22 June 2015

Jeanine Strickland
Parks for People - Bay Area Program
The Trust for Public Land
101 Montgomery Street, Suite 900
San Francisco, California 94104

Subject: Preliminary Study
Geotechnical and Environmental Issues
New Park Concept Plan
900 Innes
India Basin
San Francisco, California
Langan Project No.: 731651501

Dear Ms. Strickland:

This letter presents the results of our preliminary study regarding geotechnical and environmental issues associated with the development of the 900 Innes Avenue Park in San Francisco, California as shown on Figure 1. The 900 Innes Avenue Park is part of the India Basin Waterfront Parks Vision Plan, which includes about 60 acres of public and privately owned vacant land to be developed into new publicly accessible parkland and open space. We performed a preliminary geotechnical investigation for the adjacent India Basin Development project that includes India Basin Open Space (southernmost section of the India Basin Waterfront Parks Vision Plan), and presented our findings and conclusions in a report dated 4 September 2014.

PROJECT DESCRIPTION

The project site is north of the India Basin Open Space park area, east of Innes Street, and south of the proposed India Basin Shoreline Park as shown on Figure 2. The 2.4-acre site includes 1.8 acres of land. The proposed 900 Inness Avenue Park includes extending a segment of the Bay Trail along the edge of the shoreline, a continuous bike/pedestrian lane, and recreational areas including beach areas and dog parks. In addition, a driveway is proposed for boat transfer / drop off, and for emergency vehicles. Additional improvements may include the construction of a one-story, light, boat building; alternatively, the existing historic shipwright's cottage, adjacent to Innes Avenue may be retrofitted. New utilities will be installed for lighting and irrigation. Site grading may require placing 3 to 5 feet of fill.

Wetlands may be created along the shoreline. Sedimentation and coastal process along the coastline are being evaluated by Moffat and Nichols.

SITE AND SUBSURFACE CONDITIONS

Site grades within the 900 Innes Avenue Park area vary from Elevation 10 feet near the edge of the shoreline to Elevation 30 feet adjacent to Innes Avenue. The site is partially paved, with two docks, two boat launches and an access road. The site includes an abandoned one-story family unit, two storage buildings, and a partially collapsed covered pier. The historic Shipwright's cottage is adjacent to Innes Avenue.

Published maps, aerial photos, and the results of available subsurface information indicate the majority of the site is east of the edge of the historic San Francisco Bay shoreline. The approximate location of the historic shoreline is shown in the attached Site Plan, Figure 2. The shoreline was filled between 1938 and 1968.

The portion of the site east of the old shoreline is likely underlain by 10 to 15 feet of sandy fill; 10 to 20 feet of soft, compressible clay referred to as Bay Mud and loose sand; medium dense sand; Old Bay Clay; and bedrock. The thicknesses of fill, Bay Mud, sand and Old Bay Clay, likely increase towards the Bay. The portion of the site west of the old shoreline is likely covered by 10 to 15 feet of fill, underlain by loose to dense sand to depths of at least 30 feet below existing site grades. Groundwater at the site is within the upper ten feet of the fill and can likely rise to the ground surface, near the shoreline.

The site, historically used as ship building and repair, and referred to as Donco Industries, was most recently investigated in 2013 for contamination, in coordination with EPA and the San Francisco Department of Health. The Phase I/II Investigation Targeted Brownfield Assessment Final Report by Weston Solutions, dated September 2013, indicates a release of petroleum hydrocarbons, PCBs, PAHs, and metals occurred at the site. Weston Solutions concludes the contamination is likely related to historical site activities (ship repair services), and current site activities (construction equipment and heavy machinery storage). They further indicate site development for recreational use may require the construction of a barrier, and/or excavation and disposal of contaminated soils, and and/or containment of contaminated soil. Each cleanup alternative will require subsequent confirmation and delineation sampling of the impacted areas.

REGIONAL SEISMICITY AND FAULTING

Regional faulting and seismic hazards at the project site are discussed in this section.

Regional Faulting

The major active faults in the area are the San Andreas, San Gregorio, Hayward, and Calaveras Faults. These and other faults of the region are shown on Figure 3. For each of the active faults within 50 kilometers of the site, the distance from the site and estimated mean

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characteristic Moment magnitude[1] [2007 Working Group on California Earthquake Probabilities (WGCEP) (2007) and Cao et al. (2003)] are summarized in Table 1.

TABLE 1
Regional Faults and Seismicity

Fault Segment	Approx. Distance from fault (km)	Direction from Site	Mean Characteristic Moment Magnitude
N. San Andreas – Peninsula	11.3	West	7.23
N. San Andreas (1906 event)	11	West	8.05
Total Hayward	18	Northeast	7.00
Total Hayward-Rodgers Creek	18	Northeast	7.33
N. San Andreas – North Coast	18	West	7.51
San Gregorio Connected	19	West	7.50
Total Calaveras	34	East	7.03
Mount Diablo Thrust	34	East	6.70
Monet Vista – Shannon	35	Southeast	6.50
Green Valley Connected	39	East	6.80
Rodgers Creek	40	North	7.07
Point Reyes	47	West	6.90
West Napa	50	North	6.70

Figure 3 also shows the earthquake epicenters for events with magnitude greater than 5.0 from January 1800 through August 2014. Since 1800, four major earthquakes have been recorded on the San Andreas Fault. In 1836 an earthquake with an estimated maximum intensity of VII on the Modified Mercalli (MM) scale (Figure 4) occurred east of Monterey Bay on the San Andreas Fault (Toppozada and Borchardt 1998). The estimated Moment magnitude, $M_{w,}$ for this earthquake is about 6.25. In 1838, an earthquake occurred with an estimated intensity of about VIII-IX (MM), corresponding to a M_w of about 7.5. The San Francisco Earthquake of 1906 caused the most significant damage in the history of the Bay Area in terms of loss of lives and property damage. This earthquake created a surface rupture along the San Andreas Fault

[1] Moment magnitude is an energy-based scale and provides a physically meaningful measure of the size of a faulting event. Moment magnitude is directly related to average slip and fault rupture area.

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from Shelter Cove to San Juan Bautista approximately 470 kilometers in length. It had a maximum intensity of XI (MM), a M_w of about 7.9, and was felt 560 kilometers away in Oregon, Nevada, and Los Angeles. The Loma Prieta Earthquake occurred on 17 October 1989, in the Santa Cruz Mountains with a M_w of 6.9, approximately 89 km from the site. In 1868 an earthquake with an estimated maximum intensity of X on the MM scale occurred on the southern segment (between San Leandro and Fremont) of the Hayward Fault. The estimated M_w for the earthquake is 7.0. In 1861, an earthquake of unknown magnitude (probably a M_w of about 6.5) was reported on the Calaveras Fault. The most recent significant earthquake on this fault was the 1984 Morgan Hill earthquake (M_w = 6.2).

The most recent earthquake to affect the Bay Area occurred on 24 August 2014 and was located on the West Napa fault, approximately 50 kilometers northeast of the site, with a M_w of 6.0.

The 2007 WGCEP at the U.S. Geologic Survey (USGS) predicted a 63 percent chance of a magnitude 6.7 or greater earthquake occurring in the San Francisco Bay Area in 30 years. More specific estimates of the probabilities for different faults in the Bay Area are presented in Table 2.

TABLE 2
WGCEP (2007) Estimates of 30-Year Probability of a Magnitude 6.7 or Greater Earthquake

Fault	Probability (percent)
Hayward-Rodgers Creek	31
N. San Andreas	21
Calaveras	7
San Gregorio	6
Concord-Green Valley	3
Greenville	3
Mount Diablo Thrust	1

Fault Rupture

Historically, ground surface displacements closely follow the traces of geologically young faults. The site is not within an Earthquake Fault Zone, as defined by the Alquist-Priolo Earthquake Fault Zoning Act, and no known active or potentially active faults exist on the site. In a

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seismically active area, a remote possibility exists for future faulting in areas where no faults previously existed; however, we conclude the risk of surface faulting and consequent secondary ground failure is very low.

Seismic Hazards

During a major earthquake on a segment of one of the nearby faults, strong to very strong shaking is expected to occur at the project site. Strong shaking during an earthquake can result in ground failure such as that associated with soil liquefaction[2], lateral spreading[3], and differential compaction[4].

When a saturated soil with little to no cohesion liquefies during a major earthquake, it experiences a temporary loss of strength as a result of a transient rise in pore water pressure generated by strong ground motion. Flow failure, lateral spreading, differential settlement, loss of bearing, ground fissures, and sand boils are evidence of excess pore pressure generation and liquefaction. The site is within a designated liquefaction hazard zone as designated by the California Geological Survey (CGS) seismic hazard zone map for the area titled *State of California Seismic Hazard Zones, City and County of San Francisco, Official Map,* dated 17 November 2001 (Figure 5).

Loose to medium dense sandy fill and native sand below the high groundwater level may liquefy during a major earthquake on a nearby active fault. We anticipate several inches of vertical, earthquake-induced ground settlement could occur within the project site. The anticipated settlement is expected to be erratic and vary significantly across the site.

