylbenzene	2500	3010		ug/Kg		120	70 - 125	8	20
m,p-Xylene	2500	2880		ug/Kg		115	70 - 125	7	20
Methylene Chloride	2500	2700		ug/Kg		108	60 - 140	0	20
Methyl-t-Butyl Ether (MTBE)	2500	2630		ug/Kg		105	55 - 145	1	25
Naphthalene	2500	2700		ug/Kg		108	50 - 140	0	25
n-Butylbenzene	2500	3100		ug/Kg		124	70 - 130	2	20
N-Propylbenzene	2500	2850		ug/Kg		114	70 - 130	1	20
o-Xylene	2500	2810		ug/Kg		112	70 - 125	6	20
sec-Butylbenzene	2500	2880		ug/Kg		115	70 - 125	1	20
Styrene	2500	2920		ug/Kg		117	70 - 135	9	20
Tert-amyl-methyl ether (TAME)	2500	2720		ug/Kg		109	60 - 145	2	25
tert-Butyl alcohol (TBA)	25000	25500		ug/Kg		102	65 - 140	1	20
tert-Butylbenzene	2500	2910		ug/Kg		117	70 - 125	1	20
Tetrachloroethene	2500	2980		ug/Kg		119	65 - 125	7	20
Toluene	2500	2840		ug/Kg		114	80 - 120	8	20
trans-1,2-Dichloroethene	2500	3040		ug/Kg		122	65 - 130	1	20
trans-1,3-Dichloropropene	2500	2900		ug/Kg		116	65 - 135	9	20
Trichloroethene	2500	2670		ug/Kg		107	70 - 130	3	20
Trichlorofluoromethane	2500	2510		ug/Kg		100	50 - 145	2	25
Vinyl chloride	2500	1200		ug/Kg		48	10 - 120	3	30
p-Isopropyltoluene	2500	2920		ug/Kg		117	70 - 125	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	108		60 - 140
4-Bromofluorobenzene (Surr)	101		65 - 140
Dibromofluoromethane (Surr)	98		55 - 140

Lab Sample ID: MB 440-343001/4

Matrix: Solid

Analysis Batch: 343001

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0	1.0	ug/Kg			07/18/16 08:35	1
1,1,1-Trichloroethane	ND		2.0	1.0	ug/Kg			07/18/16 08:35	1
1,1,2,2-Tetrachloroethane	ND		2.0	1.0	ug/Kg			07/18/16 08:35	1
1,1,2-Trichloroethane	ND		2.0	1.0	ug/Kg			07/18/16 08:35	1
1,1-Dichloroethane	ND		2.0	1.0	ug/Kg			07/18/16 08:35	1
1,1-Dichloroethene	ND		5.0	1.0	ug/Kg			07/18/16 08:35	1
1,1-Dichloropropene	ND		2.0	1.0	ug/Kg			07/18/16 08:35	1
1,2,3-Trichlorobenzene	ND		5.0	1.0	ug/Kg			07/18/16 08:35	1
1,2,3-Trichloropropane	ND		10	1.0	ug/Kg			07/18/16 08:35	1
1,2,4-Trichlorobenzene	ND		5.0	1.0	ug/Kg			07/18/16 08:35	1
1,2,4-Trimethylbenzene	ND		2.0	1.0	ug/Kg			07/18/16 08:35	1

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

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

Lab Sample ID: MB 440-343001/4

Matrix: Solid

Analysis Batch: 343001

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		5.0	2.0	ug/Kg			07/18/16 08:35	1
1,2-Dibromoethane (EDB)	ND		2.0	1.0	ug/Kg			07/18/16 08:35	1
1,2-Dichlorobenzene	ND		2.0	1.0	ug/Kg			07/18/16 08:35	1
1,2-Dichloroethane	ND		2.0	1.0	ug/Kg			07/18/16 08:35	1
1,2-Dichloropropane	ND		2.0	1.0	ug/Kg			07/18/16 08:35	1
1,3,5-Trimethylbenzene	ND		2.0	1.0	ug/Kg			07/18/16 08:35	1
1,3-Dichlorobenzene	ND		2.0	1.0	ug/Kg			07/18/16 08:35	1
1,3-Dichloropropane	ND		2.0	1.0	ug/Kg			07/18/16 08:35	1
1,4-Dichlorobenzene	ND		2.0	1.0	ug/Kg			07/18/16 08:35	1
2,2-Dichloropropane	ND		2.0	1.0	ug/Kg			07/18/16 08:35	1
2-Chlorotoluene	ND		5.0	1.0	ug/Kg			07/18/16 08:35	1
4-Chlorotoluene	ND		5.0	1.0	ug/Kg			07/18/16 08:35	1
Benzene	ND		2.0	1.0	ug/Kg			07/18/16 08:35	1
Bromobenzene	ND		5.0	1.0	ug/Kg			07/18/16 08:35	1
Bromochloromethane	ND		5.0	1.0	ug/Kg			07/18/16 08:35	1
Bromodichloromethane	ND		2.0	1.0	ug/Kg			07/18/16 08:35	1
Bromoform	ND		5.0	2.0	ug/Kg			07/18/16 08:35	1
Bromomethane	ND		5.0	1.0	ug/Kg			07/18/16 08:35	1
Carbon tetrachloride	ND		5.0	1.0	ug/Kg			07/18/16 08:35	1
Chlorobenzene	ND		2.0	1.0	ug/Kg			07/18/16 08:35	1
Chloroethane	ND		5.0	2.0	ug/Kg			07/18/16 08:35	1
Chloroform	ND		2.0	1.0	ug/Kg			07/18/16 08:35	1
Chloromethane	ND		5.0	1.0	ug/Kg			07/18/16 08:35	1
cis-1,2-Dichloroethene	ND		2.0	1.0	ug/Kg			07/18/16 08:35	1
cis-1,3-Dichloropropene	ND		2.0	1.0	ug/Kg			07/18/16 08:35	1
Dibromochloromethane	ND		2.0	1.0	ug/Kg			07/18/16 08:35	1
Dibromomethane	ND		2.0	1.0	ug/Kg			07/18/16 08:35	1
Dichlorodifluoromethane	ND		5.0	2.0	ug/Kg			07/18/16 08:35	1
Isopropyl Ether (DIPE)	ND		5.0	1.0	ug/Kg			07/18/16 08:35	1
Ethanol	ND		300	100	ug/Kg			07/18/16 08:35	1
Ethyl-t-butyl ether (ETBE)	ND		5.0	1.0	ug/Kg			07/18/16 08:35	1
Ethylbenzene	ND		2.0	1.0	ug/Kg			07/18/16 08:35	1
Hexachlorobutadiene	ND		5.0	1.0	ug/Kg			07/18/16 08:35	1
Isopropylbenzene	ND		2.0	1.0	ug/Kg			07/18/16 08:35	1
m,p-Xylene	ND		4.0	2.0	ug/Kg			07/18/16 08:35	1
Methylene Chloride	ND		20	5.0	ug/Kg			07/18/16 08:35	1
Methyl-t-Butyl Ether (MTBE)	ND		5.0	1.0	ug/Kg			07/18/16 08:35	1
Naphthalene	ND		5.0	2.0	ug/Kg			07/18/16 08:35	1
n-Butylbenzene	ND		5.0	1.0	ug/Kg			07/18/16 08:35	1
N-Propylbenzene	ND		2.0	1.0	ug/Kg			07/18/16 08:35	1
o-Xylene	ND		2.0	1.0	ug/Kg			07/18/16 08:35	1
sec-Butylbenzene	ND		5.0	1.0	ug/Kg			07/18/16 08:35	1
Styrene	ND		2.0	1.0	ug/Kg			07/18/16 08:35	1
Tert-amyl-methyl ether (TAME)	ND		5.0	1.0	ug/Kg			07/18/16 08:35	1
tert-Butyl alcohol (TBA)	ND		100	10	ug/Kg			07/18/16 08:35	1
tert-Butylbenzene	ND		5.0	1.0	ug/Kg			07/18/16 08:35	1
Tetrachloroethene	ND		2.0	1.0	ug/Kg			07/18/16 08:35	1
Toluene	ND		2.0	1.0	ug/Kg			07/18/16 08:35	1

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

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

Lab Sample ID: MB 440-343001/4

Matrix: Solid

Analysis Batch: 343001

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		2.0	1.0	ug/Kg			07/18/16 08:35	1
trans-1,3-Dichloropropene	ND		2.0	1.0	ug/Kg			07/18/16 08:35	1
Trichloroethene	ND		2.0	1.0	ug/Kg			07/18/16 08:35	1
Trichlorofluoromethane	ND		5.0	1.0	ug/Kg			07/18/16 08:35	1
Vinyl chloride	ND		5.0	1.0	ug/Kg			07/18/16 08:35	1
Xylenes, Total	ND		4.0	2.0	ug/Kg			07/18/16 08:35	1
p-Isopropyltoluene	ND		2.0	1.0	ug/Kg			07/18/16 08:35	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		79 - 123		07/18/16 08:35	1
4-Bromofluorobenzene (Surr)	98		79 - 120		07/18/16 08:35	1
Dibromofluoromethane (Surr)	96		60 - 120		07/18/16 08:35	1

Lab Sample ID: LCS 440-343001/5

Matrix: Solid

Analysis Batch: 343001

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	50.0	46.5		ug/Kg		93	70 - 130
1,1,1-Trichloroethane	50.0	45.6		ug/Kg		91	65 - 135
1,1,2,2-Tetrachloroethane	50.0	53.1		ug/Kg		106	55 - 140
1,1,2-Trichloroethane	50.0	49.5		ug/Kg		99	65 - 135
1,1-Dichloroethane	50.0	46.3		ug/Kg		93	70 - 130
1,1-Dichloroethene	50.0	48.8		ug/Kg		98	70 - 125
1,1-Dichloropropene	50.0	54.0		ug/Kg		108	70 - 130
1,2,3-Trichlorobenzene	50.0	52.4		ug/Kg		105	60 - 130
1,2,3-Trichloropropane	50.0	46.4		ug/Kg		93	60 - 135
1,2,4-Trichlorobenzene	50.0	54.9		ug/Kg		110	70 - 135
1,2,4-Trimethylbenzene	50.0	50.8		ug/Kg		102	70 - 125
1,2-Dibromo-3-Chloropropane	50.0	46.3		ug/Kg		93	50 - 135
1,2-Dibromoethane (EDB)	50.0	53.6		ug/Kg		107	70 - 130
1,2-Dichlorobenzene	50.0	48.7		ug/Kg		97	75 - 120
1,2-Dichloroethane	50.0	43.0		ug/Kg		86	60 - 140
1,2-Dichloropropane	50.0	50.0		ug/Kg		100	70 - 130
1,3,5-Trimethylbenzene	50.0	50.7		ug/Kg		101	70 - 125
1,3-Dichlorobenzene	50.0	48.0		ug/Kg		96	75 - 125
1,3-Dichloropropane	50.0	49.2		ug/Kg		98	70 - 125
1,4-Dichlorobenzene	50.0	44.4		ug/Kg		89	75 - 120
2,2-Dichloropropane	50.0	45.1		ug/Kg		90	60 - 145
2-Chlorotoluene	50.0	48.5		ug/Kg		97	70 - 125
4-Chlorotoluene	50.0	48.3		ug/Kg		97	75 - 125
Benzene	50.0	50.1		ug/Kg		100	65 - 120
Bromobenzene	50.0	53.2		ug/Kg		106	75 - 120
Bromochloromethane	50.0	49.2		ug/Kg		98	70 - 135
Bromodichloromethane	50.0	48.2		ug/Kg		96	70 - 135
Bromoform	50.0	48.1		ug/Kg		96	55 - 135
Bromomethane	50.0	42.9		ug/Kg		86	60 - 145
Carbon tetrachloride	50.0	48.3		ug/Kg		97	65 - 140

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

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

Lab Sample ID: LCS 440-343001/5

Matrix: Solid

Analysis Batch: 343001

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chlorobenzene	50.0	45.8		ug/Kg		92	75 - 120
Chloroethane	50.0	44.4		ug/Kg		89	60 - 140
Chloroform	50.0	46.3		ug/Kg		93	70 - 130
Chloromethane	50.0	39.2		ug/Kg		78	45 - 145
cis-1,2-Dichloroethene	50.0	51.4		ug/Kg		103	70 - 125
cis-1,3-Dichloropropene	50.0	50.4		ug/Kg		101	75 - 125
Dibromochloromethane	50.0	47.3		ug/Kg		95	65 - 140
Dibromomethane	50.0	47.0		ug/Kg		94	70 - 130
Dichlorodifluoromethane	50.0	38.4		ug/Kg		77	35 - 160
Isopropyl Ether (DIPE)	50.0	53.0		ug/Kg		106	60 - 140
Ethanol	2000	1720		ug/Kg		86	35 - 160
Ethyl-t-butyl ether (ETBE)	50.0	51.0		ug/Kg		102	60 - 140
Ethylbenzene	50.0	53.5		ug/Kg		107	70 - 125
Hexachlorobutadiene	50.0	46.4		ug/Kg		93	60 - 135
Isopropylbenzene	50.0	50.8		ug/Kg		102	75 - 130
m,p-Xylene	50.0	51.4		ug/Kg		103	70 - 125
Methylene Chloride	50.0	46.2		ug/Kg		92	55 - 135
Methyl-t-Butyl Ether (MTBE)	50.0	53.7		ug/Kg		107	60 - 140
Naphthalene	50.0	51.7		ug/Kg		103	55 - 135
n-Butylbenzene	50.0	51.4		ug/Kg		103	70 - 130
N-Propylbenzene	50.0	51.6		ug/Kg		103	70 - 130
o-Xylene	50.0	47.4		ug/Kg		95	70 - 125
sec-Butylbenzene	50.0	50.6		ug/Kg		101	70 - 125
Styrene	50.0	47.0		ug/Kg		94	75 - 130
Tert-amyl-methyl ether (TAME)	50.0	54.4		ug/Kg		109	60 - 145
tert-Butyl alcohol (TBA)	500	470		ug/Kg		94	70 - 135
tert-Butylbenzene	50.0	50.6		ug/Kg		101	70 - 125
Tetrachloroethene	50.0	49.4		ug/Kg		99	70 - 125
Toluene	50.0	51.5		ug/Kg		103	70 - 125
trans-1,2-Dichloroethene	50.0	53.3		ug/Kg		107	70 - 125
trans-1,3-Dichloropropene	50.0	47.3		ug/Kg		95	70 - 135
Trichloroethene	50.0	49.8		ug/Kg		100	70 - 125
Trichlorofluoromethane	50.0	40.8		ug/Kg		82	60 - 145
Vinyl chloride	50.0	41.3		ug/Kg		83	55 - 135
p-Isopropyltoluene	50.0	53.4		ug/Kg		107	75 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	103		79 - 123
4-Bromofluorobenzene (Surr)	98		79 - 120
Dibromofluoromethane (Surr)	96		60 - 120

Lab Sample ID: 440-152882-A-2 MS

Matrix: Solid

Analysis Batch: 343001

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	ND		49.9	45.1		ug/Kg		90	65 - 145
1,1,1-Trichloroethane	ND		49.9	45.6		ug/Kg		91	65 - 145

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

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

Lab Sample ID: 440-152882-A-2 MS

Matrix: Solid

Analysis Batch: 343001

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2,2-Tetrachloroethane	ND		49.9	54.0		ug/Kg		108	40 - 160
1,1,2-Trichloroethane	ND		49.9	47.8		ug/Kg		96	65 - 140
1,1-Dichloroethane	ND		49.9	45.5		ug/Kg		91	65 - 135
1,1-Dichloroethene	ND		49.9	48.9		ug/Kg		98	65 - 135
1,1-Dichloropropene	ND		49.9	53.5		ug/Kg		107	65 - 135
1,2,3-Trichlorobenzene	ND		49.9	50.3		ug/Kg		101	45 - 145
1,2,3-Trichloropropane	ND		49.9	48.1		ug/Kg		96	50 - 150
1,2,4-Trichlorobenzene	ND		49.9	50.4		ug/Kg		101	50 - 140
1,2,4-Trimethylbenzene	ND		49.9	49.0		ug/Kg		98	65 - 140
1,2-Dibromo-3-Chloropropane	ND		49.9	47.5		ug/Kg		95	40 - 150
1,2-Dibromoethane (EDB)	ND		49.9	52.6		ug/Kg		105	65 - 140
1,2-Dichlorobenzene	ND		49.9	47.8		ug/Kg		96	70 - 130
1,2-Dichloroethane	ND		49.9	42.8		ug/Kg		86	60 - 150
1,2-Dichloropropane	ND		49.9	48.6		ug/Kg		97	65 - 130
1,3,5-Trimethylbenzene	ND		49.9	49.7		ug/Kg		100	65 - 135
1,3-Dichlorobenzene	ND		49.9	46.7		ug/Kg		94	70 - 130
1,3-Dichloropropane	ND		49.9	49.5		ug/Kg		99	65 - 140
1,4-Dichlorobenzene	ND		49.9	44.6		ug/Kg		89	70 - 130
2,2-Dichloropropane	ND		49.9	46.9		ug/Kg		94	65 - 150
2-Chlorotoluene	ND		49.9	47.8		ug/Kg		96	60 - 135
4-Chlorotoluene	ND		49.9	47.3		ug/Kg		95	65 - 135
Benzene	ND		49.9	49.4		ug/Kg		99	65 - 130
Bromobenzene	ND		49.9	51.1		ug/Kg		102	65 - 140
Bromochloromethane	ND		49.9	47.4		ug/Kg		95	65 - 145
Bromodichloromethane	ND		49.9	47.1		ug/Kg		94	65 - 145
Bromoform	ND		49.9	48.4		ug/Kg		97	50 - 145
Bromomethane	ND		49.9	42.5		ug/Kg		85	60 - 155
Carbon tetrachloride	ND		49.9	48.4		ug/Kg		97	60 - 145
Chlorobenzene	ND		49.9	45.6		ug/Kg		91	70 - 130
Chloroethane	ND		49.9	44.9		ug/Kg		90	60 - 150
Chloroform	ND		49.9	44.7		ug/Kg		90	65 - 135
Chloromethane	ND		49.9	39.4		ug/Kg		79	40 - 145
cis-1,2-Dichloroethene	ND		49.9	49.3		ug/Kg		99	65 - 135
cis-1,3-Dichloropropene	ND		49.9	49.5		ug/Kg		99	70 - 135
Dibromochloromethane	ND		49.9	46.6		ug/Kg		93	60 - 145
Dibromomethane	ND		49.9	47.4		ug/Kg		95	65 - 140
Dichlorodifluoromethane	ND		49.9	38.7		ug/Kg		78	30 - 160
Isopropyl Ether (DIPE)	ND		49.9	50.9		ug/Kg		102	60 - 150
Ethanol	ND		2000	1660		ug/Kg		83	30 - 165
Ethyl-t-butyl ether (ETBE)	ND		49.9	49.0		ug/Kg		98	60 - 145
Ethylbenzene	ND		49.9	54.1		ug/Kg		108	70 - 135
Hexachlorobutadiene	ND		49.9	44.3		ug/Kg		89	50 - 145
Isopropylbenzene	ND		49.9	52.3		ug/Kg		105	70 - 145
m,p-Xylene	ND		49.9	51.8		ug/Kg		104	70 - 130
Methylene Chloride	ND		49.9	45.2		ug/Kg		91	55 - 145
Methyl-t-Butyl Ether (MTBE)	ND		49.9	52.2		ug/Kg		105	55 - 155
Naphthalene	ND		49.9	50.9		ug/Kg		102	40 - 150
n-Butylbenzene	ND		49.9	50.7		ug/Kg		102	55 - 145

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

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

Lab Sample ID: 440-152882-A-2 MS

Matrix: Solid

Analysis Batch: 343001

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
N-Propylbenzene	ND		49.9	50.8		ug/Kg		102	65 - 140
o-Xylene	ND		49.9	47.1		ug/Kg		94	65 - 130
sec-Butylbenzene	ND		49.9	49.6		ug/Kg		99	60 - 135
Styrene	ND		49.9	47.3		ug/Kg		95	70 - 140
Tert-amyl-methyl ether (TAME)	ND		49.9	50.9		ug/Kg		102	60 - 150
tert-Butyl alcohol (TBA)	ND		49.9	480		ug/Kg		96	65 - 145
tert-Butylbenzene	ND		49.9	49.4		ug/Kg		99	60 - 140
Tetrachloroethene	ND		49.9	50.1		ug/Kg		100	65 - 135
Toluene	ND		49.9	50.9		ug/Kg		102	70 - 130
trans-1,2-Dichloroethene	ND		49.9	52.4		ug/Kg		105	70 - 135
trans-1,3-Dichloropropene	ND		49.9	47.4		ug/Kg		95	60 - 145
Trichloroethene	ND		49.9	49.5		ug/Kg		99	65 - 140
Trichlorofluoromethane	ND		49.9	42.3		ug/Kg		85	55 - 155
Vinyl chloride	ND		49.9	41.3		ug/Kg		83	55 - 140
p-Isopropyltoluene	ND		49.9	53.0		ug/Kg		106	60 - 140

Surrogate	MS %Recovery	MS Qualifier	Limits
Toluene-d8 (Surr)	103		79 - 123
4-Bromofluorobenzene (Surr)	98		79 - 120
Dibromofluoromethane (Surr)	94		60 - 120

Lab Sample ID: 440-152882-A-2 MSD

Matrix: Solid

Analysis Batch: 343001

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND		49.7	46.8		ug/Kg		94	65 - 145	4	20
1,1,1-Trichloroethane	ND		49.7	45.8		ug/Kg		92	65 - 145	0	20
1,1,2,2-Tetrachloroethane	ND		49.7	56.5		ug/Kg		114	40 - 160	5	30
1,1,2-Trichloroethane	ND		49.7	49.5		ug/Kg		100	65 - 140	3	30
1,1-Dichloroethane	ND		49.7	46.3		ug/Kg		93	65 - 135	2	25
1,1-Dichloroethene	ND		49.7	51.0		ug/Kg		103	65 - 135	4	25
1,1-Dichloropropene	ND		49.7	53.8		ug/Kg		108	65 - 135	1	20
1,2,3-Trichlorobenzene	ND		49.7	52.6		ug/Kg		106	45 - 145	4	30
1,2,3-Trichloropropane	ND		49.7	49.5		ug/Kg		100	50 - 150	3	30
1,2,4-Trichlorobenzene	ND		49.7	52.4		ug/Kg		105	50 - 140	4	30
1,2,4-Trimethylbenzene	ND		49.7	50.1		ug/Kg		101	65 - 140	2	25
1,2-Dibromo-3-Chloropropane	ND		49.7	50.5		ug/Kg		102	40 - 150	6	30
1,2-Dibromoethane (EDB)	ND		49.7	54.8		ug/Kg		110	65 - 140	4	25
1,2-Dichlorobenzene	ND		49.7	48.9		ug/Kg		98	70 - 130	2	25
1,2-Dichloroethane	ND		49.7	43.7		ug/Kg		88	60 - 150	2	25
1,2-Dichloropropane	ND		49.7	50.5		ug/Kg		102	65 - 130	4	20
1,3,5-Trimethylbenzene	ND		49.7	49.7		ug/Kg		100	65 - 135	0	25
1,3-Dichlorobenzene	ND		49.7	47.8		ug/Kg		96	70 - 130	2	25
1,3-Dichloropropane	ND		49.7	49.5		ug/Kg		100	65 - 140	0	25
1,4-Dichlorobenzene	ND		49.7	44.6		ug/Kg		90	70 - 130	0	25
2,2-Dichloropropane	ND		49.7	46.9		ug/Kg		94	65 - 150	0	25
2-Chlorotoluene	ND		49.7	47.2		ug/Kg		95	60 - 135	1	25

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

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

Lab Sample ID: 440-152882-A-2 MSD

Matrix: Solid

Analysis Batch: 343001

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4-Chlorotoluene	ND		49.7	46.9		ug/Kg		94	65 - 135	1	25
Benzene	ND		49.7	49.7		ug/Kg		100	65 - 130	1	20
Bromobenzene	ND		49.7	50.5		ug/Kg		102	65 - 140	1	25
Bromochloromethane	ND		49.7	50.9		ug/Kg		103	65 - 145	7	25
Bromodichloromethane	ND		49.7	48.7		ug/Kg		98	65 - 145	3	20
Bromoform	ND		49.7	50.4		ug/Kg		101	50 - 145	4	30
Bromomethane	ND		49.7	44.7		ug/Kg		90	60 - 155	5	25
Carbon tetrachloride	ND		49.7	49.0		ug/Kg		99	60 - 145	1	25
Chlorobenzene	ND		49.7	45.2		ug/Kg		91	70 - 130	1	25
Chloroethane	ND		49.7	46.0		ug/Kg		93	60 - 150	2	25
Chloroform	ND		49.7	45.6		ug/Kg		92	65 - 135	2	20
Chloromethane	ND		49.7	41.4		ug/Kg		83	40 - 145	5	25
cis-1,2-Dichloroethene	ND		49.7	50.4		ug/Kg		101	65 - 135	2	25
cis-1,3-Dichloropropene	ND		49.7	50.3		ug/Kg		101	70 - 135	2	25
Dibromochloromethane	ND		49.7	47.3		ug/Kg		95	60 - 145	2	25
Dibromomethane	ND		49.7	48.5		ug/Kg		98	65 - 140	2	25
Dichlorodifluoromethane	ND		49.7	39.1		ug/Kg		79	30 - 160	1	35
Isopropyl Ether (DIPE)	ND		49.7	52.8		ug/Kg		106	60 - 150	4	25
Ethanol	ND		1990	1670		ug/Kg		84	30 - 165	1	40
Ethyl-t-butyl ether (ETBE)	ND		49.7	51.5		ug/Kg		104	60 - 145	5	30
Ethylbenzene	ND		49.7	53.4		ug/Kg		107	70 - 135	1	25
Hexachlorobutadiene	ND		49.7	45.6		ug/Kg		92	50 - 145	3	35
Isopropylbenzene	ND		49.7	52.2		ug/Kg		105	70 - 145	0	25
m,p-Xylene	ND		49.7	52.4		ug/Kg		105	70 - 130	1	25
Methylene Chloride	ND		49.7	46.6		ug/Kg		94	55 - 145	3	25
Methyl-t-Butyl Ether (MTBE)	ND		49.7	56.4		ug/Kg		114	55 - 155	8	35
Naphthalene	ND		49.7	53.1		ug/Kg		107	40 - 150	4	40
n-Butylbenzene	ND		49.7	51.7		ug/Kg		104	55 - 145	2	30
N-Propylbenzene	ND		49.7	50.1		ug/Kg		101	65 - 140	1	25
o-Xylene	ND		49.7	47.6		ug/Kg		96	65 - 130	1	25
sec-Butylbenzene	ND		49.7	49.8		ug/Kg		100	60 - 135	0	25
Styrene	ND		49.7	46.8		ug/Kg		94	70 - 140	1	25
Tert-amyl-methyl ether (TAME)	ND		49.7	55.5		ug/Kg		112	60 - 150	8	25
tert-Butyl alcohol (TBA)	ND		497	468		ug/Kg		94	65 - 145	2	30
tert-Butylbenzene	ND		49.7	49.4		ug/Kg		99	60 - 140	0	25
Tetrachloroethene	ND		49.7	50.0		ug/Kg		101	65 - 135	0	25
Toluene	ND		49.7	51.1		ug/Kg		103	70 - 130	0	20
trans-1,2-Dichloroethene	ND		49.7	53.0		ug/Kg		107	70 - 135	1	25
trans-1,3-Dichloropropene	ND		49.7	48.4		ug/Kg		97	60 - 145	2	25
Trichloroethene	ND		49.7	49.1		ug/Kg		99	65 - 140	1	25
Trichlorofluoromethane	ND		49.7	43.2		ug/Kg		87	55 - 155	2	25
Vinyl chloride	ND		49.7	42.6		ug/Kg		86	55 - 140	3	30
p-Isopropyltoluene	ND		49.7	53.1		ug/Kg		107	60 - 140	0	25

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Toluene-d8 (Surr)	103		79 - 123
4-Bromofluorobenzene (Surr)	95		79 - 120
Dibromofluoromethane (Surr)	95		60 - 120

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Lab Sample ID: MB 440-343275/5
Matrix: Water
Analysis Batch: 343275

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			07/19/16 08:47	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			07/19/16 08:47	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			07/19/16 08:47	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			07/19/16 08:47	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			07/19/16 08:47	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			07/19/16 08:47	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			07/19/16 08:47	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			07/19/16 08:47	1
1,2,3-Trichloropropane	ND		1.0	0.25	ug/L			07/19/16 08:47	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			07/19/16 08:47	1
1,2,4-Trimethylbenzene	ND		0.50	0.25	ug/L			07/19/16 08:47	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			07/19/16 08:47	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			07/19/16 08:47	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			07/19/16 08:47	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			07/19/16 08:47	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			07/19/16 08:47	1
1,3,5-Trimethylbenzene	ND		0.50	0.25	ug/L			07/19/16 08:47	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			07/19/16 08:47	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			07/19/16 08:47	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			07/19/16 08:47	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			07/19/16 08:47	1
2-Chlorotoluene	ND		0.50	0.25	ug/L			07/19/16 08:47	1
4-Chlorotoluene	ND		0.50	0.25	ug/L			07/19/16 08:47	1
Benzene	ND		0.50	0.25	ug/L			07/19/16 08:47	1
Bromobenzene	ND		0.50	0.25	ug/L			07/19/16 08:47	1
Bromochloromethane	ND		0.50	0.25	ug/L			07/19/16 08:47	1
Bromodichloromethane	ND		0.50	0.25	ug/L			07/19/16 08:47	1
Bromoform	ND		1.0	0.40	ug/L			07/19/16 08:47	1
Bromomethane	ND		0.50	0.25	ug/L			07/19/16 08:47	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			07/19/16 08:47	1
Chlorobenzene	ND		0.50	0.25	ug/L			07/19/16 08:47	1
Chloroethane	ND		1.0	0.40	ug/L			07/19/16 08:47	1
Chloroform	ND		0.50	0.25	ug/L			07/19/16 08:47	1
Chloromethane	ND		0.50	0.25	ug/L			07/19/16 08:47	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			07/19/16 08:47	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			07/19/16 08:47	1
Dibromochloromethane	ND		0.50	0.25	ug/L			07/19/16 08:47	1
Dibromomethane	ND		0.50	0.25	ug/L			07/19/16 08:47	1
Dichlorodifluoromethane	ND		1.0	0.25	ug/L			07/19/16 08:47	1
Ethanol	ND		150	75	ug/L			07/19/16 08:47	1
Isopropyl Ether (DIPE)	ND		0.50	0.25	ug/L			07/19/16 08:47	1
Ethyl-t-butyl ether (ETBE)	ND		0.50	0.25	ug/L			07/19/16 08:47	1
Ethylbenzene	ND		0.50	0.25	ug/L			07/19/16 08:47	1
Hexachlorobutadiene	ND		0.50	0.25	ug/L			07/19/16 08:47	1
Isopropylbenzene	ND		0.50	0.25	ug/L			07/19/16 08:47	1
m,p-Xylene	ND		1.0	0.50	ug/L			07/19/16 08:47	1
Methylene Chloride	ND		2.0	0.88	ug/L			07/19/16 08:47	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.25	ug/L			07/19/16 08:47	1
Naphthalene	ND		1.0	0.40	ug/L			07/19/16 08:47	1
n-Butylbenzene	ND		1.0	0.40	ug/L			07/19/16 08:47	1

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

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

Lab Sample ID: MB 440-343275/5

Matrix: Water

Analysis Batch: 343275

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		0.50	0.25	ug/L			07/19/16 08:47	1
o-Xylene	ND		0.50	0.25	ug/L			07/19/16 08:47	1
p-Isopropyltoluene	ND		0.50	0.25	ug/L			07/19/16 08:47	1
sec-Butylbenzene	ND		0.50	0.25	ug/L			07/19/16 08:47	1
Styrene	ND		0.50	0.25	ug/L			07/19/16 08:47	1
Tert-amyl-methyl ether (TAME)	ND		0.50	0.25	ug/L			07/19/16 08:47	1
tert-Butylbenzene	ND		0.50	0.25	ug/L			07/19/16 08:47	1
Tetrachloroethene	ND		0.50	0.25	ug/L			07/19/16 08:47	1
Toluene	ND		0.50	0.25	ug/L			07/19/16 08:47	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			07/19/16 08:47	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			07/19/16 08:47	1
Trichloroethene	ND		0.50	0.25	ug/L			07/19/16 08:47	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			07/19/16 08:47	1
Xylenes, Total	ND		1.0	0.50	ug/L			07/19/16 08:47	1
Vinyl chloride	ND		0.50	0.25	ug/L			07/19/16 08:47	1
tert-Butyl alcohol (TBA)	ND		10	5.0	ug/L			07/19/16 08:47	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		80 - 120		07/19/16 08:47	1
Dibromofluoromethane (Surr)	113		76 - 132		07/19/16 08:47	1
Toluene-d8 (Surr)	111		80 - 128		07/19/16 08:47	1

Lab Sample ID: LCS 440-343275/6

Matrix: Water

Analysis Batch: 343275

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	27.9		ug/L		112	60 - 141
1,1,1-Trichloroethane	25.0	24.1		ug/L		96	70 - 130
1,1,2,2-Tetrachloroethane	25.0	23.8		ug/L		95	63 - 130
1,1,2-Trichloroethane	25.0	25.6		ug/L		103	70 - 130
1,1-Dichloroethane	25.0	25.1		ug/L		100	64 - 130
1,1-Dichloroethene	25.0	24.3		ug/L		97	70 - 130
1,1-Dichloropropene	25.0	23.6		ug/L		94	70 - 130
1,2,3-Trichlorobenzene	25.0	27.4		ug/L		110	60 - 140
1,2,3-Trichloropropane	25.0	22.6		ug/L		91	63 - 130
1,2,4-Trichlorobenzene	25.0	27.8		ug/L		111	60 - 140
1,2,4-Trimethylbenzene	25.0	24.0		ug/L		96	70 - 135
1,2-Dibromo-3-Chloropropane	25.0	20.1		ug/L		80	52 - 140
1,2-Dibromoethane (EDB)	25.0	28.5		ug/L		114	70 - 130
1,2-Dichlorobenzene	25.0	25.9		ug/L		104	70 - 130
1,2-Dichloroethane	25.0	26.0		ug/L		104	57 - 138
1,2-Dichloropropane	25.0	27.9		ug/L		112	67 - 130
1,3,5-Trimethylbenzene	25.0	23.6		ug/L		94	70 - 136
1,3-Dichlorobenzene	25.0	25.1		ug/L		100	70 - 130
1,3-Dichloropropane	25.0	24.0		ug/L		96	70 - 130
1,4-Dichlorobenzene	25.0	25.4		ug/L		102	70 - 130
2,2-Dichloropropane	25.0	23.7		ug/L		95	68 - 141

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

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

Lab Sample ID: LCS 440-343275/6

Matrix: Water

Analysis Batch: 343275

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chlorotoluene	25.0	23.5		ug/L		94	70 - 130
4-Chlorotoluene	25.0	25.0		ug/L		100	70 - 130
Benzene	25.0	25.7		ug/L		103	68 - 130
Bromobenzene	25.0	26.0		ug/L		104	70 - 130
Bromochloromethane	25.0	26.5		ug/L		106	70 - 130
Bromodichloromethane	25.0	27.2		ug/L		109	70 - 132
Bromoform	25.0	28.9		ug/L		115	60 - 148
Bromomethane	25.0	21.3		ug/L		85	64 - 139
Carbon tetrachloride	25.0	24.2		ug/L		97	60 - 150
Chlorobenzene	25.0	26.3		ug/L		105	70 - 130
Chloroethane	25.0	20.8		ug/L		83	64 - 135
Chloroform	25.0	26.3		ug/L		105	70 - 130
Chloromethane	25.0	21.7		ug/L		87	47 - 140
cis-1,2-Dichloroethene	25.0	25.3		ug/L		101	70 - 133
cis-1,3-Dichloropropene	25.0	29.5		ug/L		118	70 - 133
Dibromochloromethane	25.0	28.2		ug/L		113	69 - 145
Dibromomethane	25.0	25.6		ug/L		102	70 - 130
Dichlorodifluoromethane	25.0	17.2		ug/L		69	29 - 150
Ethanol	1000	982		ug/L		98	50 - 149
Isopropyl Ether (DIPE)	25.0	28.9		ug/L		116	58 - 139
Ethyl-t-butyl ether (ETBE)	25.0	28.9		ug/L		116	60 - 136
Ethylbenzene	25.0	25.0		ug/L		100	70 - 130
Hexachlorobutadiene	25.0	24.0		ug/L		96	10 - 150
Isopropylbenzene	25.0	24.9		ug/L		99	70 - 136
m,p-Xylene	25.0	26.9		ug/L		107	70 - 130
Methylene Chloride	25.0	26.3		ug/L		105	52 - 130
Methyl-t-Butyl Ether (MTBE)	25.0	27.5		ug/L		110	63 - 131
Naphthalene	25.0	25.4		ug/L		102	60 - 140
n-Butylbenzene	25.0	22.8		ug/L		91	65 - 150
N-Propylbenzene	25.0	22.7		ug/L		91	67 - 139
o-Xylene	25.0	27.2		ug/L		109	70 - 130
p-Isopropyltoluene	25.0	23.1		ug/L		92	70 - 132
sec-Butylbenzene	25.0	22.5		ug/L		90	70 - 138
Styrene	25.0	28.5		ug/L		114	70 - 134
Tert-amyl-methyl ether (TAME)	25.0	29.1		ug/L		116	57 - 139
tert-Butylbenzene	25.0	22.9		ug/L		92	70 - 130
Tetrachloroethene	25.0	25.5		ug/L		102	70 - 130
Toluene	25.0	25.5		ug/L		102	70 - 130
trans-1,2-Dichloroethene	25.0	25.6		ug/L		102	70 - 130
trans-1,3-Dichloropropene	25.0	28.5		ug/L		114	70 - 132
Trichloroethene	25.0	22.5		ug/L		90	70 - 130
Trichlorofluoromethane	25.0	21.9		ug/L		88	60 - 150
Vinyl chloride	25.0	20.5		ug/L		82	59 - 133
tert-Butyl alcohol (TBA)	250	247		ug/L		99	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		80 - 120
Dibromofluoromethane (Surr)	112		76 - 132

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

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

Lab Sample ID: LCS 440-343275/6

Matrix: Water

Analysis Batch: 343275

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	110		80 - 128

Lab Sample ID: 440-152586-7 MS

Matrix: Water

Analysis Batch: 343275

Client Sample ID: AEC-3-W

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	ND		25.0	25.7		ug/L		103	60 - 149
1,1,1-Trichloroethane	ND		25.0	23.4		ug/L		93	70 - 130
1,1,2,2-Tetrachloroethane	ND		25.0	28.7		ug/L		115	63 - 130
1,1,2-Trichloroethane	ND		25.0	26.2		ug/L		105	70 - 130
1,1-Dichloroethane	ND		25.0	23.5		ug/L		94	65 - 130
1,1-Dichloroethene	ND		25.0	22.8		ug/L		91	70 - 130
1,1-Dichloropropene	ND		25.0	22.7		ug/L		91	64 - 130
1,2,3-Trichlorobenzene	ND		25.0	28.0		ug/L		112	60 - 140
1,2,3-Trichloropropane	ND		25.0	27.3		ug/L		109	60 - 130
1,2,4-Trichlorobenzene	ND		25.0	27.4		ug/L		109	60 - 140
1,2,4-Trimethylbenzene	ND		25.0	22.3		ug/L		89	70 - 130
1,2-Dibromo-3-Chloropropane	ND		25.0	29.9		ug/L		119	48 - 140
1,2-Dibromoethane (EDB)	ND		25.0	29.8		ug/L		119	70 - 131
1,2-Dichlorobenzene	ND		25.0	25.0		ug/L		100	70 - 130
1,2-Dichloroethane	ND		25.0	26.4		ug/L		106	56 - 146
1,2-Dichloropropane	ND		25.0	26.6		ug/L		106	69 - 130
1,3,5-Trimethylbenzene	ND		25.0	21.8		ug/L		87	70 - 130
1,3-Dichlorobenzene	ND		25.0	23.7		ug/L		95	70 - 130
1,3-Dichloropropane	ND		25.0	25.0		ug/L		100	70 - 130
1,4-Dichlorobenzene	ND		25.0	24.2		ug/L		97	70 - 130
2,2-Dichloropropane	ND		25.0	22.8		ug/L		91	69 - 138
2-Chlorotoluene	ND		25.0	21.7		ug/L		87	70 - 130
4-Chlorotoluene	ND		25.0	23.3		ug/L		93	70 - 130
Benzene	ND		25.0	24.6		ug/L		98	66 - 130
Bromobenzene	ND		25.0	24.7		ug/L		99	70 - 130
Bromochloromethane	ND		25.0	26.0		ug/L		104	70 - 130
Bromodichloromethane	ND		25.0	26.3		ug/L		105	70 - 138
Bromoform	ND		25.0	31.1		ug/L		124	59 - 150
Bromomethane	ND		25.0	19.9		ug/L		80	62 - 131
Carbon tetrachloride	ND		25.0	23.2		ug/L		93	60 - 150
Chlorobenzene	ND		25.0	24.6		ug/L		99	70 - 130
Chloroethane	ND		25.0	20.1		ug/L		80	68 - 130
Chloroform	ND		25.0	24.9		ug/L		100	70 - 130
Chloromethane	ND		25.0	20.9		ug/L		83	39 - 144
cis-1,2-Dichloroethene	ND		25.0	24.1		ug/L		97	70 - 130
cis-1,3-Dichloropropene	ND		25.0	27.8		ug/L		111	70 - 133
Dibromochloromethane	ND		25.0	27.2		ug/L		109	70 - 148
Dibromomethane	ND		25.0	26.9		ug/L		108	70 - 130
Dichlorodifluoromethane	ND		25.0	15.5		ug/L		62	25 - 142
Ethanol	ND		1000	788		ug/L		79	54 - 150
Isopropyl Ether (DIPE)	ND		25.0	27.9		ug/L		112	64 - 138

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

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

Lab Sample ID: 440-152586-7 MS

Matrix: Water

Analysis Batch: 343275

Client Sample ID: AEC-3-W

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethyl-t-butyl ether (ETBE)	ND		25.0	28.5		ug/L		114	70 - 130
Ethylbenzene	ND		25.0	23.2		ug/L		93	70 - 130
Hexachlorobutadiene	ND		25.0	22.7		ug/L		91	10 - 150
Isopropylbenzene	ND		25.0	23.2		ug/L		93	70 - 132
m,p-Xylene	ND		25.0	24.7		ug/L		99	70 - 133
Methylene Chloride	ND		25.0	25.6		ug/L		102	52 - 130
Methyl-t-Butyl Ether (MTBE)	ND		25.0	29.5		ug/L		118	70 - 130
Naphthalene	ND		25.0	31.5		ug/L		126	60 - 140
n-Butylbenzene	ND		25.0	21.3		ug/L		85	61 - 149
N-Propylbenzene	ND		25.0	20.9		ug/L		84	66 - 135
o-Xylene	ND		25.0	25.1		ug/L		100	70 - 133
p-Isopropyltoluene	ND		25.0	20.9		ug/L		84	70 - 130
sec-Butylbenzene	ND		25.0	20.6		ug/L		82	67 - 134
Styrene	ND		25.0	26.9		ug/L		107	29 - 150
Tert-amyl-methyl ether (TAME)	ND		25.0	29.6		ug/L		118	68 - 133
tert-Butylbenzene	ND		25.0	21.3		ug/L		85	70 - 130
Tetrachloroethene	ND		25.0	23.2		ug/L		93	70 - 137
Toluene	ND		25.0	23.5		ug/L		94	70 - 130
trans-1,2-Dichloroethene	ND		25.0	24.7		ug/L		99	70 - 130
trans-1,3-Dichloropropene	ND		25.0	28.7		ug/L		115	70 - 138
Trichloroethene	ND		25.0	20.8		ug/L		83	70 - 130
Trichlorofluoromethane	ND		25.0	20.6		ug/L		82	60 - 150
Vinyl chloride	ND		25.0	19.6		ug/L		78	50 - 137
tert-Butyl alcohol (TBA)	11	ID	250	259		ug/L		99	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		80 - 120
Dibromofluoromethane (Surr)	113		76 - 132
Toluene-d8 (Surr)	108		80 - 128

Lab Sample ID: 440-152586-7 MSD

Matrix: Water

Analysis Batch: 343275

Client Sample ID: AEC-3-W

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND		25.0	26.0		ug/L		104	60 - 149	1	20
1,1,1-Trichloroethane	ND		25.0	24.2		ug/L		97	70 - 130	4	20
1,1,2,2-Tetrachloroethane	ND		25.0	30.2		ug/L		121	63 - 130	5	30
1,1,2-Trichloroethane	ND		25.0	26.2		ug/L		105	70 - 130	0	25
1,1-Dichloroethane	ND		25.0	24.7		ug/L		99	65 - 130	5	20
1,1-Dichloroethene	ND		25.0	23.7		ug/L		95	70 - 130	4	20
1,1-Dichloropropene	ND		25.0	24.1		ug/L		96	64 - 130	6	20
1,2,3-Trichlorobenzene	ND		25.0	27.7		ug/L		111	60 - 140	1	20
1,2,3-Trichloropropane	ND		25.0	28.9		ug/L		116	60 - 130	6	30
1,2,4-Trichlorobenzene	ND		25.0	27.5		ug/L		110	60 - 140	0	20
1,2,4-Trimethylbenzene	ND		25.0	23.0		ug/L		92	70 - 130	3	25
1,2-Dibromo-3-Chloropropane	ND		25.0	31.9		ug/L		128	48 - 140	7	30
1,2-Dibromoethane (EDB)	ND		25.0	30.4		ug/L		122	70 - 131	2	25

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

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

Lab Sample ID: 440-152586-7 MSD

Matrix: Water

Analysis Batch: 343275

Client Sample ID: AEC-3-W

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichlorobenzene	ND		25.0	25.8		ug/L		103	70 - 130	3	20
1,2-Dichloroethane	ND		25.0	27.6		ug/L		110	56 - 146	4	20
1,2-Dichloropropane	ND		25.0	27.3		ug/L		109	69 - 130	3	20
1,3,5-Trimethylbenzene	ND		25.0	22.5		ug/L		90	70 - 130	3	20
1,3-Dichlorobenzene	ND		25.0	24.1		ug/L		97	70 - 130	2	20
1,3-Dichloropropane	ND		25.0	25.3		ug/L		101	70 - 130	1	25
1,4-Dichlorobenzene	ND		25.0	25.2		ug/L		101	70 - 130	4	20
2,2-Dichloropropane	ND		25.0	23.2		ug/L		93	69 - 138	2	25
2-Chlorotoluene	ND		25.0	22.7		ug/L		91	70 - 130	5	20
4-Chlorotoluene	ND		25.0	24.2		ug/L		97	70 - 130	3	20
Benzene	ND		25.0	25.7		ug/L		103	66 - 130	5	20
Bromobenzene	ND		25.0	25.8		ug/L		103	70 - 130	5	20
Bromochloromethane	ND		25.0	26.9		ug/L		108	70 - 130	4	25
Bromodichloromethane	ND		25.0	27.3		ug/L		109	70 - 138	3	20
Bromoform	ND		25.0	31.5		ug/L		126	59 - 150	1	25
Bromomethane	ND		25.0	20.6		ug/L		82	62 - 131	3	25
Carbon tetrachloride	ND		25.0	23.9		ug/L		95	60 - 150	3	25
Chlorobenzene	ND		25.0	24.9		ug/L		100	70 - 130	1	20
Chloroethane	ND		25.0	20.6		ug/L		82	68 - 130	2	25
Chloroform	ND		25.0	26.1		ug/L		105	70 - 130	5	20
Chloromethane	ND		25.0	21.4		ug/L		85	39 - 144	2	25
cis-1,2-Dichloroethene	ND		25.0	24.6		ug/L		98	70 - 130	2	20
cis-1,3-Dichloropropene	ND		25.0	28.0		ug/L		112	70 - 133	1	20
Dibromochloromethane	ND		25.0	27.8		ug/L		111	70 - 148	2	25
Dibromomethane	ND		25.0	27.7		ug/L		111	70 - 130	3	25
Dichlorodifluoromethane	ND		25.0	15.9		ug/L		64	25 - 142	3	30
Ethanol	ND		1000	806	*	ug/L		81	54 - 150	2	30
Isopropyl Ether (DIPE)	ND		25.0	28.9		ug/L		116	64 - 138	3	25
Ethyl-t-butyl ether (ETBE)	ND		25.0	29.7		ug/L		119	70 - 130	4	25
Ethylbenzene	ND		25.0	23.4		ug/L		94	70 - 130	1	20
Hexachlorobutadiene	ND		25.0	20.6		ug/L		82	10 - 150	10	20
Isopropylbenzene	ND		25.0	23.0		ug/L		92	70 - 132	1	20
m,p-Xylene	ND		25.0	24.6		ug/L		98	70 - 133	0	25
Methylene Chloride	ND		25.0	25.9		ug/L		104	52 - 130	1	20
Methyl-t-Butyl Ether (MTBE)	ND		25.0	30.5		ug/L		122	70 - 130	4	25
Naphthalene	ND		25.0	33.1		ug/L		133	60 - 140	5	30
n-Butylbenzene	ND		25.0	21.2		ug/L		85	61 - 149	0	20
N-Propylbenzene	ND		25.0	21.7		ug/L		87	66 - 135	4	20
o-Xylene	ND		25.0	24.8		ug/L		99	70 - 133	1	20
p-Isopropyltoluene	ND		25.0	21.5		ug/L		86	70 - 130	3	20
sec-Butylbenzene	ND		25.0	20.9		ug/L		83	67 - 134	1	20
Styrene	ND		25.0	26.9		ug/L		108	29 - 150	0	35
Tert-amyl-methyl ether (TAME)	ND		25.0	30.9		ug/L		123	68 - 133	4	30
tert-Butylbenzene	ND		25.0	21.6		ug/L		86	70 - 130	2	20
Tetrachloroethene	ND		25.0	23.5		ug/L		94	70 - 137	1	20
Toluene	ND		25.0	23.8		ug/L		95	70 - 130	1	20
trans-1,2-Dichloroethene	ND		25.0	24.6		ug/L		98	70 - 130	0	20
trans-1,3-Dichloropropene	ND		25.0	28.2		ug/L		113	70 - 138	2	25

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

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

Lab Sample ID: 440-152586-7 MSD

Matrix: Water

Analysis Batch: 343275

Client Sample ID: AEC-3-W

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Trichloroethene	ND		25.0	22.0		ug/L		88	70 - 130	6	20
Trichlorofluoromethane	ND		25.0	21.5		ug/L		86	60 - 150	4	25
Vinyl chloride	ND		25.0	20.0		ug/L		80	50 - 137	2	30
tert-Butyl alcohol (TBA)	11	ID	250	266	*	ug/L		102	70 - 130	3	25
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	103		80 - 120								
Dibromofluoromethane (Surr)	113		76 - 132								
Toluene-d8 (Surr)	105		80 - 128								

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 440-342992/6

Matrix: Solid

Analysis Batch: 342992

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		10000	7000	ug/Kg			07/18/16 09:48	100
Volatile Fuel Hydrocarbons (C4-C12)	ND		10000	7000	ug/Kg			07/18/16 09:48	100
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	101		55 - 140					07/18/16 09:48	100
4-Bromofluorobenzene (Surr)	107		65 - 140					07/18/16 09:48	100
Toluene-d8 (Surr)	109		60 - 140					07/18/16 09:48	100

Lab Sample ID: LCS 440-342992/10

Matrix: Solid

Analysis Batch: 342992

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Volatile Fuel Hydrocarbons (C4-C12)	50000	51100		ug/Kg		102	60 - 130		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
Dibromofluoromethane (Surr)	98		55 - 140						
4-Bromofluorobenzene (Surr)	104		65 - 140						
Toluene-d8 (Surr)	111		60 - 140						

Lab Sample ID: LCSD 440-342992/11

Matrix: Solid

Analysis Batch: 342992

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Volatile Fuel Hydrocarbons (C4-C12)	50000	51800		ug/Kg		104	60 - 130	1	25

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

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

Lab Sample ID: LCSD 440-342992/11

Matrix: Solid

Analysis Batch: 342992

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
Dibromofluoromethane (Surr)	96		55 - 140
4-Bromofluorobenzene (Surr)	106		65 - 140
Toluene-d8 (Surr)	112		60 - 140

Lab Sample ID: MB 440-343002/4

Matrix: Solid

Analysis Batch: 343002

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		100	70	ug/Kg	-		07/18/16 08:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	96		60 - 120					07/18/16 08:35	1
4-Bromofluorobenzene (Surr)	98		79 - 120					07/18/16 08:35	1
Toluene-d8 (Surr)	103		79 - 123					07/18/16 08:35	1

Lab Sample ID: LCS 440-343002/6

Matrix: Solid

Analysis Batch: 343002

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
Volatile Fuel Hydrocarbons (C4-C12)	Added	Result	Qualifier	ug/Kg	-	104	Limits
	1000	1040					60 - 135
Surrogate	%Recovery	Qualifier	Limits				
Dibromofluoromethane (Surr)	97		60 - 120				
4-Bromofluorobenzene (Surr)	99		79 - 120				
Toluene-d8 (Surr)	103		79 - 123				

Lab Sample ID: 440-152882-A-2 MS

Matrix: Solid

Analysis Batch: 343002

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
Volatile Fuel Hydrocarbons (C4-C12)	Result	Qualifier	Added	Result	Qualifier	ug/Kg	-	110	Limits
	ND		3440	3790					55 - 140
Surrogate	%Recovery	Qualifier	Limits						
Dibromofluoromethane (Surr)	94		60 - 120						
4-Bromofluorobenzene (Surr)	98		79 - 120						
Toluene-d8 (Surr)	103		79 - 123						

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

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

Lab Sample ID: 440-152882-A-2 MSD

Matrix: Solid

Analysis Batch: 343002

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Volatile Fuel Hydrocarbons (C4-C12)	ND		3430	3910		ug/Kg		114	55 - 140	3	25
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
Dibromofluoromethane (Surr)	95		60 - 120								
4-Bromofluorobenzene (Surr)	95		79 - 120								
Toluene-d8 (Surr)	103		79 - 123								

Lab Sample ID: MB 440-343276/5

Matrix: Water

Analysis Batch: 343276

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		50	35	ug/L			07/19/16 08:47	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	113		76 - 132					07/19/16 08:47	1
4-Bromofluorobenzene (Surr)	102		80 - 120					07/19/16 08:47	1
Toluene-d8 (Surr)	111		80 - 128					07/19/16 08:47	1

Lab Sample ID: LCS 440-343276/7

Matrix: Water

Analysis Batch: 343276

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Volatile Fuel Hydrocarbons (C4-C12)	500	446		ug/L		89	55 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Dibromofluoromethane (Surr)	110		76 - 132				
4-Bromofluorobenzene (Surr)	106		80 - 120				
Toluene-d8 (Surr)	109		80 - 128				

Lab Sample ID: 440-152586-7 MS

Matrix: Water

Analysis Batch: 343276

Client Sample ID: AEC-3-W

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Volatile Fuel Hydrocarbons (C4-C12)	49	J	1730	1610		ug/L		90	50 - 145
Surrogate	MS %Recovery	MS Qualifier	Limits						
Dibromofluoromethane (Surr)	113		76 - 132						
4-Bromofluorobenzene (Surr)	102		80 - 120						
Toluene-d8 (Surr)	108		80 - 128						

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

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

Lab Sample ID: 440-152586-7 MSD

Matrix: Water

Analysis Batch: 343276

Client Sample ID: AEC-3-W

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Volatile Fuel Hydrocarbons (C4-C12)	49	J	1730	1650		ug/L		93	50 - 145	2	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
Dibromofluoromethane (Surr)	113		76 - 132								
4-Bromofluorobenzene (Surr)	103		80 - 120								
Toluene-d8 (Surr)	105		80 - 128								

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

Lab Sample ID: MB 440-342341/1-A

Matrix: Solid

Analysis Batch: 342622

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 342341

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		30	4.0	ug/Kg		07/14/16 09:34	07/15/16 10:49	1
Acenaphthylene	ND		30	4.0	ug/Kg		07/14/16 09:34	07/15/16 10:49	1
Anthracene	ND		30	4.0	ug/Kg		07/14/16 09:34	07/15/16 10:49	1
Benzo[a]anthracene	ND		30	4.0	ug/Kg		07/14/16 09:34	07/15/16 10:49	1
Benzo[a]pyrene	ND		30	4.0	ug/Kg		07/14/16 09:34	07/15/16 10:49	1
Benzo[b]fluoranthene	ND		30	4.0	ug/Kg		07/14/16 09:34	07/15/16 10:49	1
Benzo[g,h,i]perylene	ND		30	4.0	ug/Kg		07/14/16 09:34	07/15/16 10:49	1
Benzo[k]fluoranthene	ND		30	4.0	ug/Kg		07/14/16 09:34	07/15/16 10:49	1
Chrysene	ND		30	4.0	ug/Kg		07/14/16 09:34	07/15/16 10:49	1
Dibenz(a,h)anthracene	ND		30	4.0	ug/Kg		07/14/16 09:34	07/15/16 10:49	1
Fluoranthene	ND		30	4.0	ug/Kg		07/14/16 09:34	07/15/16 10:49	1
Fluorene	ND		30	4.0	ug/Kg		07/14/16 09:34	07/15/16 10:49	1
Indeno[1,2,3-cd]pyrene	ND		30	4.0	ug/Kg		07/14/16 09:34	07/15/16 10:49	1
Naphthalene	ND		30	4.0	ug/Kg		07/14/16 09:34	07/15/16 10:49	1
Phenanthrene	ND		30	4.0	ug/Kg		07/14/16 09:34	07/15/16 10:49	1
Pyrene	ND		30	4.0	ug/Kg		07/14/16 09:34	07/15/16 10:49	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	69		39 - 111				07/14/16 09:34	07/15/16 10:49	1
Nitrobenzene-d5	66		41 - 119				07/14/16 09:34	07/15/16 10:49	1
Terphenyl-d14	81		43 - 150				07/14/16 09:34	07/15/16 10:49	1

Lab Sample ID: LCS 440-342341/2-A

Matrix: Solid

Analysis Batch: 342622

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 342341

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	66.7	48.8		ug/Kg		73	53 - 120
Acenaphthylene	66.7	48.9		ug/Kg		73	54 - 120
Anthracene	66.7	48.2		ug/Kg		72	53 - 120
Benzo[a]anthracene	66.7	53.1		ug/Kg		80	56 - 120
Benzo[a]pyrene	66.7	51.9		ug/Kg		78	53 - 120

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QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

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

Lab Sample ID: LCS 440-342341/2-A

Matrix: Solid

Analysis Batch: 342622

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 342341

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[b]fluoranthene	66.7	54.5		ug/Kg		82	53 - 120
Benzo[g,h,i]perylene	66.7	74.5		ug/Kg		112	51 - 150
Benzo[k]fluoranthene	66.7	54.5		ug/Kg		82	53 - 124
Chrysene	66.7	53.7		ug/Kg		80	56 - 120
Dibenz(a,h)anthracene	66.7	53.8		ug/Kg		81	51 - 131
Fluoranthene	66.7	51.2		ug/Kg		77	57 - 120
Fluorene	66.7	49.9		ug/Kg		75	54 - 120
Indeno[1,2,3-cd]pyrene	66.7	56.3		ug/Kg		84	50 - 137
Naphthalene	66.7	46.7		ug/Kg		70	49 - 120
Phenanthrene	66.7	49.4		ug/Kg		74	55 - 120
Pyrene	66.7	51.7		ug/Kg		78	56 - 121

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	71		39 - 111
Nitrobenzene-d5	67		41 - 119
Terphenyl-d14	85		43 - 150

Lab Sample ID: 440-152586-1 MS

Matrix: Solid

Analysis Batch: 342622

Client Sample ID: AEC-2-5'

Prep Type: Total/NA

Prep Batch: 342341

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	ND		64.6	50.9		ug/Kg		79	45 - 120
Acenaphthylene	ND		64.6	51.4		ug/Kg		80	45 - 120
Anthracene	ND		64.6	48.6		ug/Kg		75	55 - 120
Benzo[a]anthracene	ND		64.6	52.9		ug/Kg		82	50 - 120
Benzo[a]pyrene	ND		64.6	48.9		ug/Kg		76	45 - 125
Benzo[b]fluoranthene	ND		64.6	53.2		ug/Kg		82	45 - 125
Benzo[g,h,i]perylene	ND	F2	64.6	43.6		ug/Kg		68	25 - 130
Benzo[k]fluoranthene	ND		64.6	52.4		ug/Kg		81	45 - 125
Chrysene	ND		64.6	53.4		ug/Kg		83	55 - 120
Dibenz(a,h)anthracene	ND		64.6	34.5		ug/Kg		53	25 - 135
Fluoranthene	ND		64.6	52.7		ug/Kg		82	45 - 120
Fluorene	ND		64.6	50.7		ug/Kg		78	50 - 120
Indeno[1,2,3-cd]pyrene	ND		64.6	34.5		ug/Kg		53	20 - 130
Naphthalene	ND		64.6	47.9		ug/Kg		74	40 - 120
Phenanthrene	ND		64.6	49.8		ug/Kg		77	50 - 120
Pyrene	5.5	J	64.6	53.7		ug/Kg		75	40 - 125

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl (Surr)	78		39 - 111
Nitrobenzene-d5	71		41 - 119
Terphenyl-d14	113		43 - 150

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QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

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

Lab Sample ID: 440-152586-1 MSD

Matrix: Solid

Analysis Batch: 342622

Client Sample ID: AEC-2-5'

Prep Type: Total/NA

Prep Batch: 342341

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthene	ND		66.4	50.8		ug/Kg		77	45 - 120	0	25
Acenaphthylene	ND		66.4	51.1		ug/Kg		77	45 - 120	0	20
Anthracene	ND		66.4	49.5		ug/Kg		75	55 - 120	2	25
Benzo[a]anthracene	ND		66.4	53.2		ug/Kg		80	50 - 120	1	25
Benzo[a]pyrene	ND		66.4	50.2		ug/Kg		76	45 - 125	3	25
Benzo[b]fluoranthene	ND		66.4	53.5		ug/Kg		81	45 - 125	1	30
Benzo[g,h,i]perylene	ND	F2	66.4	59.6	F2	ug/Kg		90	25 - 130	31	30
Benzo[k]fluoranthene	ND		66.4	53.0		ug/Kg		80	45 - 125	1	30
Chrysene	ND		66.4	54.0		ug/Kg		81	55 - 120	1	25
Dibenz(a,h)anthracene	ND		66.4	41.4		ug/Kg		62	25 - 135	18	30
Fluoranthene	ND		66.4	53.1		ug/Kg		80	45 - 120	1	25
Fluorene	ND		66.4	52.3		ug/Kg		79	50 - 120	3	25
Indeno[1,2,3-cd]pyrene	ND		66.4	43.3		ug/Kg		65	20 - 130	23	30
Naphthalene	ND		66.4	47.4		ug/Kg		71	40 - 120	1	25
Phenanthrene	ND		66.4	50.9		ug/Kg		77	50 - 120	2	25
Pyrene	5.5	J	66.4	54.8		ug/Kg		74	40 - 125	2	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	72		39 - 111
Nitrobenzene-d5	67		41 - 119
Terphenyl-d14	101		43 - 150

Lab Sample ID: MB 440-342864/1-A

Matrix: Water

Analysis Batch: 343497

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 342864

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.10	ug/L		07/16/16 09:00	07/19/16 18:11	1
Acenaphthylene	ND		0.20	0.10	ug/L		07/16/16 09:00	07/19/16 18:11	1
Anthracene	ND		0.20	0.10	ug/L		07/16/16 09:00	07/19/16 18:11	1
Benzo[a]anthracene	ND		0.20	0.10	ug/L		07/16/16 09:00	07/19/16 18:11	1
Benzo[a]pyrene	ND		0.20	0.10	ug/L		07/16/16 09:00	07/19/16 18:11	1
Benzo[b]fluoranthene	ND		0.20	0.10	ug/L		07/16/16 09:00	07/19/16 18:11	1
Benzo[g,h,i]perylene	ND		0.20	0.10	ug/L		07/16/16 09:00	07/19/16 18:11	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		07/16/16 09:00	07/19/16 18:11	1
Chrysene	ND		0.20	0.10	ug/L		07/16/16 09:00	07/19/16 18:11	1
Dibenz(a,h)anthracene	ND		0.20	0.10	ug/L		07/16/16 09:00	07/19/16 18:11	1
Fluoranthene	ND		0.20	0.10	ug/L		07/16/16 09:00	07/19/16 18:11	1
Fluorene	ND		0.20	0.10	ug/L		07/16/16 09:00	07/19/16 18:11	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		07/16/16 09:00	07/19/16 18:11	1
Naphthalene	ND		0.20	0.10	ug/L		07/16/16 09:00	07/19/16 18:11	1
Phenanthrene	ND		0.20	0.10	ug/L		07/16/16 09:00	07/19/16 18:11	1
Pyrene	ND		0.20	0.10	ug/L		07/16/16 09:00	07/19/16 18:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	67		50 - 104	07/16/16 09:00	07/19/16 18:11	1
Nitrobenzene-d5	51		46 - 109	07/16/16 09:00	07/19/16 18:11	1

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QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

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

Lab Sample ID: MB 440-342864/1-A

Matrix: Water

Analysis Batch: 343497

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 342864

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	80		28 - 124	07/16/16 09:00	07/19/16 18:11	1

Lab Sample ID: LCS 440-342864/2-A

Matrix: Water

Analysis Batch: 343497

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 342864

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	1.00	0.689		ug/L		69	54 - 120
Acenaphthylene	1.00	0.676		ug/L		68	55 - 120
Anthracene	1.00	0.659		ug/L		66	56 - 120
Benzo[a]anthracene	1.00	0.721		ug/L		72	63 - 120
Benzo[a]pyrene	1.00	0.681		ug/L		68	54 - 120
Benzo[b]fluoranthene	1.00	0.799		ug/L		80	60 - 120
Benzo[g,h,i]perylene	1.00	0.895		ug/L		89	61 - 139
Benzo[k]fluoranthene	1.00	0.800		ug/L		80	62 - 120
Chrysene	1.00	0.746		ug/L		75	65 - 120
Dibenz(a,h)anthracene	1.00	0.663		ug/L		66	61 - 120
Fluoranthene	1.00	0.753		ug/L		75	61 - 120
Fluorene	1.00	0.820		ug/L		82	53 - 120
Indeno[1,2,3-cd]pyrene	1.00	0.677		ug/L		68	61 - 122
Naphthalene	1.00	0.708		ug/L		71	46 - 120
Phenanthrene	1.00	0.710		ug/L		71	60 - 120
Pyrene	1.00	0.754		ug/L		75	63 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	65		50 - 104
Nitrobenzene-d5	64		46 - 109
Terphenyl-d14	83		28 - 124

Lab Sample ID: LCSD 440-342864/3-A

Matrix: Water

Analysis Batch: 343497

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 342864

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	1.00	0.704		ug/L		70	54 - 120	2	35
Acenaphthylene	1.00	0.681		ug/L		68	55 - 120	1	35
Anthracene	1.00	0.651		ug/L		65	56 - 120	1	35
Benzo[a]anthracene	1.00	0.742		ug/L		74	63 - 120	3	35
Benzo[a]pyrene	1.00	0.683		ug/L		68	54 - 120	0	35
Benzo[b]fluoranthene	1.00	0.831		ug/L		83	60 - 120	4	35
Benzo[g,h,i]perylene	1.00	0.871		ug/L		87	61 - 139	3	35
Benzo[k]fluoranthene	1.00	0.837		ug/L		84	62 - 120	5	35
Chrysene	1.00	0.760		ug/L		76	65 - 120	2	35
Dibenz(a,h)anthracene	1.00	0.639		ug/L		64	61 - 120	4	35
Fluoranthene	1.00	0.774		ug/L		77	61 - 120	3	35
Fluorene	1.00	0.813		ug/L		81	53 - 120	1	35
Indeno[1,2,3-cd]pyrene	1.00	0.665		ug/L		67	61 - 122	2	35
Naphthalene	1.00	0.657		ug/L		66	46 - 120	8	35

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QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

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

Lab Sample ID: LCSD 440-342864/3-A

Matrix: Water

Analysis Batch: 343497

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 342864

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenanthrene	1.00	0.723		ug/L		72	60 - 120	2	35
Pyrene	1.00	0.766		ug/L		77	63 - 120	2	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	67		50 - 104
Nitrobenzene-d5	66		46 - 109
Terphenyl-d14	85		28 - 124

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 440-342333/1-A

Matrix: Solid

Analysis Batch: 342652

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 342333

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	2.5	mg/Kg		07/14/16 09:20	07/15/16 14:05	1
C23-C40	ND		5.0	2.5	mg/Kg		07/14/16 09:20	07/15/16 14:05	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	93		40 - 140	07/14/16 09:20	07/15/16 14:05	1

Lab Sample ID: LCS 440-342333/2-A

Matrix: Solid

Analysis Batch: 342652

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 342333

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C10-C28	66.7	57.3		mg/Kg		86	45 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
n-Octacosane	91		40 - 140

Lab Sample ID: 440-152586-1 MS

Matrix: Solid

Analysis Batch: 342375

Client Sample ID: AEC-2-5'

Prep Type: Total/NA

Prep Batch: 342333

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
C10-C28	8.8		66.5	35.8		mg/Kg		41	40 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
n-Octacosane	68		40 - 140

Lab Sample ID: 440-152586-1 MSD

Matrix: Solid

Analysis Batch: 342375

Client Sample ID: AEC-2-5'

Prep Type: Total/NA

Prep Batch: 342333

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C10-C28	8.8		66.5	41.1		mg/Kg		49	40 - 120	14	30

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Surrogate	MSD %Recovery	MSD Qualifier	Limits
n-Octacosane	81		40 - 140

Lab Sample ID: MB 440-343009/1-A

Matrix: Water

Analysis Batch: 343351

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 343009

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		0.50	0.10	mg/L		07/18/16 06:55	07/19/16 14:37	1
C23-C40	ND		0.50	0.10	mg/L		07/18/16 06:55	07/19/16 14:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits
n-Octacosane	81		45 - 120

Prepared 07/18/16 06:55

Analyzed 07/19/16 14:37

Dil Fac 1

Lab Sample ID: LCS 440-343009/2-A

Matrix: Water

Analysis Batch: 343351

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 343009

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
C10-C28	1.00	0.669		mg/L		67	40 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
n-Octacosane	81		45 - 120

%Rec.

Lab Sample ID: LCSD 440-343009/3-A

Matrix: Water

Analysis Batch: 343351

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 343009

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
C10-C28	1.00	0.648		mg/L		65	40 - 115	3	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
n-Octacosane	74		45 - 120

%Rec.

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

Lab Sample ID: MB 440-342185/1-A

Matrix: Solid

Analysis Batch: 342640

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 342185

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		50	17	ug/Kg		07/13/16 18:43	07/15/16 13:26	1
Aroclor 1221	ND		50	17	ug/Kg		07/13/16 18:43	07/15/16 13:26	1
Aroclor 1232	ND		50	17	ug/Kg		07/13/16 18:43	07/15/16 13:26	1
Aroclor 1242	ND		50	17	ug/Kg		07/13/16 18:43	07/15/16 13:26	1
Aroclor 1248	ND		50	17	ug/Kg		07/13/16 18:43	07/15/16 13:26	1
Aroclor 1254	ND		50	17	ug/Kg		07/13/16 18:43	07/15/16 13:26	1
Aroclor 1260	ND		50	17	ug/Kg		07/13/16 18:43	07/15/16 13:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	88		45 - 120

Prepared 07/13/16 18:43

Analyzed 07/15/16 13:26

Dil Fac 1

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

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

Lab Sample ID: LCS 440-342185/2-A

Matrix: Solid

Analysis Batch: 342640

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 342185

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	267	237		ug/Kg		89	65 - 115
Aroclor 1260	267	240		ug/Kg		90	65 - 115
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
DCB Decachlorobiphenyl (Surr)	92		45 - 120				

Lab Sample ID: 440-152462-A-1-D MS

Matrix: Solid

Analysis Batch: 342640

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 342185

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	ND		539	448		ug/Kg		83	50 - 120
Aroclor 1260	ND		539	453		ug/Kg		84	50 - 125
Surrogate	MS %Recovery	MS Qualifier	Limits						
DCB Decachlorobiphenyl (Surr)	82		45 - 120						

Lab Sample ID: 440-152462-A-1-E MSD

Matrix: Solid

Analysis Batch: 342640

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 342185

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Aroclor 1016	ND		556	460		ug/Kg		83	50 - 120	3	30
Aroclor 1260	ND		556	467		ug/Kg		84	50 - 125	3	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
DCB Decachlorobiphenyl (Surr)	82		45 - 120								

Lab Sample ID: MB 440-343105/1-A

Matrix: Water

Analysis Batch: 344252

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 343105

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aroclor 1016	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 17:58	1
Aroclor 1221	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 17:58	1
Aroclor 1232	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 17:58	1
Aroclor 1242	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 17:58	1
Aroclor 1248	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 17:58	1
Aroclor 1254	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 17:58	1
Aroclor 1260	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 17:58	1
Surrogate	MB	MB	Limits				Prepared	Analyzed	Dil Fac
%Recovery	Qualifier								
DCB Decachlorobiphenyl (Surr)	65		26 - 115				07/18/16 12:42	07/22/16 17:58	1

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

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

Lab Sample ID: LCS 440-343105/4-A

Matrix: Water

Analysis Batch: 344252

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 343105

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	8.00	5.24		ug/L		65	59 - 115
Aroclor 1260	8.00	5.67		ug/L		71	48 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	70		26 - 115

Lab Sample ID: LCSD 440-343105/5-A

Matrix: Water

Analysis Batch: 344252

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 343105

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	8.00	5.45		ug/L		68	59 - 115	4	30
Aroclor 1260	8.00	5.79		ug/L		72	48 - 115	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	70		26 - 115

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 440-342634/4

Matrix: Water

Analysis Batch: 342634

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.25	mg/L			07/15/16 12:22	1
Sulfate	ND		0.50	0.25	mg/L			07/15/16 12:22	1

Lab Sample ID: LCS 440-342634/6

Matrix: Water

Analysis Batch: 342634

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	4.96		mg/L		99	90 - 110
Sulfate	5.00	5.09		mg/L		102	90 - 110

Lab Sample ID: 440-152607-A-5 MS

Matrix: Water

Analysis Batch: 342634

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	16	J F1	50.0	54.0	F1	mg/L		75	80 - 120

Lab Sample ID: 440-152607-A-5 MSD

Matrix: Water

Analysis Batch: 342634

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	16	J F1	50.0	54.0	F1	mg/L		75	80 - 120	0	20

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Lab Sample ID: MB 440-342822/4
Matrix: Water
Analysis Batch: 342822

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.25	mg/L			07/16/16 14:26	1

Lab Sample ID: LCS 440-342822/2
Matrix: Water
Analysis Batch: 342822

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	4.67		mg/L		93	90 - 110

Lab Sample ID: 440-152962-A-2 MS
Matrix: Water
Analysis Batch: 342822

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	310		50.0	334	4	mg/L		52	80 - 120

Lab Sample ID: 440-152962-A-2 MSD
Matrix: Water
Analysis Batch: 342822

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	310		50.0	336	4	mg/L		56	80 - 120	1	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 440-342888/1-A
Matrix: Water
Analysis Batch: 343234

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 342888

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0060	mg/L		07/16/16 11:58	07/18/16 18:03	1
Arsenic	ND		0.010	0.0050	mg/L		07/16/16 11:58	07/18/16 18:03	1
Barium	ND		0.010	0.0050	mg/L		07/16/16 11:58	07/18/16 18:03	1
Beryllium	ND		0.0020	0.0010	mg/L		07/16/16 11:58	07/18/16 18:03	1
Cadmium	ND		0.0050	0.0020	mg/L		07/16/16 11:58	07/18/16 18:03	1
Chromium	ND		0.0050	0.0025	mg/L		07/16/16 11:58	07/18/16 18:03	1
Cobalt	ND		0.010	0.0025	mg/L		07/16/16 11:58	07/18/16 18:03	1
Copper	ND		0.010	0.0050	mg/L		07/16/16 11:58	07/18/16 18:03	1
Molybdenum	ND		0.020	0.010	mg/L		07/16/16 11:58	07/18/16 18:03	1
Nickel	ND		0.010	0.0050	mg/L		07/16/16 11:58	07/18/16 18:03	1
Silver	ND		0.010	0.0050	mg/L		07/16/16 11:58	07/18/16 18:03	1
Thallium	0.00638	J	0.010	0.0050	mg/L		07/16/16 11:58	07/18/16 18:03	1
Vanadium	ND		0.010	0.0050	mg/L		07/16/16 11:58	07/18/16 18:03	1
Zinc	ND		0.020	0.010	mg/L		07/16/16 11:58	07/18/16 18:03	1

Lab Sample ID: MB 440-342888/1-A
Matrix: Water
Analysis Batch: 343507

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 342888

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0050	0.0025	mg/L		07/16/16 11:58	07/19/16 17:32	1

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: MB 440-342888/1-A

Matrix: Water

Analysis Batch: 343507

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 342888

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		0.010	0.0061	mg/L		07/16/16 11:58	07/19/16 17:32	1

Lab Sample ID: LCS 440-342888/2-A

Matrix: Water

Analysis Batch: 343234

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 342888

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.502		mg/L		100	85 - 115
Arsenic	0.500	0.477		mg/L		95	85 - 115
Barium	0.500	0.497		mg/L		99	85 - 115
Beryllium	0.500	0.474		mg/L		95	85 - 115
Cadmium	0.500	0.491		mg/L		98	85 - 115
Chromium	0.500	0.519		mg/L		104	85 - 115
Cobalt	0.500	0.503		mg/L		101	85 - 115
Copper	0.500	0.478		mg/L		96	85 - 115
Molybdenum	0.500	0.492		mg/L		98	85 - 115
Nickel	0.500	0.497		mg/L		99	85 - 115
Silver	0.250	0.230		mg/L		92	85 - 115
Thallium	0.500	0.487		mg/L		97	85 - 115
Vanadium	0.500	0.498		mg/L		100	85 - 115
Zinc	0.500	0.479		mg/L		96	85 - 115

Lab Sample ID: LCS 440-342888/2-A

Matrix: Water

Analysis Batch: 343507

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 342888

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.500	0.482		mg/L		96	85 - 115
Selenium	0.500	0.478		mg/L		96	85 - 115

Lab Sample ID: 440-152574-C-7-B MS ^5

Matrix: Water

Analysis Batch: 343234

Client Sample ID: Matrix Spike

Prep Type: Total Recoverable

Prep Batch: 342888

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND	F1	0.500	0.598		mg/L		120	70 - 130
Arsenic	0.13	F1	0.500	0.697		mg/L		114	70 - 130
Barium	0.035	J F1	0.500	0.624		mg/L		118	70 - 130
Beryllium	ND		0.500	0.542		mg/L		108	70 - 130
Cadmium	ND		0.500	0.533		mg/L		107	70 - 130
Chromium	8.4		0.500	9.13	4	mg/L		146	70 - 130
Cobalt	ND		0.500	0.581		mg/L		116	70 - 130
Copper	ND		0.500	0.550		mg/L		110	70 - 130
Molybdenum	ND	F1	0.500	0.584		mg/L		117	70 - 130
Nickel	ND		0.500	0.570		mg/L		114	70 - 130
Silver	ND		0.250	0.269		mg/L		108	70 - 130
Thallium	ND		0.500	0.549		mg/L		110	70 - 130
Vanadium	0.051	F1 F2	0.500	0.628		mg/L		115	70 - 130
Zinc	ND	F1	0.500	0.577		mg/L		115	70 - 130

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Lab Sample ID: 440-152574-C-7-B MS ^5

Matrix: Water

Analysis Batch: 343507

Client Sample ID: Matrix Spike

Prep Type: Total Recoverable

Prep Batch: 342888

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	ND		0.500	0.393		mg/L		79	70 - 130
Selenium	ND		0.500	0.434		mg/L		87	70 - 130

Lab Sample ID: 440-152574-C-7-C MSD ^5

Matrix: Water

Analysis Batch: 343234

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total Recoverable

Prep Batch: 342888

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	ND	F1	0.500	0.668	F1	mg/L		134	70 - 130	11	20
Arsenic	0.13	F1	0.500	0.790	F1	mg/L		133	70 - 130	12	20
Barium	0.035	J F1	0.500	0.697	F1	mg/L		132	70 - 130	11	20
Beryllium	ND		0.500	0.650		mg/L		130	70 - 130	18	20
Cadmium	ND		0.500	0.635		mg/L		127	70 - 130	17	20
Chromium	8.4		0.500	10.7	4	mg/L		464	70 - 130	16	20
Cobalt	ND		0.500	0.651		mg/L		130	70 - 130	11	20
Copper	ND		0.500	0.632		mg/L		126	70 - 130	14	20
Molybdenum	ND	F1	0.500	0.664	F1	mg/L		133	70 - 130	13	20
Nickel	ND		0.500	0.639		mg/L		128	70 - 130	11	20
Silver	ND		0.250	0.311		mg/L		124	70 - 130	14	20
Thallium	ND		0.500	0.603		mg/L		121	70 - 130	9	20
Vanadium	0.051	F1 F2	0.500	0.777	F1 F2	mg/L		145	70 - 130	21	20
Zinc	ND	F1	0.500	0.701	F1	mg/L		140	70 - 130	19	20

Lab Sample ID: 440-152574-C-7-C MSD ^5

Matrix: Water

Analysis Batch: 343507

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total Recoverable

Prep Batch: 342888

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Lead	ND		0.500	0.386		mg/L		77	70 - 130	2	20
Selenium	ND		0.500	0.397		mg/L		79	70 - 130	9	20

Lab Sample ID: MB 440-343049/1-A

Matrix: Water

Analysis Batch: 343712

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 343049

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0060	mg/L		07/18/16 09:51	07/20/16 12:50	1
Arsenic	ND		0.010	0.0050	mg/L		07/18/16 09:51	07/20/16 12:50	1
Barium	ND		0.010	0.0050	mg/L		07/18/16 09:51	07/20/16 12:50	1
Beryllium	ND		0.0020	0.0010	mg/L		07/18/16 09:51	07/20/16 12:50	1
Cadmium	ND		0.0050	0.0020	mg/L		07/18/16 09:51	07/20/16 12:50	1
Chromium	ND		0.0050	0.0025	mg/L		07/18/16 09:51	07/20/16 12:50	1
Cobalt	ND		0.010	0.0025	mg/L		07/18/16 09:51	07/20/16 12:50	1
Lead	ND		0.0050	0.0025	mg/L		07/18/16 09:51	07/20/16 12:50	1
Copper	ND		0.010	0.0050	mg/L		07/18/16 09:51	07/20/16 12:50	1
Molybdenum	ND	^	0.020	0.010	mg/L		07/18/16 09:51	07/20/16 12:50	1
Nickel	ND		0.010	0.0050	mg/L		07/18/16 09:51	07/20/16 12:50	1
Selenium	ND		0.010	0.0061	mg/L		07/18/16 09:51	07/20/16 12:50	1
Silver	ND		0.010	0.0050	mg/L		07/18/16 09:51	07/20/16 12:50	1
Thallium	ND		0.010	0.0050	mg/L		07/18/16 09:51	07/20/16 12:50	1
Vanadium	ND		0.010	0.0050	mg/L		07/18/16 09:51	07/20/16 12:50	1