Densification of the fill above the design groundwater level may result in a few inches of ground settlement; however, several inches of densification settlement could occur locally in the fill.

Site grades along the Bay margin have been significantly modified to current elevations by man-made improvements, primarily by excavation and fill activities. Considering the surface of the fill and Bay Mud, are sloping, and likely presence of continuous, potentially liquefiable loose to medium dense sand below the groundwater level, we conclude lateral movement of the fill

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2 Liquefaction is a transformation of soil from a solid to a liquefied state during which saturated soil temporarily loses strength resulting from the buildup of excess pore water pressure, especially during earthquake-induced cyclic loading. Soil susceptible to liquefaction includes loose to medium dense sand and gravel, low-plasticity silt, and some low-plasticity clay deposits.

3 Lateral spreading is a phenomenon in which surficial soil displaces along a shear zone that has formed within an underlying liquefied layer. Upon reaching mobilization, the surficial blocks are transported downslope or in the direction of a free face by earthquake and gravitational forces.

4 Differential compaction is a phenomenon in which non-saturated, cohesionless soil is densified by earthquake vibrations, causing differential settlement.

towards the bay will likely occur during a major earthquake on a nearby active fault. During a major earthquake on a nearby active fault, we anticipate lateral ground displacement on the order of several inches might occur. We anticipate the direction of the lateral ground displacement will likely be towards the east/ northeast (towards the bay).

PRELIMINARY DISCUSSION AND CONCLUSIONS

On the basis of the available subsurface information and our understanding of the proposed development, we conclude the project is feasible from a geotechnical standpoint. The main geotechnical issues at the project site are:

- presence of uncontrolled fill across the site
- presence of hazardous substances within the fill
- anticipated ground displacements within the fill and native sand during a major earthquake on a nearby active fault
- presence of week, compressible Bay Mud beneath the fill east of the old shoreline and Bay Mud consolidation under new building loads and new fill placement

During a major earthquake on a nearby active fault we anticipate ground displacements (vertical and lateral) within the fill may be on the order of several inches. Differential, earthquake-induced, vertical ground settlement might be on the order of four inches over a horizontal distance of 50 feet. Earthquake-induced ground settlement could affect the performance of the proposed Bay Trail, bike/pedestrian path, access road and utilities. Repairs will likely be required after a major earthquake on a nearby active fault.

We anticipate that in general, consolidation of the Bay Mud and Old Bay Clay under the weight of the existing fill is nearly complete. However, the onsite fill was placed without mechanical effort /compaction. Structures / proposed improvements over the existing fill will be subjected to excessive ground settlements induced by earthquake, new fill and building loads; in addition, differential settlement within the fill may be abrupt and erratic.

Placement of new fill will likely initiate consolidation of the Bay Mud. Bay Mud consolidation will result in large ground settlement that should be considered in the design of utilities, site grading, and other site improvements.

The anticipated earthquake-induced ground settlement and settlement from new fill should be accommodated in the design of the emergence access road and utilities, as need. The magnitude of the ground settlement should be evaluated during a design level geotechnical investigation.

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Considering the presence of contaminants in the fill, site development for recreational use may require the construction of a barrier, and/or excavation and disposal of contaminated soils, and and/or containment of contaminated soil. Each cleanup alternative will require subsequent confirmation and delineation sampling of the impacted areas.

Lightweight, one-story structures may be supported on a stiffened mat foundation provided the mat is designed for the large anticipated differential ground settlement. Alternatively, lightweight structures may be supported on deep foundations.

The stability of the shoreline should be evaluated during the design level phase of the proposed improvements. If the anticipated ground movement is not acceptable, mitigation measures should be implemented, as needed.

PRELIMINARY RECOMMENDATIONS

Our preliminary recommendations for site preparation and grading, foundation design, floor slabs, and seismic design are presented in this section of the report.

Site Preparation and Grading

This section presents preliminary earthwork recommendations for site preparation and grading.

Site Clearing

Site demolition should include the removal of pavement, utility lines, and other below-grade elements that will interfere with the proposed construction. Excavations in fill for foundations and site utilities may encounter concrete elements and debris. Breaking up obstructions using jack hammers or hoe rams into small pieces may be required to facilitate offsite removal. Where utilities that are removed extend off site, they should be capped or plugged with grout.

Onsite fill will likely require special handling during site grading. Soil management measures to be implemented during construction should be addressed in the project Site Mitigation Plan.

Where concrete rubble is present, pieces larger than four inches in greatest dimension should be removed. Stripped pavement materials can be used as backfill provided they are crushed to less than four inches in greatest dimension and mixed with soil to prevent nesting. The weight of the asphalt and concrete fragments should not comprise more than 30 percent of the mixture. Existing concrete elements can be used as fill provided they are crushed to less than three inches in maximum dimension and properly mixed with onsite soil.

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Subgrade Preparation

In areas to receive site improvements, including flatwork, the exposed soil subgrade should be scarified to a depth of at least eight inches, moisture-conditioned to above the optimum moisture content and compacted to at least 95 percent relative compaction[5]. The soil subgrade should be kept moist until it is covered by fill or other improvements.

Fill Placement and Compaction

Placement of more than three feet of new fill will result in large ground settlement that should be considered in the design of utilities, site grading, and other site improvements.

Fill should consist of onsite soil or imported soil that is non-corrosive, free of organic matter or other deleterious material, contains no rocks or lumps larger than four inches in greatest dimension, has a liquid limit of less than 40 and a plasticity index lower than 12, and is approved by the Geotechnical Engineer.

Fill should be placed in horizontal lifts not exceeding eight inches in loose thickness, moisture-conditioned to near the optimum moisture content, and compacted to at least 90 percent relative compaction. Fill thicker than five feet or clean sand or gravel (soil with less than 10 percent fines by weight) used as fill should be compacted to at least 95 percent relative compaction.

The Geotechnical Engineer should approve all sources of fill at least three days before use at the site. The grading contractor should provide analytical test results or other suitable environmental documentation indicating the imported fill is free of hazardous materials at least three days before use at the site. If this data is not available, up to two weeks should be allowed to perform analytical testing on the proposed import material. A bulk sample of approved fill should be provided to the geotechnical engineer at least three working days before use at the site so a compaction curve can be prepared.

Utilities and Utility Trenches

Excavations for utility trenches can be readily made with a backhoe; however, unexpected obstructions may make some of the trenching operations difficult. All trenches should conform to the current CAL-OSHA requirements.

Backfill for utility trenches and other excavations is also considered fill, and it should be compacted according to the recommendations presented in Section 8.1.3. If imported clean sand or gravel is used as backfill, however, it should be compacted to at least 95 percent

[5] Relative compaction refers to the in-place dry density of soil expressed as a percentage of the maximum dry density of the same material, as determined by the latest ASTM D1557 laboratory compaction procedure.

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relative compaction. Jetting of trench backfill should not be permitted. Special care should be taken when backfilling utility trenches in pavement areas. Poor compaction may cause excessive settlements, resulting in damage at the ground surface.

Utilities should be designed to accommodate 6 to 12 inches of vertical settlement where they enter the new buildings. If lateral soil movement is not mitigated, utility connections should also accommodate six inches of lateral soil movement.

Lightweight Structures on Stiffened Mat Foundations

Lightweight, one-story structures may be supported on a stiffened mat foundation provided the mat is designed for a differential settlement of four inches over a horizontal distance of 50 feet. Considering the variability of onsite fill and lack of documentation of fill compaction, we conclude during a major earthquake on a nearby active fault the actual ground differential settlement may be on the order of four inches over a horizontal distance of 50 feet. Alternatively, structures may be supported on deep foundations.

Ground Building Slabs

If there are any areas where floor moisture is undesirable, the floor should be moisture-proofed. To reduce water vapor transmission through the floor slabs, we recommend installing a capillary moisture break and a water vapor retarder over the soil subgrade and beneath new floor slabs. A capillary moisture break consists of at least four inches of clean, free-draining gravel or crushed rock. The vapor retarder should meet the requirements for Class C vapor retarders stated in ASTM E1745-97. The vapor retarder should be placed in accordance with the requirements of ASTM E1643-98. These requirements include overlapping seams by six inches, taping seams, and sealing penetrations in the vapor retarder. The vapor retarder should be covered with two inches of sand to aid in curing the concrete and to protect the vapor retarder during slab construction. The particle size of the gravel/crushed rock and sand should meet the gradation requirements presented in Table 3.

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TABLE 3

Gradation Requirements for Capillary Moisture Break

Sieve Size	Percentage Passing Sieve
Gravel or Crushed Rock	
1 inch	90 – 100
3/4 inch	30 – 100
1/2 inch	5 – 25
3/8 inch	0 – 6
Sand	
No. 4	100
No. 200	0 – 5

The sand overlying the membrane should be dry at the time concrete is placed. Excess water trapped in the sand could eventually be transmitted as vapor through the slab. If the sand becomes wet, concrete should not be placed until the sand has been dried or replaced.