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: MB 440-343049/1-A

Matrix: Water

Analysis Batch: 343712

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 343049

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		0.020	0.010	mg/L		07/18/16 09:51	07/20/16 12:50	1

Lab Sample ID: LCS 440-343049/2-A

Matrix: Water

Analysis Batch: 343712

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 343049

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.503		mg/L		101	85 - 115
Arsenic	0.500	0.472		mg/L		94	85 - 115
Barium	0.500	0.493		mg/L		99	85 - 115
Beryllium	0.500	0.483		mg/L		97	85 - 115
Cadmium	0.500	0.500		mg/L		100	85 - 115
Chromium	0.500	0.500		mg/L		100	85 - 115
Cobalt	0.500	0.518		mg/L		104	85 - 115
Lead	0.500	0.496		mg/L		99	85 - 115
Copper	0.500	0.475		mg/L		95	85 - 115
Molybdenum	0.500	0.524	^	mg/L		105	85 - 115
Nickel	0.500	0.497		mg/L		99	85 - 115
Selenium	0.500	0.461		mg/L		92	85 - 115
Silver	0.250	0.242		mg/L		97	85 - 115
Thallium	0.500	0.492		mg/L		98	85 - 115
Vanadium	0.500	0.498		mg/L		100	85 - 115
Zinc	0.500	0.477		mg/L		95	85 - 115

Lab Sample ID: 440-152187-Q-8-C MS

Matrix: Water

Analysis Batch: 343712

Client Sample ID: Matrix Spike

Prep Type: Total Recoverable

Prep Batch: 343049

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0092	J F1	0.500	0.0994	F1	mg/L		18	70 - 130
Arsenic	0.85		0.500	1.34		mg/L		99	70 - 130
Barium	0.078	F1	0.500	0.221	F1	mg/L		29	70 - 130
Beryllium	ND		0.500	0.437		mg/L		87	70 - 130
Cadmium	0.0075		0.500	0.466		mg/L		92	70 - 130
Chromium	0.039		0.500	0.499		mg/L		92	70 - 130
Cobalt	ND		0.500	0.470		mg/L		94	70 - 130
Lead	ND	L F1	0.500	0.336	F1	mg/L		67	70 - 130
Copper	0.037		0.500	0.564		mg/L		106	70 - 130
Molybdenum	0.70	^	0.500	1.10	^	mg/L		79	70 - 130
Nickel	0.019		0.500	0.471		mg/L		90	70 - 130
Selenium	0.031		0.500	0.508		mg/L		95	70 - 130
Silver	ND		0.250	0.273		mg/L		109	70 - 130
Thallium	ND		0.500	0.438		mg/L		88	70 - 130
Vanadium	4.0		0.500	4.38	4	mg/L		72	70 - 130
Zinc	0.025		0.500	0.532		mg/L		101	70 - 130

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 440-152187-Q-8-D MSD

Matrix: Water

Analysis Batch: 343712

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total Recoverable

Prep Batch: 343049

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.0092	J F1	0.500	0.104	F1	mg/L		19	70 - 130	5	20
Arsenic	0.85		0.500	1.40		mg/L		110	70 - 130	4	20
Barium	0.078	F1	0.500	0.252	F1	mg/L		35	70 - 130	13	20
Beryllium	ND		0.500	0.448		mg/L		90	70 - 130	2	20
Cadmium	0.0075		0.500	0.471		mg/L		93	70 - 130	1	20
Chromium	0.039		0.500	0.503		mg/L		93	70 - 130	1	20
Cobalt	ND		0.500	0.488		mg/L		98	70 - 130	4	20
Lead	ND	L F1	0.500	0.353		mg/L		71	70 - 130	5	20
Copper	0.037		0.500	0.573		mg/L		107	70 - 130	1	20
Molybdenum	0.70	^	0.500	1.10	^	mg/L		81	70 - 130	1	20
Nickel	0.019		0.500	0.489		mg/L		94	70 - 130	4	20
Selenium	0.031		0.500	0.528		mg/L		99	70 - 130	4	20
Silver	ND		0.250	0.279		mg/L		111	70 - 130	2	20
Thallium	ND		0.500	0.449		mg/L		90	70 - 130	2	20
Vanadium	4.0		0.500	4.47	4	mg/L		90	70 - 130	2	20
Zinc	0.025		0.500	0.527		mg/L		100	70 - 130	1	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 440-343189/1-A

Matrix: Water

Analysis Batch: 343504

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 343189

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		07/18/16 17:00	07/19/16 16:10	1

Lab Sample ID: LCS 440-343189/2-A

Matrix: Water

Analysis Batch: 343504

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 343189

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00800	0.00786		mg/L		98	85 - 115

Lab Sample ID: 440-152394-E-2-H MS

Matrix: Water

Analysis Batch: 343504

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 343189

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		0.00800	0.00793		mg/L		99	70 - 130

Lab Sample ID: 440-152394-E-2-I MSD

Matrix: Water

Analysis Batch: 343504

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 343189

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.00800	0.00812		mg/L		102	70 - 130	2	20

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 440-342296/1-A ^20

Matrix: Solid

Analysis Batch: 342802

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 342296

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.50	0.099	mg/Kg		07/14/16 08:13	07/15/16 12:25	20
Arsenic	ND		0.50	0.25	mg/Kg		07/14/16 08:13	07/15/16 12:25	20
Barium	ND		0.50	0.25	mg/Kg		07/14/16 08:13	07/15/16 12:25	20
Beryllium	ND		0.30	0.15	mg/Kg		07/14/16 08:13	07/15/16 12:25	20
Cadmium	ND		0.50	0.25	mg/Kg		07/14/16 08:13	07/15/16 12:25	20
Chromium	ND		0.99	0.50	mg/Kg		07/14/16 08:13	07/15/16 12:25	20
Cobalt	ND		0.50	0.21	mg/Kg		07/14/16 08:13	07/15/16 12:25	20
Copper	ND		0.99	0.50	mg/Kg		07/14/16 08:13	07/15/16 12:25	20
Lead	ND		0.50	0.25	mg/Kg		07/14/16 08:13	07/15/16 12:25	20
Nickel	ND		0.99	0.50	mg/Kg		07/14/16 08:13	07/15/16 12:25	20
Selenium	ND		0.99	0.20	mg/Kg		07/14/16 08:13	07/15/16 12:25	20
Thallium	ND		0.50	0.25	mg/Kg		07/14/16 08:13	07/15/16 12:25	20
Vanadium	ND		0.99	0.50	mg/Kg		07/14/16 08:13	07/15/16 12:25	20
Zinc	ND		9.9	5.0	mg/Kg		07/14/16 08:13	07/15/16 12:25	20
Antimony	ND		0.99	0.27	mg/Kg		07/14/16 08:13	07/15/16 12:25	20

Lab Sample ID: MB 440-342296/1-A ^20

Matrix: Solid

Analysis Batch: 343028

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 342296

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		0.99	0.50	mg/Kg		07/14/16 08:13	07/15/16 22:50	20

Lab Sample ID: LCS 440-342296/2-A ^20

Matrix: Solid

Analysis Batch: 342802

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 342296

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	24.5	24.8		mg/Kg		101	80 - 120
Arsenic	49.0	48.3		mg/Kg		98	80 - 120
Barium	49.0	49.8		mg/Kg		102	80 - 120
Beryllium	49.0	49.2		mg/Kg		100	80 - 120
Cadmium	49.0	49.0		mg/Kg		100	80 - 120
Chromium	49.0	49.9		mg/Kg		102	80 - 120
Cobalt	49.0	50.8		mg/Kg		104	80 - 120
Copper	49.0	50.5		mg/Kg		103	80 - 120
Lead	49.0	49.6		mg/Kg		101	80 - 120
Molybdenum	49.0	49.6		mg/Kg		101	80 - 120
Nickel	49.0	50.5		mg/Kg		103	80 - 120
Selenium	49.0	49.1		mg/Kg		100	80 - 120
Thallium	49.0	49.4		mg/Kg		101	80 - 120
Vanadium	49.0	49.2		mg/Kg		100	80 - 120
Zinc	49.0	48.7		mg/Kg		99	80 - 120
Antimony	49.0	50.1		mg/Kg		102	80 - 120

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 440-152165-H-1-C MS ^20

Matrix: Solid

Analysis Batch: 342802

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 342296

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Silver	ND		24.9	24.3		mg/Kg		98	80 - 120
Arsenic	3.4		49.8	52.4		mg/Kg		98	80 - 120
Barium	75	F1	49.8	138	F1	mg/Kg		127	80 - 120
Beryllium	0.24	J	49.8	45.1		mg/Kg		90	80 - 120
Cadmium	ND		49.8	48.8		mg/Kg		98	80 - 120
Chromium	15		49.8	60.8		mg/Kg		93	80 - 120
Cobalt	5.4		49.8	51.6		mg/Kg		93	80 - 120
Copper	9.0		49.8	56.3		mg/Kg		95	80 - 120
Lead	4.1		49.8	54.0		mg/Kg		100	80 - 120
Molybdenum	0.63	J B	49.8	50.3		mg/Kg		100	80 - 120
Nickel	9.7		49.8	55.1		mg/Kg		91	80 - 120
Selenium	0.34	J	49.8	47.6		mg/Kg		95	80 - 120
Thallium	ND		49.8	49.0		mg/Kg		98	80 - 120
Vanadium	26		49.8	76.4		mg/Kg		102	80 - 120
Zinc	40		49.8	82.4		mg/Kg		85	80 - 120
Antimony	ND	F1	49.8	31.0	F1	mg/Kg		62	80 - 120

Lab Sample ID: 440-152165-H-1-D MSD ^20

Matrix: Solid

Analysis Batch: 342802

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 342296

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Silver	ND		24.6	24.0		mg/Kg		98	80 - 120	1	20
Arsenic	3.4		49.3	50.3		mg/Kg		95	80 - 120	4	20
Barium	75	F1	49.3	141	F1	mg/Kg		134	80 - 120	2	20
Beryllium	0.24	J	49.3	44.3		mg/Kg		89	80 - 120	2	20
Cadmium	ND		49.3	48.2		mg/Kg		98	80 - 120	1	20
Chromium	15		49.3	61.7		mg/Kg		95	80 - 120	1	20
Cobalt	5.4		49.3	51.5		mg/Kg		94	80 - 120	0	20
Copper	9.0		49.3	55.1		mg/Kg		94	80 - 120	2	20
Lead	4.1		49.3	53.1		mg/Kg		99	80 - 120	2	20
Molybdenum	0.63	J B	49.3	49.8		mg/Kg		100	80 - 120	1	20
Nickel	9.7		49.3	54.5		mg/Kg		91	80 - 120	1	20
Selenium	0.34	J	49.3	46.9		mg/Kg		95	80 - 120	1	20
Thallium	ND		49.3	48.3		mg/Kg		98	80 - 120	1	20
Vanadium	26		49.3	77.6		mg/Kg		106	80 - 120	2	20
Zinc	40		49.3	84.7		mg/Kg		91	80 - 120	3	20
Antimony	ND	F1	49.3	28.4	F1	mg/Kg		58	80 - 120	9	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 440-342507/1-A

Matrix: Solid

Analysis Batch: 342536

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 342507

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.012	mg/Kg		07/14/16 21:26	07/15/16 00:04	1

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

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

Lab Sample ID: LCS 440-342507/2-A

Matrix: Solid

Analysis Batch: 342536

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 342507

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.800	0.744		mg/Kg		93	80 - 120

Lab Sample ID: 440-152793-A-1-C MS

Matrix: Solid

Analysis Batch: 342536

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 342507

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.072		0.784	0.716		mg/Kg		82	70 - 130

Lab Sample ID: 440-152793-A-1-D MSD

Matrix: Solid

Analysis Batch: 342536

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 342507

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Mercury	0.072		0.784	0.712		mg/Kg		82	70 - 130	1	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 440-343021/1

Matrix: Water

Analysis Batch: 343021

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	5.0	mg/L			07/18/16 07:50	1

Lab Sample ID: LCS 440-343021/2

Matrix: Water

Analysis Batch: 343021

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	984		mg/L		98	90 - 110

Lab Sample ID: 440-152322-N-1 DU

Matrix: Water

Analysis Batch: 343021

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	470		472		mg/L		1	5

TestAmerica Irvine

QC Association Summary

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

GC/MS VOA

Prep Batch: 342437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-3	AEC-2-15'	Total/NA	Solid	5035	
440-152586-4	AEC-2-20'	Total/NA	Solid	5035	
440-152586-5	AEC-1-5'	Total/NA	Solid	5035	

Prep Batch: 342449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-1	AEC-2-5'	Total/NA	Solid	5035	
440-152586-2	AEC-2-10'	Total/NA	Solid	5035	

Analysis Batch: 342991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-3	AEC-2-15'	Total/NA	Solid	8260B	342437
440-152586-4	AEC-2-20'	Total/NA	Solid	8260B	342437
440-152586-5	AEC-1-5'	Total/NA	Solid	8260B	342437
MB 440-342991/6	Method Blank	Total/NA	Solid	8260B	
LCS 440-342991/7	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 440-342991/9	Lab Control Sample Dup	Total/NA	Solid	8260B	

Analysis Batch: 342992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-3	AEC-2-15'	Total/NA	Solid	8260B/CA_LUFT MS	342437
440-152586-4	AEC-2-20'	Total/NA	Solid	8260B/CA_LUFT MS	342437
440-152586-5	AEC-1-5'	Total/NA	Solid	8260B/CA_LUFT MS	342437
MB 440-342992/6	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	
LCS 440-342992/10	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	
LCSD 440-342992/11	Lab Control Sample Dup	Total/NA	Solid	8260B/CA_LUFT MS	

Analysis Batch: 343001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-1	AEC-2-5'	Total/NA	Solid	8260B	342449
440-152586-2	AEC-2-10'	Total/NA	Solid	8260B	342449
MB 440-343001/4	Method Blank	Total/NA	Solid	8260B	
LCS 440-343001/5	Lab Control Sample	Total/NA	Solid	8260B	
440-152882-A-2 MS	Matrix Spike	Total/NA	Solid	8260B	
440-152882-A-2 MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	

Analysis Batch: 343002

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-1	AEC-2-5'	Total/NA	Solid	8260B/CA_LUFT MS	342449
440-152586-2	AEC-2-10'	Total/NA	Solid	8260B/CA_LUFT MS	342449
MB 440-343002/4	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	
LCS 440-343002/6	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	

TestAmerica Irvine

QC Association Summary

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

GC/MS VOA (Continued)

Analysis Batch: 343002 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152882-A-2 MS	Matrix Spike	Total/NA	Solid	8260B/CA_LUFT MS	
440-152882-A-2 MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B/CA_LUFT MS	

Analysis Batch: 343275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-6	AEC-4-W	Total/NA	Water	8260B	
440-152586-7	AEC-3-W	Total/NA	Water	8260B	
440-152586-8	AEC-5-W	Total/NA	Water	8260B	
MB 440-343275/5	Method Blank	Total/NA	Water	8260B	
LCS 440-343275/6	Lab Control Sample	Total/NA	Water	8260B	
440-152586-7 MS	AEC-3-W	Total/NA	Water	8260B	
440-152586-7 MSD	AEC-3-W	Total/NA	Water	8260B	

Analysis Batch: 343276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-6	AEC-4-W	Total/NA	Water	8260B/CA_LUFT MS	
440-152586-7	AEC-3-W	Total/NA	Water	8260B/CA_LUFT MS	
440-152586-8	AEC-5-W	Total/NA	Water	8260B/CA_LUFT MS	
MB 440-343276/5	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	
LCS 440-343276/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
440-152586-7 MS	AEC-3-W	Total/NA	Water	8260B/CA_LUFT MS	
440-152586-7 MSD	AEC-3-W	Total/NA	Water	8260B/CA_LUFT MS	

GC/MS Semi VOA

Prep Batch: 342341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-1	AEC-2-5'	Total/NA	Solid	3546	
440-152586-2	AEC-2-10'	Total/NA	Solid	3546	
440-152586-3	AEC-2-15'	Total/NA	Solid	3546	
440-152586-4	AEC-2-20'	Total/NA	Solid	3546	
440-152586-5	AEC-1-5'	Total/NA	Solid	3546	
MB 440-342341/1-A	Method Blank	Total/NA	Solid	3546	
LCS 440-342341/2-A	Lab Control Sample	Total/NA	Solid	3546	
440-152586-1 MS	AEC-2-5'	Total/NA	Solid	3546	
440-152586-1 MSD	AEC-2-5'	Total/NA	Solid	3546	

Analysis Batch: 342622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-1	AEC-2-5'	Total/NA	Solid	8270C SIM	342341
440-152586-2	AEC-2-10'	Total/NA	Solid	8270C SIM	342341
MB 440-342341/1-A	Method Blank	Total/NA	Solid	8270C SIM	342341
LCS 440-342341/2-A	Lab Control Sample	Total/NA	Solid	8270C SIM	342341
440-152586-1 MS	AEC-2-5'	Total/NA	Solid	8270C SIM	342341

TestAmerica Irvine

QC Association Summary

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

GC/MS Semi VOA (Continued)

Analysis Batch: 342622 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-1 MSD	AEC-2-5'	Total/NA	Solid	8270C SIM	342341

Prep Batch: 342864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-6	AEC-4-W	Total/NA	Water	3520C	
440-152586-7	AEC-3-W	Total/NA	Water	3520C	
440-152586-8	AEC-5-W	Total/NA	Water	3520C	
MB 440-342864/1-A	Method Blank	Total/NA	Water	3520C	
LCS 440-342864/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 440-342864/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 343497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-3	AEC-2-15'	Total/NA	Solid	8270C SIM	342341
440-152586-4	AEC-2-20'	Total/NA	Solid	8270C SIM	342341
440-152586-5	AEC-1-5'	Total/NA	Solid	8270C SIM	342341
440-152586-6	AEC-4-W	Total/NA	Water	8270C SIM	342864
440-152586-7	AEC-3-W	Total/NA	Water	8270C SIM	342864
440-152586-8	AEC-5-W	Total/NA	Water	8270C SIM	342864
MB 440-342864/1-A	Method Blank	Total/NA	Water	8270C SIM	342864
LCS 440-342864/2-A	Lab Control Sample	Total/NA	Water	8270C SIM	342864
LCSD 440-342864/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM	342864

GC Semi VOA

Prep Batch: 342185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-1	AEC-2-5'	Total/NA	Solid	3546	
440-152586-2	AEC-2-10'	Total/NA	Solid	3546	
440-152586-3	AEC-2-15'	Total/NA	Solid	3546	
440-152586-4	AEC-2-20'	Total/NA	Solid	3546	
440-152586-5	AEC-1-5'	Total/NA	Solid	3546	
MB 440-342185/1-A	Method Blank	Total/NA	Solid	3546	
LCS 440-342185/2-A	Lab Control Sample	Total/NA	Solid	3546	
440-152462-A-1-D MS	Matrix Spike	Total/NA	Solid	3546	
440-152462-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Prep Batch: 342333

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-1	AEC-2-5'	Total/NA	Solid	3546	
440-152586-2	AEC-2-10'	Total/NA	Solid	3546	
440-152586-3	AEC-2-15'	Total/NA	Solid	3546	
440-152586-4	AEC-2-20'	Total/NA	Solid	3546	
440-152586-5	AEC-1-5'	Total/NA	Solid	3546	
MB 440-342333/1-A	Method Blank	Total/NA	Solid	3546	
LCS 440-342333/2-A	Lab Control Sample	Total/NA	Solid	3546	
440-152586-1 MS	AEC-2-5'	Total/NA	Solid	3546	
440-152586-1 MSD	AEC-2-5'	Total/NA	Solid	3546	

TestAmerica Irvine

QC Association Summary

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

GC Semi VOA (Continued)

Analysis Batch: 342375

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-5	AEC-1-5'	Total/NA	Solid	8015B	342333
440-152586-1 MS	AEC-2-5'	Total/NA	Solid	8015B	342333
440-152586-1 MSD	AEC-2-5'	Total/NA	Solid	8015B	342333

Analysis Batch: 342640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-1	AEC-2-5'	Total/NA	Solid	8082	342185
440-152586-2	AEC-2-10'	Total/NA	Solid	8082	342185
440-152586-3	AEC-2-15'	Total/NA	Solid	8082	342185
440-152586-4	AEC-2-20'	Total/NA	Solid	8082	342185
440-152586-5	AEC-1-5'	Total/NA	Solid	8082	342185
MB 440-342185/1-A	Method Blank	Total/NA	Solid	8082	342185
LCS 440-342185/2-A	Lab Control Sample	Total/NA	Solid	8082	342185
440-152462-A-1-D MS	Matrix Spike	Total/NA	Solid	8082	342185
440-152462-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8082	342185

Analysis Batch: 342644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-1	AEC-2-5'	Total/NA	Solid	8015B	342333
440-152586-2	AEC-2-10'	Total/NA	Solid	8015B	342333
440-152586-3	AEC-2-15'	Total/NA	Solid	8015B	342333

Analysis Batch: 342652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-342333/1-A	Method Blank	Total/NA	Solid	8015B	342333
LCS 440-342333/2-A	Lab Control Sample	Total/NA	Solid	8015B	342333

Prep Batch: 343009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-6	AEC-4-W	Total/NA	Water	3510C	
440-152586-7	AEC-3-W	Total/NA	Water	3510C	
440-152586-8	AEC-5-W	Total/NA	Water	3510C	
MB 440-343009/1-A	Method Blank	Total/NA	Water	3510C	
LCS 440-343009/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 440-343009/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 343048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-4	AEC-2-20'	Total/NA	Solid	8082	342185

Analysis Batch: 343077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-4	AEC-2-20'	Total/NA	Solid	8015B	342333

Prep Batch: 343105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-6	AEC-4-W	Total/NA	Water	3510C	
440-152586-7	AEC-3-W	Total/NA	Water	3510C	
440-152586-8	AEC-5-W	Total/NA	Water	3510C	
MB 440-343105/1-A	Method Blank	Total/NA	Water	3510C	
LCS 440-343105/4-A	Lab Control Sample	Total/NA	Water	3510C	

TestAmerica Irvine

QC Association Summary

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

GC Semi VOA (Continued)

Prep Batch: 343105 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 440-343105/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 343351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-6	AEC-4-W	Total/NA	Water	8015B	343009
440-152586-7	AEC-3-W	Total/NA	Water	8015B	343009
440-152586-8	AEC-5-W	Total/NA	Water	8015B	343009
MB 440-343009/1-A	Method Blank	Total/NA	Water	8015B	343009
LCS 440-343009/2-A	Lab Control Sample	Total/NA	Water	8015B	343009
LCSD 440-343009/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	343009

Analysis Batch: 344252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-6	AEC-4-W	Total/NA	Water	8082	343105
440-152586-7	AEC-3-W	Total/NA	Water	8082	343105
440-152586-8	AEC-5-W	Total/NA	Water	8082	343105
MB 440-343105/1-A	Method Blank	Total/NA	Water	8082	343105
LCS 440-343105/4-A	Lab Control Sample	Total/NA	Water	8082	343105
LCSD 440-343105/5-A	Lab Control Sample Dup	Total/NA	Water	8082	343105

HPLC/IC

Analysis Batch: 342634

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-6	AEC-4-W	Total/NA	Water	300.0	
440-152586-7	AEC-3-W	Total/NA	Water	300.0	
440-152586-8	AEC-5-W	Total/NA	Water	300.0	
MB 440-342634/4	Method Blank	Total/NA	Water	300.0	
LCS 440-342634/6	Lab Control Sample	Total/NA	Water	300.0	
440-152607-A-5 MS	Matrix Spike	Total/NA	Water	300.0	
440-152607-A-5 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 342822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-7	AEC-3-W	Total/NA	Water	300.0	
440-152586-8	AEC-5-W	Total/NA	Water	300.0	
MB 440-342822/4	Method Blank	Total/NA	Water	300.0	
LCS 440-342822/2	Lab Control Sample	Total/NA	Water	300.0	
440-152962-A-2 MS	Matrix Spike	Total/NA	Water	300.0	
440-152962-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 342296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-1	AEC-2-5'	Total/NA	Solid	3050B	
440-152586-2	AEC-2-10'	Total/NA	Solid	3050B	
440-152586-3	AEC-2-15'	Total/NA	Solid	3050B	
440-152586-4	AEC-2-20'	Total/NA	Solid	3050B	
440-152586-5	AEC-1-5'	Total/NA	Solid	3050B	

TestAmerica Irvine

QC Association Summary

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Metals (Continued)

Prep Batch: 342296 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-342296/1-A ^20	Method Blank	Total/NA	Solid	3050B	
LCS 440-342296/2-A ^20	Lab Control Sample	Total/NA	Solid	3050B	
440-152165-H-1-C MS ^20	Matrix Spike	Total/NA	Solid	3050B	
440-152165-H-1-D MSD ^20	Matrix Spike Duplicate	Total/NA	Solid	3050B	

Prep Batch: 342507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-1	AEC-2-5'	Total/NA	Solid	7471A	
440-152586-2	AEC-2-10'	Total/NA	Solid	7471A	
440-152586-3	AEC-2-15'	Total/NA	Solid	7471A	
440-152586-4	AEC-2-20'	Total/NA	Solid	7471A	
440-152586-5	AEC-1-5'	Total/NA	Solid	7471A	
MB 440-342507/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 440-342507/2-A	Lab Control Sample	Total/NA	Solid	7471A	
440-152793-A-1-C MS	Matrix Spike	Total/NA	Solid	7471A	
440-152793-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	

Analysis Batch: 342536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-1	AEC-2-5'	Total/NA	Solid	7471A	342507
440-152586-2	AEC-2-10'	Total/NA	Solid	7471A	342507
440-152586-3	AEC-2-15'	Total/NA	Solid	7471A	342507
440-152586-4	AEC-2-20'	Total/NA	Solid	7471A	342507
440-152586-5	AEC-1-5'	Total/NA	Solid	7471A	342507
MB 440-342507/1-A	Method Blank	Total/NA	Solid	7471A	342507
LCS 440-342507/2-A	Lab Control Sample	Total/NA	Solid	7471A	342507
440-152793-A-1-C MS	Matrix Spike	Total/NA	Solid	7471A	342507
440-152793-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	342507

Analysis Batch: 342802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-1	AEC-2-5'	Total/NA	Solid	6020	342296
440-152586-2	AEC-2-10'	Total/NA	Solid	6020	342296
440-152586-3	AEC-2-15'	Total/NA	Solid	6020	342296
440-152586-4	AEC-2-20'	Total/NA	Solid	6020	342296
440-152586-5	AEC-1-5'	Total/NA	Solid	6020	342296
MB 440-342296/1-A ^20	Method Blank	Total/NA	Solid	6020	342296
LCS 440-342296/2-A ^20	Lab Control Sample	Total/NA	Solid	6020	342296
440-152165-H-1-C MS ^20	Matrix Spike	Total/NA	Solid	6020	342296
440-152165-H-1-D MSD ^20	Matrix Spike Duplicate	Total/NA	Solid	6020	342296

Prep Batch: 342888

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-7	AEC-3-W	Total Recoverable	Water	200.2	
MB 440-342888/1-A	Method Blank	Total Recoverable	Water	200.2	
LCS 440-342888/2-A	Lab Control Sample	Total Recoverable	Water	200.2	
440-152574-C-7-B MS ^5	Matrix Spike	Total Recoverable	Water	200.2	
440-152574-C-7-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	200.2	

TestAmerica Irvine

QC Association Summary

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Metals (Continued)

Analysis Batch: 343028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-1	AEC-2-5'	Total/NA	Solid	6020	342296
440-152586-2	AEC-2-10'	Total/NA	Solid	6020	342296
440-152586-3	AEC-2-15'	Total/NA	Solid	6020	342296
440-152586-4	AEC-2-20'	Total/NA	Solid	6020	342296
440-152586-5	AEC-1-5'	Total/NA	Solid	6020	342296
MB 440-342296/1-A ^20	Method Blank	Total/NA	Solid	6020	342296

Prep Batch: 343049

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-6	AEC-4-W	Total Recoverable	Water	200.2	
440-152586-8	AEC-5-W	Total Recoverable	Water	200.2	
MB 440-343049/1-A	Method Blank	Total Recoverable	Water	200.2	
LCS 440-343049/2-A	Lab Control Sample	Total Recoverable	Water	200.2	
440-152187-Q-8-C MS	Matrix Spike	Total Recoverable	Water	200.2	
440-152187-Q-8-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.2	

Prep Batch: 343189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-6	AEC-4-W	Total/NA	Water	245.1	
440-152586-7	AEC-3-W	Total/NA	Water	245.1	
440-152586-8	AEC-5-W	Total/NA	Water	245.1	
MB 440-343189/1-A	Method Blank	Total/NA	Water	245.1	
LCS 440-343189/2-A	Lab Control Sample	Total/NA	Water	245.1	
440-152394-E-2-H MS	Matrix Spike	Total/NA	Water	245.1	
440-152394-E-2-I MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	

Analysis Batch: 343234

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-7	AEC-3-W	Total Recoverable	Water	200.7 Rev 4.4	342888
MB 440-342888/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	342888
LCS 440-342888/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	342888
440-152574-C-7-B MS ^5	Matrix Spike	Total Recoverable	Water	200.7 Rev 4.4	342888
440-152574-C-7-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	200.7 Rev 4.4	342888

Analysis Batch: 343504

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-6	AEC-4-W	Total/NA	Water	245.1	343189
440-152586-7	AEC-3-W	Total/NA	Water	245.1	343189
440-152586-8	AEC-5-W	Total/NA	Water	245.1	343189
MB 440-343189/1-A	Method Blank	Total/NA	Water	245.1	343189
LCS 440-343189/2-A	Lab Control Sample	Total/NA	Water	245.1	343189
440-152394-E-2-H MS	Matrix Spike	Total/NA	Water	245.1	343189
440-152394-E-2-I MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	343189

Analysis Batch: 343507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-7	AEC-3-W	Total Recoverable	Water	200.7 Rev 4.4	342888
MB 440-342888/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	342888
LCS 440-342888/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	342888
440-152574-C-7-B MS ^5	Matrix Spike	Total Recoverable	Water	200.7 Rev 4.4	342888
440-152574-C-7-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	200.7 Rev 4.4	342888

TestAmerica Irvine

QC Association Summary

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Analysis Batch: 343712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-6	AEC-4-W	Total Recoverable	Water	200.7 Rev 4.4	343049
440-152586-8	AEC-5-W	Total Recoverable	Water	200.7 Rev 4.4	343049
MB 440-343049/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	343049
LCS 440-343049/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	343049
440-152187-Q-8-C MS	Matrix Spike	Total Recoverable	Water	200.7 Rev 4.4	343049
440-152187-Q-8-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.7 Rev 4.4	343049

General Chemistry

Analysis Batch: 343021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152586-6	AEC-4-W	Total/NA	Water	SM 2540C	
440-152586-7	AEC-3-W	Total/NA	Water	SM 2540C	
440-152586-8	AEC-5-W	Total/NA	Water	SM 2540C	
MB 440-343021/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 440-343021/2	Lab Control Sample	Total/NA	Water	SM 2540C	
440-152322-N-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Definitions/Glossary

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

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.
ID	Analyte identified by RT & presence of single mass ion
*	ISTD response or retention time outside acceptable limits

GC/MS Semi VOA

Qualifier	Qualifier Description
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 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

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery 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.

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance 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.
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.

Glossary

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

TestAmerica Irvine

Definitions/Glossary

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEQ	Toxicity Equivalent Quotient (Dioxin)

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Certification Summary

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152586-1

Laboratory: TestAmerica Irvine

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-17
Arizona	State Program	9	AZ0671	10-13-16
California	LA Cty Sanitation Districts	9	10256	01-31-17 *
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 12.002r	01-23-17
Hawaii	State Program	9	N/A	01-29-17
Kansas	NELAP Secondary AB	7	E-10420	07-31-16 *
Nevada	State Program	9	CA015312016-2	07-31-16 *
New Mexico	State Program	6	N/A	01-29-17
Northern Mariana Islands	State Program	9	MP0002	01-29-17
Oregon	NELAP	10	4028	01-29-17
USDA	Federal		P330-09-00080	07-08-18
Washington	State Program	10	C900	09-03-16

* Certification renewal pending - certification considered valid.

TestAmerica Irvine

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Chain of Custody Record

141610

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

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

Company Name: AEC		Client Contact		Project Manager: Jon Buck		Site Contact: Jon Buck		Date: 7/13/16		COC No: _____ of _____ COCs	
Address: 220 E Truitt Ave		Analysis Turnaround Time		Tel/Fax: _____		Lab Contact: _____		Carrier: _____		Sampler: _____	
City/State/Zip: Bakersfield CA 93305		☐ CALENDAR DAYS ☐ WORKING DAYS		TAT if different from Below _____		Perform MS / MSD (Y / N)		For Lab Use Only:		Walk-In Client: _____	
Phone: (661) 345-1616		☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Lab Sampling: _____	
Fax: _____		Sample Identification		Sample Date		Sample Time		Matrix		Job / SDG No.: _____	
Project Name: Kingpin Patch		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix		Sample Specific Notes:	
Site: 701 E PCH		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix		Sample Specific Notes:	
PO # hony Beach 1A		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix		Sample Specific Notes:	
AEC-2-5'		7/13/16		0740		G		Soil		3	
AEC-2-6'		7/13/16		0745		G		Soil		3	
AEC-2-15'		7/13/16		0750		G		Soil		3	
AEC-2-20'		7/13/16		0758		G		Soil		3	
AEC-1-5'		7/13/16		0945		G		Soil		3	
AEC-4-W		7/13/16		1130		G		GW		13	
AEC-3-W		7/13/16		1250		G		GW		13	
AEC-5, W		7/13/16		1400		G		GW		13	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other _____											
Possible Hazard Identification: 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											
Special Instructions/QC Requirements & Comments:											
Custody Seals Intact: ☐ Yes ☐ No		Custody Seal No.: _____		Cooler Temp (°C): Obs'd: _____		Corr'd: _____		Therm ID No.: _____		Date/Time: _____	
Relinquished by: Jon Buck		Company: AEC		Received by: Jon Buck		Company: TA		Date/Time: 7/13/16 1410		Date/Time: _____	
Relinquished by: Jon Buck		Company: TA		Received by: Jon Buck		Company: TA		Date/Time: 7/13/16 1830		Date/Time: _____	
Relinquished by: Jon Buck		Company: TA		Received in Laboratory by: Jon Buck		Company: TA		Date/Time: 7/13/16 18:30		Date/Time: _____	

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3-9/2017 1077 3-3/2016
vrc
ca

Login Sample Receipt Checklist

Client: Advanced Environmental Concepts Inc

Job Number: 440-152586-1

Login Number: 152586

List Source: TestAmerica Irvine

List Number: 1

Creator: Soderblom, Tim

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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	Refer to Job Narrative for details.
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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Irvine

17461 Derian Ave

Suite 100

Irvine, CA 92614-5817

Tel: (949)261-1022

TestAmerica Job ID: 440-152822-1

Client Project/Site: Pumpkin Patch

For:

Advanced Environmental Concepts Inc

220 E. Truxtun Ave.

Bakersfield, California 93305

Attn: Jonathan Buck



Authorized for release by:

7/26/2016 9:31:53 AM

Danielle Roberts, Senior Project Manager

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

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

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Sample Summary

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-152822-1	EW-1-W	Water	07/13/16 16:05	07/14/16 10:34
440-152822-2	AEC-2-W	Water	07/14/16 08:05	07/14/16 10:34
440-152822-3	AEC-1-W	Water	07/14/16 09:30	07/14/16 10:34

Case Narrative

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

Job ID: 440-152822-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative 440-152822-1

Comments

No additional comments.

Receipt

The samples were received on 7/14/2016 10:34 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.1° C and 3.2° C.

Receipt Exceptions

A trip blank was submitted for analysis with these samples; however, it was not listed on the Chain of Custody (COC).

The Field Sampler was not listed on the Chain of Custody.

GC/MS VOA

Method(s) 8260B/CA_LUFTMS: The following sample was diluted due to the nature of the sample matrix (dark brown color): AEC-2-W (440-152822-2). Elevated reporting limits (RLs) are provided.

Method(s) 8260B/CA_LUFTMS: The following samples were collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH of 7 was outside the required criteria when verified by the laboratory, and corrective action was not possible: EW-1-W (440-152822-1) and AEC-2-W (440-152822-2).
The sample was analyzed within 7 days per EPA recommendation

Method(s) 8260B: The following sample was diluted due to the nature of the sample matrix (dark brown color): AEC-2-W (440-152822-2). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: The following sample was collected in properly preserved vial for analysis of volatile organic compounds (VOCs). However, the pH of 7 was outside the required criteria when verified by the laboratory, and corrective action was not possible: EW-1-W (440-152822-1) and AEC-2-W (440-152822-2).
The sample was analyzed within 7 days per EPA recommendation.

Method(s) 8260B: The following sample(s) was received unpreserved and presented a pH 7. Analysis was performed within 7 days per EPA recommendation: AEC-1-W (440-152822-3)

Method(s) 8260B: The following sample was diluted due to the nature of the sample matrix: Dark brown color. AEC-1-W (440-152822-3). 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.

GC/MS Semi VOA

Method(s) 8270C SIM: Surrogate recovery for the following samples was outside control limits: AEC-2-W (440-152822-2) and AEC-1-W (440-152822-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8270C SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-343113 and analytical batch 440-343497. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

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

Case Narrative

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

Job ID: 440-152822-1 (Continued)

Laboratory: TestAmerica Irvine (Continued)

HPLC/IC

Method(s) 300.0: The following samples was diluted for Sulfate due to the nature of the sample matrix: AEC-2-W (440-152822-2) and AEC-1-W (440-152822-3). 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.

GC Semi VOA

Method(s) 8015B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-343009 and analytical batch 440-343351. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

Method(s) 8015B: Surrogate recovery for the following sample was outside control limits: AEC-2-W (440-152822-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8082: Surrogate recovery for the following sample was outside control limits: AEC-1-W (440-152822-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8082: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-343105 and analytical batch 440-344252. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch. (LCS 440-343105/4-A)

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

Metals

Method(s) 200.7 Rev 4.4: The following samples was diluted due to the nature of the sample matrix: AEC-2-W (440-152822-2) and AEC-1-W (440-152822-3). Elevated reporting limits (RLs) are provided. Sample appears to be yellow.

Method(s) 200.7 Rev 4.4: The following samples was diluted due to the nature of the sample matrix: AEC-2-W (440-152822-2) and AEC-1-W (440-152822-3). Elevated reporting limits (RLs) are provided. Sample appears to be yellow.

Method(s) 245.1: The following samples was diluted due to the nature of the sample matrix: AEC-2-W (440-152822-2) and AEC-1-W (440-152822-3). 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.

General Chemistry

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.