Concrete mixes with high water/cement (w/c) ratios result in excess water in the concrete, which increases the cure time and results in excessive vapor transmission through the slab. Therefore, concrete for the floor slab should have a low water/cement (w/c) ratio – less than 0.5. If approved by the project structural engineer, the sand can be eliminated and the concrete can be placed directly over the vapor retarder, provided the w/c ratio of the concrete does not exceed 0.45 and water is not added in the field. If necessary, workability should be increased by adding plasticizers. In addition, the slab should be properly cured.

Before the floor covering is placed, the contractor should check that the concrete surface and the moisture emission levels (if emission testing is required) meet the manufacturer's requirements.

Corrosion Protection

Concrete elements with a maximum water cement ratio of 0.55 (including grade beams and slabs), supported on onsite soil should be Type I or Type II concrete. Concrete elements in contact with Bay Mud should use Type V concrete. Additional corrosion testing should be performed during the design level investigation for each building.

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Any utilities extending into Bay Mud should be corrosion protected. Below ground concrete structures and steel piles will require protection from corrosion. A site corrosivity evaluation should be performed by a corrosivity specialist to develop long-term corrosion control for the selected foundation system and proposed construction materials for the underground site utilities.

Seismic Design

Seismic parameters for design of buildings at the site will depend where on the site the buildings will be constructed. Our preliminary conclusion is the Site Class could range from S_D (less than 10 feet of Bay Mud) to S_E (more than 10 feet of Bay Mud).

Maximum Considered Earthquake (MCE) mapped short (S_s) and one second (S_1) spectral values for the project site are 1.50g and 0.616g, respectively. Limits of building areas with less than ten feet of Bay Mud (Site Class D) and more than 10 feet of Bay Mud (Site Class E) can be estimated using the Bay Mud thickness contours presented on Figure 9. Values of F_a, F_v, S_{MS}, S_{M1}, S_{DS}, and S_{D1}, for Site Class D, and E per 2013 CBC / ASCE 7-10 are presented in Table 4. The actual Site Class for each building should be confirmed during the design level investigation.

TABLE 4

Recommended Site Coefficients and Mapped Response Acceleration Parameters

	Site Class D (West of Hudson Avenue)	Site Class E (East of Hudson Avenue)
F_a	1.00	0.90
F_v	1.50	2.40
S_{MS}	1.50	1.35
S_{M1}	0.92	1.48
S_{DS}	1.00	0.90
S_{D1}	0.62	0.99

If the design level investigation indicates a continuous liquefiable soil layer is present beneath new buildings, the Site Class is F, and a site specific response spectra will be required if the building period is greater than 0.5 second.

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LIMITATIONS

The conclusions and recommendations presented in this report are preliminary and may be used to estimate costs for preliminary schematic drawings; however during final design, detailed geotechnical investigation(s) should be performed for the proposed improvements. The design level geotechnical investigations should include field investigations and laboratory testing, as needed; engineering analyses should be performed for the final design and the results should be used to further evaluate subsurface conditions and to develop geotechnical design parameters for soil improvement, foundations, and other geotechnical aspects of the design specific to this site.

Sincerely,
Langan Treadwell Rollo

Maria Flessas, G.E. #2502
Principal

731651501.01_MGF_Feasibility Study 900 Innes Avenue

Attachments: Figure 1 – Site Location Map
Figure 2 – Site Plan
Figure 3 – Map of Major Faults and Earthquake Epicenters in the San Francisco Bay Area
Figure 4 – Modified Mercalli Scale
Figure 5 – Liquefaction Hazard Zone Map

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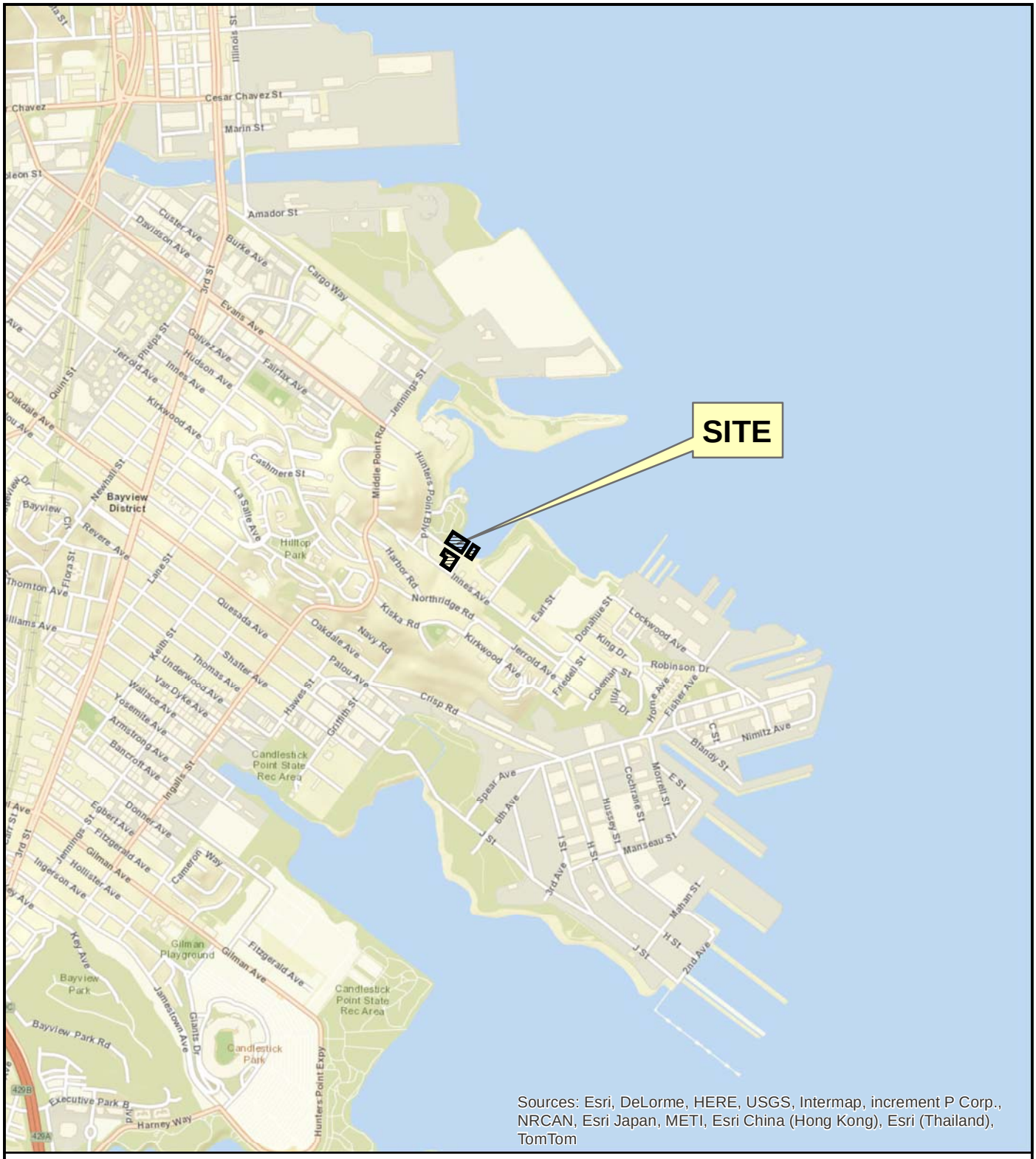

World street basemap is provided through Langan's Esri ArcGIS software licensing and ArcGIS online. Credits: Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN.