VOA Prep

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

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

Client Sample ID: EW-1-W

Date Collected: 07/13/16 16:05

Date Received: 07/14/16 10:34

Lab Sample ID: 440-152822-1

Matrix: Water

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		50	35	ug/L			07/20/16 17:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	91		76 - 132					07/20/16 17:14	1
4-Bromofluorobenzene (Surr)	97		80 - 120					07/20/16 17:14	1
Toluene-d8 (Surr)	106		80 - 128					07/20/16 17:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			07/20/16 17:14	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			07/20/16 17:14	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			07/20/16 17:14	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			07/20/16 17:14	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			07/20/16 17:14	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			07/20/16 17:14	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			07/20/16 17:14	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			07/20/16 17:14	1
1,2,3-Trichloropropane	ND		1.0	0.25	ug/L			07/20/16 17:14	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			07/20/16 17:14	1
1,2,4-Trimethylbenzene	ND		0.50	0.25	ug/L			07/20/16 17:14	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			07/20/16 17:14	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			07/20/16 17:14	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			07/20/16 17:14	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			07/20/16 17:14	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			07/20/16 17:14	1
1,3,5-Trimethylbenzene	ND		0.50	0.25	ug/L			07/20/16 17:14	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			07/20/16 17:14	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			07/20/16 17:14	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			07/20/16 17:14	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			07/20/16 17:14	1
2-Chlorotoluene	ND		0.50	0.25	ug/L			07/20/16 17:14	1
4-Chlorotoluene	ND		0.50	0.25	ug/L			07/20/16 17:14	1
Benzene	ND		0.50	0.25	ug/L			07/20/16 17:14	1
Bromobenzene	ND		0.50	0.25	ug/L			07/20/16 17:14	1
Bromochloromethane	ND		0.50	0.25	ug/L			07/20/16 17:14	1
Bromodichloromethane	ND		0.50	0.25	ug/L			07/20/16 17:14	1
Bromoform	ND		1.0	0.40	ug/L			07/20/16 17:14	1
Bromomethane	ND		0.50	0.25	ug/L			07/20/16 17:14	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			07/20/16 17:14	1
Chlorobenzene	ND		0.50	0.25	ug/L			07/20/16 17:14	1
Chloroethane	ND		1.0	0.40	ug/L			07/20/16 17:14	1
Chloroform	ND		0.50	0.25	ug/L			07/20/16 17:14	1
Chloromethane	ND		0.50	0.25	ug/L			07/20/16 17:14	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			07/20/16 17:14	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			07/20/16 17:14	1
Dibromochloromethane	ND		0.50	0.25	ug/L			07/20/16 17:14	1
Dibromomethane	ND		0.50	0.25	ug/L			07/20/16 17:14	1
Dichlorodifluoromethane	ND		1.0	0.25	ug/L			07/20/16 17:14	1
Ethanol	ND		150	75	ug/L			07/20/16 17:14	1
Isopropyl Ether (DIPE)	ND		0.50	0.25	ug/L			07/20/16 17:14	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

Client Sample ID: EW-1-W

Date Collected: 07/13/16 16:05

Date Received: 07/14/16 10:34

Lab Sample ID: 440-152822-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl-t-butyl ether (ETBE)	ND		0.50	0.25	ug/L			07/20/16 17:14	1
Ethylbenzene	ND		0.50	0.25	ug/L			07/20/16 17:14	1
Hexachlorobutadiene	ND		0.50	0.25	ug/L			07/20/16 17:14	1
Isopropylbenzene	ND		0.50	0.25	ug/L			07/20/16 17:14	1
m,p-Xylene	ND		1.0	0.50	ug/L			07/20/16 17:14	1
Methylene Chloride	ND		2.0	0.88	ug/L			07/20/16 17:14	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.25	ug/L			07/20/16 17:14	1
Naphthalene	ND		1.0	0.40	ug/L			07/20/16 17:14	1
n-Butylbenzene	ND		1.0	0.40	ug/L			07/20/16 17:14	1
N-Propylbenzene	ND		0.50	0.25	ug/L			07/20/16 17:14	1
o-Xylene	ND		0.50	0.25	ug/L			07/20/16 17:14	1
p-Isopropyltoluene	ND		0.50	0.25	ug/L			07/20/16 17:14	1
sec-Butylbenzene	ND		0.50	0.25	ug/L			07/20/16 17:14	1
Styrene	ND		0.50	0.25	ug/L			07/20/16 17:14	1
Tert-amyl-methyl ether (TAME)	ND		0.50	0.25	ug/L			07/20/16 17:14	1
tert-Butylbenzene	ND		0.50	0.25	ug/L			07/20/16 17:14	1
Tetrachloroethene	ND		0.50	0.25	ug/L			07/20/16 17:14	1
Toluene	ND		0.50	0.25	ug/L			07/20/16 17:14	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			07/20/16 17:14	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			07/20/16 17:14	1
Trichloroethene	ND		0.50	0.25	ug/L			07/20/16 17:14	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			07/20/16 17:14	1
Xylenes, Total	ND		1.0	0.50	ug/L			07/20/16 17:14	1
Vinyl chloride	ND		0.50	0.25	ug/L			07/20/16 17:14	1
tert-Butyl alcohol (TBA)	ND		10	5.0	ug/L			07/20/16 17:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		80 - 120		07/20/16 17:14	1
Dibromofluoromethane (Surr)	91		76 - 132		07/20/16 17:14	1
Toluene-d8 (Surr)	106		80 - 128		07/20/16 17:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.097	ug/L		07/18/16 13:01	07/19/16 22:18	1
Acenaphthylene	ND		0.19	0.097	ug/L		07/18/16 13:01	07/19/16 22:18	1
Anthracene	ND		0.19	0.097	ug/L		07/18/16 13:01	07/19/16 22:18	1
Benzo[a]anthracene	ND		0.19	0.097	ug/L		07/18/16 13:01	07/19/16 22:18	1
Benzo[a]pyrene	ND		0.19	0.097	ug/L		07/18/16 13:01	07/19/16 22:18	1
Benzo[b]fluoranthene	ND		0.19	0.097	ug/L		07/18/16 13:01	07/19/16 22:18	1
Benzo[g,h,i]perylene	ND		0.19	0.097	ug/L		07/18/16 13:01	07/19/16 22:18	1
Benzo[k]fluoranthene	ND		0.19	0.097	ug/L		07/18/16 13:01	07/19/16 22:18	1
Chrysene	ND		0.19	0.097	ug/L		07/18/16 13:01	07/19/16 22:18	1
Dibenz(a,h)anthracene	ND		0.19	0.097	ug/L		07/18/16 13:01	07/19/16 22:18	1
Fluoranthene	ND		0.19	0.097	ug/L		07/18/16 13:01	07/19/16 22:18	1
Fluorene	ND		0.19	0.097	ug/L		07/18/16 13:01	07/19/16 22:18	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.097	ug/L		07/18/16 13:01	07/19/16 22:18	1
Naphthalene	ND		0.19	0.097	ug/L		07/18/16 13:01	07/19/16 22:18	1
Phenanthrene	ND		0.19	0.097	ug/L		07/18/16 13:01	07/19/16 22:18	1
Pyrene	ND		0.19	0.097	ug/L		07/18/16 13:01	07/19/16 22:18	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

Client Sample ID: EW-1-W

Date Collected: 07/13/16 16:05

Date Received: 07/14/16 10:34

Lab Sample ID: 440-152822-1

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	61		50 - 104	07/18/16 13:01	07/19/16 22:18	1
Nitrobenzene-d5	63		46 - 109	07/18/16 13:01	07/19/16 22:18	1
Terphenyl-d14	84		28 - 124	07/18/16 13:01	07/19/16 22:18	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		0.47	0.093	mg/L		07/18/16 06:55	07/20/16 00:38	1
C23-C40	ND		0.47	0.093	mg/L		07/18/16 06:55	07/20/16 00:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	60		45 - 120	07/18/16 06:55	07/20/16 00:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 19:42	1
Aroclor 1221	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 19:42	1
Aroclor 1232	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 19:42	1
Aroclor 1242	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 19:42	1
Aroclor 1248	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 19:42	1
Aroclor 1254	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 19:42	1
Aroclor 1260	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 19:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	69		26 - 115	07/18/16 12:42	07/22/16 19:42	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4000		500	250	mg/L			07/18/16 15:37	1000
Sulfate	470		50	25	mg/L			07/18/16 17:36	100

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0060	mg/L		07/19/16 14:16	07/20/16 12:05	1
Arsenic	ND		0.010	0.0050	mg/L		07/19/16 14:16	07/20/16 12:05	1
Barium	0.12		0.010	0.0050	mg/L		07/19/16 14:16	07/20/16 12:05	1
Beryllium	ND		0.0020	0.0010	mg/L		07/19/16 14:16	07/20/16 12:05	1
Cadmium	ND		0.0050	0.0020	mg/L		07/19/16 14:16	07/20/16 12:05	1
Chromium	0.0030	J	0.0050	0.0025	mg/L		07/19/16 14:16	07/20/16 12:05	1
Cobalt	0.0068	J	0.010	0.0025	mg/L		07/19/16 14:16	07/20/16 12:05	1
Lead	ND		0.0050	0.0025	mg/L		07/19/16 14:16	07/20/16 12:05	1
Copper	0.010		0.010	0.0050	mg/L		07/19/16 14:16	07/20/16 12:05	1
Molybdenum	0.057		0.020	0.010	mg/L		07/19/16 14:16	07/20/16 10:08	1
Nickel	0.0075	J	0.010	0.0050	mg/L		07/19/16 14:16	07/20/16 12:05	1
Selenium	ND		0.010	0.0061	mg/L		07/19/16 14:16	07/20/16 12:05	1
Silver	ND		0.010	0.0050	mg/L		07/19/16 14:16	07/20/16 12:05	1
Thallium	ND		0.010	0.0050	mg/L		07/19/16 14:16	07/20/16 12:05	1
Vanadium	0.0084	J	0.010	0.0050	mg/L		07/19/16 14:16	07/20/16 12:05	1
Zinc	ND		0.020	0.010	mg/L		07/19/16 14:16	07/20/16 12:05	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		07/20/16 13:00	07/20/16 22:10	1

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	9700		100	50	mg/L			07/19/16 07:51	1

Client Sample ID: AEC-2-W

Date Collected: 07/14/16 08:05

Date Received: 07/14/16 10:34

Lab Sample ID: 440-152822-2

Matrix: Water

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	1600		100	70	ug/L			07/20/16 18:14	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	89		76 - 132		07/20/16 18:14	2
4-Bromofluorobenzene (Surr)	103		80 - 120		07/20/16 18:14	2
Toluene-d8 (Surr)	106		80 - 128		07/20/16 18:14	2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/20/16 18:14	2
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			07/20/16 18:14	2
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/20/16 18:14	2
1,1,2-Trichloroethane	ND		1.0	0.50	ug/L			07/20/16 18:14	2
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/20/16 18:14	2
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/20/16 18:14	2
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/20/16 18:14	2
1,2,3-Trichlorobenzene	ND		2.0	0.80	ug/L			07/20/16 18:14	2
1,2,3-Trichloropropane	ND		2.0	0.50	ug/L			07/20/16 18:14	2
1,2,4-Trichlorobenzene	ND		2.0	0.80	ug/L			07/20/16 18:14	2
1,2,4-Trimethylbenzene	61		1.0	0.50	ug/L			07/20/16 18:14	2
1,2-Dibromo-3-Chloropropane	ND		2.0	1.0	ug/L			07/20/16 18:14	2
1,2-Dibromoethane (EDB)	ND		1.0	0.50	ug/L			07/20/16 18:14	2
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/20/16 18:14	2
1,2-Dichloroethane	ND		1.0	0.50	ug/L			07/20/16 18:14	2
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/20/16 18:14	2
1,3,5-Trimethylbenzene	14		1.0	0.50	ug/L			07/20/16 18:14	2
1,3-Dichlorobenzene	ND		1.0	0.50	ug/L			07/20/16 18:14	2
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/20/16 18:14	2
1,4-Dichlorobenzene	46		1.0	0.50	ug/L			07/20/16 18:14	2
2,2-Dichloropropane	ND		2.0	0.80	ug/L			07/20/16 18:14	2
2-Chlorotoluene	ND		1.0	0.50	ug/L			07/20/16 18:14	2
4-Chlorotoluene	ND		1.0	0.50	ug/L			07/20/16 18:14	2
Benzene	3.8		1.0	0.50	ug/L			07/20/16 18:14	2
Bromobenzene	ND		1.0	0.50	ug/L			07/20/16 18:14	2
Bromochloromethane	ND		1.0	0.50	ug/L			07/20/16 18:14	2
Bromodichloromethane	ND		1.0	0.50	ug/L			07/20/16 18:14	2
Bromoform	ND		2.0	0.80	ug/L			07/20/16 18:14	2
Bromomethane	ND		1.0	0.50	ug/L			07/20/16 18:14	2
Carbon tetrachloride	ND		1.0	0.50	ug/L			07/20/16 18:14	2
Chlorobenzene	2.6		1.0	0.50	ug/L			07/20/16 18:14	2
Chloroethane	ND		2.0	0.80	ug/L			07/20/16 18:14	2
Chloroform	ND		1.0	0.50	ug/L			07/20/16 18:14	2
Chloromethane	0.82 J		1.0	0.50	ug/L			07/20/16 18:14	2
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/20/16 18:14	2
cis-1,3-Dichloropropene	ND		1.0	0.50	ug/L			07/20/16 18:14	2

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

Client Sample ID: AEC-2-W

Lab Sample ID: 440-152822-2

Date Collected: 07/14/16 08:05

Matrix: Water

Date Received: 07/14/16 10:34

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		1.0	0.50	ug/L			07/20/16 18:14	2
Dibromomethane	ND		1.0	0.50	ug/L			07/20/16 18:14	2
Dichlorodifluoromethane	ND		2.0	0.50	ug/L			07/20/16 18:14	2
Ethanol	200	J	300	150	ug/L			07/20/16 18:14	2
Isopropyl Ether (DIPE)	ND		1.0	0.50	ug/L			07/20/16 18:14	2
Ethyl-t-butyl ether (ETBE)	ND		1.0	0.50	ug/L			07/20/16 18:14	2
Ethylbenzene	14		1.0	0.50	ug/L			07/20/16 18:14	2
Hexachlorobutadiene	ND		1.0	0.50	ug/L			07/20/16 18:14	2
Isopropylbenzene	2.7		1.0	0.50	ug/L			07/20/16 18:14	2
m,p-Xylene	16		2.0	1.0	ug/L			07/20/16 18:14	2
Methylene Chloride	ND		4.0	1.8	ug/L			07/20/16 18:14	2
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.50	ug/L			07/20/16 18:14	2
Naphthalene	51		2.0	0.80	ug/L			07/20/16 18:14	2
n-Butylbenzene	5.8		2.0	0.80	ug/L			07/20/16 18:14	2
N-Propylbenzene	6.0		1.0	0.50	ug/L			07/20/16 18:14	2
o-Xylene	10		1.0	0.50	ug/L			07/20/16 18:14	2
p-Isopropyltoluene	12		1.0	0.50	ug/L			07/20/16 18:14	2
sec-Butylbenzene	3.2		1.0	0.50	ug/L			07/20/16 18:14	2
Styrene	1.2		1.0	0.50	ug/L			07/20/16 18:14	2
Tert-amyl-methyl ether (TAME)	ND		1.0	0.50	ug/L			07/20/16 18:14	2
tert-Butylbenzene	0.79	J	1.0	0.50	ug/L			07/20/16 18:14	2
Tetrachloroethene	ND		1.0	0.50	ug/L			07/20/16 18:14	2
Toluene	28		1.0	0.50	ug/L			07/20/16 18:14	2
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/20/16 18:14	2
trans-1,3-Dichloropropene	ND		1.0	0.50	ug/L			07/20/16 18:14	2
Trichloroethene	ND		1.0	0.50	ug/L			07/20/16 18:14	2
Trichlorofluoromethane	ND		1.0	0.50	ug/L			07/20/16 18:14	2
Xylenes, Total	26		2.0	1.0	ug/L			07/20/16 18:14	2
Vinyl chloride	ND		1.0	0.50	ug/L			07/20/16 18:14	2
tert-Butyl alcohol (TBA)	25	ID	20	10	ug/L			07/20/16 18:14	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		80 - 120		07/20/16 18:14	2
Dibromofluoromethane (Surr)	89		76 - 132		07/20/16 18:14	2
Toluene-d8 (Surr)	106		80 - 128		07/20/16 18:14	2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	1.6		0.38	0.19	ug/L		07/18/16 13:01	07/19/16 22:39	2
Acenaphthylene	ND		0.38	0.19	ug/L		07/18/16 13:01	07/19/16 22:39	2
Anthracene	0.30	J	0.38	0.19	ug/L		07/18/16 13:01	07/19/16 22:39	2
Benzo[a]anthracene	ND		0.38	0.19	ug/L		07/18/16 13:01	07/19/16 22:39	2
Benzo[a]pyrene	ND		0.38	0.19	ug/L		07/18/16 13:01	07/19/16 22:39	2
Benzo[b]fluoranthene	ND		0.38	0.19	ug/L		07/18/16 13:01	07/19/16 22:39	2
Benzo[g,h,i]perylene	ND		0.38	0.19	ug/L		07/18/16 13:01	07/19/16 22:39	2
Benzo[k]fluoranthene	ND		0.38	0.19	ug/L		07/18/16 13:01	07/19/16 22:39	2
Chrysene	ND		0.38	0.19	ug/L		07/18/16 13:01	07/19/16 22:39	2
Dibenz(a,h)anthracene	ND		0.38	0.19	ug/L		07/18/16 13:01	07/19/16 22:39	2
Fluoranthene	0.31	J	0.38	0.19	ug/L		07/18/16 13:01	07/19/16 22:39	2
Fluorene	2.0		0.38	0.19	ug/L		07/18/16 13:01	07/19/16 22:39	2

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

Client Sample ID: AEC-2-W

Lab Sample ID: 440-152822-2

Date Collected: 07/14/16 08:05

Matrix: Water

Date Received: 07/14/16 10:34

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	ND		0.38	0.19	ug/L		07/18/16 13:01	07/19/16 22:39	2
Naphthalene	29		0.38	0.19	ug/L		07/18/16 13:01	07/19/16 22:39	2
Phenanthrene	2.9		0.38	0.19	ug/L		07/18/16 13:01	07/19/16 22:39	2
Pyrene	0.35	J	0.38	0.19	ug/L		07/18/16 13:01	07/19/16 22:39	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	46	X	50 - 104				07/18/16 13:01	07/19/16 22:39	2
Nitrobenzene-d5	107		46 - 109				07/18/16 13:01	07/19/16 22:39	2
Terphenyl-d14	66		28 - 124				07/18/16 13:01	07/19/16 22:39	2

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	0.91		0.47	0.093	mg/L		07/18/16 06:55	07/20/16 01:00	1
C23-C40	0.36	J	0.47	0.093	mg/L		07/18/16 06:55	07/20/16 01:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane	40	X	45 - 120				07/18/16 06:55	07/20/16 01:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 19:55	1
Aroclor 1221	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 19:55	1
Aroclor 1232	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 19:55	1
Aroclor 1242	5.5		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 19:55	1
Aroclor 1248	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 19:55	1
Aroclor 1254	1.4		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 19:55	1
Aroclor 1260	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 19:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	31		26 - 115				07/18/16 12:42	07/22/16 19:55	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14000		1000	500	mg/L			07/18/16 15:51	2000
Sulfate	40	J	50	25	mg/L			07/18/16 17:50	100

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.10	0.060	mg/L		07/19/16 14:16	07/20/16 12:11	10
Arsenic	ND		0.10	0.050	mg/L		07/19/16 14:16	07/20/16 12:11	10
Barium	2.4		0.10	0.050	mg/L		07/19/16 14:16	07/20/16 12:11	10
Beryllium	ND		0.020	0.010	mg/L		07/19/16 14:16	07/20/16 12:11	10
Cadmium	ND		0.050	0.020	mg/L		07/19/16 14:16	07/20/16 12:11	10
Chromium	0.14		0.050	0.025	mg/L		07/19/16 14:16	07/20/16 12:11	10
Cobalt	0.031	J	0.10	0.025	mg/L		07/19/16 14:16	07/20/16 12:11	10
Lead	0.27		0.050	0.025	mg/L		07/19/16 14:16	07/20/16 12:11	10
Copper	0.13		0.10	0.050	mg/L		07/19/16 14:16	07/20/16 12:11	10
Molybdenum	ND		0.20	0.10	mg/L		07/19/16 14:16	07/20/16 10:13	10
Nickel	0.075	J	0.10	0.050	mg/L		07/19/16 14:16	07/20/16 12:11	10
Selenium	ND		0.10	0.061	mg/L		07/19/16 14:16	07/20/16 12:11	10
Silver	ND		0.10	0.050	mg/L		07/19/16 14:16	07/20/16 12:11	10

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

Client Sample ID: AEC-2-W

Date Collected: 07/14/16 08:05

Date Received: 07/14/16 10:34

Lab Sample ID: 440-152822-2

Matrix: Water

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	0.055	J	0.10	0.050	mg/L		07/19/16 14:16	07/20/16 12:11	10
Vanadium	ND		0.10	0.050	mg/L		07/19/16 14:16	07/20/16 12:11	10
Zinc	0.47		0.20	0.10	mg/L		07/19/16 14:16	07/20/16 12:11	10

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00080	0.00040	mg/L		07/20/16 13:00	07/20/16 22:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	26000		1000	500	mg/L			07/19/16 09:21	1

Client Sample ID: AEC-1-W

Date Collected: 07/14/16 09:30

Date Received: 07/14/16 10:34

Lab Sample ID: 440-152822-3

Matrix: Water

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	2300		250	180	ug/L			07/21/16 12:15	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	97		76 - 132		07/21/16 12:15	5
4-Bromofluorobenzene (Surr)	106		80 - 120		07/21/16 12:15	5
Toluene-d8 (Surr)	107		80 - 128		07/21/16 12:15	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		2.5	1.3	ug/L			07/21/16 12:15	5
1,1,1-Trichloroethane	ND		2.5	1.3	ug/L			07/21/16 12:15	5
1,1,2,2-Tetrachloroethane	ND		2.5	1.3	ug/L			07/21/16 12:15	5
1,1,2-Trichloroethane	ND		2.5	1.3	ug/L			07/21/16 12:15	5
1,1-Dichloroethane	ND		2.5	1.3	ug/L			07/21/16 12:15	5
1,1-Dichloroethene	ND		2.5	1.3	ug/L			07/21/16 12:15	5
1,1-Dichloropropene	ND		2.5	1.3	ug/L			07/21/16 12:15	5
1,2,3-Trichlorobenzene	ND		5.0	2.0	ug/L			07/21/16 12:15	5
1,2,3-Trichloropropane	ND		5.0	1.3	ug/L			07/21/16 12:15	5
1,2,4-Trichlorobenzene	ND		5.0	2.0	ug/L			07/21/16 12:15	5
1,2,4-Trimethylbenzene	35		2.5	1.3	ug/L			07/21/16 12:15	5
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/L			07/21/16 12:15	5
1,2-Dibromoethane (EDB)	ND		2.5	1.3	ug/L			07/21/16 12:15	5
1,2-Dichlorobenzene	ND		2.5	1.3	ug/L			07/21/16 12:15	5
1,2-Dichloroethane	ND		2.5	1.3	ug/L			07/21/16 12:15	5
1,2-Dichloropropane	ND		2.5	1.3	ug/L			07/21/16 12:15	5
1,3,5-Trimethylbenzene	8.0		2.5	1.3	ug/L			07/21/16 12:15	5
1,3-Dichlorobenzene	ND		2.5	1.3	ug/L			07/21/16 12:15	5
1,3-Dichloropropane	ND		2.5	1.3	ug/L			07/21/16 12:15	5
1,4-Dichlorobenzene	17		2.5	1.3	ug/L			07/21/16 12:15	5
2,2-Dichloropropane	ND		5.0	2.0	ug/L			07/21/16 12:15	5
2-Chlorotoluene	ND		2.5	1.3	ug/L			07/21/16 12:15	5
4-Chlorotoluene	ND		2.5	1.3	ug/L			07/21/16 12:15	5

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

Client Sample ID: AEC-1-W

Lab Sample ID: 440-152822-3

Date Collected: 07/14/16 09:30

Matrix: Water

Date Received: 07/14/16 10:34

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	4.6		2.5	1.3	ug/L			07/21/16 12:15	5
Bromobenzene	ND		2.5	1.3	ug/L			07/21/16 12:15	5
Bromochloromethane	ND		2.5	1.3	ug/L			07/21/16 12:15	5
Bromodichloromethane	ND		2.5	1.3	ug/L			07/21/16 12:15	5
Bromoform	ND		5.0	2.0	ug/L			07/21/16 12:15	5
Bromomethane	ND		2.5	1.3	ug/L			07/21/16 12:15	5
Carbon tetrachloride	ND		2.5	1.3	ug/L			07/21/16 12:15	5
Chlorobenzene	1.6	J	2.5	1.3	ug/L			07/21/16 12:15	5
Chloroethane	ND		5.0	2.0	ug/L			07/21/16 12:15	5
Chloroform	ND		2.5	1.3	ug/L			07/21/16 12:15	5
Chloromethane	ND		2.5	1.3	ug/L			07/21/16 12:15	5
cis-1,2-Dichloroethene	ND		2.5	1.3	ug/L			07/21/16 12:15	5
cis-1,3-Dichloropropene	ND		2.5	1.3	ug/L			07/21/16 12:15	5
Dibromochloromethane	ND		2.5	1.3	ug/L			07/21/16 12:15	5
Dibromomethane	ND		2.5	1.3	ug/L			07/21/16 12:15	5
Dichlorodifluoromethane	ND		5.0	1.3	ug/L			07/21/16 12:15	5
Ethanol	ND		750	380	ug/L			07/21/16 12:15	5
Isopropyl Ether (DIPE)	ND		2.5	1.3	ug/L			07/21/16 12:15	5
Ethyl-t-butyl ether (ETBE)	ND		2.5	1.3	ug/L			07/21/16 12:15	5
Ethylbenzene	19		2.5	1.3	ug/L			07/21/16 12:15	5
Hexachlorobutadiene	ND		2.5	1.3	ug/L			07/21/16 12:15	5
Isopropylbenzene	1.5	J	2.5	1.3	ug/L			07/21/16 12:15	5
m,p-Xylene	37		5.0	2.5	ug/L			07/21/16 12:15	5
Methylene Chloride	ND		10	4.4	ug/L			07/21/16 12:15	5
Methyl-t-Butyl Ether (MTBE)	ND		2.5	1.3	ug/L			07/21/16 12:15	5
Naphthalene	87		5.0	2.0	ug/L			07/21/16 12:15	5
n-Butylbenzene	3.5	J	5.0	2.0	ug/L			07/21/16 12:15	5
N-Propylbenzene	3.2		2.5	1.3	ug/L			07/21/16 12:15	5
o-Xylene	21		2.5	1.3	ug/L			07/21/16 12:15	5
p-Isopropyltoluene	13		2.5	1.3	ug/L			07/21/16 12:15	5
sec-Butylbenzene	2.5		2.5	1.3	ug/L			07/21/16 12:15	5
Styrene	ND		2.5	1.3	ug/L			07/21/16 12:15	5
Tert-amyl-methyl ether (TAME)	ND		2.5	1.3	ug/L			07/21/16 12:15	5
tert-Butylbenzene	ND		2.5	1.3	ug/L			07/21/16 12:15	5
Tetrachloroethene	ND		2.5	1.3	ug/L			07/21/16 12:15	5
Toluene	53		2.5	1.3	ug/L			07/21/16 12:15	5
trans-1,2-Dichloroethene	ND		2.5	1.3	ug/L			07/21/16 12:15	5
trans-1,3-Dichloropropene	ND		2.5	1.3	ug/L			07/21/16 12:15	5
Trichloroethene	ND		2.5	1.3	ug/L			07/21/16 12:15	5
Trichlorofluoromethane	ND		2.5	1.3	ug/L			07/21/16 12:15	5
Xylenes, Total	58		5.0	2.5	ug/L			07/21/16 12:15	5
Vinyl chloride	ND		2.5	1.3	ug/L			07/21/16 12:15	5
tert-Butyl alcohol (TBA)	53		50	25	ug/L			07/21/16 12:15	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		80 - 120		07/21/16 12:15	5
Dibromofluoromethane (Surr)	97		76 - 132		07/21/16 12:15	5
Toluene-d8 (Surr)	107		80 - 128		07/21/16 12:15	5

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

Client Sample ID: AEC-1-W

Lab Sample ID: 440-152822-3

Date Collected: 07/14/16 09:30

Matrix: Water

Date Received: 07/14/16 10:34

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.68		0.38	0.19	ug/L	-	07/18/16 13:01	07/19/16 22:59	2
Acenaphthylene	ND		0.38	0.19	ug/L	-	07/18/16 13:01	07/19/16 22:59	2
Anthracene	ND		0.38	0.19	ug/L	-	07/18/16 13:01	07/19/16 22:59	2
Benzo[a]anthracene	ND		0.38	0.19	ug/L	-	07/18/16 13:01	07/19/16 22:59	2
Benzo[a]pyrene	ND		0.38	0.19	ug/L	-	07/18/16 13:01	07/19/16 22:59	2
Benzo[b]fluoranthene	ND		0.38	0.19	ug/L	-	07/18/16 13:01	07/19/16 22:59	2
Benzo[g,h,i]perylene	ND		0.38	0.19	ug/L	-	07/18/16 13:01	07/19/16 22:59	2
Benzo[k]fluoranthene	ND		0.38	0.19	ug/L	-	07/18/16 13:01	07/19/16 22:59	2
Chrysene	ND		0.38	0.19	ug/L	-	07/18/16 13:01	07/19/16 22:59	2
Dibenz(a,h)anthracene	ND		0.38	0.19	ug/L	-	07/18/16 13:01	07/19/16 22:59	2
Fluoranthene	0.51		0.38	0.19	ug/L	-	07/18/16 13:01	07/19/16 22:59	2
Fluorene	0.68		0.38	0.19	ug/L	-	07/18/16 13:01	07/19/16 22:59	2
Indeno[1,2,3-cd]pyrene	ND		0.38	0.19	ug/L	-	07/18/16 13:01	07/19/16 22:59	2
Naphthalene	21		0.38	0.19	ug/L	-	07/18/16 13:01	07/19/16 22:59	2
Phenanthrene	2.1		0.38	0.19	ug/L	-	07/18/16 13:01	07/19/16 22:59	2
Pyrene	0.41		0.38	0.19	ug/L	-	07/18/16 13:01	07/19/16 22:59	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	34	X	50 - 104				07/18/16 13:01	07/19/16 22:59	2
Nitrobenzene-d5	127	X	46 - 109				07/18/16 13:01	07/19/16 22:59	2
Terphenyl-d14	57		28 - 124				07/18/16 13:01	07/19/16 22:59	2

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	2.5		0.47	0.094	mg/L	-	07/18/16 06:55	07/22/16 14:09	1
C23-C40	1.2		0.47	0.094	mg/L	-	07/18/16 06:55	07/22/16 14:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane	53		45 - 120				07/18/16 06:55	07/22/16 14:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		1.0	0.50	ug/L	-	07/18/16 12:42	07/22/16 20:08	1
Aroclor 1221	ND		1.0	0.50	ug/L	-	07/18/16 12:42	07/22/16 20:08	1
Aroclor 1232	ND		1.0	0.50	ug/L	-	07/18/16 12:42	07/22/16 20:08	1
Aroclor 1242	1.7		1.0	0.50	ug/L	-	07/18/16 12:42	07/22/16 20:08	1
Aroclor 1248	ND		1.0	0.50	ug/L	-	07/18/16 12:42	07/22/16 20:08	1
Aroclor 1254	1.1		1.0	0.50	ug/L	-	07/18/16 12:42	07/22/16 20:08	1
Aroclor 1260	ND		1.0	0.50	ug/L	-	07/18/16 12:42	07/22/16 20:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	23	X	26 - 115				07/18/16 12:42	07/22/16 20:08	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15000		1000	500	mg/L	-		07/18/16 16:04	2000
Sulfate	42	J	50	25	mg/L	-		07/18/16 18:04	100

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.10	0.060	mg/L	-	07/19/16 14:16	07/20/16 12:13	10

TestAmerica Irvine

Client Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

Client Sample ID: AEC-1-W

Lab Sample ID: 440-152822-3

Date Collected: 07/14/16 09:30

Matrix: Water

Date Received: 07/14/16 10:34

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.063	J	0.10	0.050	mg/L		07/19/16 14:16	07/20/16 12:13	10
Barium	3.4		0.10	0.050	mg/L		07/19/16 14:16	07/20/16 12:13	10
Beryllium	ND		0.020	0.010	mg/L		07/19/16 14:16	07/20/16 12:13	10
Cadmium	ND		0.050	0.020	mg/L		07/19/16 14:16	07/20/16 12:13	10
Chromium	0.68		0.050	0.025	mg/L		07/19/16 14:16	07/20/16 12:13	10
Cobalt	0.075	J	0.10	0.025	mg/L		07/19/16 14:16	07/20/16 12:13	10
Lead	1.1		0.050	0.025	mg/L		07/19/16 14:16	07/20/16 12:13	10
Copper	0.60		0.10	0.050	mg/L		07/19/16 14:16	07/20/16 12:13	10
Molybdenum	ND		0.20	0.10	mg/L		07/19/16 14:16	07/20/16 10:15	10
Nickel	0.31		0.10	0.050	mg/L		07/19/16 14:16	07/20/16 12:13	10
Selenium	0.078	J	0.10	0.061	mg/L		07/19/16 14:16	07/20/16 12:13	10
Silver	ND		0.10	0.050	mg/L		07/19/16 14:16	07/20/16 12:13	10
Thallium	ND		0.10	0.050	mg/L		07/19/16 14:16	07/20/16 12:13	10
Vanadium	0.19		0.10	0.050	mg/L		07/19/16 14:16	07/20/16 12:13	10
Zinc	2.0		0.20	0.10	mg/L		07/19/16 14:16	07/20/16 12:13	10

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0030		0.00080	0.00040	mg/L		07/20/16 13:00	07/20/16 23:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	30000		1000	500	mg/L			07/19/16 09:22	1

Method Summary

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8260B/CA_LUFTMS	Volatile Organic Compounds by GC/MS	SW846	TAL IRV
8270C SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL IRV
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL IRV
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL IRV
300.0	Anions, Ion Chromatography	MCAWW	TAL IRV
200.7 Rev 4.4	Metals (ICP)	EPA	TAL IRV
245.1	Mercury (CVAA)	EPA	TAL IRV
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL IRV

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

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

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

Client Sample ID: EW-1-W

Date Collected: 07/13/16 16:05

Date Received: 07/14/16 10:34

Lab Sample ID: 440-152822-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	343557	07/20/16 17:14	AYL	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTV S		1	10 mL	10 mL	343558	07/20/16 17:14	HR	TAL IRV
Total/NA	Prep	3520C			1035 mL	1 mL	343113	07/18/16 13:01	FTD	TAL IRV
Total/NA	Analysis	8270C SIM		1			343497	07/19/16 22:18	AI	TAL IRV
Total/NA	Prep	3510C			1070 mL	1 mL	343009	07/18/16 06:55	L2A	TAL IRV
Total/NA	Analysis	8015B		1			343451	07/20/16 00:38	JM	TAL IRV
Total/NA	Prep	3510C			125 mL	2 mL	343105	07/18/16 12:42	L2A	TAL IRV
Total/NA	Analysis	8082		1			344252	07/22/16 19:42	JM	TAL IRV
Total/NA	Analysis	300.0		1000			343062	07/18/16 15:37	NTN	TAL IRV
Total/NA	Analysis	300.0		100			343062	07/18/16 17:36	NTN	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	343425	07/19/16 14:16	Q1N	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			343665	07/20/16 10:08	EN	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	343425	07/19/16 14:16	Q1N	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			343681	07/20/16 12:05	EN	TAL IRV
Total/NA	Prep	245.1			20 mL	20 mL	343699	07/20/16 13:00	DB	TAL IRV
Total/NA	Analysis	245.1		1			343952	07/20/16 22:10	DB	TAL IRV
Total/NA	Analysis	SM 2540C		1	10 mL	100 mL	343022	07/19/16 07:51	XL	TAL IRV

Client Sample ID: AEC-2-W

Date Collected: 07/14/16 08:05

Date Received: 07/14/16 10:34

Lab Sample ID: 440-152822-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2	10 mL	10 mL	343557	07/20/16 18:14	AYL	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTV S		2	10 mL	10 mL	343558	07/20/16 18:14	HR	TAL IRV
Total/NA	Prep	3520C			1045 mL	1 mL	343113	07/18/16 13:01	FTD	TAL IRV
Total/NA	Analysis	8270C SIM		2			343497	07/19/16 22:39	AI	TAL IRV
Total/NA	Prep	3510C			1070 mL	1 mL	343009	07/18/16 06:55	L2A	TAL IRV
Total/NA	Analysis	8015B		1			343451	07/20/16 01:00	JM	TAL IRV
Total/NA	Prep	3510C			125 mL	2 mL	343105	07/18/16 12:42	L2A	TAL IRV
Total/NA	Analysis	8082		1			344252	07/22/16 19:55	JM	TAL IRV
Total/NA	Analysis	300.0		2000			343062	07/18/16 15:51	NTN	TAL IRV
Total/NA	Analysis	300.0		100			343062	07/18/16 17:50	NTN	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	343425	07/19/16 14:16	Q1N	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		10			343665	07/20/16 10:13	EN	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	343425	07/19/16 14:16	Q1N	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		10			343681	07/20/16 12:11	EN	TAL IRV
Total/NA	Prep	245.1			5 mL	20 mL	343699	07/20/16 13:00	DB	TAL IRV
Total/NA	Analysis	245.1		1			343952	07/20/16 22:13	DB	TAL IRV
Total/NA	Analysis	SM 2540C		1	1 mL	100 mL	343022	07/19/16 09:21	XL	TAL IRV

TestAmerica Irvine

Lab Chronicle

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

Client Sample ID: AEC-1-W

Lab Sample ID: 440-152822-3

Date Collected: 07/14/16 09:30

Matrix: Water

Date Received: 07/14/16 10:34

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	10 mL	10 mL	343879	07/21/16 12:15	AYL	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTM S		5	10 mL	10 mL	343880	07/21/16 12:15	AYL	TAL IRV
Total/NA	Prep	3520C			1055 mL	1 mL	343113	07/18/16 13:01	FTD	TAL IRV
Total/NA	Analysis	8270C SIM		2			343497	07/19/16 22:59	AI	TAL IRV
Total/NA	Prep	3510C			1065 mL	1 mL	343009	07/18/16 06:55	L2A	TAL IRV
Total/NA	Analysis	8015B		1			344271	07/22/16 14:09	CN	TAL IRV
Total/NA	Prep	3510C			125 mL	2 mL	343105	07/18/16 12:42	L2A	TAL IRV
Total/NA	Analysis	8082		1			344252	07/22/16 20:08	JM	TAL IRV
Total/NA	Analysis	300.0		2000			343062	07/18/16 16:04	NTN	TAL IRV
Total/NA	Analysis	300.0		100			343062	07/18/16 18:04	NTN	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	343425	07/19/16 14:16	Q1N	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		10			343665	07/20/16 10:15	EN	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	343425	07/19/16 14:16	Q1N	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		10			343681	07/20/16 12:13	EN	TAL IRV
Total/NA	Prep	245.1			5 mL	20 mL	343699	07/20/16 13:00	DB	TAL IRV
Total/NA	Analysis	245.1		1			343953	07/20/16 23:24	DB	TAL IRV
Total/NA	Analysis	SM 2540C		1	1 mL	100 mL	343022	07/19/16 09:22	XL	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

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

Lab Sample ID: MB 440-343557/8

Matrix: Water

Analysis Batch: 343557

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			07/20/16 10:53	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			07/20/16 10:53	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			07/20/16 10:53	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			07/20/16 10:53	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			07/20/16 10:53	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			07/20/16 10:53	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			07/20/16 10:53	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			07/20/16 10:53	1
1,2,3-Trichloropropane	ND		1.0	0.25	ug/L			07/20/16 10:53	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			07/20/16 10:53	1
1,2,4-Trimethylbenzene	ND		0.50	0.25	ug/L			07/20/16 10:53	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			07/20/16 10:53	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			07/20/16 10:53	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			07/20/16 10:53	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			07/20/16 10:53	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			07/20/16 10:53	1
1,3,5-Trimethylbenzene	ND		0.50	0.25	ug/L			07/20/16 10:53	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			07/20/16 10:53	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			07/20/16 10:53	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			07/20/16 10:53	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			07/20/16 10:53	1
2-Chlorotoluene	ND		0.50	0.25	ug/L			07/20/16 10:53	1
4-Chlorotoluene	ND		0.50	0.25	ug/L			07/20/16 10:53	1
Benzene	ND		0.50	0.25	ug/L			07/20/16 10:53	1
Bromobenzene	ND		0.50	0.25	ug/L			07/20/16 10:53	1
Bromochloromethane	ND		0.50	0.25	ug/L			07/20/16 10:53	1
Bromodichloromethane	ND		0.50	0.25	ug/L			07/20/16 10:53	1
Bromoform	ND		1.0	0.40	ug/L			07/20/16 10:53	1
Bromomethane	ND		0.50	0.25	ug/L			07/20/16 10:53	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			07/20/16 10:53	1
Chlorobenzene	ND		0.50	0.25	ug/L			07/20/16 10:53	1
Chloroethane	ND		1.0	0.40	ug/L			07/20/16 10:53	1
Chloroform	ND		0.50	0.25	ug/L			07/20/16 10:53	1
Chloromethane	ND		0.50	0.25	ug/L			07/20/16 10:53	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			07/20/16 10:53	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			07/20/16 10:53	1
Dibromochloromethane	ND		0.50	0.25	ug/L			07/20/16 10:53	1
Dibromomethane	ND		0.50	0.25	ug/L			07/20/16 10:53	1
Dichlorodifluoromethane	ND		1.0	0.25	ug/L			07/20/16 10:53	1
Ethanol	ND		150	75	ug/L			07/20/16 10:53	1
Isopropyl Ether (DIPE)	ND		0.50	0.25	ug/L			07/20/16 10:53	1
Ethyl-t-butyl ether (ETBE)	ND		0.50	0.25	ug/L			07/20/16 10:53	1
Ethylbenzene	ND		0.50	0.25	ug/L			07/20/16 10:53	1
Hexachlorobutadiene	ND		0.50	0.25	ug/L			07/20/16 10:53	1
Isopropylbenzene	ND		0.50	0.25	ug/L			07/20/16 10:53	1
m,p-Xylene	ND		1.0	0.50	ug/L			07/20/16 10:53	1
Methylene Chloride	ND		2.0	0.88	ug/L			07/20/16 10:53	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.25	ug/L			07/20/16 10:53	1

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

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

Lab Sample ID: MB 440-343557/8

Matrix: Water

Analysis Batch: 343557

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0	0.40	ug/L			07/20/16 10:53	1
n-Butylbenzene	ND		1.0	0.40	ug/L			07/20/16 10:53	1
N-Propylbenzene	ND		0.50	0.25	ug/L			07/20/16 10:53	1
o-Xylene	ND		0.50	0.25	ug/L			07/20/16 10:53	1
p-Isopropyltoluene	ND		0.50	0.25	ug/L			07/20/16 10:53	1
sec-Butylbenzene	ND		0.50	0.25	ug/L			07/20/16 10:53	1
Styrene	ND		0.50	0.25	ug/L			07/20/16 10:53	1
Tert-amyl-methyl ether (TAME)	ND		0.50	0.25	ug/L			07/20/16 10:53	1
tert-Butylbenzene	ND		0.50	0.25	ug/L			07/20/16 10:53	1
Tetrachloroethene	ND		0.50	0.25	ug/L			07/20/16 10:53	1
Toluene	ND		0.50	0.25	ug/L			07/20/16 10:53	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			07/20/16 10:53	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			07/20/16 10:53	1
Trichloroethene	ND		0.50	0.25	ug/L			07/20/16 10:53	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			07/20/16 10:53	1
Xylenes, Total	ND		1.0	0.50	ug/L			07/20/16 10:53	1
Vinyl chloride	ND		0.50	0.25	ug/L			07/20/16 10:53	1
tert-Butyl alcohol (TBA)	ND		10	5.0	ug/L			07/20/16 10:53	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		80 - 120		07/20/16 10:53	1
Dibromofluoromethane (Surr)	101		76 - 132		07/20/16 10:53	1
Toluene-d8 (Surr)	106		80 - 128		07/20/16 10:53	1