0 500 1,000 2,000
Feet

N

900 INNES
INDIA BASIN
San Francisco, California

SITE LOCATION MAP

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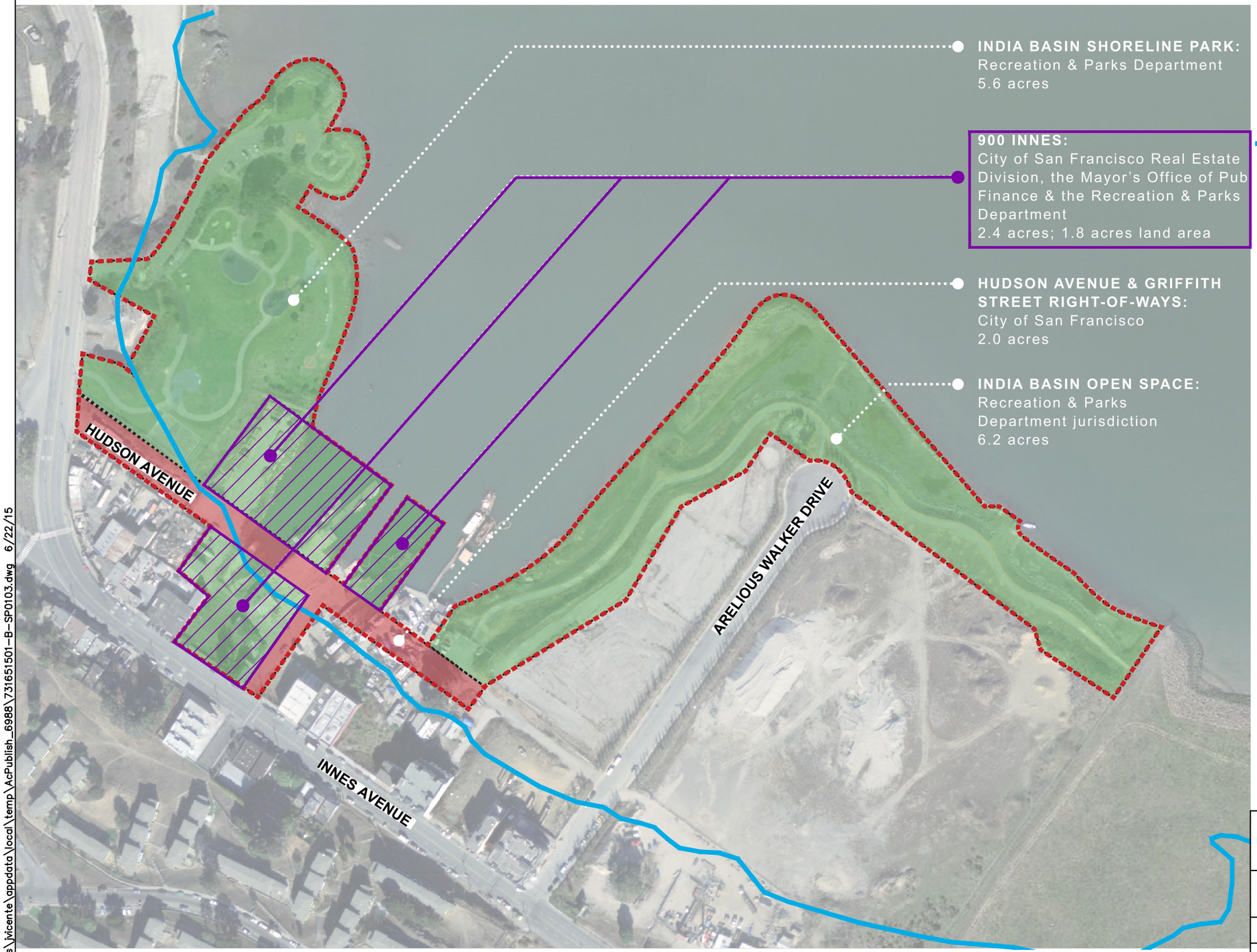
Date 06/18/15	Project No. 731651501	Figure 1



EXPLANATION

- Approximate location of Historic Shoreline
- Project Areas
- Right-of-ways
- 900 Innes

N

0 200 Feet

Approximate scale

900 INNES
INDIA BASIN
San Francisco, California

SITE PLAN

Date 06/18/15	Project No. 731651501	Figure 2

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Reference: Base map from a drawing titled "2, Existing Conditions, Existing Site Aerial," by Bionic, undated.

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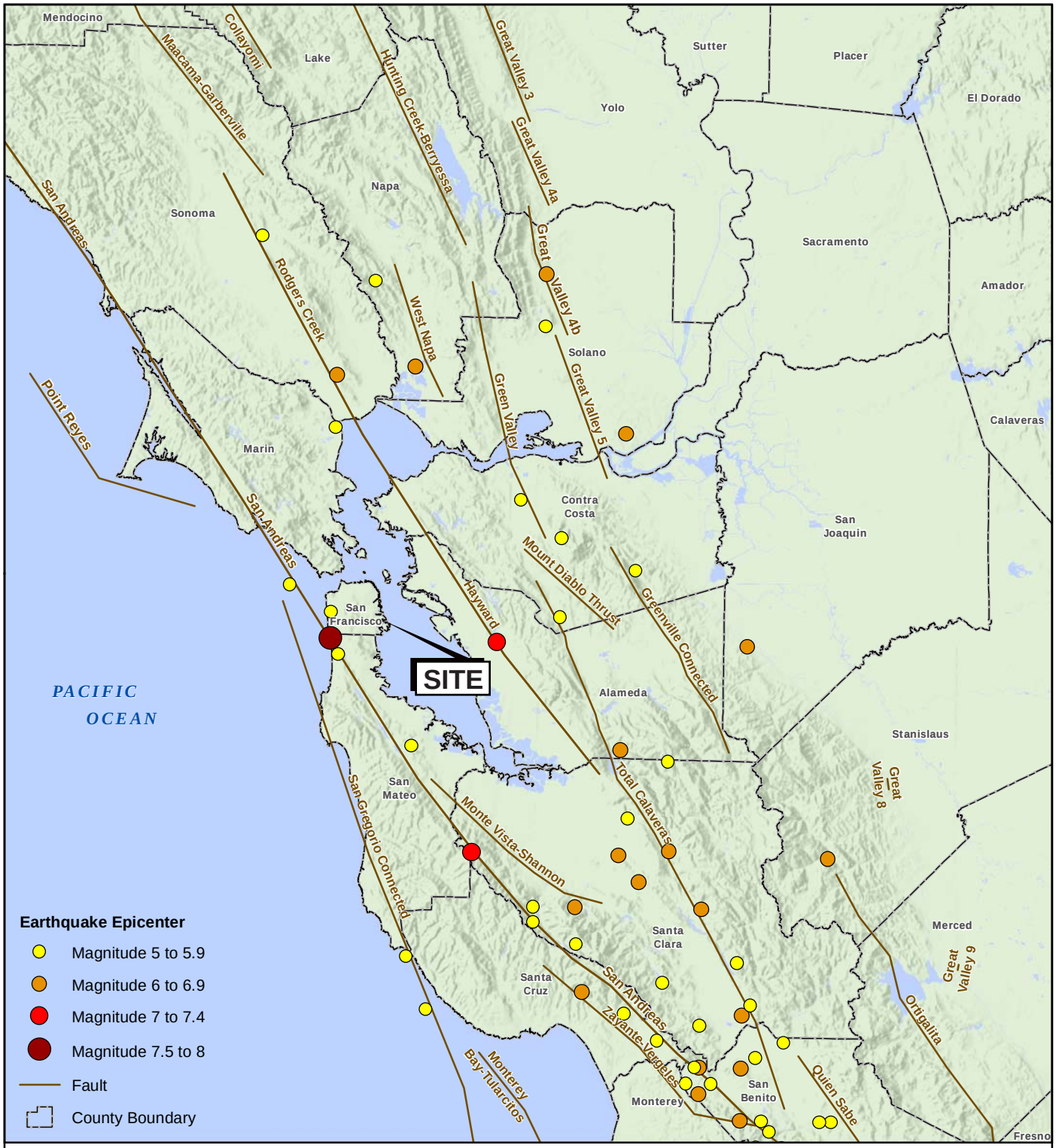


Notes:

1. Quaternary fault data displayed are based on a generalized version of U.S. Geological Survey (USGS) Quaternary Fault and fold database, 2010. For cartographic purposes only.
2. The Earthquake Epicenter (Magnitude) data is provided by the USGS and is current through 08/24/2014.
3. Basemap hillshade and County boundaries provided by USGS and California Department of Transportation.
4. Map displayed in California State Coordinate System, California (Teale) Albers, North American Datum of 1983 (NAD83), Meters.

0 10 20 40
Miles

N

900 INNES
INDIA BASIN
San Francisco, California

LANGAN TREADWELL ROLLO

MAP OF MAJOR FAULTS AND EARTHQUAKE EPICENTERS IN THE SAN FRANCISCO BAY AREA

Date 06/18/15 | Project No. 731651501 | Figure 3

I **Not felt by people, except under especially favorable circumstances. However, dizziness or nausea may be experienced.**
Sometimes birds and animals are uneasy or disturbed. Trees, structures, liquids, bodies of water may sway gently, and doors may swing very slowly.

II **Felt indoors by a few people, especially on upper floors of multi-story buildings, and by sensitive or nervous persons.**
As in Grade I, birds and animals are disturbed, and trees, structures, liquids and bodies of water may sway. Hanging objects swing, especially if they are delicately suspended.

III **Felt indoors by several people, usually as a rapid vibration that may not be recognized as an earthquake at first. Vibration is similar to that of a light, or lightly loaded trucks, or heavy trucks some distance away. Duration may be estimated in some cases.**
Movements may be appreciable on upper levels of tall structures. Standing motor cars may rock slightly.

IV **Felt indoors by many, outdoors by a few. Awakens a few individuals, particularly light sleepers, but frightens no one except those apprehensive from previous experience. Vibration like that due to passing of heavy, or heavily loaded trucks. Sensation like a heavy body striking building, or the falling of heavy objects inside.**
Dishes, windows and doors rattle; glassware and crockery clink and clash. Walls and house frames creak, especially if intensity is in the upper range of this grade. Hanging objects often swing. Liquids in open vessels are disturbed slightly. Stationary automobiles rock noticeably.

V **Felt indoors by practically everyone, outdoors by most people. Direction can often be estimated by those outdoors. Awakens many, or most sleepers. Frightens a few people, with slight excitement; some persons run outdoors.**
Buildings tremble throughout. Dishes and glassware break to some extent. Windows crack in some cases, but not generally. Vases and small or unstable objects overturn in many instances, and a few fall. Hanging objects and doors swing generally or considerably. Pictures knock against walls, or swing out of place. Doors and shutters open or close abruptly. Pendulum clocks stop, or run fast or slow. Small objects move, and furnishings may shift to a slight extent. Small amounts of liquids spill from well-filled open containers. Trees and bushes shake slightly.

VI **Felt by everyone, indoors and outdoors. Awakens all sleepers. Frightens many people; general excitement, and some persons run outdoors.**
Persons move unsteadily. Trees and bushes shake slightly to moderately. Liquids are set in strong motion. Small bells in churches and schools ring. Poorly built buildings may be damaged. Plaster falls in small amounts. Other plaster cracks somewhat. Many dishes and glasses, and a few windows break. Knickknacks, books and pictures fall. Furniture overturns in many instances. Heavy furnishings move.

VII **Frightens everyone. General alarm, and everyone runs outdoors.**
People find it difficult to stand. Persons driving cars notice shaking. Trees and bushes shake moderately to strongly. Waves form on ponds, lakes and streams. Water is muddied. Gravel or sand stream banks cave in. Large church bells ring. Suspended objects quiver. Damage is negligible in buildings of good design and construction; slight to moderate in well-built ordinary buildings; considerable in poorly built or badly designed buildings, adobe houses, old walls (especially where laid up without mortar), spires, etc. Plaster and some stucco fall. Many windows and some furniture break. Loosened brickwork and tiles shake down. Weak chimneys break at the roofline. Cornices fall from towers and high buildings. Bricks and stones are dislodged. Heavy furniture overturns. Concrete irrigation ditches are considerably damaged.

VIII **General fright, and alarm approaches panic.**
Persons driving cars are disturbed. Trees shake strongly, and branches and trunks break off (especially palm trees). Sand and mud erupts in small amounts. Flow of springs and wells is temporarily and sometimes permanently changed. Dry wells renew flow. Temperatures of spring and well waters varies. Damage slight in brick structures built especially to withstand earthquakes; considerable in ordinary substantial buildings, with some partial collapse; heavy in some wooden houses, with some tumbling down. Panel walls break away in frame structures. Decayed pilings break off. Walls fall. Solid stone walls crack and break seriously. Wet grounds and steep slopes crack to some extent. Chimneys, columns, monuments and factory stacks and towers twist and fall. Very heavy furniture moves conspicuously or overturns.

IX **Panic is general.**
Ground cracks conspicuously. Damage is considerable in masonry structures built especially to withstand earthquakes; great in other masonry buildings - some collapse in large part. Some wood frame houses built especially to withstand earthquakes are thrown out of plumb, others are shifted wholly off foundations. Reservoirs are seriously damaged and underground pipes sometimes break.

X **Panic is general.**
Ground, especially when loose and wet, cracks up to widths of several inches; fissures up to a yard in width run parallel to canal and stream banks. Landsliding is considerable from river banks and steep coasts. Sand and mud shifts horizontally on beaches and flat land. Water level changes in wells. Water is thrown on banks of canals, lakes, rivers, etc. Dams, dikes, embankments are seriously damaged. Well-built wooden structures and bridges are severely damaged, and some collapse. Dangerous cracks develop in excellent brick walls. Most masonry and frame structures, and their foundations are destroyed. Railroad rails bend slightly. Pipe lines buried in earth tear apart or are crushed endwise. Open cracks and broad wavy folds open in cement pavements and asphalt road surfaces.

XI **Panic is general.**
Disturbances in ground are many and widespread, varying with the ground material. Broad fissures, earth slumps, and land slips develop in soft, wet ground. Water charged with sand and mud is ejected in large amounts. Sea waves of significant magnitude may develop. Damage is severe to wood frame structures, especially near shock centers, great to dams, dikes and embankments, even at long distances. Few if any masonry structures remain standing. Supporting piers or pillars of large, well-built bridges are wrecked. Wooden bridges that "give" are less affected. Railroad rails bend greatly and some thrust endwise. Pipe lines buried in earth are put completely out of service.

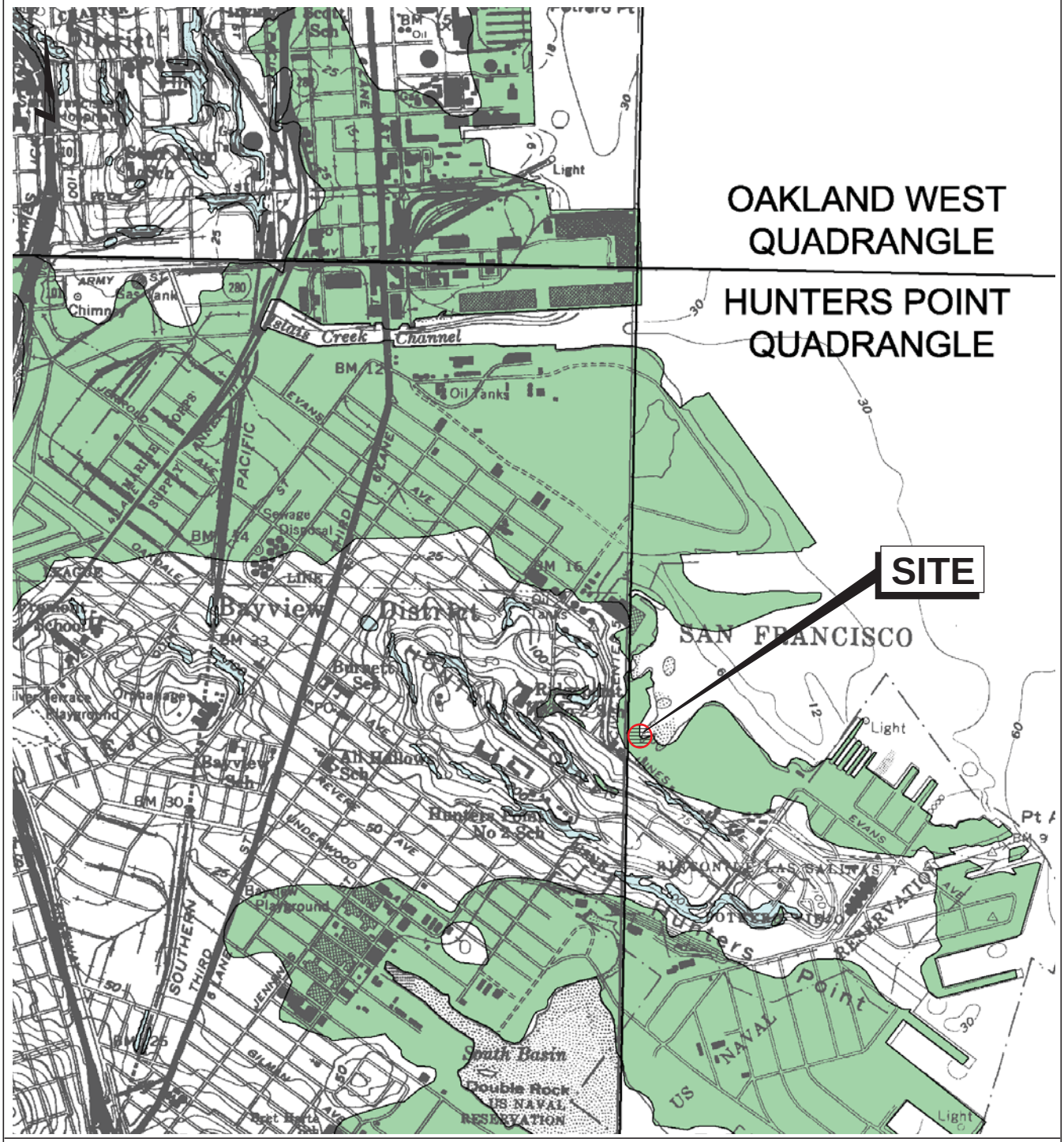
XII **Panic is general.**
Damage is total, and practically all works of construction are damaged greatly or destroyed. Disturbances in the ground are great and varied, and numerous shearing cracks develop. Landslides, rock falls, and slumps in river banks are numerous and extensive. Large rock masses are wrenched loose and torn off. Fault slips develop in firm rock, and horizontal and vertical offset displacements are notable. Water channels, both surface and underground, are disturbed and modified greatly. Lakes are dammed, new waterfalls are produced, rivers are deflected, etc. Surface waves are seen on ground surfaces. Lines of sight and level are distorted. Objects are thrown upward into the air.

900 INNES
INDIA BASIN
San Francisco, California

MODIFIED MERCALLI INTENSITY SCALE

LANGAN TREADWELL ROLLO

Date 06/18/15	Project No. 731651501	Figure 4



EXPLANATION

Liquefaction; Areas where historic occurence of liquefaction, or local topographic, geological, geotechnical, and subsurface water conditions indicate a potential for permanent ground displacements.