Lab Sample ID: LCS 440-343557/5

Matrix: Water

Analysis Batch: 343557

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	23.3		ug/L		93	60 - 141
1,1,1-Trichloroethane	25.0	22.6		ug/L		90	70 - 130
1,1,2,2-Tetrachloroethane	25.0	23.1		ug/L		93	63 - 130
1,1,2-Trichloroethane	25.0	22.7		ug/L		91	70 - 130
1,1-Dichloroethane	25.0	23.0		ug/L		92	64 - 130
1,1-Dichloroethene	25.0	23.8		ug/L		95	70 - 130
1,1-Dichloropropene	25.0	26.0		ug/L		104	70 - 130
1,2,3-Trichlorobenzene	25.0	23.1		ug/L		92	60 - 140
1,2,3-Trichloropropane	25.0	21.6		ug/L		86	63 - 130
1,2,4-Trichlorobenzene	25.0	23.6		ug/L		94	60 - 140
1,2,4-Trimethylbenzene	25.0	22.9		ug/L		92	70 - 135
1,2-Dibromo-3-Chloropropane	25.0	22.0		ug/L		88	52 - 140
1,2-Dibromoethane (EDB)	25.0	25.2		ug/L		101	70 - 130
1,2-Dichlorobenzene	25.0	22.4		ug/L		90	70 - 130
1,2-Dichloroethane	25.0	22.8		ug/L		91	57 - 138
1,2-Dichloropropane	25.0	24.9		ug/L		100	67 - 130
1,3,5-Trimethylbenzene	25.0	22.7		ug/L		91	70 - 136
1,3-Dichlorobenzene	25.0	21.9		ug/L		88	70 - 130
1,3-Dichloropropane	25.0	23.5		ug/L		94	70 - 130

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

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

Lab Sample ID: LCS 440-343557/5

Matrix: Water

Analysis Batch: 343557

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	25.0	20.6		ug/L		82	70 - 130
2,2-Dichloropropane	25.0	23.4		ug/L		93	68 - 141
2-Chlorotoluene	25.0	21.8		ug/L		87	70 - 130
4-Chlorotoluene	25.0	21.9		ug/L		88	70 - 130
Benzene	25.0	24.5		ug/L		98	68 - 130
Bromobenzene	25.0	23.7		ug/L		95	70 - 130
Bromochloromethane	25.0	24.5		ug/L		98	70 - 130
Bromodichloromethane	25.0	24.0		ug/L		96	70 - 132
Bromoform	25.0	23.8		ug/L		95	60 - 148
Bromomethane	25.0	23.6		ug/L		94	64 - 139
Carbon tetrachloride	25.0	24.5		ug/L		98	60 - 150
Chlorobenzene	25.0	22.2		ug/L		89	70 - 130
Chloroethane	25.0	22.7		ug/L		91	64 - 135
Chloroform	25.0	23.4		ug/L		93	70 - 130
Chloromethane	25.0	20.2		ug/L		81	47 - 140
cis-1,2-Dichloroethene	25.0	25.4		ug/L		102	70 - 133
cis-1,3-Dichloropropene	25.0	23.5		ug/L		94	70 - 133
Dibromochloromethane	25.0	24.0		ug/L		96	69 - 145
Dibromomethane	25.0	24.1		ug/L		96	70 - 130
Dichlorodifluoromethane	25.0	18.5		ug/L		74	29 - 150
Ethanol	1000	858		ug/L		86	50 - 149
Isopropyl Ether (DIPE)	25.0	26.3		ug/L		105	58 - 139
Ethyl-t-butyl ether (ETBE)	25.0	24.6		ug/L		98	60 - 136
Ethylbenzene	25.0	25.4		ug/L		102	70 - 130
Hexachlorobutadiene	25.0	21.2		ug/L		85	10 - 150
Isopropylbenzene	25.0	24.6		ug/L		98	70 - 136
m,p-Xylene	25.0	24.7		ug/L		99	70 - 130
Methylene Chloride	25.0	23.4		ug/L		93	52 - 130
Methyl-t-Butyl Ether (MTBE)	25.0	25.3		ug/L		101	63 - 131
Naphthalene	25.0	23.0		ug/L		92	60 - 140
n-Butylbenzene	25.0	22.6		ug/L		90	65 - 150
N-Propylbenzene	25.0	22.6		ug/L		90	67 - 139
o-Xylene	25.0	22.8		ug/L		91	70 - 130
p-Isopropyltoluene	25.0	23.6		ug/L		95	70 - 132
sec-Butylbenzene	25.0	22.2		ug/L		89	70 - 138
Styrene	25.0	22.5		ug/L		90	70 - 134
Tert-amyl-methyl ether (TAME)	25.0	24.7		ug/L		99	57 - 139
tert-Butylbenzene	25.0	22.6		ug/L		90	70 - 130
Tetrachloroethene	25.0	23.1		ug/L		93	70 - 130
Toluene	25.0	24.7		ug/L		99	70 - 130
trans-1,2-Dichloroethene	25.0	25.9		ug/L		104	70 - 130
trans-1,3-Dichloropropene	25.0	22.3		ug/L		89	70 - 132
Trichloroethene	25.0	24.9		ug/L		100	70 - 130
Trichlorofluoromethane	25.0	20.8		ug/L		83	60 - 150
Vinyl chloride	25.0	21.4		ug/L		86	59 - 133
tert-Butyl alcohol (TBA)	250	225		ug/L		90	70 - 130

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

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

Lab Sample ID: LCS 440-343557/5

Matrix: Water

Analysis Batch: 343557

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		80 - 120
Dibromofluoromethane (Surr)	100		76 - 132
Toluene-d8 (Surr)	101		80 - 128

Lab Sample ID: 440-152803-E-3 MS

Matrix: Water

Analysis Batch: 343557

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	ND		5000	4790		ug/L		96	60 - 149
1,1,1-Trichloroethane	ND		5000	4220		ug/L		84	70 - 130
1,1,2,2-Tetrachloroethane	ND	F1	5000	6440		ug/L		129	63 - 130
1,1,2-Trichloroethane	ND		5000	5900		ug/L		118	70 - 130
1,1-Dichloroethane	ND		5000	4800		ug/L		96	65 - 130
1,1-Dichloroethene	ND		5000	4940		ug/L		99	70 - 130
1,1-Dichloropropene	ND		5000	5600		ug/L		112	64 - 130
1,2,3-Trichlorobenzene	ND		5000	5840		ug/L		117	60 - 140
1,2,3-Trichloropropane	ND		5000	5560		ug/L		111	60 - 130
1,2,4-Trichlorobenzene	ND		5000	6100		ug/L		122	60 - 140
1,2,4-Trimethylbenzene	3400		5000	9270		ug/L		117	70 - 130
1,2-Dibromo-3-Chloropropane	ND		5000	5810		ug/L		116	48 - 140
1,2-Dibromoethane (EDB)	ND		5000	6000		ug/L		120	70 - 131
1,2-Dichlorobenzene	ND		5000	5470		ug/L		109	70 - 130
1,2-Dichloroethane	ND		5000	4340		ug/L		87	56 - 146
1,2-Dichloropropane	ND		5000	5740		ug/L		115	69 - 130
1,3,5-Trimethylbenzene	1100		5000	6720		ug/L		112	70 - 130
1,3-Dichlorobenzene	ND		5000	5290		ug/L		106	70 - 130
1,3-Dichloropropane	ND		5000	5610		ug/L		112	70 - 130
1,4-Dichlorobenzene	ND		5000	4960		ug/L		99	70 - 130
2,2-Dichloropropane	ND		5000	4410		ug/L		88	69 - 138
2-Chlorotoluene	ND		5000	5580		ug/L		112	70 - 130
4-Chlorotoluene	ND		5000	5340		ug/L		107	70 - 130
Benzene	18000		5000	22800		ug/L		104	66 - 130
Bromobenzene	ND		5000	5820		ug/L		116	70 - 130
Bromochloromethane	ND		5000	5510		ug/L		110	70 - 130
Bromodichloromethane	ND		5000	5220		ug/L		104	70 - 138
Bromoform	ND		5000	5310		ug/L		106	59 - 150
Bromomethane	ND		5000	4260		ug/L		85	62 - 131
Carbon tetrachloride	ND		5000	4340		ug/L		87	60 - 150
Chlorobenzene	ND		5000	5060		ug/L		101	70 - 130
Chloroethane	ND		5000	4380		ug/L		88	68 - 130
Chloroform	ND		5000	4770		ug/L		95	70 - 130
Chloromethane	ND		5000	3910		ug/L		78	39 - 144
cis-1,2-Dichloroethene	ND		5000	5620		ug/L		112	70 - 130
cis-1,3-Dichloropropene	ND		5000	5690		ug/L		114	70 - 133
Dibromochloromethane	ND		5000	4950		ug/L		99	70 - 148
Dibromomethane	ND		5000	5440		ug/L		109	70 - 130
Dichlorodifluoromethane	ND		5000	3350		ug/L		67	25 - 142

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

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

Lab Sample ID: 440-152803-E-3 MS

Matrix: Water

Analysis Batch: 343557

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethanol	ND		200000	164000		ug/L		82	54 - 150
Isopropyl Ether (DIPE)	860		5000	6470		ug/L		112	64 - 138
Ethyl-t-butyl ether (ETBE)	ND		5000	5620		ug/L		112	70 - 130
Ethylbenzene	3300		5000	9060		ug/L		114	70 - 130
Hexachlorobutadiene	ND		5000	4800		ug/L		96	10 - 150
Isopropylbenzene	470		5000	5820		ug/L		107	70 - 132
m,p-Xylene	11000		5000	16700		ug/L		120	70 - 133
Methylene Chloride	ND		5000	5170		ug/L		103	52 - 130
Methyl-t-Butyl Ether (MTBE)	ND		5000	6060		ug/L		121	70 - 130
Naphthalene	770		5000	7390		ug/L		132	60 - 140
n-Butylbenzene	380		5000	6080		ug/L		114	61 - 149
N-Propylbenzene	710		5000	6390		ug/L		114	66 - 135
o-Xylene	1900		5000	6890		ug/L		101	70 - 133
p-Isopropyltoluene	270		5000	6060		ug/L		116	70 - 130
sec-Butylbenzene	190		5000	5530		ug/L		107	67 - 134
Styrene	ND		5000	5360		ug/L		107	29 - 150
Tert-amyl-methyl ether (TAME)	ND		5000	6160		ug/L		123	68 - 133
tert-Butylbenzene	64	J	5000	5430		ug/L		107	70 - 130
Tetrachloroethene	ND		5000	5060		ug/L		101	70 - 137
Toluene	19000		5000	23500	E	ug/L		96	70 - 130
trans-1,2-Dichloroethene	ND		5000	5760		ug/L		115	70 - 130
trans-1,3-Dichloropropene	ND		5000	5310		ug/L		106	70 - 138
Trichloroethene	ND		5000	5120		ug/L		102	70 - 130
Trichlorofluoromethane	ND		5000	3700		ug/L		74	60 - 150
Vinyl chloride	ND		5000	4010		ug/L		80	50 - 137
tert-Butyl alcohol (TBA)	ND		50000	47300		ug/L		95	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		80 - 120
Dibromofluoromethane (Surr)	94		76 - 132
Toluene-d8 (Surr)	102		80 - 128

Lab Sample ID: 440-152803-E-3 MSD

Matrix: Water

Analysis Batch: 343557

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND		5000	4840		ug/L		97	60 - 149	1	20
1,1,1-Trichloroethane	ND		5000	4400		ug/L		88	70 - 130	4	20
1,1,2,2-Tetrachloroethane	ND	F1	5000	6650	F1	ug/L		133	63 - 130	3	30
1,1,2-Trichloroethane	ND		5000	5890		ug/L		118	70 - 130	0	25
1,1-Dichloroethane	ND		5000	5090		ug/L		102	65 - 130	6	20
1,1-Dichloroethene	ND		5000	5150		ug/L		103	70 - 130	4	20
1,1-Dichloropropene	ND		5000	5780		ug/L		116	64 - 130	3	20
1,2,3-Trichlorobenzene	ND		5000	5900		ug/L		118	60 - 140	1	20
1,2,3-Trichloropropane	ND		5000	5520		ug/L		110	60 - 130	1	30
1,2,4-Trichlorobenzene	ND		5000	6100		ug/L		122	60 - 140	0	20
1,2,4-Trimethylbenzene	3400		5000	8630		ug/L		104	70 - 130	7	25

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

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

Lab Sample ID: 440-152803-E-3 MSD

Matrix: Water

Analysis Batch: 343557

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	ND		5000	5740		ug/L		115	48 - 140	1	30
1,2-Dibromoethane (EDB)	ND		5000	5870		ug/L		117	70 - 131	2	25
1,2-Dichlorobenzene	ND		5000	5480		ug/L		110	70 - 130	0	20
1,2-Dichloroethane	ND		5000	4390		ug/L		88	56 - 146	1	20
1,2-Dichloropropane	ND		5000	6030		ug/L		121	69 - 130	5	20
1,3,5-Trimethylbenzene	1100		5000	6050		ug/L		99	70 - 130	11	20
1,3-Dichlorobenzene	ND		5000	5330		ug/L		107	70 - 130	1	20
1,3-Dichloropropane	ND		5000	5550		ug/L		111	70 - 130	1	25
1,4-Dichlorobenzene	ND		5000	5000		ug/L		100	70 - 130	1	20
2,2-Dichloropropane	ND		5000	4650		ug/L		93	69 - 138	5	25
2-Chlorotoluene	ND		5000	5570		ug/L		111	70 - 130	0	20
4-Chlorotoluene	ND		5000	5320		ug/L		106	70 - 130	1	20
Benzene	18000		5000	23100		ug/L		110	66 - 130	1	20
Bromobenzene	ND		5000	5830		ug/L		117	70 - 130	0	20
Bromochloromethane	ND		5000	5530		ug/L		111	70 - 130	0	25
Bromodichloromethane	ND		5000	5190		ug/L		104	70 - 138	1	20
Bromoform	ND		5000	5440		ug/L		109	59 - 150	2	25
Bromomethane	ND		5000	4320		ug/L		86	62 - 131	1	25
Carbon tetrachloride	ND		5000	4450		ug/L		89	60 - 150	2	25
Chlorobenzene	ND		5000	4990		ug/L		100	70 - 130	1	20
Chloroethane	ND		5000	4450		ug/L		89	68 - 130	2	25
Chloroform	ND		5000	4880		ug/L		98	70 - 130	2	20
Chloromethane	ND		5000	4100		ug/L		82	39 - 144	5	25
cis-1,2-Dichloroethene	ND		5000	5720		ug/L		114	70 - 130	2	20
cis-1,3-Dichloropropene	ND		5000	5740		ug/L		115	70 - 133	1	20
Dibromochloromethane	ND		5000	4990		ug/L		100	70 - 148	1	25
Dibromomethane	ND		5000	5590		ug/L		112	70 - 130	3	25
Dichlorodifluoromethane	ND		5000	3490		ug/L		70	25 - 142	4	30
Ethanol	ND		200000	166000		ug/L		83	54 - 150	1	30
Isopropyl Ether (DIPE)	860		5000	6690		ug/L		117	64 - 138	3	25
Ethyl-t-butyl ether (ETBE)	ND		5000	5810		ug/L		116	70 - 130	3	25
Ethylbenzene	3300		5000	8590		ug/L		105	70 - 130	5	20
Hexachlorobutadiene	ND		5000	4770		ug/L		95	10 - 150	1	20
Isopropylbenzene	470		5000	5800		ug/L		107	70 - 132	0	20
m,p-Xylene	11000		5000	15000		ug/L		86	70 - 133	11	25
Methylene Chloride	ND		5000	5260		ug/L		105	52 - 130	2	20
Methyl-t-Butyl Ether (MTBE)	ND		5000	6130		ug/L		123	70 - 130	1	25
Naphthalene	770		5000	7230		ug/L		129	60 - 140	2	30
n-Butylbenzene	380		5000	5950		ug/L		111	61 - 149	2	20
N-Propylbenzene	710		5000	6390		ug/L		114	66 - 135	0	20
o-Xylene	1900		5000	6760		ug/L		98	70 - 133	2	20
p-Isopropyltoluene	270		5000	6030		ug/L		115	70 - 130	0	20
sec-Butylbenzene	190		5000	5670		ug/L		110	67 - 134	2	20
Styrene	ND		5000	5470		ug/L		109	29 - 150	2	35
Tert-amyl-methyl ether (TAME)	ND		5000	6430		ug/L		129	68 - 133	4	30
tert-Butylbenzene	64	J	5000	5470		ug/L		108	70 - 130	1	20
Tetrachloroethene	ND		5000	5130		ug/L		103	70 - 137	1	20
Toluene	19000		5000	22400	E	ug/L		74	70 - 130	5	20

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

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

Lab Sample ID: 440-152803-E-3 MSD

Matrix: Water

Analysis Batch: 343557

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
trans-1,2-Dichloroethene	ND		5000	5990		ug/L		120	70 - 130	4	20
trans-1,3-Dichloropropene	ND		5000	5300		ug/L		106	70 - 138	0	25
Trichloroethene	ND		5000	5300		ug/L		106	70 - 130	4	20
Trichlorofluoromethane	ND		5000	3800		ug/L		76	60 - 150	2	25
Vinyl chloride	ND		5000	4180		ug/L		84	50 - 137	4	30
tert-Butyl alcohol (TBA)	ND		50000	47300		ug/L		95	70 - 130	0	25

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	92		76 - 132
Toluene-d8 (Surr)	101		80 - 128

Lab Sample ID: MB 440-343879/4

Matrix: Water

Analysis Batch: 343879

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			07/21/16 09:29	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			07/21/16 09:29	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			07/21/16 09:29	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			07/21/16 09:29	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			07/21/16 09:29	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			07/21/16 09:29	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			07/21/16 09:29	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			07/21/16 09:29	1
1,2,3-Trichloropropane	ND		1.0	0.25	ug/L			07/21/16 09:29	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			07/21/16 09:29	1
1,2,4-Trimethylbenzene	ND		0.50	0.25	ug/L			07/21/16 09:29	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			07/21/16 09:29	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			07/21/16 09:29	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			07/21/16 09:29	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			07/21/16 09:29	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			07/21/16 09:29	1
1,3,5-Trimethylbenzene	ND		0.50	0.25	ug/L			07/21/16 09:29	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			07/21/16 09:29	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			07/21/16 09:29	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			07/21/16 09:29	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			07/21/16 09:29	1
2-Chlorotoluene	ND		0.50	0.25	ug/L			07/21/16 09:29	1
4-Chlorotoluene	ND		0.50	0.25	ug/L			07/21/16 09:29	1
Benzene	ND		0.50	0.25	ug/L			07/21/16 09:29	1
Bromobenzene	ND		0.50	0.25	ug/L			07/21/16 09:29	1
Bromochloromethane	ND		0.50	0.25	ug/L			07/21/16 09:29	1
Bromodichloromethane	ND		0.50	0.25	ug/L			07/21/16 09:29	1
Bromoform	ND		1.0	0.40	ug/L			07/21/16 09:29	1
Bromomethane	ND		0.50	0.25	ug/L			07/21/16 09:29	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			07/21/16 09:29	1
Chlorobenzene	ND		0.50	0.25	ug/L			07/21/16 09:29	1

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

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

Lab Sample ID: MB 440-343879/4

Matrix: Water

Analysis Batch: 343879

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	ND		1.0	0.40	ug/L			07/21/16 09:29	1
Chloroform	ND		0.50	0.25	ug/L			07/21/16 09:29	1
Chloromethane	ND		0.50	0.25	ug/L			07/21/16 09:29	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			07/21/16 09:29	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			07/21/16 09:29	1
Dibromochloromethane	ND		0.50	0.25	ug/L			07/21/16 09:29	1
Dibromomethane	ND		0.50	0.25	ug/L			07/21/16 09:29	1
Dichlorodifluoromethane	ND		1.0	0.25	ug/L			07/21/16 09:29	1
Ethanol	ND		150	75	ug/L			07/21/16 09:29	1
Isopropyl Ether (DIPE)	ND		0.50	0.25	ug/L			07/21/16 09:29	1
Ethyl-t-butyl ether (ETBE)	ND		0.50	0.25	ug/L			07/21/16 09:29	1
Ethylbenzene	ND		0.50	0.25	ug/L			07/21/16 09:29	1
Hexachlorobutadiene	ND		0.50	0.25	ug/L			07/21/16 09:29	1
Isopropylbenzene	ND		0.50	0.25	ug/L			07/21/16 09:29	1
m,p-Xylene	ND		1.0	0.50	ug/L			07/21/16 09:29	1
Methylene Chloride	ND		2.0	0.88	ug/L			07/21/16 09:29	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.25	ug/L			07/21/16 09:29	1
Naphthalene	ND		1.0	0.40	ug/L			07/21/16 09:29	1
n-Butylbenzene	ND		1.0	0.40	ug/L			07/21/16 09:29	1
N-Propylbenzene	ND		0.50	0.25	ug/L			07/21/16 09:29	1
o-Xylene	ND		0.50	0.25	ug/L			07/21/16 09:29	1
p-Isopropyltoluene	ND		0.50	0.25	ug/L			07/21/16 09:29	1
sec-Butylbenzene	ND		0.50	0.25	ug/L			07/21/16 09:29	1
Styrene	ND		0.50	0.25	ug/L			07/21/16 09:29	1
Tert-amyl-methyl ether (TAME)	ND		0.50	0.25	ug/L			07/21/16 09:29	1
tert-Butylbenzene	ND		0.50	0.25	ug/L			07/21/16 09:29	1
Tetrachloroethene	ND		0.50	0.25	ug/L			07/21/16 09:29	1
Toluene	ND		0.50	0.25	ug/L			07/21/16 09:29	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			07/21/16 09:29	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			07/21/16 09:29	1
Trichloroethene	ND		0.50	0.25	ug/L			07/21/16 09:29	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			07/21/16 09:29	1
Xylenes, Total	ND		1.0	0.50	ug/L			07/21/16 09:29	1
Vinyl chloride	ND		0.50	0.25	ug/L			07/21/16 09:29	1
tert-Butyl alcohol (TBA)	ND		10	5.0	ug/L			07/21/16 09:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		80 - 120		07/21/16 09:29	1
Dibromofluoromethane (Surr)	102		76 - 132		07/21/16 09:29	1
Toluene-d8 (Surr)	107		80 - 128		07/21/16 09:29	1

Lab Sample ID: LCS 440-343879/5

Matrix: Water

Analysis Batch: 343879

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	26.8		ug/L		107	60 - 141
1,1,1-Trichloroethane	25.0	26.6		ug/L		106	70 - 130

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

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

Lab Sample ID: LCS 440-343879/5

Matrix: Water

Analysis Batch: 343879

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2,2-Tetrachloroethane	25.0	25.5		ug/L		102	63 - 130
1,1,2-Trichloroethane	25.0	25.7		ug/L		103	70 - 130
1,1-Dichloroethane	25.0	26.0		ug/L		104	64 - 130
1,1-Dichloroethene	25.0	26.0		ug/L		104	70 - 130
1,1-Dichloropropene	25.0	26.5		ug/L		106	70 - 130
1,2,3-Trichlorobenzene	25.0	26.3		ug/L		105	60 - 140
1,2,3-Trichloropropane	25.0	27.7		ug/L		111	63 - 130
1,2,4-Trichlorobenzene	25.0	27.1		ug/L		109	60 - 140
1,2,4-Trimethylbenzene	25.0	25.8		ug/L		103	70 - 135
1,2-Dibromo-3-Chloropropane	25.0	27.4		ug/L		109	52 - 140
1,2-Dibromoethane (EDB)	25.0	27.0		ug/L		108	70 - 130
1,2-Dichlorobenzene	25.0	25.3		ug/L		101	70 - 130
1,2-Dichloroethane	25.0	27.0		ug/L		108	57 - 138
1,2-Dichloropropane	25.0	27.7		ug/L		111	67 - 130
1,3,5-Trimethylbenzene	25.0	26.0		ug/L		104	70 - 136
1,3-Dichlorobenzene	25.0	25.1		ug/L		100	70 - 130
1,3-Dichloropropane	25.0	23.9		ug/L		96	70 - 130
1,4-Dichlorobenzene	25.0	25.4		ug/L		102	70 - 130
2,2-Dichloropropane	25.0	27.0		ug/L		108	68 - 141
2-Chlorotoluene	25.0	25.4		ug/L		102	70 - 130
4-Chlorotoluene	25.0	25.7		ug/L		103	70 - 130
Benzene	25.0	25.9		ug/L		104	68 - 130
Bromobenzene	25.0	27.7		ug/L		111	70 - 130
Bromochloromethane	25.0	28.3		ug/L		113	70 - 130
Bromodichloromethane	25.0	28.2		ug/L		113	70 - 132
Bromoform	25.0	27.6		ug/L		110	60 - 148
Bromomethane	25.0	25.7		ug/L		103	64 - 139
Carbon tetrachloride	25.0	27.4		ug/L		110	60 - 150
Chlorobenzene	25.0	24.1		ug/L		96	70 - 130
Chloroethane	25.0	25.9		ug/L		104	64 - 135
Chloroform	25.0	26.7		ug/L		107	70 - 130
Chloromethane	25.0	25.1		ug/L		100	47 - 140
cis-1,2-Dichloroethene	25.0	27.4		ug/L		109	70 - 133
cis-1,3-Dichloropropene	25.0	28.6		ug/L		114	70 - 133
Dibromochloromethane	25.0	27.8		ug/L		111	69 - 145
Dibromomethane	25.0	26.2		ug/L		105	70 - 130
Dichlorodifluoromethane	25.0	21.3		ug/L		85	29 - 150
Ethanol	1000	983		ug/L		98	50 - 149
Isopropyl Ether (DIPE)	25.0	28.2		ug/L		113	58 - 139
Ethyl-t-butyl ether (ETBE)	25.0	27.9		ug/L		112	60 - 136
Ethylbenzene	25.0	24.0		ug/L		96	70 - 130
Hexachlorobutadiene	25.0	24.6		ug/L		98	10 - 150
Isopropylbenzene	25.0	24.4		ug/L		98	70 - 136
m,p-Xylene	25.0	25.6		ug/L		102	70 - 130
Methylene Chloride	25.0	27.5		ug/L		110	52 - 130
Methyl-t-Butyl Ether (MTBE)	25.0	27.5		ug/L		110	63 - 131
Naphthalene	25.0	26.3		ug/L		105	60 - 140
n-Butylbenzene	25.0	24.8		ug/L		99	65 - 150

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

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

Lab Sample ID: LCS 440-343879/5

Matrix: Water

Analysis Batch: 343879

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
N-Propylbenzene	25.0	24.7		ug/L		99	67 - 139
o-Xylene	25.0	24.3		ug/L		97	70 - 130
p-Isopropyltoluene	25.0	25.0		ug/L		100	70 - 132
sec-Butylbenzene	25.0	24.1		ug/L		96	70 - 138
Styrene	25.0	25.7		ug/L		103	70 - 134
Tert-amyl-methyl ether (TAME)	25.0	27.9		ug/L		111	57 - 139
tert-Butylbenzene	25.0	25.6		ug/L		102	70 - 130
Tetrachloroethene	25.0	25.1		ug/L		100	70 - 130
Toluene	25.0	25.0		ug/L		100	70 - 130
trans-1,2-Dichloroethene	25.0	28.2		ug/L		113	70 - 130
trans-1,3-Dichloropropene	25.0	28.7		ug/L		115	70 - 132
Trichloroethene	25.0	27.9		ug/L		112	70 - 130
Trichlorofluoromethane	25.0	23.9		ug/L		95	60 - 150
Vinyl chloride	25.0	24.1		ug/L		96	59 - 133
tert-Butyl alcohol (TBA)	250	254		ug/L		102	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		80 - 120
Dibromofluoromethane (Surr)	104		76 - 132
Toluene-d8 (Surr)	101		80 - 128

Lab Sample ID: 440-152934-B-20 MS

Matrix: Water

Analysis Batch: 343879

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	ND		25.0	27.2		ug/L		109	60 - 149
1,1,1-Trichloroethane	ND		25.0	27.0		ug/L		108	70 - 130
1,1,2,2-Tetrachloroethane	ND		25.0	27.2		ug/L		109	63 - 130
1,1,2-Trichloroethane	ND		25.0	26.7		ug/L		107	70 - 130
1,1-Dichloroethane	ND		25.0	26.2		ug/L		105	65 - 130
1,1-Dichloroethene	ND		25.0	26.7		ug/L		107	70 - 130
1,1-Dichloropropene	ND		25.0	26.9		ug/L		108	64 - 130
1,2,3-Trichlorobenzene	ND		25.0	28.1		ug/L		112	60 - 140
1,2,3-Trichloropropane	ND		25.0	29.1		ug/L		116	60 - 130
1,2,4-Trichlorobenzene	ND		25.0	28.2		ug/L		113	60 - 140
1,2,4-Trimethylbenzene	ND		25.0	25.9		ug/L		104	70 - 130
1,2-Dibromo-3-Chloropropane	ND		25.0	30.6		ug/L		122	48 - 140
1,2-Dibromoethane (EDB)	ND		25.0	28.1		ug/L		112	70 - 131
1,2-Dichlorobenzene	ND		25.0	26.7		ug/L		107	70 - 130
1,2-Dichloroethane	ND		25.0	28.3		ug/L		113	56 - 146
1,2-Dichloropropane	ND		25.0	28.4		ug/L		114	69 - 130
1,3,5-Trimethylbenzene	ND		25.0	26.0		ug/L		104	70 - 130
1,3-Dichlorobenzene	ND		25.0	25.6		ug/L		102	70 - 130
1,3-Dichloropropane	ND		25.0	25.2		ug/L		101	70 - 130
1,4-Dichlorobenzene	ND		25.0	26.2		ug/L		105	70 - 130
2,2-Dichloropropane	ND		25.0	26.7		ug/L		107	69 - 138
2-Chlorotoluene	ND		25.0	25.2		ug/L		101	70 - 130

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

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

Lab Sample ID: 440-152934-B-20 MS

Matrix: Water

Analysis Batch: 343879

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chlorotoluene	ND		25.0	25.2		ug/L		101	70 - 130
Benzene	ND		25.0	26.4		ug/L		106	66 - 130
Bromobenzene	ND		25.0	27.7		ug/L		111	70 - 130
Bromochloromethane	ND		25.0	29.0		ug/L		116	70 - 130
Bromodichloromethane	ND		25.0	29.0		ug/L		116	70 - 138
Bromoform	ND		25.0	29.5		ug/L		118	59 - 150
Bromomethane	ND		25.0	26.5		ug/L		106	62 - 131
Carbon tetrachloride	ND		25.0	28.0		ug/L		112	60 - 150
Chlorobenzene	ND		25.0	24.7		ug/L		99	70 - 130
Chloroethane	ND		25.0	27.1		ug/L		108	68 - 130
Chloroform	6.2		25.0	33.3		ug/L		109	70 - 130
Chloromethane	ND		25.0	26.3		ug/L		105	39 - 144
cis-1,2-Dichloroethene	ND		25.0	27.4		ug/L		110	70 - 130
cis-1,3-Dichloropropene	ND		25.0	29.7		ug/L		119	70 - 133
Dibromochloromethane	ND		25.0	29.5		ug/L		118	70 - 148
Dibromomethane	ND		25.0	28.4		ug/L		114	70 - 130
Dichlorodifluoromethane	ND		25.0	22.5		ug/L		90	25 - 142
Ethanol	ND		1000	924		ug/L		92	54 - 150
Isopropyl Ether (DIPE)	ND		25.0	29.0		ug/L		116	64 - 138
Ethyl-t-butyl ether (ETBE)	ND		25.0	29.3		ug/L		117	70 - 130
Ethylbenzene	ND		25.0	24.6		ug/L		98	70 - 130
Hexachlorobutadiene	ND		25.0	25.5		ug/L		102	10 - 150
Isopropylbenzene	ND		25.0	25.0		ug/L		100	70 - 132
m,p-Xylene	ND		25.0	25.7		ug/L		103	70 - 133
Methylene Chloride	0.88	J	25.0	27.8		ug/L		108	52 - 130
Methyl-t-Butyl Ether (MTBE)	ND		25.0	29.5		ug/L		118	70 - 130
Naphthalene	ND		25.0	28.6		ug/L		114	60 - 140
n-Butylbenzene	ND		25.0	25.5		ug/L		102	61 - 149
N-Propylbenzene	ND		25.0	24.4		ug/L		98	66 - 135
o-Xylene	ND		25.0	25.3		ug/L		101	70 - 133
p-Isopropyltoluene	ND		25.0	25.5		ug/L		102	70 - 130
sec-Butylbenzene	ND		25.0	24.2		ug/L		97	67 - 134
Styrene	ND		25.0	25.9		ug/L		104	29 - 150
Tert-amyl-methyl ether (TAME)	ND		25.0	29.3		ug/L		117	68 - 133
tert-Butylbenzene	ND		25.0	25.3		ug/L		101	70 - 130
Tetrachloroethene	ND		25.0	25.5		ug/L		102	70 - 137
Toluene	9.3		25.0	32.6		ug/L		93	70 - 130
trans-1,2-Dichloroethene	ND		25.0	28.0		ug/L		112	70 - 130
trans-1,3-Dichloropropene	ND		25.0	29.9		ug/L		120	70 - 138
Trichloroethene	ND		25.0	27.8		ug/L		111	70 - 130
Trichlorofluoromethane	ND		25.0	25.3		ug/L		101	60 - 150
Vinyl chloride	ND		25.0	25.7		ug/L		103	50 - 137
tert-Butyl alcohol (TBA)	ND		250	258		ug/L		103	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	105		76 - 132
Toluene-d8 (Surr)	100		80 - 128

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

Lab Sample ID: 440-152934-B-20 MSD

Matrix: Water

Analysis Batch: 343879

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND		25.0	28.0		ug/L		112	60 - 149	3	20
1,1,1-Trichloroethane	ND		25.0	27.5		ug/L		110	70 - 130	2	20
1,1,1,2,2-Tetrachloroethane	ND		25.0	25.7		ug/L		103	63 - 130	5	30
1,1,2-Trichloroethane	ND		25.0	26.4		ug/L		106	70 - 130	1	25
1,1-Dichloroethane	ND		25.0	26.2		ug/L		105	65 - 130	0	20
1,1-Dichloroethene	ND		25.0	27.5		ug/L		110	70 - 130	3	20
1,1-Dichloropropene	ND		25.0	28.4		ug/L		113	64 - 130	5	20
1,2,3-Trichlorobenzene	ND		25.0	27.9		ug/L		112	60 - 140	1	20
1,2,3-Trichloropropane	ND		25.0	27.3		ug/L		109	60 - 130	6	30
1,2,4-Trichlorobenzene	ND		25.0	28.3		ug/L		113	60 - 140	0	20
1,2,4-Trimethylbenzene	ND		25.0	26.4		ug/L		106	70 - 130	2	25
1,2-Dibromo-3-Chloropropane	ND		25.0	27.8		ug/L		111	48 - 140	10	30
1,2-Dibromoethane (EDB)	ND		25.0	27.7		ug/L		111	70 - 131	1	25
1,2-Dichlorobenzene	ND		25.0	26.5		ug/L		106	70 - 130	0	20
1,2-Dichloroethane	ND		25.0	27.4		ug/L		110	56 - 146	3	20
1,2-Dichloropropane	ND		25.0	28.6		ug/L		114	69 - 130	1	20
1,3,5-Trimethylbenzene	ND		25.0	26.5		ug/L		106	70 - 130	2	20
1,3-Dichlorobenzene	ND		25.0	26.0		ug/L		104	70 - 130	2	20
1,3-Dichloropropane	ND		25.0	25.1		ug/L		101	70 - 130	0	25
1,4-Dichlorobenzene	ND		25.0	26.2		ug/L		105	70 - 130	0	20
2,2-Dichloropropane	ND		25.0	27.3		ug/L		109	69 - 138	2	25
2-Chlorotoluene	ND		25.0	25.9		ug/L		103	70 - 130	2	20
4-Chlorotoluene	ND		25.0	25.9		ug/L		104	70 - 130	3	20
Benzene	ND		25.0	26.7		ug/L		107	66 - 130	1	20
Bromobenzene	ND		25.0	27.9		ug/L		112	70 - 130	1	20
Bromochloromethane	ND		25.0	29.0		ug/L		116	70 - 130	0	25
Bromodichloromethane	ND		25.0	29.9		ug/L		119	70 - 138	3	20
Bromoform	ND		25.0	28.1		ug/L		112	59 - 150	5	25
Bromomethane	ND		25.0	26.8		ug/L		107	62 - 131	1	25
Carbon tetrachloride	ND		25.0	28.1		ug/L		112	60 - 150	1	25
Chlorobenzene	ND		25.0	24.9		ug/L		100	70 - 130	1	20
Chloroethane	ND		25.0	26.7		ug/L		107	68 - 130	1	25
Chloroform	6.2		25.0	33.0		ug/L		107	70 - 130	1	20
Chloromethane	ND		25.0	27.2		ug/L		109	39 - 144	3	25
cis-1,2-Dichloroethene	ND		25.0	28.3		ug/L		113	70 - 130	3	20
cis-1,3-Dichloropropene	ND		25.0	29.5		ug/L		118	70 - 133	1	20
Dibromochloromethane	ND		25.0	29.3		ug/L		117	70 - 148	1	25
Dibromomethane	ND		25.0	27.4		ug/L		109	70 - 130	4	25
Dichlorodifluoromethane	ND		25.0	22.7		ug/L		91	25 - 142	1	30
Ethanol	ND		1000	991		ug/L		99	54 - 150	7	30
Isopropyl Ether (DIPE)	ND		25.0	28.8		ug/L		115	64 - 138	1	25
Ethyl-t-butyl ether (ETBE)	ND		25.0	29.0		ug/L		116	70 - 130	1	25
Ethylbenzene	ND		25.0	25.0		ug/L		100	70 - 130	2	20
Hexachlorobutadiene	ND		25.0	25.7		ug/L		103	10 - 150	1	20
Isopropylbenzene	ND		25.0	25.6		ug/L		102	70 - 132	2	20
m,p-Xylene	ND		25.0	26.6		ug/L		106	70 - 133	3	25
Methylene Chloride	0.88	J	25.0	30.8		ug/L		120	52 - 130	10	20
Methyl-t-Butyl Ether (MTBE)	ND		25.0	29.0		ug/L		116	70 - 130	2	25
Naphthalene	ND		25.0	27.7		ug/L		111	60 - 140	3	30
n-Butylbenzene	ND		25.0	26.2		ug/L		105	61 - 149	3	20

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

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

Lab Sample ID: 440-152934-B-20 MSD

Matrix: Water

Analysis Batch: 343879

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
N-Propylbenzene	ND		25.0	25.2		ug/L		101	66 - 135	3	20
o-Xylene	ND		25.0	25.2		ug/L		101	70 - 133	1	20
p-Isopropyltoluene	ND		25.0	26.2		ug/L		105	70 - 130	3	20
sec-Butylbenzene	ND		25.0	25.2		ug/L		101	67 - 134	4	20
Styrene	ND		25.0	25.7		ug/L		103	29 - 150	1	35
Tert-amyl-methyl ether (TAME)	ND		25.0	29.0		ug/L		116	68 - 133	1	30
tert-Butylbenzene	ND		25.0	26.1		ug/L		104	70 - 130	3	20
Tetrachloroethene	ND		25.0	26.2		ug/L		105	70 - 137	3	20
Toluene	9.3		25.0	33.9		ug/L		98	70 - 130	4	20
trans-1,2-Dichloroethene	ND		25.0	28.4		ug/L		114	70 - 130	1	20
trans-1,3-Dichloropropene	ND		25.0	29.4		ug/L		118	70 - 138	2	25
Trichloroethene	ND		25.0	28.6		ug/L		114	70 - 130	3	20
Trichlorofluoromethane	ND		25.0	25.2		ug/L		101	60 - 150	0	25
Vinyl chloride	ND		25.0	26.9		ug/L		108	50 - 137	5	30
tert-Butyl alcohol (TBA)	ND		250	261		ug/L		104	70 - 130	1	25

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	107		76 - 132
Toluene-d8 (Surr)	101		80 - 128

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 440-343558/8

Matrix: Water

Analysis Batch: 343558

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		50	35	ug/L			07/20/16 10:53	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	101		76 - 132		07/20/16 10:53	1
4-Bromofluorobenzene (Surr)	101		80 - 120		07/20/16 10:53	1
Toluene-d8 (Surr)	106		80 - 128		07/20/16 10:53	1

Lab Sample ID: LCS 440-343558/6

Matrix: Water

Analysis Batch: 343558

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Volatile Fuel Hydrocarbons (C4-C12)	500	447		ug/L		89	55 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane (Surr)	96		76 - 132
4-Bromofluorobenzene (Surr)	98		80 - 120
Toluene-d8 (Surr)	101		80 - 128

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

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

Lab Sample ID: 440-152803-E-3 MS

Matrix: Water

Analysis Batch: 343558

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Volatile Fuel Hydrocarbons (C4-C12)	460000	F1	345000	983000	E F1	ug/L		153	50 - 145
Surrogate	MS %Recovery	MS Qualifier	Limits						
Dibromofluoromethane (Surr)	94		76 - 132						
4-Bromofluorobenzene (Surr)	103		80 - 120						
Toluene-d8 (Surr)	102		80 - 128						

Lab Sample ID: 440-152803-E-3 MSD

Matrix: Water

Analysis Batch: 343558

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Volatile Fuel Hydrocarbons (C4-C12)	460000	F1	345000	855000	E	ug/L		116	50 - 145	14	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
Dibromofluoromethane (Surr)	92		76 - 132								
4-Bromofluorobenzene (Surr)	101		80 - 120								
Toluene-d8 (Surr)	101		80 - 128								

Lab Sample ID: MB 440-343880/4

Matrix: Water

Analysis Batch: 343880

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		50	35	ug/L			07/21/16 09:29	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	102		76 - 132					07/21/16 09:29	1
4-Bromofluorobenzene (Surr)	102		80 - 120					07/21/16 09:29	1
Toluene-d8 (Surr)	107		80 - 128					07/21/16 09:29	1

Lab Sample ID: LCS 440-343880/6

Matrix: Water

Analysis Batch: 343880

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Volatile Fuel Hydrocarbons (C4-C12)	500	440		ug/L		88	55 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Dibromofluoromethane (Surr)	101		76 - 132				
4-Bromofluorobenzene (Surr)	105		80 - 120				
Toluene-d8 (Surr)	105		80 - 128				

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

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

Lab Sample ID: 440-152934-B-20 MS

Matrix: Water

Analysis Batch: 343880

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Volatile Fuel Hydrocarbons (C4-C12)	48	J	1730	2040		ug/L		116	50 - 145
Surrogate	MS %Recovery	MS Qualifier	Limits						
Dibromofluoromethane (Surr)	105		76 - 132						
4-Bromofluorobenzene (Surr)	101		80 - 120						
Toluene-d8 (Surr)	100		80 - 128						

Lab Sample ID: 440-152934-B-20 MSD

Matrix: Water

Analysis Batch: 343880

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Volatile Fuel Hydrocarbons (C4-C12)	48	J	1730	1960		ug/L		111	50 - 145	4	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
Dibromofluoromethane (Surr)	107		76 - 132								
4-Bromofluorobenzene (Surr)	101		80 - 120								
Toluene-d8 (Surr)	101		80 - 128								

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

Lab Sample ID: MB 440-343113/1-A

Matrix: Water

Analysis Batch: 343497

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 343113

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.10	ug/L		07/18/16 13:01	07/19/16 19:12	1
Acenaphthylene	ND		0.20	0.10	ug/L		07/18/16 13:01	07/19/16 19:12	1
Anthracene	ND		0.20	0.10	ug/L		07/18/16 13:01	07/19/16 19:12	1
Benzo[a]anthracene	ND		0.20	0.10	ug/L		07/18/16 13:01	07/19/16 19:12	1
Benzo[a]pyrene	ND		0.20	0.10	ug/L		07/18/16 13:01	07/19/16 19:12	1
Benzo[b]fluoranthene	ND		0.20	0.10	ug/L		07/18/16 13:01	07/19/16 19:12	1
Benzo[g,h,i]perylene	ND		0.20	0.10	ug/L		07/18/16 13:01	07/19/16 19:12	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		07/18/16 13:01	07/19/16 19:12	1
Chrysene	ND		0.20	0.10	ug/L		07/18/16 13:01	07/19/16 19:12	1
Dibenz(a,h)anthracene	ND		0.20	0.10	ug/L		07/18/16 13:01	07/19/16 19:12	1
Fluoranthene	ND		0.20	0.10	ug/L		07/18/16 13:01	07/19/16 19:12	1
Fluorene	ND		0.20	0.10	ug/L		07/18/16 13:01	07/19/16 19:12	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.10	ug/L		07/18/16 13:01	07/19/16 19:12	1
Naphthalene	ND		0.20	0.10	ug/L		07/18/16 13:01	07/19/16 19:12	1
Phenanthrene	ND		0.20	0.10	ug/L		07/18/16 13:01	07/19/16 19:12	1
Pyrene	ND		0.20	0.10	ug/L		07/18/16 13:01	07/19/16 19:12	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	73		50 - 104				07/18/16 13:01	07/19/16 19:12	1

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

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

Lab Sample ID: MB 440-343113/1-A

Matrix: Water

Analysis Batch: 343497

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 343113

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	72		46 - 109	07/18/16 13:01	07/19/16 19:12	1
Terphenyl-d14	95		28 - 124	07/18/16 13:01	07/19/16 19:12	1

Lab Sample ID: LCS 440-343113/2-A

Matrix: Water

Analysis Batch: 343497

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 343113

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	1.00	0.695		ug/L		70	54 - 120
Acenaphthylene	1.00	0.685		ug/L		68	55 - 120
Anthracene	1.00	0.715		ug/L		72	56 - 120
Benzo[a]anthracene	1.00	0.813		ug/L		81	63 - 120
Benzo[a]pyrene	1.00	0.785		ug/L		78	54 - 120
Benzo[b]fluoranthene	1.00	0.922		ug/L		92	60 - 120
Benzo[g,h,i]perylene	1.00	0.971		ug/L		97	61 - 139
Benzo[k]fluoranthene	1.00	0.963		ug/L		96	62 - 120
Chrysene	1.00	0.823		ug/L		82	65 - 120
Dibenz(a,h)anthracene	1.00	0.724		ug/L		72	61 - 120
Fluoranthene	1.00	0.831		ug/L		83	61 - 120
Fluorene	1.00	0.811		ug/L		81	53 - 120
Indeno[1,2,3-cd]pyrene	1.00	0.722		ug/L		72	61 - 122
Naphthalene	1.00	0.632		ug/L		63	46 - 120
Phenanthrene	1.00	0.763		ug/L		76	60 - 120
Pyrene	1.00	0.831		ug/L		83	63 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	64		50 - 104
Nitrobenzene-d5	67		46 - 109
Terphenyl-d14	95		28 - 124

Lab Sample ID: LCSD 440-343113/3-A

Matrix: Water

Analysis Batch: 343497

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 343113

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	1.00	0.729		ug/L		73	54 - 120	5	35
Acenaphthylene	1.00	0.726		ug/L		73	55 - 120	6	35
Anthracene	1.00	0.736		ug/L		74	56 - 120	3	35
Benzo[a]anthracene	1.00	0.800		ug/L		80	63 - 120	2	35
Benzo[a]pyrene	1.00	0.777		ug/L		78	54 - 120	1	35
Benzo[b]fluoranthene	1.00	0.867		ug/L		87	60 - 120	6	35
Benzo[g,h,i]perylene	1.00	0.976		ug/L		98	61 - 139	1	35
Benzo[k]fluoranthene	1.00	0.887		ug/L		89	62 - 120	8	35
Chrysene	1.00	0.801		ug/L		80	65 - 120	3	35
Dibenz(a,h)anthracene	1.00	0.726		ug/L		73	61 - 120	0	35
Fluoranthene	1.00	0.834		ug/L		83	61 - 120	0	35
Fluorene	1.00	0.865		ug/L		87	53 - 120	7	35
Indeno[1,2,3-cd]pyrene	1.00	0.751		ug/L		75	61 - 122	4	35

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

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

Lab Sample ID: LCSD 440-343113/3-A

Matrix: Water

Analysis Batch: 343497

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 343113

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene	1.00	0.670		ug/L		67	46 - 120	6	35
Phenanthrene	1.00	0.757		ug/L		76	60 - 120	1	35
Pyrene	1.00	0.826		ug/L		83	63 - 120	1	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	68		50 - 104
Nitrobenzene-d5	72		46 - 109
Terphenyl-d14	90		28 - 124

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 440-343009/1-A

Matrix: Water

Analysis Batch: 343351

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 343009

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		0.50	0.10	mg/L		07/18/16 06:55	07/19/16 14:37	1
C23-C40	ND		0.50	0.10	mg/L		07/18/16 06:55	07/19/16 14:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	81		45 - 120	07/18/16 06:55	07/19/16 14:37	1

Lab Sample ID: LCS 440-343009/2-A

Matrix: Water

Analysis Batch: 343351

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 343009

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C10-C28	1.00	0.669		mg/L		67	40 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
n-Octacosane	81		45 - 120

Lab Sample ID: LCSD 440-343009/3-A

Matrix: Water

Analysis Batch: 343351

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 343009

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C10-C28	1.00	0.648		mg/L		65	40 - 115	3	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
n-Octacosane	74		45 - 120

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

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

Lab Sample ID: MB 440-343105/1-A

Matrix: Water

Analysis Batch: 344252

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 343105

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 17:58	1
Aroclor 1221	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 17:58	1
Aroclor 1232	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 17:58	1
Aroclor 1242	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 17:58	1
Aroclor 1248	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 17:58	1
Aroclor 1254	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 17:58	1
Aroclor 1260	ND		1.0	0.50	ug/L		07/18/16 12:42	07/22/16 17:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	65		26 - 115	07/18/16 12:42	07/22/16 17:58	1

Lab Sample ID: LCS 440-343105/4-A

Matrix: Water

Analysis Batch: 344252

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 343105

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Aroclor 1016	8.00	5.24		ug/L		65	59 - 115
Aroclor 1260	8.00	5.67		ug/L		71	48 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	70		26 - 115

Lab Sample ID: LCSD 440-343105/5-A

Matrix: Water

Analysis Batch: 344252

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 343105

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Aroclor 1016	8.00	5.45		ug/L		68	59 - 115	4	30
Aroclor 1260	8.00	5.79		ug/L		72	48 - 115	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	70		26 - 115

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 440-343062/4

Matrix: Water

Analysis Batch: 343062

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.25	mg/L			07/18/16 12:11	1
Sulfate	ND		0.50	0.25	mg/L			07/18/16 12:11	1

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 440-343062/2

Matrix: Water

Analysis Batch: 343062

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	4.79		mg/L		96	90 - 110
Sulfate	5.00	4.86		mg/L		97	90 - 110

Lab Sample ID: 440-152908-A-1 MS

Matrix: Water

Analysis Batch: 343062

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	140		50.0	183		mg/L		91	80 - 120
Sulfate	ND		50.0	45.9		mg/L		92	80 - 120

Lab Sample ID: 440-152908-A-1 MSD

Matrix: Water

Analysis Batch: 343062

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	140		50.0	180		mg/L		85	80 - 120	2	20
Sulfate	ND		50.0	45.2		mg/L		90	80 - 120	2	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 440-343425/1-A

Matrix: Water

Analysis Batch: 343665

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 343425

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		0.020	0.010	mg/L		07/19/16 14:16	07/20/16 10:03	1

Lab Sample ID: MB 440-343425/1-A

Matrix: Water

Analysis Batch: 343681

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 343425

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0060	mg/L		07/19/16 14:16	07/20/16 12:01	1
Arsenic	ND		0.010	0.0050	mg/L		07/19/16 14:16	07/20/16 12:01	1
Barium	ND		0.010	0.0050	mg/L		07/19/16 14:16	07/20/16 12:01	1
Beryllium	ND		0.0020	0.0010	mg/L		07/19/16 14:16	07/20/16 12:01	1
Cadmium	ND		0.0050	0.0020	mg/L		07/19/16 14:16	07/20/16 12:01	1
Chromium	ND		0.0050	0.0025	mg/L		07/19/16 14:16	07/20/16 12:01	1
Cobalt	ND		0.010	0.0025	mg/L		07/19/16 14:16	07/20/16 12:01	1
Lead	ND		0.0050	0.0025	mg/L		07/19/16 14:16	07/20/16 12:01	1
Copper	ND		0.010	0.0050	mg/L		07/19/16 14:16	07/20/16 12:01	1
Nickel	ND		0.010	0.0050	mg/L		07/19/16 14:16	07/20/16 12:01	1
Selenium	ND		0.010	0.0061	mg/L		07/19/16 14:16	07/20/16 12:01	1
Silver	ND		0.010	0.0050	mg/L		07/19/16 14:16	07/20/16 12:01	1
Thallium	ND		0.010	0.0050	mg/L		07/19/16 14:16	07/20/16 12:01	1
Vanadium	ND		0.010	0.0050	mg/L		07/19/16 14:16	07/20/16 12:01	1
Zinc	ND		0.020	0.010	mg/L		07/19/16 14:16	07/20/16 12:01	1

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCS 440-343425/2-A

Matrix: Water

Analysis Batch: 343665

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 343425

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Molybdenum	0.500	0.520		mg/L		104	85 - 115

Lab Sample ID: LCS 440-343425/2-A

Matrix: Water

Analysis Batch: 343681

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 343425

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.474		mg/L		95	85 - 115
Arsenic	0.500	0.440		mg/L		88	85 - 115
Barium	0.500	0.463		mg/L		93	85 - 115
Beryllium	0.500	0.448		mg/L		90	85 - 115
Cadmium	0.500	0.452		mg/L		90	85 - 115
Chromium	0.500	0.463		mg/L		93	85 - 115
Cobalt	0.500	0.482		mg/L		96	85 - 115
Lead	0.500	0.452		mg/L		90	85 - 115
Copper	0.500	0.443		mg/L		89	85 - 115
Nickel	0.500	0.486		mg/L		97	85 - 115
Selenium	0.500	0.435		mg/L		87	85 - 115
Silver	0.250	0.227		mg/L		91	85 - 115
Thallium	0.500	0.459		mg/L		92	85 - 115
Vanadium	0.500	0.463		mg/L		93	85 - 115
Zinc	0.500	0.462		mg/L		92	85 - 115

Lab Sample ID: 440-152822-1 MS

Matrix: Water

Analysis Batch: 343665

Client Sample ID: EW-1-W

Prep Type: Total Recoverable

Prep Batch: 343425

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Molybdenum	0.057		0.500	0.535		mg/L		96	70 - 130

Lab Sample ID: 440-152822-1 MS

Matrix: Water

Analysis Batch: 343681

Client Sample ID: EW-1-W

Prep Type: Total Recoverable

Prep Batch: 343425

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND		0.500	0.495		mg/L		99	70 - 130
Arsenic	ND		0.500	0.477		mg/L		95	70 - 130
Barium	0.12		0.500	0.555		mg/L		88	70 - 130
Beryllium	ND		0.500	0.434		mg/L		87	70 - 130
Cadmium	ND		0.500	0.409		mg/L		82	70 - 130
Chromium	0.0030	J	0.500	0.475		mg/L		94	70 - 130
Cobalt	0.0068	J	0.500	0.456		mg/L		90	70 - 130
Lead	ND		0.500	0.428		mg/L		86	70 - 130
Copper	0.010		0.500	0.530		mg/L		104	70 - 130
Nickel	0.0075	J	0.500	0.448		mg/L		88	70 - 130
Selenium	ND		0.500	0.424		mg/L		85	70 - 130
Silver	ND		0.250	0.257		mg/L		103	70 - 130
Thallium	ND		0.500	0.392		mg/L		78	70 - 130
Vanadium	0.0084	J	0.500	0.462		mg/L		91	70 - 130

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 440-152822-1 MS

Matrix: Water

Analysis Batch: 343681

Client Sample ID: EW-1-W

Prep Type: Total Recoverable

Prep Batch: 343425

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	ND		0.500	0.442		mg/L		88	70 - 130

Lab Sample ID: 440-152822-1 MSD

Matrix: Water

Analysis Batch: 343665

Client Sample ID: EW-1-W

Prep Type: Total Recoverable

Prep Batch: 343425

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Molybdenum	0.057		0.500	0.528		mg/L		94	70 - 130	1	20

Lab Sample ID: 440-152822-1 MSD

Matrix: Water

Analysis Batch: 343681

Client Sample ID: EW-1-W

Prep Type: Total Recoverable

Prep Batch: 343425

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	ND		0.500	0.499		mg/L		100	70 - 130	1	20
Arsenic	ND		0.500	0.468		mg/L		94	70 - 130	2	20
Barium	0.12		0.500	0.555		mg/L		88	70 - 130	0	20
Beryllium	ND		0.500	0.428		mg/L		86	70 - 130	2	20
Cadmium	ND		0.500	0.413		mg/L		83	70 - 130	1	20
Chromium	0.0030	J	0.500	0.474		mg/L		94	70 - 130	0	20
Cobalt	0.0068	J	0.500	0.453		mg/L		89	70 - 130	1	20
Lead	ND		0.500	0.428		mg/L		86	70 - 130	0	20
Copper	0.010		0.500	0.527		mg/L		103	70 - 130	1	20
Nickel	0.0075	J	0.500	0.447		mg/L		88	70 - 130	0	20
Selenium	ND		0.500	0.421		mg/L		84	70 - 130	1	20
Silver	ND		0.250	0.257		mg/L		103	70 - 130	0	20
Thallium	ND		0.500	0.396		mg/L		79	70 - 130	1	20
Vanadium	0.0084	J	0.500	0.462		mg/L		91	70 - 130	0	20
Zinc	ND		0.500	0.442		mg/L		88	70 - 130	0	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 440-343699/1-A

Matrix: Water

Analysis Batch: 343952

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 343699

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		07/20/16 13:00	07/20/16 21:35	1

Lab Sample ID: LCS 440-343699/2-A

Matrix: Water

Analysis Batch: 343952

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 343699

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00800	0.00823		mg/L		103	85 - 115

TestAmerica Irvine

QC Sample Results

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: 280-85692-B-4-B MS

Matrix: Water

Analysis Batch: 343952

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 343699

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		0.00800	0.00822		mg/L		103	70 - 130

Lab Sample ID: 280-85692-B-4-C MSD

Matrix: Water

Analysis Batch: 343952

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 343699

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.00800	0.00811		mg/L		101	70 - 130	1	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 440-343022/1

Matrix: Water

Analysis Batch: 343022

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	5.0	mg/L			07/19/16 07:51	1

Lab Sample ID: LCS 440-343022/2

Matrix: Water

Analysis Batch: 343022

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	1000		mg/L		100	90 - 110

Lab Sample ID: 440-152543-C-1 DU

Matrix: Water

Analysis Batch: 343022

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	2500		2550		mg/L		0.4	5

TestAmerica Irvine

QC Association Summary

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

GC/MS VOA

Analysis Batch: 343557

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152822-1	EW-1-W	Total/NA	Water	8260B	
440-152822-2	AEC-2-W	Total/NA	Water	8260B	
MB 440-343557/8	Method Blank	Total/NA	Water	8260B	
LCS 440-343557/5	Lab Control Sample	Total/NA	Water	8260B	
440-152803-E-3 MS	Matrix Spike	Total/NA	Water	8260B	
440-152803-E-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Analysis Batch: 343558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152822-1	EW-1-W	Total/NA	Water	8260B/CA_LUFT MS	
440-152822-2	AEC-2-W	Total/NA	Water	8260B/CA_LUFT MS	
MB 440-343558/8	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	
LCS 440-343558/6	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
440-152803-E-3 MS	Matrix Spike	Total/NA	Water	8260B/CA_LUFT MS	
440-152803-E-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B/CA_LUFT MS	

Analysis Batch: 343879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152822-3	AEC-1-W	Total/NA	Water	8260B	
MB 440-343879/4	Method Blank	Total/NA	Water	8260B	
LCS 440-343879/5	Lab Control Sample	Total/NA	Water	8260B	
440-152934-B-20 MS	Matrix Spike	Total/NA	Water	8260B	
440-152934-B-20 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Analysis Batch: 343880

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152822-3	AEC-1-W	Total/NA	Water	8260B/CA_LUFT MS	
MB 440-343880/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	
LCS 440-343880/6	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
440-152934-B-20 MS	Matrix Spike	Total/NA	Water	8260B/CA_LUFT MS	
440-152934-B-20 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B/CA_LUFT MS	

GC/MS Semi VOA

Prep Batch: 343113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152822-1	EW-1-W	Total/NA	Water	3520C	
440-152822-2	AEC-2-W	Total/NA	Water	3520C	
440-152822-3	AEC-1-W	Total/NA	Water	3520C	
MB 440-343113/1-A	Method Blank	Total/NA	Water	3520C	
LCS 440-343113/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 440-343113/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

TestAmerica Irvine

QC Association Summary

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

GC/MS Semi VOA (Continued)

Analysis Batch: 343497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152822-1	EW-1-W	Total/NA	Water	8270C SIM	343113
440-152822-2	AEC-2-W	Total/NA	Water	8270C SIM	343113
440-152822-3	AEC-1-W	Total/NA	Water	8270C SIM	343113
MB 440-343113/1-A	Method Blank	Total/NA	Water	8270C SIM	343113
LCS 440-343113/2-A	Lab Control Sample	Total/NA	Water	8270C SIM	343113
LCSD 440-343113/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM	343113

GC Semi VOA

Prep Batch: 343009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152822-1	EW-1-W	Total/NA	Water	3510C	
440-152822-2	AEC-2-W	Total/NA	Water	3510C	
440-152822-3	AEC-1-W	Total/NA	Water	3510C	
MB 440-343009/1-A	Method Blank	Total/NA	Water	3510C	
LCS 440-343009/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 440-343009/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 343105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152822-1	EW-1-W	Total/NA	Water	3510C	
440-152822-2	AEC-2-W	Total/NA	Water	3510C	
440-152822-3	AEC-1-W	Total/NA	Water	3510C	
MB 440-343105/1-A	Method Blank	Total/NA	Water	3510C	
LCS 440-343105/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 440-343105/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 343351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-343009/1-A	Method Blank	Total/NA	Water	8015B	343009
LCS 440-343009/2-A	Lab Control Sample	Total/NA	Water	8015B	343009
LCSD 440-343009/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	343009

Analysis Batch: 343451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152822-1	EW-1-W	Total/NA	Water	8015B	343009
440-152822-2	AEC-2-W	Total/NA	Water	8015B	343009

Analysis Batch: 344252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152822-1	EW-1-W	Total/NA	Water	8082	343105
440-152822-2	AEC-2-W	Total/NA	Water	8082	343105
440-152822-3	AEC-1-W	Total/NA	Water	8082	343105
MB 440-343105/1-A	Method Blank	Total/NA	Water	8082	343105
LCS 440-343105/4-A	Lab Control Sample	Total/NA	Water	8082	343105
LCSD 440-343105/5-A	Lab Control Sample Dup	Total/NA	Water	8082	343105

Analysis Batch: 344271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152822-3	AEC-1-W	Total/NA	Water	8015B	343009

TestAmerica Irvine

QC Association Summary

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

HPLC/IC

Analysis Batch: 343062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152822-1	EW-1-W	Total/NA	Water	300.0	
440-152822-1	EW-1-W	Total/NA	Water	300.0	
440-152822-2	AEC-2-W	Total/NA	Water	300.0	
440-152822-2	AEC-2-W	Total/NA	Water	300.0	
440-152822-3	AEC-1-W	Total/NA	Water	300.0	
440-152822-3	AEC-1-W	Total/NA	Water	300.0	
MB 440-343062/4	Method Blank	Total/NA	Water	300.0	
LCS 440-343062/2	Lab Control Sample	Total/NA	Water	300.0	
440-152908-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
440-152908-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 343425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152822-1	EW-1-W	Total Recoverable	Water	200.2	
440-152822-2	AEC-2-W	Total Recoverable	Water	200.2	
440-152822-3	AEC-1-W	Total Recoverable	Water	200.2	
MB 440-343425/1-A	Method Blank	Total Recoverable	Water	200.2	
LCS 440-343425/2-A	Lab Control Sample	Total Recoverable	Water	200.2	
440-152822-1 MS	EW-1-W	Total Recoverable	Water	200.2	
440-152822-1 MSD	EW-1-W	Total Recoverable	Water	200.2	

Analysis Batch: 343665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152822-1	EW-1-W	Total Recoverable	Water	200.7 Rev 4.4	343425
440-152822-2	AEC-2-W	Total Recoverable	Water	200.7 Rev 4.4	343425
440-152822-3	AEC-1-W	Total Recoverable	Water	200.7 Rev 4.4	343425
MB 440-343425/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	343425
LCS 440-343425/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	343425
440-152822-1 MS	EW-1-W	Total Recoverable	Water	200.7 Rev 4.4	343425
440-152822-1 MSD	EW-1-W	Total Recoverable	Water	200.7 Rev 4.4	343425

Analysis Batch: 343681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152822-1	EW-1-W	Total Recoverable	Water	200.7 Rev 4.4	343425
440-152822-2	AEC-2-W	Total Recoverable	Water	200.7 Rev 4.4	343425
440-152822-3	AEC-1-W	Total Recoverable	Water	200.7 Rev 4.4	343425
MB 440-343425/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	343425
LCS 440-343425/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	343425
440-152822-1 MS	EW-1-W	Total Recoverable	Water	200.7 Rev 4.4	343425
440-152822-1 MSD	EW-1-W	Total Recoverable	Water	200.7 Rev 4.4	343425

Prep Batch: 343699

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152822-1	EW-1-W	Total/NA	Water	245.1	
440-152822-2	AEC-2-W	Total/NA	Water	245.1	
440-152822-3	AEC-1-W	Total/NA	Water	245.1	
MB 440-343699/1-A	Method Blank	Total/NA	Water	245.1	
LCS 440-343699/2-A	Lab Control Sample	Total/NA	Water	245.1	

TestAmerica Irvine

QC Association Summary

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

Metals (Continued)

Prep Batch: 343699 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-85692-B-4-B MS	Matrix Spike	Total/NA	Water	245.1	
280-85692-B-4-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	

Analysis Batch: 343952

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152822-1	EW-1-W	Total/NA	Water	245.1	343699
440-152822-2	AEC-2-W	Total/NA	Water	245.1	343699
MB 440-343699/1-A	Method Blank	Total/NA	Water	245.1	343699
LCS 440-343699/2-A	Lab Control Sample	Total/NA	Water	245.1	343699
280-85692-B-4-B MS	Matrix Spike	Total/NA	Water	245.1	343699
280-85692-B-4-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	343699

Analysis Batch: 343953

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152822-3	AEC-1-W	Total/NA	Water	245.1	343699

General Chemistry

Analysis Batch: 343022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-152822-1	EW-1-W	Total/NA	Water	SM 2540C	
440-152822-2	AEC-2-W	Total/NA	Water	SM 2540C	
440-152822-3	AEC-1-W	Total/NA	Water	SM 2540C	
MB 440-343022/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 440-343022/2	Lab Control Sample	Total/NA	Water	SM 2540C	
440-152543-C-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Definitions/Glossary

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
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.
ID	Analyte identified by RT & presence of single mass ion

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 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

HPLC/IC

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

Certification Summary

Client: Advanced Environmental Concepts Inc
Project/Site: Pumpkin Patch

TestAmerica Job ID: 440-152822-1

Laboratory: TestAmerica Irvine

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-17
Arizona	State Program	9	AZ0671	10-13-16
California	LA Cty Sanitation Districts	9	10256	01-31-17 *
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 12.002r	01-23-17
Hawaii	State Program	9	N/A	01-29-17
Kansas	NELAP Secondary AB	7	E-10420	07-31-16 *
Nevada	State Program	9	CA015312016-2	07-31-16 *
New Mexico	State Program	6	N/A	01-29-17
Northern Mariana Islands	State Program	9	MP0002	01-29-17
Oregon	NELAP	10	4028	01-29-17
USDA	Federal		P330-09-00080	07-08-18
Washington	State Program	10	C900	09-03-16

* Certification renewal pending - certification considered valid.

TestAmerica Irvine

[illegible]

Login Sample Receipt Checklist

Client: Advanced Environmental Concepts Inc

Job Number: 440-152822-1

Login Number: 152822

List Source: TestAmerica Irvine

List Number: 1

Creator: Skinner, Alma D

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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	Refer to Job Narrative for details.
There are no discrepancies between the containers received and the COC.	False	Received Trip Blank(s) not listed on COC.
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 $<6\text{mm}$ (1/4").	False	Headspace larger than 1/4".
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Appendix D

BORING LOGS

WELL CONSTRUCTION		PID	BLOW COUNT	DEPTH (FEET)	INTERVAL	NUMBER	USCS DESIGN	SOIL DESCRIPTION
				1				
			9					
0740	0	10	5					Sand (SP): tan, moderately dense, loosely consolidated, fine to medium-grained, slightly moist, no apparent hydrocarbon stain or odor.
		13						
		5						
0745	0	10	10					Sand (SM): brown with black stain, compact, fine-grained, dense, increasing silt, degraded anaerobic odor, piece of a tire in sample.
		12						
		6						
0750	0.9	11	15					Sand and silt with mostly debris consisting of wood, tires, film, and plastic in 15' and 20' samples. Both samples stained black with anaerobic odor.
		12						
		11						
0758	6.1	13	20					
		16						
				25				
				30				
				35				
				40				

AEC

Advanced Environmental Concepts, Inc.
220 E. Truxtun Ave., Bakersfield, CA 93305

WELL/BORING LOG

PROJECT	Pumpkin Patch	Location	7001 East Pacific Coast Highway, Long Beach						
Well/Boring No.	AEC-2	Surface Elevation	Wellhead Elevation						
Date Drilled	7/13/2016	Logged By	Buck/AEC	Reviewed By	Jonathan Buck				
Drilling Company	J&H Drilling	Driller	Antonio	Method	H S A				
Bore Hole Diameter	8"	Total Depth	34'	Depth to Water	24'	Static	13.96'		
Casing Type	PVC	Diameter	2"	Schedule	40	Interval	14'	To	grade
Screen Type	PVC	Diameter	2"	Slot Size	0.01	Interval	34'	To	14'
Filter Pack Type	#2/12 sand	Interval	34'	To	13'				
Seal Type	Bentonite	Interval	13'	To	9'				
Surface Seal Type	Bentonite/cement grout	Interval	9'	To	1'				
Notes	Traffic box cemented in place								

SAMPLE							USCS DESIGN	SOIL DESCRIPTION
WELL CONSTRUCTION	PID	BLOW COUNT	DEPTH (FEET)	INTERVAL	NUMBER			
			1					
		6						
1315	0	9	5					Sand (SM): tan, slightly dense, loosely consolidated, fine-grained, silty in part, moderately moist, no hydrocarbon stain or odor.
		11						
		7						
1319	0	9	10					Sand (SW): tan, moderately dense, unconsolidated, fine to medium-grained, slightly moist, no hydrocarbon stain or odor.
		12						
		7						
1325	0	10	15					Clay (CL): gray, compact, malleable, very moist, no hydrocarbon stain or odor.
		13						
		8						
		9	20					Silt (ML): gray-olive, moderately compact, sandy and clayey in part, moderately moist, no hydrocarbon stain or odor.
1330		12						
			25					
			30					
			35					
			40					

AEC

Advanced Environmental Concepts, Inc.
220 E. Truxtun Ave., Bakersfield, CA 93305

WELL/BORING LOG

PROJECT	Pumpkin Patch	Location	7001 East Pacific Coast Highway, Long Beach						
Well/Boring No.	AEC-4	Surface Elevation	Wellhead Elevation						
Date Drilled	7/12/2016	Logged By	Buck/AEC	Reviewed By	Jonathan Buck				
Drilling Company	J&H Drilling	Driller	Antonio	Method	H S A				
Bore Hole Diameter	8"	Total Depth	34'	Depth to Water	23'	Static	13.82'		
Casing Type	PVC	Diameter	2"	Schedule	40	Interval	14'	To	grade
Screen Type	PVC	Diameter	2"	Slot Size	0.01	Interval	34'	To	14'
Filter Pack Type	#2/12 sand					Interval	34'	To	13'
Seal Type	Bentonite					Interval	13'	To	9'
Surface Seal Type	Bentonite/grout					Interval	9'	To	1'
Notes	Traffic box cemented in place								

SAMPLE							USCS DESIGN	SOIL DESCRIPTION
WELL CONSTRUCTION	PID	BLOW COUNT	DEPTH (FEET)	INTERVAL	NUMBER			
			1					
		11						
0900		14	5					Silt (ML): brown, moderately compact, clayey in part, slightly sandy, moderately moist, no apparent hydrocarbon stain or odor.
	0	16						
		9						
		10	10					Sand (SM): tan-brown, moderately dense, loosely consolidated, fine-grained, silty in part, no apparent hydrocarbon stain or odor.
0905	0.9	12						
		11						
0908		12	15					Sand (SP): fine-grained, sand stringer, very moist, may have been saturated.
		13						
		13						
0912		13	20					Clay (CL): olive, moderately dense, compact, malleable, very moist, no apparent hydrocarbon stain or odor.
		14						
			25					
			30					
			35					
			40					

AEC

Advanced Environmental Concepts, Inc.
220 E. Truxtun Ave., Bakersfield, CA 93305

WELL/BORING LOG

PROJECT	Pumpkin Patch	Location	7001 East Pacific Coast Highway, Long Beach						
Well/Boring No.	AEC-5	Surface Elevation	Wellhead Elevation						
Date Drilled	7/12/2016	Logged By	Buck/AEC	Reviewed By	Jonathan Buck				
Drilling Company	J&H Drilling	Driller	Antonio	Method	H S A				
Bore Hole Diameter	8"	Total Depth	34'	Depth to Water	24'	Static	15.26'		
Casing Type	PVC	Diameter	2"	Schedule	40	Interval	14'	To	grade
Screen Type	PVC	Diameter	2"	Slot Size	0.01	Interval	34'	To	14'
Filter Pack Type	#2/12 sand					Interval	34'	To	13'
Seal Type	Bentonite					Interval	13'	To	10'
Surface Seal Type	Cement/bentonite grout					Interval	10'	To	1'
Notes	Traffic box cemented in place								

Appendix E

SURVEY DATA



VICINITY MAP
NO SCALE

BASIS OF BEARINGS:

THE BEARING OF N 37°41'22" W OF THE CENTERLINE OF PACIFIC COAST HIGHWAY, AS SHOWN ON RECORD OF SURVEY, RECORDED IN BK. 249, PGS. 26 & 29, WAS USED AS THE BASIS OF BEARINGS FOR THIS SURVEY.

NOTE:

- BOUNDARY SHOWN HEREON IS BASED ON FOUND MONUMENTS AND PER RECORD OF SURVEY, BK. 249, PGS. 26 - 29
- THE AERIAL IMAGE SHOWN HERE ON WAS TAKEN FROM GIS-NET3 PUBLIC (LOS ANGELES DEPARTMENT REGIONAL PLANNING) AND ITS' SCALE AND LOCATION ARE APPROXIMATE.

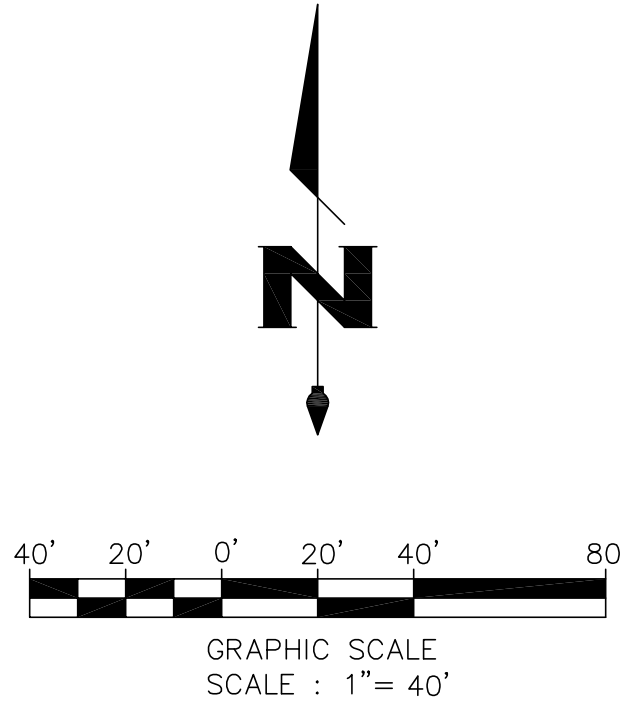
BENCH MARK:

B.M. NO. 13-54-80 NAVD 1988 ORANGE COUNTY PUBLIC WORKS

3 3/4" OCS ALUMINUM BENCHMARK DISK STAMPED "13-54-80", SET IN THE NORTHERLY CORNER OF A 4.3 FT. BY 4.3 FT. VAULT. MONUMENT IS LOCATED IN THE NORTHEASTERLY CORNER OF THE INTERSECTION OF PACIFIC COAST HIGHWAY AND FIRST STREET, 76 FT. NORTHERLY OF THE CENTERLINE OF FIRST STREET AND 46 FT. EASTERLY OF THE CENTERLINE OF PCH. MONUMENT IS SET LEVEL WITH THE SIDEWALK

ELEVATION = 12.976 FEET

(ADJUSTMENT 1989)



PREPARED BY:
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& Associates, inc.
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PREPARED FOR:
ADVANCED ENVIRONMENTAL CONCEPTS
220 E. TRUXTON AVE.
BAKERSFIELD, CA. 93305

MONITORING WELL LOCATIONS
LOT 4 - 6,
PARCEL MAP NO. 19212, P.M.B. 260, PGS. 93 & 94
7001 E. PACIFIC COAST HIGHWAY,
LONG BEACH, CA

DATE	REVISION NOTES	BY
	DESCRIPTION	

JOB NO. 16-3921
SCALE: 1" = 40'
DATE: AUG. 2016
DRAFTED: CS

SHEET NO.
1
OF 1 SHEET

Advanced Environmental Concepts
Monitoring Well Location
7001 E. Pacific Coast Highway, Long Beach CA

Well I.D.	Survey Date	Northing	Easting	TP/TR Elev	Latitude (DECIMAL DEGREE)	Longitude (DECIMAL DEGREE)	X,Y Survey Method	GPS Equip.	X,Y X,Y Datum	Z Datum
WELL EW-1	8/2/2016	1732528.08	6529364.55	19.02	33.75305008	118.1062586	RTK GPS	Topcon Hyper GA	NAD 83	NAVD 88
WELL AEC-1	8/2/2016	1732913.98	6529592.79	15.60	33.75411111	118.1055091	RTK GPS	Topcon Hyper GA	NAD 83	NAVD 88
WELL AEC-2	8/2/2016	1732851.49	6529659.72	15.72	33.7539396	118.1052887	RTK GPS	Topcon Hyper GA	NAD 83	NAVD 88
WELL AEC-3	8/2/2016	1733030.71	6529667.89	17.26	33.75443208	118.1052625	RTK GPS	Topcon Hyper GA	NAD 83	NAVD 88
WELL AEC-4	8/2/2016	1733007.87	6529504.15	15.91	33.75436885	118.105801	RTK GPS	Topcon Hyper GA	NAD 83	NAVD 88
WELL AEC-5	8/2/2016	1732785.67	6529384.02	17.32	33.75375794	118.1061954	RTK GPS	Topcon Hyper GA	NAD 83	NAVD 88

4 August 2016

OUTPUT
Geographic, NAD83
Vertical - NAVD88, U.S. Feet

AEC-5 6/6

Northing/Y: 1732785.67 **Latitude:** 33.753757942

Easting/X: 6529384.02 **Longitude:** 118.106195433

Elevation/Z: 17.32 **Elevation/Z:** 17.320

Convergence: -0 03 37.91758

Scale Factor: 1.000072322

Combined Factor: 1.000077087

Corpscon v6.0.1, U.S. Army Corps of Engineers

E5 Oil Drilling and Production Overview White Paper



Oil Drilling and Production Overview

February 2017

Los Cerritos Wetlands Oil Consolidation and Restoration Project

Oil Drilling and Production Overview White Paper February 2017

Introduction

Over the course of millions of years, decaying organic matter becomes trapped in many layers of sediment and gets buried deep within the Earth. Underground heat and pressure turn the decaying organic matter into hydrocarbons, such as oil and natural gas. The layers of rock in which the hydrocarbons are formed are called source rocks. Underground pressures squeeze the hydrocarbons from the source rocks into reservoir rocks. Reservoir rocks have larger pores and allow for the migration of fluids through them. Oil and natural gas production operations tap the hydrocarbons in the reservoir rocks.

In California, oil production has occurred for at least 140 years. Throughout this time, zones of high oil production have been found predominantly in fault zones, in close proximity to fault lines. Commonly, it is the fault that splits the rock and “releases” the oil, bringing it close enough to the surface to be extracted.

The proposed Los Cerritos Wetlands Oil Consolidation and Restoration Project (Project) straddles the Newport-Inglewood Fault. Numerous oil fields exist along this fault in Southern California: Inglewood Oil Field, Rosecrans Oil Field, Dominguez Oil Field, Long Beach Oil Field, Seal Beach Oil Field and Huntington Beach Oil Field (see Figure 1:). The proposed Project intends to produce oil from the Seal Beach Oil Field.



Figure 1:
Simplified Diagram of Major Southern California Oil Fields Along the Newport-Inglewood Fault

Specifically, new oil production will occur from the “Pumpkin Patch” (PP) and “Los Cerritos Wetlands Authority” (LCWA) sites in Long Beach, California. Advanced drilling technologies, as utilized by the Project, will allow for more efficient production with less environmental impact. This white paper provides a general overview of the oil production process, including the identification of measures taken to protect the environment.

Well Drilling

The Project involves the drilling and operation of up to 120 horizontally-drilled wells. These will include oil production, water injection, and water source wells. The exact ratio of production wells to injection wells will be determined based on reservoir characteristics after drilling commences. An overview of the well drilling process is explained below.

Well cellars

Following any needed site preparation, the construction of well cellars will commence. Well cellars are permanent structures “dug out” of the ground. All wells will be located in a large well cellar, known as a common well cellar (see Figure 2). Well cellars utilized in the Project will be 8 feet deep and cement lined. Three well cellars will be drilled on each site. At LCWA, two of the well cellars are planned to contain 23 wells and the third well cellar is planned to contain 24 wells. At PP, two of the well cellars are planned to contain 20 wells and the third well cellar is planned to contain 10 wells.

While the rig is drilling the well it sits above the cellar. Once finished the rig moves over to drill the next well. Once the wells are drilled and completed, the wellhead will be located in the cellar. As the cellars are below grade, the wellheads and all connecting piping will not be visible to passersby, unlike the “horse head wells” that are frequently seen in Southern California and are present onsite currently. The piping on the wellhead is called the Christmas tree.