Earthquake-Induced Landslides; Areas where previous occurence of landslide movement, or local topographic, geological, geotechnical, and subsurface water conditions indicate a potential for permanent ground displacements.

0 2,000 4,000 Feet

Approximate scale

Reference:
State of California "Seismic Hazard Zones"
City and County of San Francisco
Released on November 17, 2001

900 INNES
INDIA BASIN
San Francisco, California

LIQUEFACTION HAZARD ZONE MAP

LANGAN TREADWELL ROLLO

Date 06/18/15 | Project No. 731651501 | Figure 5

TECHNICAL MEMORANDUM

Foreshore Sediment Sampling
900 Innes Avenue
San Francisco, California

Prepared for:
Contract No. 4061-12/13
San Francisco Department of the Environment
1455 Market Street, Suite 1200
San Francisco, California 94103

Prepared by:

URS

Post Montgomery Center
One Montgomery Street, Suite 900
San Francisco, California 94104

October 2015

IDENTIFICATION FORM

Document Title:	**TECHNICAL MEMORANDUM** **Foreshore Sediment Sampling** **900 Innes Avenue** **San Francisco, California**
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Plan Coverage:	This Technical Memorandum constitutes the deliverable for technical support to complete the scope of work described in the Sampling and Analysis Plan Amendment – Foreshore Sediment Sampling, 900 Innes Avenue, Targeted Brownfields Assessment, San Francisco, CA for the San Francisco Department of the Environment.

APPROVAL FORM

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This document has been prepared for the San Francisco Department of the Environment under Contract No. 4061-12/13.

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LIST OF ACRONYMS AND ABBREVIATIONS

ABCA	Analysis of Brownfields Cleanup Alternatives
bgs	below ground surface
bss	below sediment surface
CCR	California Code of Regulations
ESA	Environmental Site Assessment
ESLs	Environmental Screening Levels
PAHs	Polycyclic Aromatic Hydrocarbons
PCBs	Polychlorinated Biphenyls
PVC	Polyvinyl Chloride
RCRA	Resource Conservation and Recovery Act
RSLs	Regional Screening Levels
RWQCB	Regional Water Quality Control Board
SAP	Sampling and Analysis Plan
SFDOE	San Francisco Department of the Environment
STLC	Soluble Threshold Limit Concentration
SVOCs	semi-volatile organic compounds
TBA	Targeted Brownfields Assessment
TC	Toxicity Characteristic
TCLP	Toxicity Characteristic Leaching Procedure
TPH-d	total petroleum hydrocarbons as diesel
TPH-mo	total petroleum hydrocarbons as motor oil
TTLC	Total Threshold Limit Concentration
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
USEPA	U.S. Environmental Protection Agency
URS	URS Corporation
WESTON	Weston Solutions, Inc.
WET	Waste Extraction Test

1.0 INTRODUCTION

URS Corporation (URS), under Contract No. 4061-12/13 with the San Francisco Department of the Environment (SFDOE), has prepared this Technical Memorandum to document the results of the additional sediment sampling conducted in the foreshore area of the 900 Innes Avenue property located in San Francisco, California (Site) (Figure 1). The scope of work was conducted in general accordance with the Sampling and Analysis Plan Amendment – Foreshore Sediment Sampling, 900 Innes Avenue, Targeted Brownfields Assessment, San Francisco, CA dated March 13, 2015.

The Sampling and Analysis Plan (SAP) Amendment for additional foreshore sediment sampling and analysis was prepared at the request of the San Francisco Department of the Environment. In 2014 the San Francisco Recreation and Parks Department completed their acquisition of the Site from the Tenderloin Housing Clinic. The SAP Amendment was prepared in order to generate additional sediment analytical data at the Site in order for the San Francisco Recreation and Parks Department to conduct further studies to assess the potential need for remediation of the sediments to allow for water access in the open space development proposed for the Site.

2.0 BACKGROUND

Weston Solutions, Inc. (WESTON), under contract with the United States Army Corps of Engineers (USACE) and in coordination with the United States Environmental Protection Agency (USEPA) Region 9, performed a Targeted Brownfields Assessment (TBA) at the Site. The TBA included both a Phase I Environmental Site Assessment (ESA), conducted in accordance with the scope and limitations of ASTM Practice E-1527-05, and a Phase II Site Investigation that included soil and sediment sampling and analysis.

Background information presented below was taken directly from the Phase I/II Investigation Targeted Brownfields Assessment, Final Report for 900 Innes Avenue, San Francisco, CA (WESTON 2013) and the 900 Innes Avenue Analysis of Brownfields Cleanup Alternatives (ABCA) (WESTON 2013a).

Information generated as part of the Phase I ESA indicated the Site is comprised of a cluster of eleven parcels centered at the 900 Innes Avenue property. The parcels are situated adjacent to India Basin in the San Francisco Bay, directly south of India Basin Shoreline Park. The Site is partially paved, with two functional docks, approximately two boat launches, and an access road. Two rights-of-way (also known as "Paper Streets") are located among the parcels comprising the Site. One right-of-way connects the eastern and western reaches of Hudson Avenue, the other right-of-way continuing Griffin Street to India Basin. These rights-of-way were not included in the scope of the WESTON TBA. The Site occupies approximately 105,550 square feet (2.4 acres) and is partially fenced. The map detailing the Site layout is presented on WESTON Figure 2-2 contained in ***Appendix A***.

The Site functioned as a boatbuilding and ship repair facility for several companies spanning more than 120 years, particularly through the historic 1875 to 1930 period of marine-based cargo transportation in San Francisco. The Site was abandoned in 1992 after the owner, Donco Industries, declared bankruptcy. The Site remained in its abandoned state for nearly a decade until 2001, when it was sold to Joe Cassidy Construction for construction equipment and heavy machinery storage. The Site was sold to the Tenderloin Housing Clinic in 2007, though the Site continued to function as a construction equipment storage facility and laydown yard.

WESTON reviewed available Site information to determine historic uses and identify hazardous substances that may be present at the Site and used this information to determine the most effective sampling design to meet project objectives. The following potential sources of contamination were identified at the Site:

- Construction equipment storage and laydown yard – Previously, the Site was primarily utilized as storage for construction equipment. Several oily stains were observed at the

Site related to heavy machinery, and general trash was scattered around the Site including open bins, buckets and drums. Disorganized containers of presumably oil and/or paint were found at the Site, and large piles of tires were present in multiple locations. Potentially hazardous wastes associated with these conditions include metals, semi-volatile organic compounds (SVOCs) including polycyclic aromatic hydrocarbons (PAHs), and constituents of gasoline, diesel and motor oil. After the Site was acquired by the San Francisco Recreation and Parks Department, they removed the remaining debris and other material left after the property was vacated by the tenant. Currently the site is vacant.

- Boatbuilding and ship repair services – Historically, the Site has been the center of much boatbuilding and ship repair activities. Environmental contaminants typically associated with the shipbuilding and repair industry include those generated from vessel maintenance, general facility and yard operations, marine coatings and antifoulants, and abrasive blasting. These include metals, SVOCs including PAHs, organotins (biocides), waste engine fluids such as oil, hydraulic fluids, lubricants, and general solid wastes. The Site is currently located on land comprised of fill material of unknown origin which was added after 1946, and may present potential environmental impacts.

- Onsite structures – Four structures in various states of disrepair are located onsite, all constructed prior to 1979; the presence of asbestos and/or lead paint is likely. Common household waste has been dumped at the Site, resulting from intermittent occupancy by various homeless populations. The dump materials might typically be comprised of paints, used oil, batteries, pesticides, and other solid waste (PAHs, metals, Total Petroleum Hydrocarbons (TPH) as diesel (TPH-d) and TPH as motor oil (TPH-mo). Additionally, four aboveground storage tanks, presumably associated with construction equipment storage and ship repair services, were identified at the Site along with visible staining around the tanks.

- Aboveground storage tank locations – One steel waste oil storage tank is located onsite, likely used in conjunction with the heavy construction equipment. Another steel fuel / oil storage tank, this one mobile and showing signs of leakage, was located at the Site during a previous Phase I ESA conducted in 2011. Both steel tanks were identified to be in poor condition, with significant signs of wear apparent, and with oily staining identified around the base of the tanks. Two concrete tanks are located approximately 150 feet from the waste oil tank and both appear to be in good condition.

Based on the historic use and planned development of the Site, as part of the proposed San Francisco Blue Greenway public open space, a sampling grid was determined to be the most appropriate sampling approach to assess potential contamination. A triangular grid with 50 foot

spacing between sample points was selected to provide spatial coverage of the Site. The sampling locations are shown on WESTON Figure 5-1 contained in ***Appendix A***.

In August 2013, WESTON conducted a Phase II Site Investigation at the Site. A total of 27 shallow soil sample locations and 6 shallow sediment sample locations were sampled from an interval 0 to 6 inches below ground surface (bgs) at each location. Additionally, subsurface soil samples were collected at a depth of 3-4 feet bgs from 8 selected boring locations to allow for vertical characterization.

All of the sediment samples collected were analyzed for California Code of Regulations (CCR) Title 22 metals, PAHs, TPH-d, TPH as motor oil TPH-mo, Polychlorinated Biphynels (PCBs), and organotins. All six of the sediment samples contained concentrations of two or more metals (arsenic, chromium, copper, lead, mercury, cobalt, and nickel) that exceeded established action levels. Additionally, PAHs were detected in five of the six samples above the action levels; PCBs were detected in three samples above the action levels; and Petroleum Hydrocarbons in four samples above the action level. Organotins were detected in all six samples but were below the action levels.

The analytical results of the soil and sediment samples results exceeding the action levels are shown graphically on WESTON Figures 6-1 through 6-4 contained in ***Appendix A***.

In September 2013 WESTON prepared an ABCA in order to evaluate site conditions and possible remedial alternatives. Three potentially feasible cleanup alternatives were identified based on WESTON's experience with similar sites. These alternatives included the following:

1. No Action.
2. Construction of a Physical Barrier.
3. Excavation and Disposal.

However, the sediment data for this analysis was limited and the ABCA did not differentiate soil versus sediment remedial areas or alternatives and was more of a conceptualized approach document.

3.0 OBJECTIVE AND SCOPE OF FORESHORE SEDIMENT SAMPLING

Based on the limited number of data points (six) for sediment quality data, URS reviewed the sediment quality data presented in the WESTON TBA report summarized above to develop an approach to the supplemental sediment sampling. Additionally, aerial photos taken at both high and low tide were reviewed in order to assess where additional foreshore area sediment samples could be collected.

The objective of the additional foreshore sediment sampling and analysis is to augment the existing data set with additional sediment analytical data from around the foreshore area of the Site where potential future water access may take place. This will provide the San Francisco Recreation and Parks Department with additional data to conduct further studies associated with conceptual site redevelopment design and to assess the potential need for remediation of the sediments to allow for water access in the open space development proposed for the Site.

The additional foreshore sediment sampling scope of work included the following:

- Collection of additional sediment samples from 10 locations around the shoreline, building, and dock areas of the site where potential future water access may take place. The additional sediment sampling locations are shown on ***Figure 2***.

- With the exception of areas where access was limited, sediment samples were collected in accordance with the March 2015 SAP Amendment prepared by URS which followed the same sampling procedures specified in the WESTON SAP (WESTON 2013b) prepared for the site. This included collection of a surface sediment sample from 0 to 0.5 feet below sediment surface (bss) at each of the proposed sampling locations. In addition to surface sediment samples, a deeper sample, collected from 1 to 1.5 feet bss, was also collected for analysis. Sediment grab samples were collected using a dedicated plastic trowel. In areas where access was limited, samples were collected from the edge of the docks or other structures using a 2-inch polyvinyl chloride (PVC) casing pushed to 1.5 feet bss. The casing was capped on the top and then extracted from the sediment. Sediment samples were extracted from the casing and transferred directly into a sample-dedicated polyethylene bag and homogenized, and then placed into a pre-labeled sample container for analyses. Sample containers were filled to the top, taking care to prevent sediment from remaining in the lid threads prior to being closed to prevent potential contaminant migration to or from the sample. This scope resulted in the collection and analysis of an additional 20 samples from the 10 supplemental sediment sampling locations.

- The sediment samples were analyzed for the same analytical suite as previously used by WESTON. This included the following analyses:

    1. TPH-d/TPH-mo.
    2. Title 22 Metals.
    3. Organotins.
    4. PAHs.
    5. PCBs.

- Conducted soluble analyses on approximately 50 percent of the samples with metals concentrations that exceed trigger levels 10 times the Soluble Threshold Limit Concentration (STLC) and/or 20 times the TCLP for the specified analyte to assess potential waste classification for material disposal purposes.

- Conducted data validation of the laboratory data in the same manner used by WESTON during the 2013 TBA.

- Prepared this Technical Memorandum for the San Francisco Department of the Environment for distribution to other Blue Greenway stakeholders, mainly the San Francisco Recreation and Parks Department, detailing the results of the additional sediment sampling and analyses.

With the exception of the use of dilute nitric acid and reagent grade hexane used in the equipment decontamination process and the use of PVC pipe for the collection of samples in limited access areas, the procedures for the collection and analysis of soil and groundwater samples followed the currently approved procedures presented in the 900 Innes Avenue, Targeted Brownfields Assessment, Phase I/II Investigation, Sampling and Analysis Plan dated August 2013 (WESTON 2013b).

4.0 SEDIMENT ANALYTICAL RESULTS

This section summarizes the analytical results from the additional foreshore sediment sampling and analysis conducted at the Site. All samples were analyzed by TestAmericam Laboratories, Inc. of Pleasanton, California. The metals analytical results are summarized in ***Table 1*** through ***Table 6*** and concentrations exceeding the United States Environmental Protection Agency (USEPA) Regional Screening Levels (RSLs) are shown graphically on ***Figure 3*** through ***Figure 7***. The sediment analytical results for metals, PCBs, SVOCs, and organotins were compared with the USEPA January 2015 RSLs for both Resident and Industrial soil categories. It should be noted that if a particular analyte is indicated to exceed its Industrial RSL it also exceeds its Resident RSL as the Resident RSL is a more conservative number than the Industrial RSL.

Analytical results for TPH-d (Diesel Range Organics) and TPH-mo (Motor Oil Range Organics) were compared to the San Francisco Bay Regional Water Quality Control Board (RWQCB) December 2013 Residential (Table A-1) and Commercial/Industrial (Table A-2) Environmental Screening Levels (ESLs) where groundwater is a current or potential drinking water source. Similar to the RSLs, if a particular analyte is indicated to exceed its Commercial/Industrial ESL it also exceeds its Residential ESL as the Residential ESL is a more conservative number than the Industrial ESL.

4.1 Metals Analytical Results

The metals analytical results are summarized in ***Table 1*** and concentrations exceeding the USEPA RSLs are shown graphically on ***Figure 3*** and are discussed in more detail below.

Arsenic was detected in all of the samples analyzed above the laboratory reporting limit at concentrations ranging from 4.6 mg/kg up to 75 mg/kg. All of the arsenic concentrations in all 22 samples exceeded both the Resident and the Industrial RSL for arsenic. Both of the RSL values, Resident and Industrial, are considered conservative and are below typically accepted background concentrations for arsenic in the Bay Area. A recent 2011 study calculated the upper estimate for background arsenic (99th percentile) concentrations within undifferentiated flatland soils to be 11 mg/kg (Duverge 2011).

Cobalt was detected in all of the samples analyzed above the laboratory reporting limit. Concentrations ranged from 5.7 mg/kg to 26 mg/kg. One sample (SS-4-1') exceeded the Resident RSL for cobalt.

Copper was detected in all of the samples analyzed at concentrations above the laboratory reporting limit. Concentrations ranged from 75 mg/kg to 27,000 mg/kg. Only one sample (SS-9-0.5') exceeded the Resident RSL for copper.

Lead was detected in all of the samples analyzed above the laboratory reporting limit at concentrations ranging from 28 mg/kg up to 1,600 mg/kg. Concentrations of lead exceeded the Resident RSL in five samples (SS-2-1', SS-7-0.5', SS-8-1', SS-9-0.5', and SS-9-1.0') and the Industrial RSL in one sample (SS-4-1').

Mercury was detected in all of the samples analyzed above the laboratory reporting limit at concentrations ranging from 0.49 mg/kg up to 88 mg/kg. Concentrations of mercury exceeded the Resident RSL in three samples (SS-8-1', SS-9-0.5', and SS-9-1.0') and the Industrial RSL in one sample (SS-4-0.5').

With the exception of selenium and thallium, all of the other metal analytes were detected in one or more of the samples analyzed above the laboratory reporting limit. However, none of the concentrations detected exceeded their respective Resident or Industrial RSL value.

4.2 Petroleum Hydrocarbon Analytical Results

The petroleum hydrocarbon analytical results are summarized in ***Table 2*** and concentrations exceeding the RWQCB ESLs are shown graphically on ***Figure 4***. With the exception of three samples (SS-5-0.5', SS-6-0.5', and SS-10-0.5'), diesel range organics were detected above the laboratory reporting limit in all of the samples at concentrations ranging from 39 mg/kg up to 5,500 mg/kg. With the exception of one concentration in the duplicate sample (FD-2) from SS-10-1', all of the concentrations detected exceeded the commercial/industrial ESL for diesel range organics. The concentration of diesel range organics detected in sample FD-2 was equal to the residential ESL of 100 mg/kg. Similarly, with the exception of two samples (SS-5-0.5' and SS-10-0.5'), motor oil range organics were detected above the laboratory reporting limit in all of the samples at concentrations ranging from 74 mg/kg up to 2,900 mg/kg. Concentrations in ten of the samples exceeded the residential ESL and ten samples had concentrations exceeding the commercial/industrial ESL.