In addition to containing the wellhead and Christmas tree piping, well cellars serve as secondary containment systems. The sites will be constructed to direct fluids to flow into the well cellar.



Figure 2: Typical Common Well Cellars

Drilling rig

The drilling rig and its associated equipment will be brought to the sites on trucks. The Project will utilize electric powered drilling rigs approximately 160 feet high. It is assumed that up to 6 wells will be drilled per year, per site. Directional drilling will be used to access the mineral resources deep below the area.

In order to minimize noise and visual impacts during drilling, the drilling rig will be enclosed in a camouflaged, sound abatement “shell” (see Figure 3). All worker safety lighting will be located inside the outer shell and is not expected to be visible to outside observers. The only lighting expected to be visible on the exterior of the drilling rig shell will be a warning light for air traffic safety.



Figure 3: Typical Examples of Drilling Rig Coverings

Well Casing

Well drilling begins with installation of the conductor casing. Casing is the major structural component of the well. Once the conductor casing is set, a large drill bit is attached to a large diameter pipe and lowered through the conductor casing. Additional pipes are attached to add length. Once the conductor casing is cleared, drilling begins. As the bit drills deeper, additional drill pipe is added to maintain downward force (“drill strings”). When the desired depth is reached, the drill strings are removed and a large diameter pipe is inserted and lowered downhole and cemented in place.

A well contains multiple intervals of casing concentrically placed within the previous casing run until the target depth is reached (see Figure 4). The cemented-in-place steel casing prevents the contamination of fresh water zones. Casing restricts the migration of fluids and serves as a barrier to prevent the transfer of fluids between underground layers. Given local variability in subsurface conditions, the cement utilized is carefully designed and laboratory tested in advance to ensure that all well design and regulatory requirements are met. To ensure adequacy of the seal between the casing and the cement, a cement bond log will be run and the results continuously monitored.

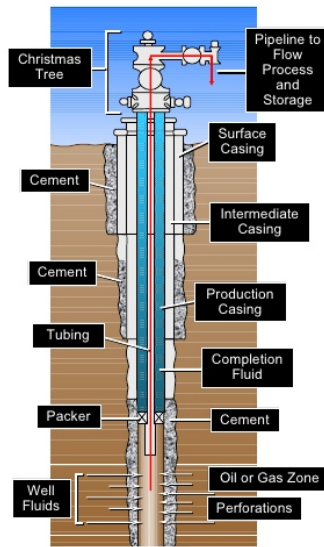


Figure 4: Typical Casing Program

Mud System

The well bore will be drilled using drilling fluid (also called “drilling mud”). Drilling muds are typically non-toxic and composed of a clay-water or polymer-water mix. Variable concentrations of additives will be mixed into the drilling mud as needed to prevent corrosion, increase mud weight, and prevent mud loss. Maintaining the appropriate mud characteristics is important as drilling muds help to maintain downhole pressure and work to prevent the formation fluids (oil, water and gas) from entering the well bore and flowing uncontrolled to the surface.

Drilling muds will be mixed at the surface in tanks called “mud tanks.” Once mixed, mud is pumped from the mud tanks down through the drill string where it sprays out of nozzles on the drill bit. This helps to keep the drill bit clean and cool. As the mud circulates up from the bottom of the hole, it carries the cut up rock (“cuttings”) to the surface (see Figure 5). Cuttings are then filtered from the mud in shaker pits. The cuttings will be stored in tanks and transported off site, as needed. The “clean” mud returns to the mud tanks for reuse.

All mud systems will be “closed systems” (i.e., no outside exposure) and will be approved by the federal EPA and California Division of Oil, Gas and Geothermal Resources (DOGGR). In the unlikely event that a leak occurs in the mud handling system, it will be contained directly around the drill rig and flow into the cellar. A cellar pump will then move the fluid out of the cellar and back into the mud tanks for either reuse or disposal.

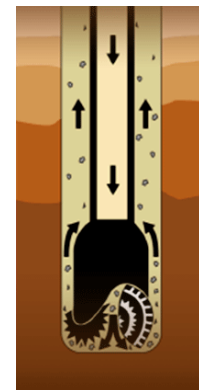


Figure 5: Mud System

Blowout Prevention Equipment System

All wells will be equipped with Blowout Prevention Equipment (BOPE) systems. A BOPE system is a safety system used during drilling to prevent uncontrolled release of formation fluids, and allows for the shut off of flow to prevent spills and release of materials. The BOPE system is composed of a stack, actuation systems, a choke manifold, stop systems, and other equipment (see Figure 6). The BOPE has an independent back up system (the accumulator) which can be activated in the event the rig loses power. The BOPE system will be designed to handle the maximum possible pressure expected at the wellhead.

BOPE specifications are set by the California DOGGR. BOPE is required on all wells in California and is dictated by maximum expected formation pressure and proximity to residences and/or commercial development. BOPEs will be tested in accordance with DOGGR specifications and witnessed as required in permits issued by DOGGR.

Once the well is drilled, the BOPE will be replaced by a wellhead and Christmas tree. All equipment used will meet the American Petroleum Institute (API) standards, which are based on proven, sound engineering practices and safe materials.

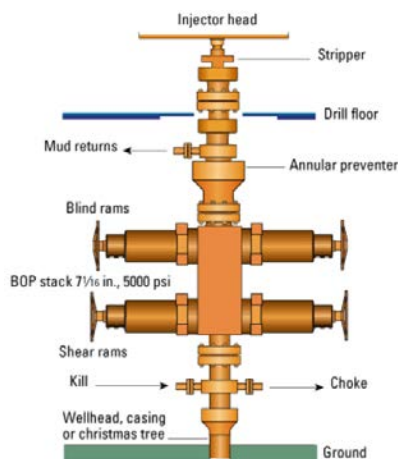


Figure 6: Blow Out Prevention Equipment

Oil Production

Once the desired depth is reached and the well is completed, production can begin. During the oil extraction process, oil, water, and gas are brought to the surface from the production formation and separated. This is performed by three-phase separator pressure vessels ("free water knockouts, FWKO") which utilize the difference in density between gas, oil and water to provide separation (see Figure 7). The oil handling, water handling and natural gas handling systems are explained below.



Figure 7: Typical Free Water Knock Out (FWKO)

Oil Handling System

The purpose of the oil handling system is to remove water and gas from the produced oil, allowing it to be accumulated for off-site transport.

Oil from the FWKO is further dehydrated in order to meet oil sales specifications and will be performed by electrostatic treaters. Oil is allowed to sit for longer periods of time allowing remaining water to settle out. Oil processed through the electrostatic treaters is considered “dry oil.” Dry oil is stored in the sales oil tank until the pipeline operator is ready to take receipt of the oil. From the sales oil tank, the dry oil is pressurized to pass through the “lease automatic custody transfer” (LACT) unit. Water content in the oil is measured in the LACT, and any wet oil is rejected for further processing. Oil within specifications is metered and ready for sale.

The Wet Oil Tank will receive wet oil when rejected in the LACT, or when a process upset causes oil from the Electrostatic Treaters to contain excessive water. The wet oil tank will receive the off-specification oil until the process upset can be corrected, at which point the wet oil will be sent to the Electrostatic Treaters for further dehydration.

The Project includes one 28,000 barrel sales oil tank, two 14,000 barrel swing tanks and one 3,000 barrel wet oil tank (see Figure 8). Each tank will be fixed-roof and gas-blanketed. The fixed-roof, gas blanket design eliminates direct emissions from tanks by capturing tank vapors through a vapor recovery system. All tanks will be equipped with leak detection systems, overfill protection, instrumentation to monitor and control level, and instrumentation to monitor temperature and pressure. In addition to instrumented protection against over-pressurization, the tanks will also be provided with pressure relief valves.

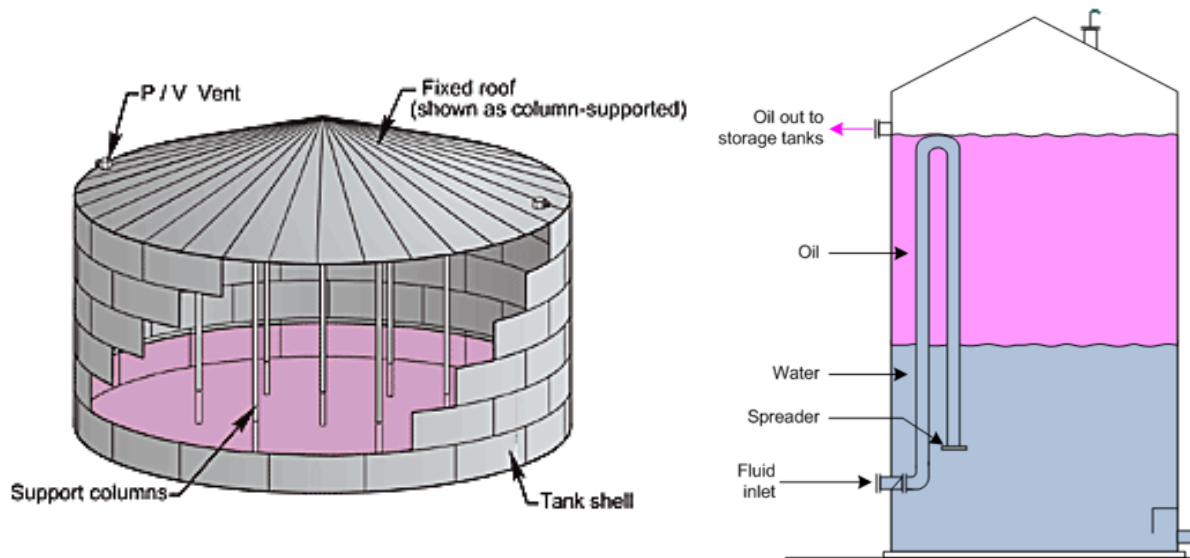


Figure 8: Typical Sales Oil Tank and Wet Oil Tank, Respectively

Water Handling System

The purpose of the water handling system is to remove oil and solids from the water that is generated as a byproduct of oil production. All water produced from the production formation (as well as all storm water) will be treated and reinjected into the production formation.

Process water from the FWKO and the electrostatic treaters is transferred to the skim tank, where solids are allowed to drop out. Water from the skim tank then enters the induced gas flotation (IGF) unit for the removal of suspended matter such as oil and neutrally buoyant solids. The IGF unit removes oil by injecting gas bubbles from the vapor recovery system into the water. The bubbles adhere to the suspended materials, which float to the surface and are removed by skimming. From the IGF, the water may pass through a Nut Shell Filter for final “polishing” to remove the smallest oil particles. Water from the filter is sent to the Injection Water Tank. In addition to storing water prior to injection, the injection tank provides a location for possible surges in the system. Using large injection pumps, water from the Injection Water Tank will be sent to the injection wells for injection back into the production formation.

The Project includes one 5,000 barrel injection tank and one 2,000 barrel oil skim tank (see Figure 9). These tanks will also be fixed roof and gas blanketed, and designed as explained in the Oil Handling System section.



Figure 9: Typical Skim Oil Tank and Injection Water Tank, Respectively

Natural Gas Handling System

The purpose of the gas handling system is to gather produced gas and treat it to meet sales quality specifications.

Gas compression is provided in two stages. Casing gas will combine with gases from the FWKO and the vapor recovery systems to be compressed for treatment. Once the gas meets pipeline specifications it will be further compressed and injected into the gas distribution system.

In order to meet the CPUC sales specifications, heavy hydrocarbons and water must be removed from the gas stream using a combined refrigeration/dehydration system. This is accomplished using a Low Temperature Separator (LTS) and Glycol system. In the LTS, the gas is cooled to sub-zero temperatures, causing water and heavy hydrocarbons to condense where they can be removed in a two phase separator. Further dehydration is performed by injecting Triethylene Glycol (TEG) into the gas which has a high affinity for water. TEG and water are removed in another two phase separator. The TEG is recovered from the water by boiling, as it has a lower boiling point than water, and is then reused in the system. Sales quality gas will be transferred directly to a gas compression system.

The processed gas is burned in gas turbines generating electricity to run on-site equipment. The Project will use four gas turbines, with a 4.6 MW rating, to generate power onsite (see also Power White Paper).¹

Environmental Protection

Oil drilling and production are heavily regulated in California,² and the Project will adhere to all applicable rules and regulations. In addition to the various safety systems and environmental protections mentioned above, the Project includes numerous measures to protect the environment, summarized below.

¹ See Power White Paper.

² California Statutes and Regulations for Conservation of Oil, Gas and Geothermal Operations. Department of Conservation. Publication Number PRC10. April 2016. Website: <ftp://ftp.consrv.ca.gov/pub/oil/laws/PRC10.pdf>

General Operation

The Project will be equipped with computerized control, monitoring and communication systems. In general, these systems will be designed to monitor and control all process equipment that will operate within the facility. The operator console will be staffed 24-hours a day. The building will be provided with an uninterruptible power supply and a diesel emergency generator to provide continuous power in the event of an external power failure. It will also be equipped with gas and fire detection systems and a fire suppression system.

The on-site Operations Building will house the operator console allowing the operator to interface with the Supervisory Control and Data Acquisition (SCADA) Systems. The SCADA system will provide continuous real-time, operational data for all wells and process systems, including temperature, pressure, and flow rates. Equipment status and condition will also be monitored, including the operational condition of wells, pumps, valves, compressors, etc. Information also available through the SCADA system will include security system status, intrusion detection alarms, remote video cameras, firefighting system status and alarms, leak detection and other facilities status and safety points. Automatic report generation systems will supply historical and current data to operations and maintenance personnel.

The SCADA system will provide the ability to control systems operation from the Operations Building and respond to alarms that are initiated when operating conditions fall outside established parameters. Upon detection of a process upset, the Operator will have the capability to shut down the affected systems. The SCADA system will provide for a high degree of safety in the operation, allow for quick and technically sound responses to abnormal conditions, and simultaneously provide the basis for environmentally sensitive operating decisions. Equipment will typically be provided with independent automated shutdown instrumentation as well as remote indication with both pre-alarms and shutdowns, providing redundancy in safety systems. The SCADA system will have multiple levels of redundancy for critical operating components and applications, and has been designed to include cybersecurity measures.

Inspection and Maintenance

In addition to standard mill testing of all pipe and fittings, hydrostatic testing will be performed after construction and prior to startup. This test involves filling a test section of the pipeline with fresh water and increasing pressure to a predetermined level. Such tests are designed to prove that the pipe, fittings, and weld sections will maintain mechanical integrity under pressure without failure or leakage.

The pipeline connecting the PP and LCWA sites is subject to Federal regulations (49 CFR Part 192 and 49 CFR Part 195) which mandate hydrostatic testing of new, cathodically protected pipelines prior to placing the pipeline into operation. Additionally, the connecting pipeline will be inspected in accordance with Department of Transportation requirements and state and federal regulations to help ensure the ongoing integrity of the pipeline. Other inspection and maintenance of the connecting pipeline may include the use of pigs, which are devices inserted into the pipeline. Pigs will be used as needed to clean and/or inspect the connecting pipeline and "smart pigs" will be used to detect corrosion or other

damage that has affected the wall thickness or shape of the pipe. Also, emergency isolation valves will be regularly tested, and shutdown instrumentation will be regularly tested for set points and functionality.

The facilities will be subject to the BOMP mechanical integrity requirements as well as federal regulation (29 CFR § 1910.119), the federal Occupational Safety & Health Administration (OSHA) process safety management of highly hazardous chemicals. The mechanical integrity requirements include regular internal, external and non destructive testing of tanks, vessels and piping and testing of relief devices with test records maintained both at the facilities and at the engineering office. In addition to the mechanical integrity requirements, normal preventative maintenance best practices will be performed for machinery and valves.

Facility oil and gas pipelines will also employ cathodic protection to control corrosion. This method works by making the pipe work as a cathode of an electrochemical cell. This is achieved by placing the electrochemical cell in contact with the metal surface and another more easily corroded metal to act as the anode of the electrochemical cell. The cathodic protection system consists of power sources called rectifiers, buried anodes, and test stations along the pipeline.

Spill Containment

A major spill of reservoir fluids during drilling is unlikely. During drilling, in addition to BOPE, the Project will be designed with redundant safety systems that will ensure drilling is stopped and the well is sealed in the event a release occurs. The production facilities will be designed to capture spilled liquids and rain water, which will be collected and handled on-site, with no off-site discharge. Storm water that accumulates within the curbed areas around process equipment will be held within the curbed area until it can be visually inspected before being drained to the well cellars, which will provide the capacity to contain a 25-year 24-hour rainstorm. Similarly, storm water that accumulates within the containment walls around the storage tanks will be held until it can be pumped to the water treatment system.

Fire Protection

The Project facilities will be protected by a firewater loop fed by a Long Beach Water Department (LBWD) water main. The main firewater loop line within the Facilities will be continuously pressurized. The system will supply water to multiple hydrants, firewater monitors and foam monitors located in the Facility. Each fire hydrant will be equipped with a fire hose and nozzles. The local LBWD water main can provide adequate flow and pressure to the site with no additional need for firewater storage tank or pumps. The Office/Control Building will be provided with a sprinkler system in accordance with City requirements.

Hydrogen Sulfide Contingency Planning

Though the Project is not expected to encounter high levels of hydrogen sulfide (H₂S) during drilling or operation of the facility, a hydrogen sulfide contingency plan will be developed to address issues such as safety equipment, personnel responsibilities, first aid and evacuation. Hydrogen sulfide detection equipment will monitor the drilling rig environment during the drilling of the wells. This equipment will

include H₂S monitors and alarms on the drilling rig and breathing air packs at the rig and in the safety trailer.

Conclusion

The proposed Los Cerritos Wetlands Oil Consolidation and Restoration Project includes the drilling and operation of new oil production, water injection and water source wells from the Pumpkin Patch and LCWA sites. The Project includes numerous safety systems and measures taken to protect the environment, and will adhere to all applicable rules and regulations.

E6 Induced Seismicity White Paper



INDUCED SEISMICITY

February 2017

Overview

Seismicity refers to the occurrence or frequency of earthquakes in a region. Induced seismicity refers to typically minor earthquakes and tremors that are caused by human activity that alters the stresses and strains on the Earth's crust. Most induced seismicity is low magnitude.

Since 2009, the earthquake rate has increased significantly throughout the central United States. More than half of these earthquakes occurred in central Oklahoma, and in the past few years, earthquake rates have increased even more.¹ On May 8, 2016 the CBS news program, *60 Minutes*, aired "Earthquake Alley," an episode exploring the increase of earthquakes in Oklahoma, now recognized as the most earthquake-prone state in the continental United States.

Though Oklahoma's recorded seismic history dates back to the late 1800s, there has been a relatively recent increase in seismic events, particularly in central and north-central Oklahoma. Seismologists have determined that nearly all of the magnitude 3+ earthquakes occurring in 2015 were man-made and very likely triggered by wastewater disposal associated with oil and gas production in the state. Specifically, seismologists documented the relationship between water disposal practices associated with oil production and the potential risk for triggering seismicity.

This paper explores the connection between oil drilling and induced seismicity in Oklahoma², and discusses the likelihood of man-made earthquakes resulting from oil drilling associated with the Los Cerritos Wetlands Oil Consolidation and Restoration Project (Project) in Long Beach, California.

Oklahoma

Prior to 2009, Oklahoma experienced, on average, two earthquakes a year of magnitude 3+; in 2013 there were 109 magnitude 3+ quakes; in 2014 there were 585; and in 2015 there were 907.³ Also since 2009, oil production in the state more than doubled⁴, leading to the drilling of thousands of water disposal wells.

Water is a byproduct of oil production and must be disposed. When this produced water (or wastewater) is injected subsurface, it can be injected back in to the production formation (also called water injection⁵), or it can be disposed of below the production formation (also called water disposal).

The **production formation** is an underground rock formation from which oil, gas or water is produced.

A **water injection well** is a well used to inject water back into the production formation from which it originated.

A **water disposal well** is a well used to inject water below the production formation.

In Oklahoma, water is injected well below the production formation.

¹ Efforts to monitor and characterize the recent increasing seismicity in central Oklahoma. D. E. McNamara, et. al. The Leading Edge, June 2015.

² Note: induced seismicity

³ Earthquakes in Oklahoma. Address: <https://earthquakes.ok.gov/>

⁴ U.S. Energy Information Administration, Petroleum and Other Liquids. Address: <https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=p&s=mcrfpok1&f=a>

⁵ See Water Injection White Paper

Wastewater is disposed of into the Arbuckle formation, a 7,000-foot deep sedimentary formation beneath Oklahoma. The Arbuckle formation sits directly above the crystalline basement – the rock layer where earthquake faults lie in Oklahoma. Researchers believe that the Arbuckle formation is in hydraulic communication with the crystalline basement, theorizing that the injected wastewater may be triggering seismicity.⁶

As wastewater is injected into the Arbuckle formation, the pore pressure in that formation increases. Pore pressure is the pressure of the fluids within the fractures and pore spaces of rocks at depth. Shear stress builds up slowly on these faults over time, until it finally overcomes the frictional strength that keeps the two sides of a fault together. When this happens, the fault slips, and energy is released as an earthquake.⁷

Pore pressure is the pressure of the fluids within the fractures and pore spaces of rocks at depth.

A common misconception about induced seismicity in Oklahoma is that it is largely resultant from hydraulic fracturing⁸ (i.e., fracking), a drilling practice used in the state. From the Oklahoma Geological Survey “Summary Statement on Oklahoma Seismicity” (April 21, 2015)⁹:

The primary source for suspected triggered seismicity is not from hydraulic fracturing, but from the injection/disposal of water associated with oil and gas production.

It is often stated that disposed water is waste-water from hydraulic fracturing. While there are large amounts of wastewater generated from hydraulic fracturing, this volume represents a small percentage of the total volume of waste-water injected in disposal wells in Oklahoma.

The relatively small fluid amounts used in fracking (as compared to disposed wastewater), the locations of fracking operations and the short time duration involved in most fracking operations, generally do not create increased pore pressure sufficient to induce seismicity.

California

Oil production has occurred in California for over 100 years, and the practice of water injection has been prevalent for much of the last half century.

Researchers at the California Council on Science and Technology and Lawrence Berkeley National Laboratory concluded that despite decades of production and injection in oil and gas fields, extensive seismic monitoring, and vigorous seismological research in California, there are no published reports of induced seismicity associated with wastewater disposal related to oil and gas operations in the state.¹⁰

⁶ Oklahoma’s Recent Earthquakes and Saltwater Disposal. F. Rall Walsh III and Mark D. Zoback. *Science Advances* Vol. 1, no. 5, e1500195. June 18, 2015.

⁷ D. E. McNamara, et. al.

⁸ See Well Stimulation Treatments White Paper

⁹ Summary Statement on Oklahoma Seismicity. Oklahoma Geological Survey. April 21, 2015.

¹⁰ An Independent Scientific Assessment of Well Stimulation in California: Well Stimulation Technologies and their Past, Present, and Potential Future use in California. Jane C. S. Long, et. al. Report updated July 2016.

However, a different study focusing on the San Joaquin Valley did identify some earthquakes in 2005 that had a significant chance of being induced by wastewater disposal.¹¹

Within the seismically active Los Angeles Basin, of which Long Beach is a part, researchers searched for evidence of induced seismicity associated with oil field operations, post 1935. In a 2015 report, joint analysis of the Southern California Seismic Network (SCSN) catalog and the State Department of Oil, Gas and Geothermal Resources (DOGGR) records of fluid production and injection did not reveal a significant relation to seismicity associated with changes in fluid extraction or injection.¹²

In a November 2016 paper, researchers from the U.S. Geological Survey (USGS) explored a possible association between oil production and earthquake activity prior to 1935, particularly whether the 1933 magnitude 6.4 Long Beach earthquake (and three others) might have been induced by oil drilling activities. Researchers indicate some evidence points to a causative relationship between the earthquakes and activities in the Huntington Beach oil field. However, concluding the Long Beach Earthquake was either induced or triggered by a magnitude 4.0 foreshock days before could not be ruled out.¹³ This USGS study suggests significant earthquakes experienced in southern California during the early twentieth century occurred due to dramatic subsidence of oil fields caused by the withdrawal of oil from the subsurface and the failure to mitigate subsidence through water injection. The likelihood of earthquakes similar to those experienced in the early 20th century (1915-1932) does not appear to be prevalent today, as oil field practices have changed and wastewater is injected into the subsurface production formation area of oil withdrawal to mitigate ground subsidence. The USGS concluded that apart from six small events in the Wilmington area due to subsidence from oil extraction, there is no evidence of significant induced earthquakes in the greater Los Angeles area between 1935 and present.

The Project

The Project includes the drilling and operation of up to 120 oil production, water injection, and water source wells. The ratio of oil production wells to water injection wells will be determined based on reservoir characteristics. However, it is assumed that up to half of the wells could be water injection wells.

The water produced during the Project's oil extraction operations will be injected back into the production formation via the water injection wells.¹⁴ This is in contrast to the problematic wastewater disposal practices in Oklahoma, where produced water is disposed of beneath the production formation and into a layer in hydraulic communication with the fault-laden basement therein triggering seismicity.

The Project's water injection practices will serve to maintain pressure within the production formation, as the injected water replaces the volume of fluids extracted.¹⁵ Consistent with California regulations, all

¹¹ Wastewater Disposal and Earthquake Swarm Activity at the Southern End of the Central Valley, California. Geophysical Research Letters: Volume 43, Issue 3. February 4, 2016.

¹² A century of oil field operations and earthquakes in the greater Los Angeles Basin, Southern California. Egill Hauksson, et. al. The Leading Edge. June 2015.

¹³ Potentially induced earthquakes during the Early Twentieth Century in the Los Angeles Basin. Susan E. Hough and Morgan Page. Bulletin of the Seismological Society of America. November 2016.

¹⁴ See Water Injection White Paper

¹⁵ See Water Injection White Paper

injection wells will be equipped with an accurate, operating pressure gauge or pressure recording device and underground reservoir pressures will be closely monitored.¹⁶

Additionally, to prevent water injection from fracturing the production formation and triggering seismicity, injection pressures will be maintained below the fracture pressure. Prior to water injection, the maximum allowable surface injection pressure will be determined via a step-rate test. A step-rate test involves incrementally increasing the injection pressure until fracture pressures are reached. Maximum allowable surface injection pressures will be “set” less than the fracture pressure, thereby minimizing the potential for water injection to fracture the formation and trigger seismicity. The DOGGR will be notified prior to conducting the test so that it may be witnessed by a DOGGR inspector.¹⁷

Conclusion

There is a broad concern that oil production and water injection activities can result in man-made earthquakes, as has been happening in the central United States, particularly in Oklahoma. Seismologists are in general agreement that the disposal of water below the production formation into a layer in communication with basement rock presents a potential risk for triggering seismicity. Whereas Oklahoma has experienced a rapid increase in earthquakes due to their wastewater disposal practices, California has rarely experienced man-made earthquakes related to water injection over decades of oil production activity.

The proposed Project involves injecting water into the production formation (not below it) and serves to maintain reservoir pressure (not increase it). The proposed Project’s water injection practices are the same as has been practiced on the Southern California oil fields since the late 1930s and is not expected to induce seismicity.

¹⁶ California Code of Regulations Title 14, Division 2, Section 1724.10(e)

¹⁷ California Code of Regulations Title 14, Division 2, Section 1724.10(i)

E7 Water Injection White Paper



Water Injection

February 2017

Los Cerritos Wetlands Oil Consolidation and Restoration Project

Water Injection White Paper February 2017

Introduction

The Los Cerritos Wetlands Oil Consolidation and Restoration Project (Project) includes the drilling and operation of up to 120 oil production, water injection and water source wells from two sites in Long Beach, California. This paper provides a broad overview of the water injection practices the Project proposes, and also attempts to address common misconceptions associated with water injection.

What does the Project propose?

During the oil extraction process, oil, water, and gas are brought to the surface from the production formation. Once these components reach the surface, they are separated and processed.¹ The produced water must be disposed. Commonly, it is injected back in to the formation from which it came. This process is known as water injection. The purpose of water injection is to inject sufficient quantities of water back in to the production formation to replace the volume of fluids extracted. The injected water is a mixture of water derived during the oil extraction process, and also water obtained from the source wells. Additional water from source wells is needed to augment the volume previously occupied by the oil and gas.

The **production formation** is an underground rock formation from which oil, gas or water is produced.

Source wells are wells used to pump salt water from a deep reservoir. This water (also called make-up water) is combined with the produced water and injected back into the production formation.

Why inject?

Throughout the United States in states such as California, Texas, and Alaska, and abroad in places such as the North Sea, water injection is, and has been, used for over 60 years to prevent subsidence. The extraction of large volumes of fluid from the production formation causes the pressure within that formation to decrease. As pressure decreases, the rock-matrix skeletal structure of the formation carries a greater share of the force to support the overlying rock. If the structural integrity is low, it can cause the underground formation to compact and correspondingly, the surface to subside. Water injection serves to maintain pressure within the formation, as the water injected replaces the volume of fluids extracted. This is also known as “voidage replacement.” In California oil fields, there is about 15 times more water than oil produced and approximately 52,000 injection wells used in oil and gas operations (Class II Injection Wells) throughout the state.²

Subsidence is the sinking or gradual lowering of the earth's surface, and has both natural and man-made causes.

Locally, Long Beach was once known as the "Sinking City," with subsidence up to 29 feet deep in and around the Port of Long Beach and along the coast. Early 1940s groundwater pumping contributed to

¹ See Oil Drilling and Production Overview White Paper

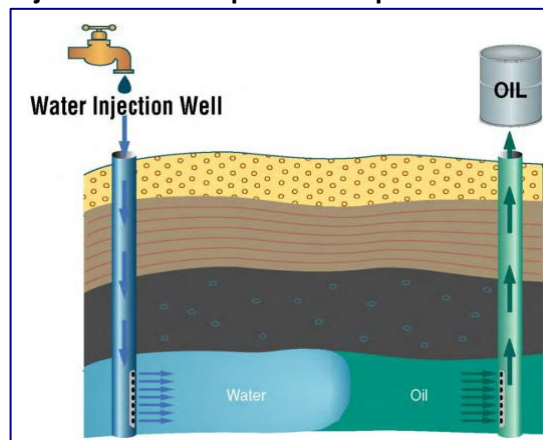
² California Division of Oil, Gas and Geothermal Resources (CDOGGR). Oil, Gas and Geothermal – Injection Wells. http://www.conservation.ca.gov/dog/general_information/Pages/class_injection_wells.aspx

the land sinking, but the majority of the subsidence resulted from oil and gas extraction, primarily from the Wilmington Oil Field, due in large part to the soft sandstone reservoir makeup of the field. In the late 1950s, when it was shown that water injection would reduce underground compaction and surface subsidence, the practice was employed and subsidence has since been arrested.³

Also, preventing subsidence via water injection reduces the likelihood of inducing seismic activity. Failing to replenish the fluids extracted can result in subsidence and/or slippage along planes of weakness in the Earth.

In addition to protecting against subsidence and preventing earthquakes, water injection also serves to increase oil production. As the injected water displaces the oil, it “pushes” it toward production wells (see Figure 1). This type of water injection activity is also often called “water flooding.”

Figure 1: Injected Water Replaces the Space of Produced Fluids



Source: William M. Cobb & Associates, Inc.⁴

Water Injection Misconceptions

There are several misconceptions about water injection, generally discussed below:

A common misconception is that water injection induces seismicity. As explained in the Induced Seismicity White Paper⁵ and generally summarized here, under specific geologic conditions “water disposal” practices can trigger seismicity. “Water disposal” is different from “water injection” and “water flooding.”

In the central United States, particularly in Oklahoma, induced seismicity has been triggered when water produced during oil extraction is disposed of **below** the production formation in particular areas where this injection creates a pressure imbalance and an increase in shear stress resulting in earthquakes. This Project will inject water back into the production formation; underground pressures will be maintained,

³ Long Beach Oil and Gas Department, Subsidence Information. November 2016. Accessed: <http://www.longbeach.gov/lbgo/about-us/oil/subsidence/>

⁴ <http://www.arcanres.com/operations/waterflood-operations/>

⁵ See Induced Seismicity White Paper

neither increased nor decreased. The Project's water injection practices are dissimilar to the problematic water disposal techniques utilized in Oklahoma. Also, with few exceptions, California has not historically experienced induced seismicity related to prolonged water injection associated with oil production. Because of the differences between the **water disposal** practices seen in Oklahoma as compared to the **water injection** conducted in California oil fields over the past 60 plus years, the proposed Project is not likely to induce seismicity.

Another common misconception is that because water injection (or "water flooding") can increase oil production, it is similar to fracking⁶ which also serves to increase oil production. Water injection improves production by pushing the oil toward the production well (see Figure 1 above). The practice of water injection does not change the structural integrity of the underground formation; new fractures are not created, nor are existing fractures expanded. This is in contrast to fracking whose purpose is to inject water, sand and chemicals into the formation to either create new fractures or expand existing ones, therein creating a new pathway for the "trapped" oil to flow to the well. The Project's proposed water injection techniques are unlike fracking techniques, though both serve to increase production.

Another common misconception is that the process of water injection will result in contamination of underground freshwater aquifers. The Project's target formation is more than 5,000 feet deeper than the fresh water aquifer. As explained in the Oil Overview White Paper,⁷ wells are designed and constructed with multiple barriers of steel casing and are cemented in place. Casing restricts the inward and outward migration of fluids and serves as a barrier to prevent the transfer of fluids between underground layers. Also, well injection pressures are closely monitored and any pressure drop (signaling a potential leak) will result in immediate shutdown of the well. The Project's water injection practices are not expected to contaminate underground aquifers.

Conclusion

In conclusion, the Project's oil production activities will include water injection and water flooding, which are processes to inject water into the production formation. Water injection – which has been part of California oil operations for more than 60 years, including in the Long Beach area -- serves to prevent subsidence and also increases oil production. Water injection is neither expected to induce seismicity nor is it expected to contaminate underground aquifers. Though water flooding increases oil production, it is very different than fracking, and has historically not produced the same geologic problems being attributed to fracking.

⁶ See Well Stimulation Treatments White Paper

⁷ See Oil Drilling and Production Overview White Paper

E8 Pipeline Design Assessment



December 21, 2016

Mr. Peter D. Zak
Beach Oil Mineral Partners
4901 Birch Street
Newport Beach, CA 92660

Subject: Summary of Efforts to Support the Los Cerritos Wetlands Oil Consolidation Project

Mr. Zak:

This letter report summarizes work to date to support the Los Cerritos Wetlands Oil Consolidation project, specifically the review and assessment of concepts that would allow Beach Oil Minerals Partners, LLC (BOMP) to segregate surface locations of well sites associated with oil well production on the north and south sides of the Newport-Inglewood fault. This letter report focuses on three topic areas:

- Characterization of the Newport-Inglewood fault hazard.
- Assessment of an initial concept in which pipelines and electrical and control cables would be routed underground across the fault zone in a large casing installed by horizontal directional drilling (HDD).
- Alternative aboveground crossing concepts.

Fault Hazard Characterization

The geological assessment was subcontracted to Lettis Consultants International, Inc. (LCI) and the pipeline analytical assessment was performed by D.G. Honegger Consulting (DGHC). The full LCI fault characterization report has been provided to Beach Oil Mineral Partners (BOMP) separate to this letter report and the key findings relative to the hazard posed to the carrier pipe are summarized below.

The proposed HDD pipeline crosses the Newport-Inglewood fault zone at a location where prior studies have noted that the Newport-Inglewood fault zone is poorly expressed at the surface. LCI evaluated historical air photos, topographic data, and modern lidar data in the vicinity of the project site in order to independently evaluate the location of the Newport-Inglewood fault zone. In addition, LCI evaluated relevant geological and geotechnical literature. However, LCI found that the best available data to locate the Newport-Inglewood fault zone have already been accounted to define the trace of the Newport-Inglewood fault zone in the Alquist-Priolo zone.

Although the Alquist-Priolo fault trace may represent the best estimate for the location of the primary trace of the Newport-Inglewood fault zone at the proposed HDD pipeline, no local site-specific data exist to accurately define either the location or degree of structural complexity of the fault zone. LCI recommended that the entire width of the Alquist-Priolo zone (yellow semi-transparent polygon in Figure 1) be considered as a measure of the location uncertainty for the primary trace of the Newport-Inglewood fault zone.

A key input to assessing any alignment across the Newport-Inglewood fault zone is an estimate of the about of surface ground rupture (fault displacement) that might occur. The estimated mean average and mean maximum fault displacements for a magnitude 7.2 earthquake were estimated to be 1.47 m (4.82 ft) and 2.78 m (9.12 ft), respectively. Given the environmental sensitivity of the project, it is recommended that two-thirds of the mean maximum fault displacement, 6.1 ft, be adopted for design purposes in accordance with current industry practice.

Assessment of the HDD Crossing Concept

The initially proposed HDD alignment, shown in Figure 2, connects two sites denoted as the “Pumpkin Patch” and the “LCWA” sites. From the conceptual drawing provided by BOMP, the fault crossing concept consisted of a pipe bundle in a larger carrier pipe casing as illustrated in Figure 3. The proposed carrier pipe was NPS 30 with a wall thickness of 0.625 inches. For the analytical assessment of this concept, the pipeline material was assumed to be API 5L Grade X70 with a stress-strain curve as depicted in Figure 4.

The assessment of the HDD carrier pipe included two key components:

- A geological assessment to characterize the fault displacement hazard at the site, and
- An analytical assessment of the response of the carrier pipe to fault displacement.

Pipeline Analysis Methodology

The assessment of pipeline response to fault displacement was implemented in accordance with recognized guidelines within the oil and gas pipeline industry^{1, 2}. The analysis of pipeline-soil interaction effects requires the utilization of analytical procedures that can account for inelastic pipeline behavior, the nonlinear behavior of the surrounding soil mass, and large displacement effects. The finite element analyses were performed using the ANSYS computer program³. ANSYS is a widely-accepted general purpose finite element stress analysis program that has the capability to account for geometric, material, and boundary condition nonlinearities. Nonlinear spring elements were used to simulate soil restraints and plastic pipe elements were used to represent the pipeline. The large displacement analysis option of ANSYS was invoked to account for the geometric changes in stiffness due to large transverse movements of the pipe.

In the analyses, three sets of spring elements representing axial, horizontal, and vertical soil restraint have one node attached to each pipe element node. The other nodes of the spring elements are attached to a rigid beam. The use of a rigid beam element facilitates the input of allow ground displacement patterns in the global coordinate system instead of the local pipe element coordinate system (pipeline axial, horizontal, and vertical directions) used to define the spring element geometry.

¹ Honegger, D.G. and D.J. Nyman, 2004. “Guidelines for the Seismic Design and Assessment of Natural Gas and Liquid Hydrocarbon Pipelines,” Pipeline Research Council International, Inc., Catalog No. L51927.

² PRCI, 2009. “Guidelines for Constructing Natural Gas and Liquid Hydrocarbon Pipelines in Areas Subject to Landslide and Subsidence Hazards,” report prepared by D.G. Honegger Consulting, C-CORE, and SSD, Inc., Catalog No. L52292.

³ ANSYS, Inc., 2010. www.ansys.com.

Based upon a review of soil test data contained in a geotechnical report for the “LCWA” site⁴, equivalent soil springs used to analyze pipeline response used the following parameters:

- Moist unit weight: 120 pcf
- Internal friction angle: 35°
- Cohesion: 0 psf

The pipe was assumed to be coated with fusion bonded epoxy or some similar smooth coating such that the interface friction angle between the pipe surface and the soil can be taken to be 70% of the soil internal friction angle.

The plan and profile geometry of the proposed HDD crossing was defined from a drawing of the proposed HDD (provided in Attachment A). This geometry is illustrated in Figure 5. The water table was assumed to be at a model elevation of -8 feet.

Acceptance Criteria for Carrier Pipe Response

The primary output of relevance from the analysis of pipeline response to large permanent ground displacement analysis is the longitudinal strain. The basis for establishing allowable levels of tensile and compressive strain is discussed below.

When strained in longitudinal tension, a well-constructed pipeline with negligible weld flaws is capable of mobilizing large strains associated with significant yielding before rupture (greater than 10% to 15%). Pipeline failure at lower strain levels may occur as the result of stress concentrations arising from circumferential weld defects (e.g., incomplete fusion), misalignment of pipe sections, and non-uniformity in the pipe wall thickness, yield point, and post-yield hardening. Accordingly, it is common practice to keep the maximum tensile strains well below the rupture level of the steel.

Tensile strain limits are highly dependent upon the quality of the girth welds used to construct a pipeline and the strength and toughness of the girth welds compared to the strength of the pipe body. At locations such as fault crossings where the pipeline is expected to withstand longitudinal strains well above yield, girth weld quality is assured by establishing flaw-acceptance criteria and combinations of radiographic and ultrasonic inspection of all welds where the pipe strain is expected to exceed the pipe yield strain. In addition to weld quality, the strength of the girth weld should equal or exceed the strength of the pipe body. This is accomplished by specification of weld metal and welding procedures such that the weld metal will have minimum yield strength, ultimate strength, and toughness values that are no less than the maximum values of the corresponding parameters for the pipe body. In some cases, especially where higher strength pipe material is specified, it is necessary to segregate pipe joints by strength to assure joints with strengths significantly greater than the specified minimum strength are not used at locations of high strain demand.

Considering the relatively low number of welds, it is assumed that very stringent weld acceptance criteria can be imposed without significant cost implications. Welding procedures and acceptance

⁴ KLING Consulting Group, Inc., 2016. “EIR Level Geotechnical Study-Proposed Wetlands Restoration and Oil Consolidation Project-LCWA Site-Studebaker and Westminster Boulevard-City of Long Beach, California,” report PN 11038-02, May, 26.

criteria will need to be specified by a metallurgist or similarly qualified individual. With this assumption, tensile failure of the carrier pipe is not expected to occur at longitudinal tensile strains less than 4% to 8%.

It should be emphasized that tensile failure of the carrier pipe does not necessarily imply failure of the piping contained within the carrier pipe. However, such failure would result in loss of containment in the event any of the interior pipelines suffered damage. The potential for tensile failure of the pipelines within the carrier pipe under pure tensile extension is not likely because of the lack of soil restraint. However, it is possible that the pipelines within the carrier pipe could experience significant tensile bending strains if the fault displacement results in the carrier pipe experiencing high local bending deformation. In addition, significant bending deformation of the carrier pipe can lead to ovaling or kinking of the pipe cross-section and impingement of the carrier pipe on the interior pipelines.

Limits on compressive strains for the carrier pipe are based upon strain levels that could lead to local inward buckling of the unpressurized casing and impingement of the carrier pipe in the interior pipelines. The onset of local wrinkling can be estimated using relationships developed at the University of Alberta⁵ by Dorey et al. (2001) and currently in PRCI seismic design guidelines. There are four relationships based upon whether the stress-strain curve of the pipe steel exhibits a rounded shape at yield or a distinct yield plateau and whether or not wrinkling is triggered at a girth weld offset or an imperfection in the roundness of the pipe. For the BOMP HDD, the use of a relationship for a rounded stress-strain curve (see Figure 4) and a girth weld offset is most appropriate. This relationship is provided in Equation [1].

$$\varepsilon_w = 0.437 \left(\frac{t}{D} \right)^{1.72} \left[1 - 0.892 \left(\frac{p}{p_y} \right) \right]^{-1} \left(\frac{E}{\sigma_y} \right)^{0.70} \left(1.09 - \left(\frac{\Delta}{t} \right)^{0.086} \right) \quad [1]$$

where:

- t = pipe wall thickness
- D = pipe outside diameter
- p = internal pressure
- p_y = internal pressure to produce hoop stress equal to yield stress
- σ_y = yield stress
- E = modulus of elasticity of pipe material
- Δ = offset between pipe joints at girth weld

As the carrier pipe has no internal pressure, Equation [1] can be simplified as shown in Equation [2].

⁵ Dorey, A.B., D.W. Murray, and J.J.R. Cheng, 2001. "Critical Buckling Strains for Energy Pipelines," Structural Engineering Report 237, Department of Civil Engineering, University of Alberta, Canada.

$$\varepsilon_w = 0.437 \left(\frac{t}{D} \right)^{1.72} \left(\frac{E}{\sigma_y} \right)^{0.70} \left(1.09 - \left(\frac{\Delta}{t} \right)^{0.086} \right) \quad [2]$$

For an assumed girth weld offset of 1.5 mm, the compressive strain for the onset of pipe wall wrinkling from Equation [2] is -1.05% for a pipe wall thickness of 0.625 inches.

The strain at the onset of pipe wall wrinkling represents the point at which the pipe will begin to form a sharp inward buckle. The level of compressive strain beyond the onset of pipe wall wrinkling that could begin to result in impingement on the interior pipelines is estimated to coincide with a strain limit associated with 8% ovalization of the pipe wall cross section and given by Equation [3].

$$\varepsilon_{8\%} = 1.76 \frac{t}{D} \quad [3]$$

Beyond the strain limit represented by Equation [3], severe buckling of the pipe cross section may occur, similar to what is shown in Figure 6. It is noted that Equation [3] is adopted as an acceptance criterion for pressure integrity are taken from PRCI guidelines as it provides a conservative lower bound to maximum strains achieved in full-scale laboratory tests.

Analyses of HDD Pipeline Response

An analysis was performed assuming an abrupt fault offset at model east coordinate 1,200 feet, which closely matches the location of the fault depicted in Alquist-Priolo special studies zones maps and in the United States Geological Survey fault database. The direction of fault displacement was assumed to be purely horizontal at a heading of 128°. The amount of fault displacement applied in the analysis was 10 feet with analysis results were extracted at 1-inch displacement increments so that results could be obtained for any displacement less than 10 feet.

The results from this trial analysis are depicted in three ways:

- Plots of the exaggerated displaced shape
- Plots of the magnitude of strain (absolute value of the maximum tensile or compressive strain) along the pipeline at specific levels of fault displacement
- Plots of the variation in maximum tensile and compressive strain at any location in the model as a function of fault displacement

The displaced shape and distribution of strain magnitude from the analysis are shown in Figure 7. From Figure 7, it can be observed that the carrier pipe experiences very high local bending strains as indicated by two levels of high strain on either side of the fault location. From the plot of maximum longitudinal strain versus fault displacement in Figure 8, it can be seen that the largest strains are compressive and exceed the allowable compressive strain limit of -3.7% at a fault displacement of approximately 1.5 feet. An additional analysis case was performed with a 1-inch pipe wall thickness to gauge the effect of strengthening the pipe on fault displacement capacity. The results from this case are also illustrated in Figure 8 and it can be seen that the fault displacement capacity increases from approximately 1.5 feet to 2.2 feet. Given that the fault

displacement capacity for a 1-inch wall thickness is only 36% of the required design displacement capacity of 6.1 feet, it is concluded that the proposed HDD carrier pipe configuration is not an acceptable solution for crossing the Newport-Inglewood fault zone.

Investigation of Aboveground Crossing Alternatives

Following the unfavorable results from the assessment of the HDD crossing concept, several discussions occurred that focused on potential aboveground solutions. Properly designed, aboveground fault crossings can withstand large amounts of fault offset and continue to operate safely. However, the potential for damage from accidental or malevolent actions is the primary reason that aboveground crossings are rarely adopted as means to accommodate surface fault displacement. A notable exception is the Trans-Alaska Pipeline (TAP) that was constructed with an aboveground section of pipeline at the crossing of the Denali fault in Alaska (see Figure 9). In 2002, an M 7.9 earthquake occurred on the Denali fault. At the TAP fault crossing the fault displacement was approximately 18 feet distributed over a distance of 650 feet. The fault displacement imposed approximately 16 feet of lateral displacement and 9 feet of axial compression on the pipeline⁶. The pipeline suffered no damage and was repositioned on its sliding supports to accommodate future fault displacements.

The basic concept in laying out an aboveground fault crossing design is to allow relative lateral displacement to be accommodated by sliding and accommodate relative axial displacement through flexure of bends in the pipeline alignment. This is illustrated conceptually in Figure 10. The level of pipeline stresses from fault displacement increase with increasing resistance to lateral and axial displacement of the pipe from its initial position.

Implementation of an aboveground crossing for BOMP at the Newport-Inglewood fault is considered a viable option because the intended long-term use of the property at the crossing is a wetlands preserve, thereby limiting potential concerns related to damage from human activity. Full-time monitoring of the operation of the pipelines and full-time manning of the site is planned, further reducing the potential for accidental pipeline damage.

A preliminary proposed aboveground crossing alignment is provided in Attachment A in which axial compression from fault displacement is accomplished with discrete expansion loops. Some of the more important constraints that will need to be considered in defining a final aboveground crossing design include the following:

1. The piping alignment must remain within existing roads on the property. This limits the options for the shortest crossing alignments to those that follow north-south roads.
2. It is preferable for the pipelines to not be visible. This will require the pipelines to be located as close as possible to the ground and covered with a material that will not unduly restrict the lateral and axial displacement of the pipelines. Possible materials that might be suitable for covering the pipelines include pea gravel, float rock, uniformly graded coarse sand or crushed rock.

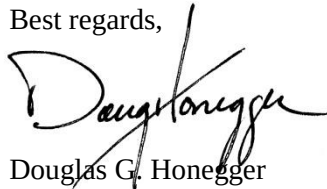
⁶ Honegger, D.G., Nyman, D.J., Johnson, E.R., Cluff, L.S. and Sorensen, S.P., 2004. "Trans-Alaska Pipeline System Performance in the 2002 Denali Fault, Alaska, Earthquake," *Earthquake Spectra*, Earthquake Engineering Research Institute, Oakland, CA, Vol. 20, No. 3, pp. 707-738.

3. In order to accommodate axial components of fault displacement, it will be necessary to be able to transfer axial force from the fault to an expansion loop or bend in the pipeline alignment. It is preferable, but not necessarily required, that the expansion loop or bend be located outside of the fault zone. For a straight pipeline crossing of the Newport-Inglewood fault zone in a north-south direction, the fault may be as far as approximately 500 feet from the edge of the fault zone.
4. A north-south crossing alignment will induce compression into the pipelines. To prevent elastic buckling of the pipelines, the axial force necessary to transfer load outside of the fault zone must be less than the buckling loads for the pipelines.
5. The restriction that the pipeline must remain within the bounds of existing roads may limit where expansion loops can be located. If the offset required to accommodate fault compression with expansion loops is too great, consideration may need to be given to a "zig-zag" alignment that can elastically deform laterally at several locations to accommodate axial compression, similar to the layout of the Trans Alaska pipeline in Figure 9.

The above points are provided to highlight where efforts are likely to be focused in finalizing an aboveground crossing design. None of these issues are considered to preclude the development of a safe and reliable seismic design. From the limited standpoint of reducing the possibility of fault displacement result in a loss of pipeline contents, the aboveground alternative is a better alternative.

I appreciate the opportunity to be of service to BOMP and hope the information included with this transmittal meets your needs. If you have any questions regarding the information presented in this letter report, please contact me.

Best regards,

A handwritten signature in black ink, appearing to read "Douglas G. Honegger". The signature is stylized with a large, looped 'D' and a long, sweeping horizontal stroke that extends to the right.

Douglas G. Honegger

D.G. Honegger Consulting

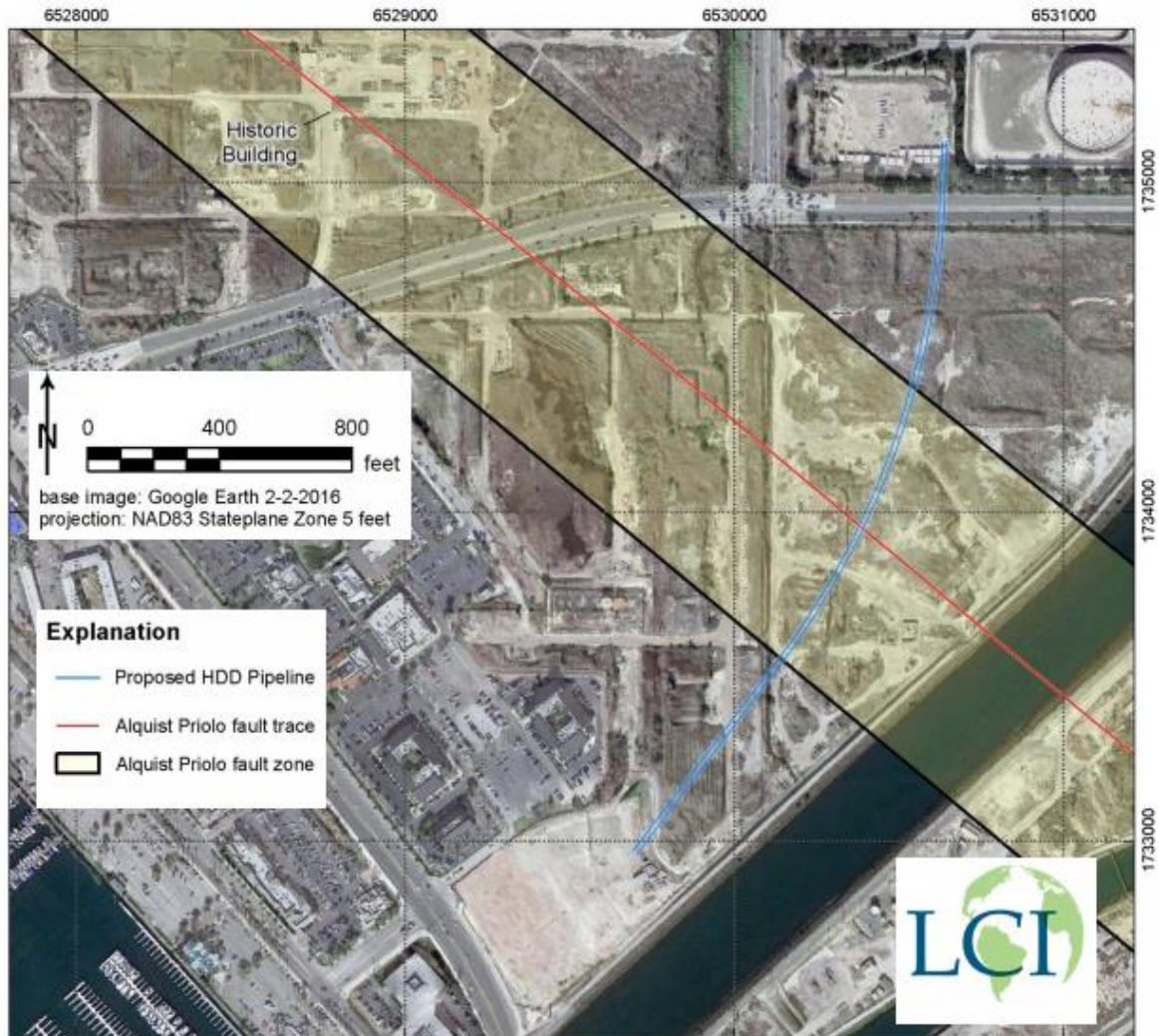


Figure 1. Newport-Inglewood Fault Zone as Described in LCI Report⁷

⁷ Lettis Consultants International, Inc., 2016. "Fault Crossing Evaluation for the Bixby Cellar Site Development, Long Beach, CA," prepared for D.G. Honegger Consulting in support of SPEC Services Job No. 6531, Unpublished consulting report, October, 2016.

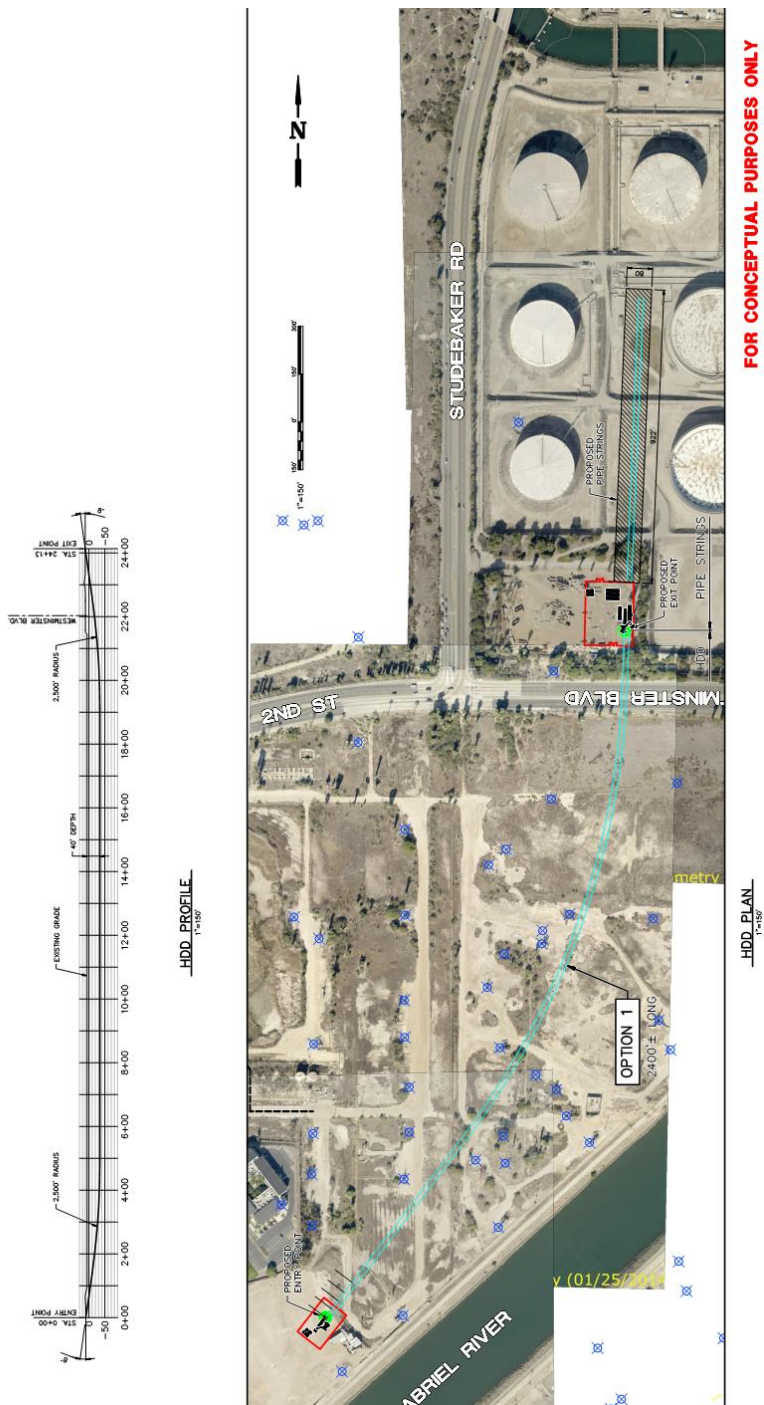


Figure 2. Initial HDD Crossing Configuration

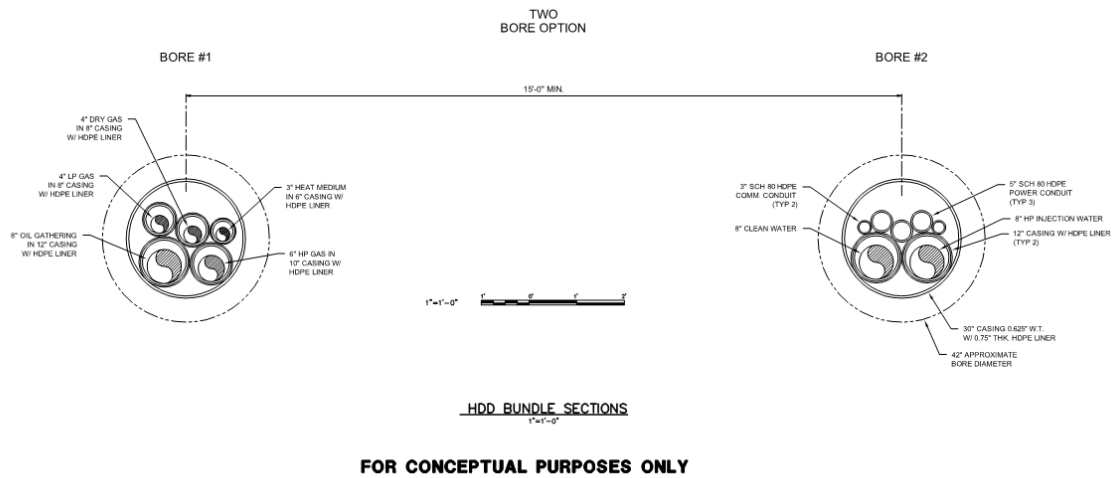


Figure 3. HDD Pipe Bundle Configurations

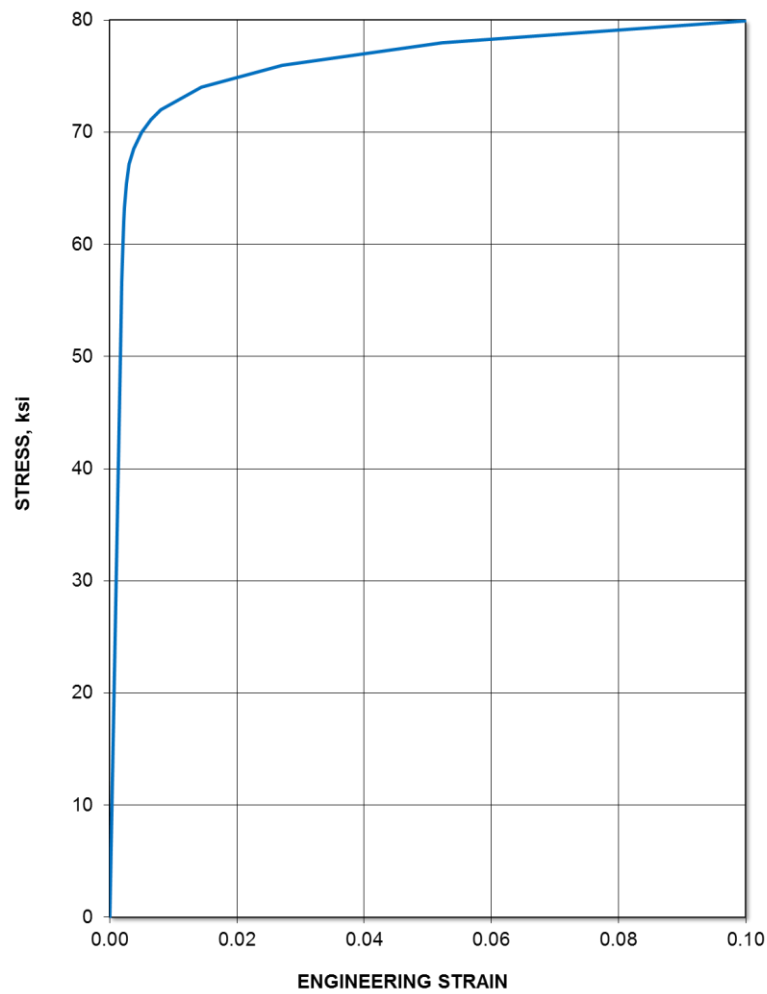


Figure 4. Assumed X70 Steel Stress-Strain Curve

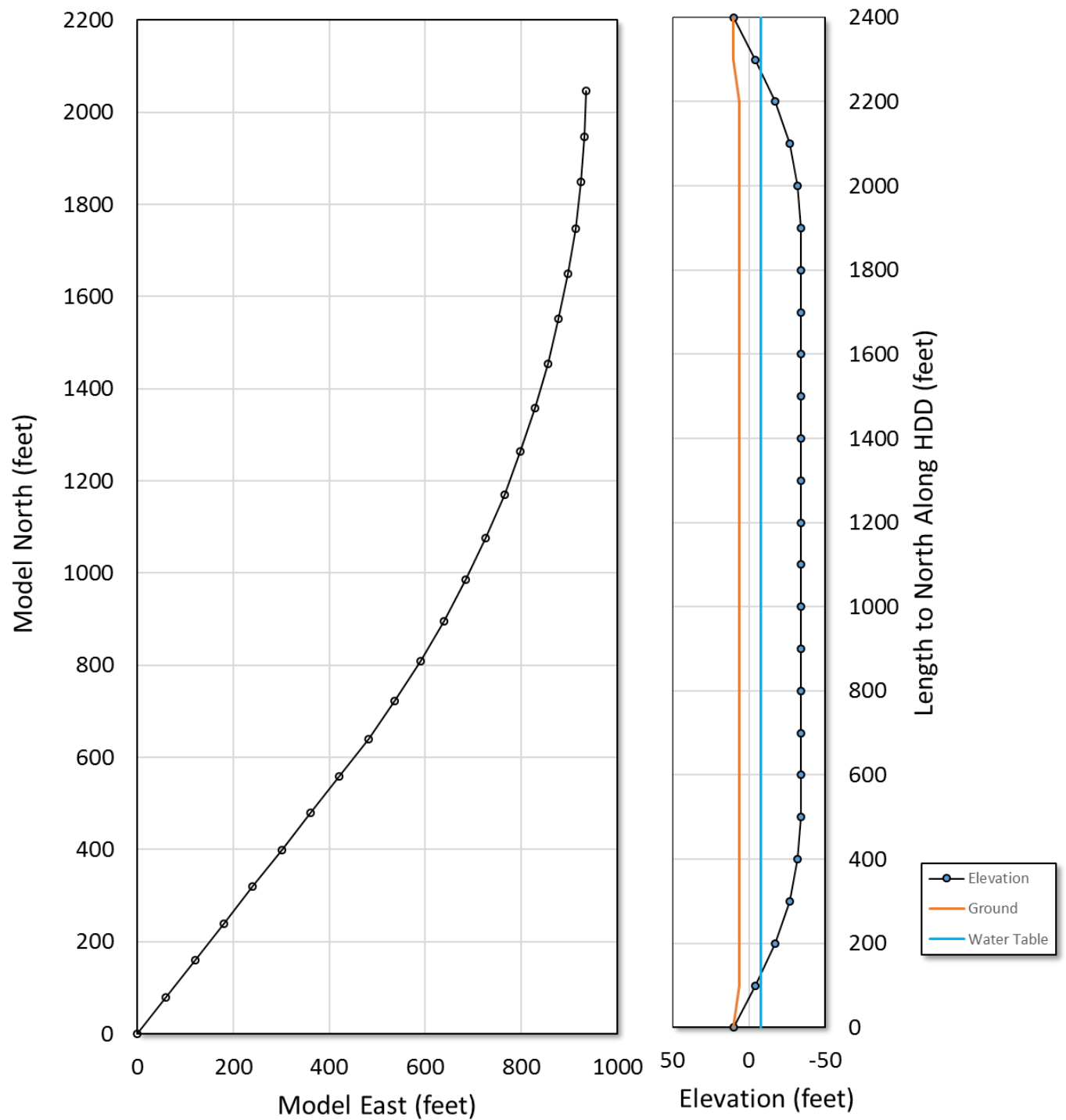


Figure 5. Analytical Model Geometry



Figure 6. Example of Possible HDD Casing Deformation if Acceptable Compressive Strain Level Exceeded

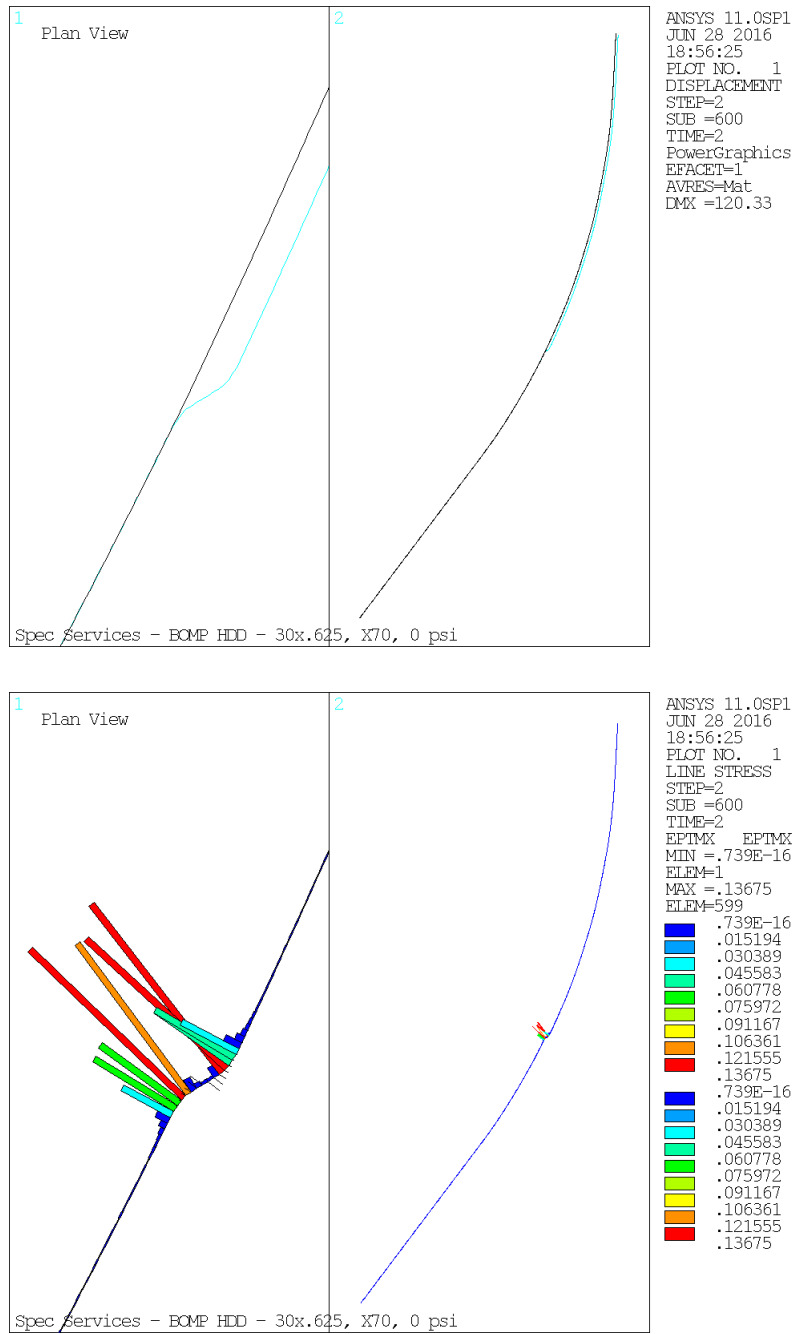


Figure 7. Displaced Shape and Strain Magnitude for 10 ft of Applied Fault Displacement

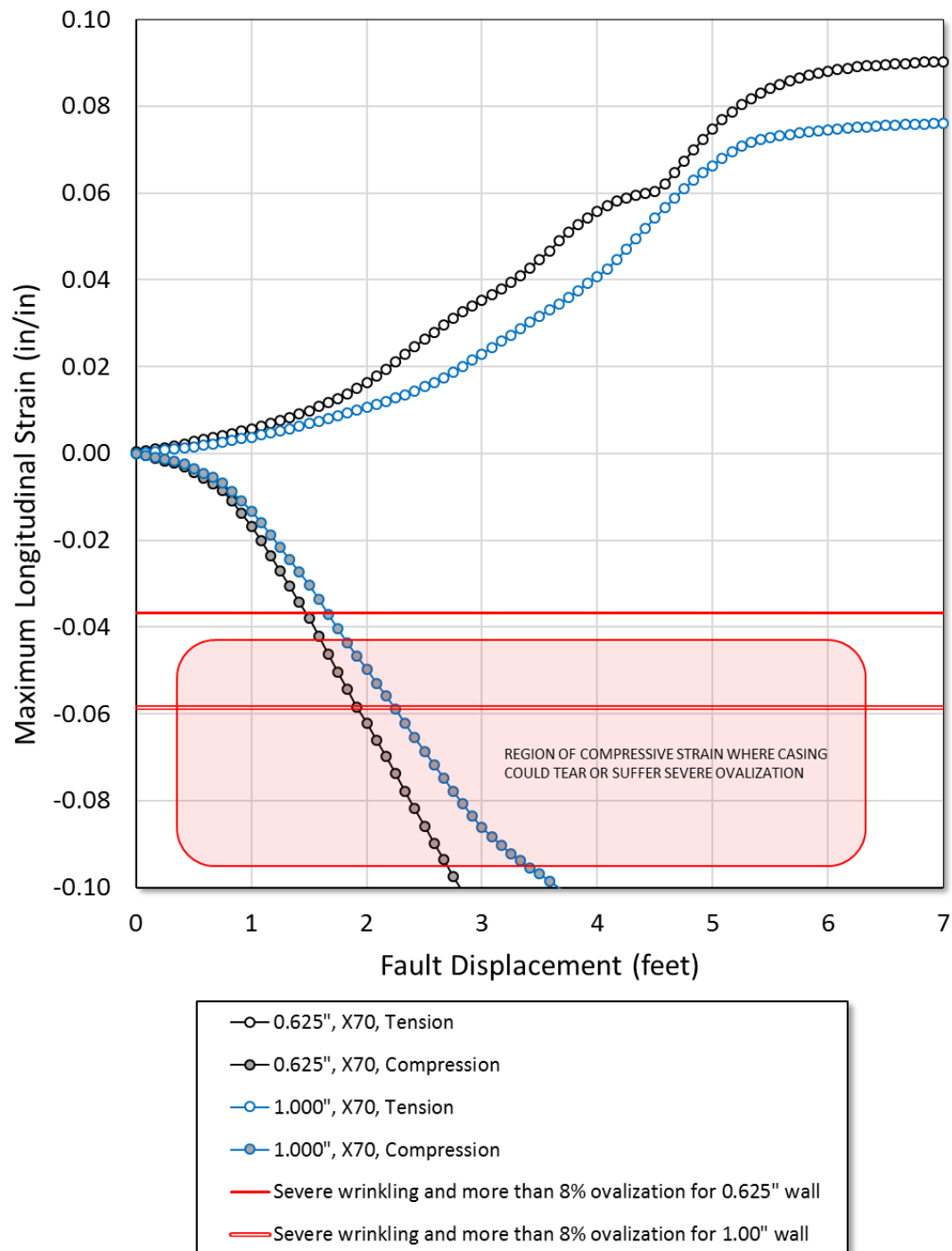


Figure 8. Longitudinal Strain vs. Fault Displacement



(a) before

(b) after

TAP crossing of Denali Fault before and after fault slip, looking south. Note movement and bowed segment after fault displacement, which acts to compress the pipeline crossing segment.

Figure 9. Trans-Alaska Pipeline Aboveground Denali Fault Crossing
(courtesy of D.J. Nyman)

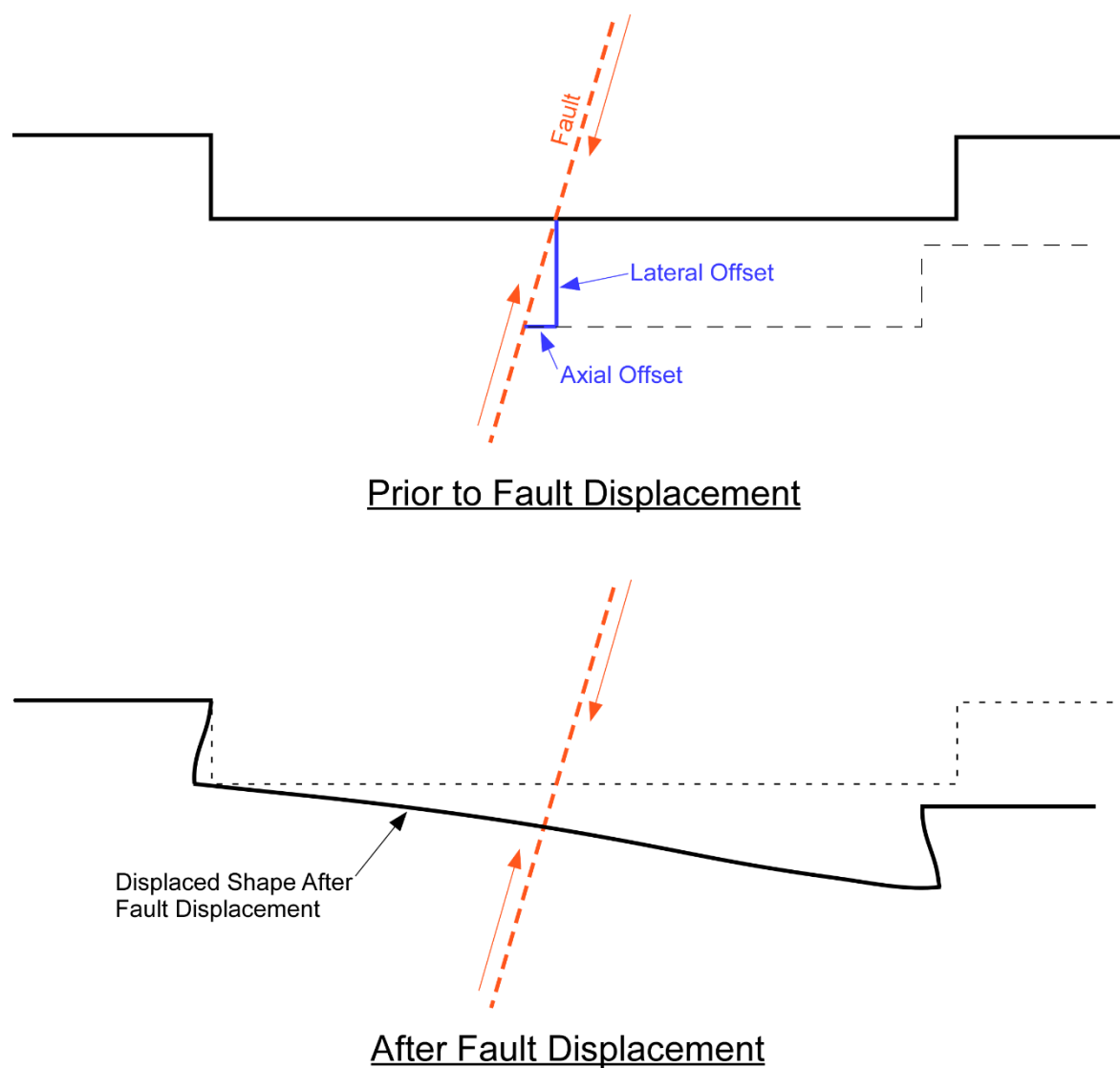
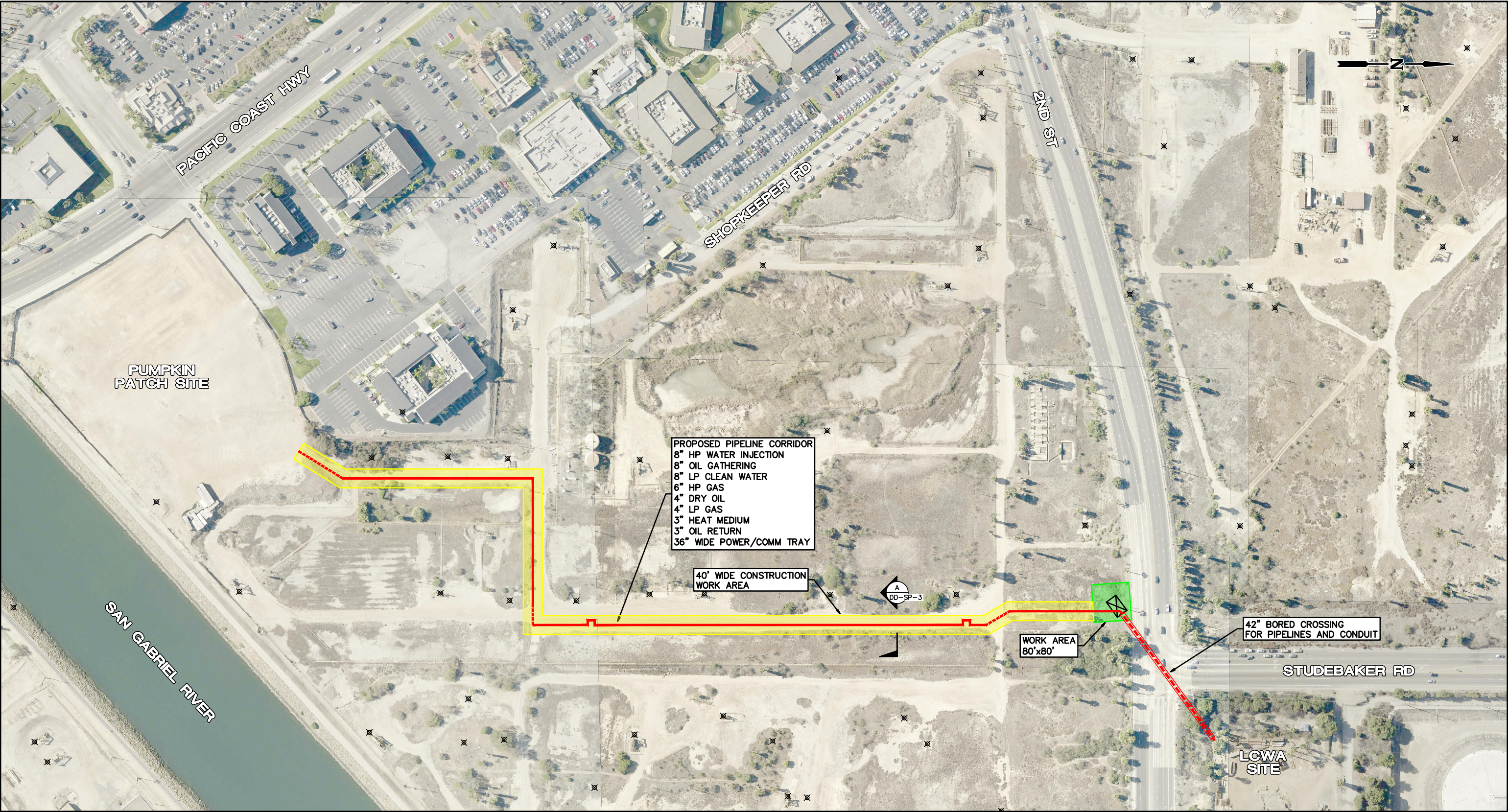


Figure 10. Conceptual Approach to Accommodating Lateral and Axial Fault Deformations

ATTACHMENT A

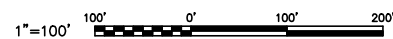
**Conceptual Aboveground Fault Crossing Alignment for the Los Cerritos Wetlands Oil
Consolidation Project**



LEGEND:

- PROPOSED PIPELINE CORRIDOR
- PROPOSED U/G PIPELINE CORRIDOR
- EXISTING WELL (DOGGR)
- PROPOSED 40' WIDE CONSTRUCTION WORK AREA
- PROPOSED 80' X 80' WORK AREA

PLAN
SCALE: 1"=100'



FOR CONCEPTUAL PURPOSES ONLY

REV	DATE	DESCRIPTION	BY	CHKD
D	12/2/2016	ISSUED FOR REVIEW	OE	TM
C	10/26/2016	ISSUED FOR REVIEW	OE	TM
B	10/21/2016	ISSUED FOR REVIEW	OE	TM
A	10/19/2016	ISSUED FOR REVIEW	OE	TM
REV	DATE	DESCRIPTION	BY	CHKD



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**BIXBY CELLAR SITE DEVELOPMENT
LONG BEACH, CALIFORNIA
PROPOSED PIPELINE CORRIDOR ROUTE**

CHECKED: O. ESTRADA	DRAWING NUMBER	REVISION
DRAWN: T. MORRISON	DD-SP-2	D
SCALE: AS NOTED		
DATE: 10/21/16	SHEET: OF	SHEETS