4.3 Polychlorinated Biphenyl Analytical Results

The PCB analytical results are summarized in ***Table 3*** and concentrations exceeding the USEPA RSLs are shown graphically on ***Figure 5***. The PCB analytical method detects and quantifies seven different Arachlor compounds. With the exception of one sample (SS-3-0.5), one of four different Arachlors (Archlor-1242, Arachlor-1248, Arachlor-1254, and Arachlor-1260) was detected in all of the samples above the laboratory reporting limit. Of these, four samples (SS-7-0.5', SS-8-0.5', SS-10-0.5', and FD-2) had an Arachlor concentration that exceeded its Resident RSL and seven samples (SS-4-1', SS-7-1', FD-1, SS-8-1', SS-9-0.5', SS-9-1', and SS-10-1') had an Arachlor concentration that exceeded its Industrial RSL.

4.4 Polycyclic Aromatic Hydrocarbon Analytical Results

The PAH analytical results are summarized in ***Table 4*** and concentrations exceeding the USEPA RSLs are shown graphically on ***Figure 6***. With the exception of three PAHs (acenaphthylene, benzo[a]anthracene, and dibenz[a,h]anthracene) one or more PAHs were detected above the laboratory reporting limit in all of the samples analyzed. Five PAHs (chrysene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene, and indeno[1,2,3-cd]pyrene) were detected above their respective Resident RSL and two PAHs (benzo[b]fluoranthene, and benzo[a]pyrene) were detected above their respective Industrial RSL. Phenanthrene and benzo[g.h.i]perylene were detected above the laboratory reporting limit in several samples however, they have no corresponding RSL values.

4.5 Organotin Analytical Results

The organotin analytical results are summarized in ***Table 5*** and concentrations exceeding the USEPA RSLs are shown graphically on ***Figure 7***. The organotin analytical method detects and quantifies four different organotin compounds (dibutyltin, monobutyltin, tetra-n-butyltin, and tributyltin). All four of the organotin compounds were detected above the laboratory reporting limit in one or more of the samples analyzed. With the exception of two samples (SS-5-0.5' and SS-6-0.5'), dibutyltin was detected in all of the samples at concentrations that exceeded its respective RSLs. A total of 15 samples had concentrations greater than the Resident RSL and five samples had concentrations greater than the Industrial RSL. Tributyltin was detected in all but two samples (SS-2-0.5' and SS-5-0.5') at concentrations that exceed its Industrial RSL. Monobutyltin and tetra-n-butyltin were detected in a number of samples however they have no corresponding RSL values.

4.6 Disposal Implications

In order to assess potential implications associated with dredged/excavated sediment disposal, concentrations of detected metals were compared with their respective regulatory disposal criteria. The regulatory disposal criteria used for comparison with the metals concentrations are the Total Threshold Limit Concentration (TTLC) the STLC and the Toxicity Characteristic (TC) value also referred to as the TCLP. The TTLC and STLC are California State waste disposal criteria listed in the California Code of Regulations Title 22. If the TTLC (which represents the total concentration of an analyte in a sample) value is exceeded for any given analyte in waste material that is being profiled for disposal, the material is considered a California State Hazardous Waste and must be disposed of at a Class I landfill facility.

In addition to the total concentration values (TTLC) there are also corresponding soluble (STLC) values. The soluble fraction is typically evaluated when the total concentration of an analyte in a

sample is less than the TTLC but exceeds ten times (10x) the soluble criteria listed for the substance. The 10x "trigger" is used because there is a ten-fold dilution associated with the STLC extraction procedure. As such, if the total concentration measured in a sample is less than the TTLC but exceeds 10x the STLC value for the analyte, the Waste Extraction Test (WET) is conducted to determine the soluble component. If the results of the test indicate a value greater than the STLC for the given analyte, the material is considered a California State Hazardous Waste for disposal purposes.

In addition to the State standards, there are also Federal standards under the Resource Conservation and Recovery Act (RCRA) that apply to certain regulated compounds. This standard is known as the TC or TCLP value. The TC value addresses the soluble fraction of the contaminants. It is determined through the TCLP test. This test utilizes a twenty-fold dilution in the extraction process. As such, if the total concentration of a RCRA regulated compound exceeds 20x the TC value, a TCLP analysis is typically conducted. If the results of the TCLP analysis exceed the TC value, the material is considered a RCRA Hazardous Waste for disposal purposes and needs to be handled and disposed of appropriately. This typically involves treatment (usually stabilization or encapsulation to reduce the solubility of the contaminants) of the material prior to disposal at a Class I landfill.

The comparison of the metals results with the disposal criteria listed above are summarized in ***Table 6***. As indicated in the table, four samples (SS-4-0.5', SS-4-1', SS-9-0.5', and SS-9-1.0') contained one of three metals (copper, lead, or mercury) above the respective TTLC value. Additionally, eight metals (arsenic, cadmium, chromium, copper, lead, nickel, zinc, and mercury) were detected above their respective trigger concentrations indicating the potential for these samples to exceed either their respective STLC or TC value. Based on this select samples were subjected to the WET and TCLP tests to assess the potential for the material to be classified as either California or RCRA hazardous waste. The results of the soluble metals analyses are summarized in ***Table 7***. As shown in the table, one sample (SS-2-1') had soluble lead concentrations that exceeded both the STLC and TC values and two samples (SS-4-0.5 and SS-7-0.5') had a soluble lead concentration that exceeded the STLC value for lead. These results indicate that if sediment is dredged or excavated it has the potential to be classified as California or RCRA hazardous waste for disposal purposes.

5.0 DATA VALIDATION

The analytical data for this project were validated in accordance with the USEPA National Functional Guidelines for Organic and Inorganic Data Review. Based on the data validation, none of the data were rejected and the data were found to be usable, where qualified, for their intended purpose. Data qualifications included "J" flags, where concentrations were estimated based on the results of the data validation, and "UJ" flags where laboratory reporting limits were estimated based on the results of the data validation. The data qualification flags, where applicable, are listed in the analytical data summary tables. Copies of the data validation reports are contained in ***Appendix B*** along with the laboratory analytical reports.

6.0 REFERENCES

Duverge, Dylan Jacques, 2011. Establishing Background Arsenic in Soil of the Urbanized San Francisco Bay Region, December.

Weston Solutions, Inc., 2013. Phase I/II Investigation, Targeted Brownfields Assessment, Final Report, 900 Innes Avenue Site, San Francisco, San Francisco County, California (November 2013).

Weston Solutions, Inc., 2013a. Final Document, 900 Innes Avenue Site, San Francisco, San Francisco County, California, Analysis of Brownfield Cleanup Alternatives (September 2013).

Weston Solutions, Inc., 2013b. 900 Innes Avenue, Targeted Brownfields Assessment, Phase I/II Investigation, San Francisco, California, Sampling and Analysis Plan (August 2013).

TABLES

Table 1
CAM 17 Metals Analytical Results
Foreshore Sediment Sampling
900 Innes Avenue, San Francisco , CA

CAM17 Metals																	
Sample ID	**Antimony**	**Arsenic**	**Barium**	**Beryllium**	**Cadmium**	**Chromium**	**Cobalt**	**Copper**	**Lead**	**Molybdenum**	**Nickel**	**Selenium**	**Silver**	**Thallium**	**Vanadium**	**Zinc**	**Mercury**
SS-1-0.5'	<1.7	**7.0**	**58**	<0.33	<0.41	**68**	**11**	**180**	**76**	<1.7	**90**	<3.3	<0.83	<1.7	**40**	**140**	**0.54**
SS-1-1'	<1.4	**8.6**	**69**	<0.29	<0.36	**64**	**12**	**370**	**120**	**2.2**	**88**	<2.9	<0.72	<1.4	**37**	**220**	**3.2**
SS-2-0.5'	<1.6	**5.0**	**77**	<0.33	<0.41	**37**	**8.3**	**120**	**140**	**1.9**	**59**	<3.3	<0.82	<1.6	**25**	**730**	**0.49**
SS-2-1'	**3.0**	**16**	**97**	<0.37	**2.3**	**130**	**18**	**650**	**410**	**17**	**230**	<3.7	<0.92	<1.8	**28**	**2400**	**1.8**
SS-3-0.5'	<0.41	**4.6**	**28**	<0.083	<0.010	**41**	**6.2**	**80**	**28**	<0.41	**41**	<0.83	<0.21	<0.41	**29**	**80**	**0.49**
SS-3-1'	<1.9	**16**	**130**	<0.38	**0.49**	**82**	**19**	**1100**	**150**	**20**	**81**	<3.8	<0.94	<1.9	**44**	**440**	**4.6**
SS-4-0.5'	**3.5**	**20**	**180**	<0.34	**0.47**	**94**	**10**	**700**	**350**	**2.0**	**74**	<3.4	<0.86	<1.7	**29**	**660**	**88**
SS-4-1'	**3.6**	**20**	**250**	<0.34	**33**	**100**	**26**	**850**	**1600**	**9.7**	**94**	<3.4	<0.85	<1.7	**31**	**1900**	**9.1**
SS-5-0.5'	<0.37	**4.8**	**27**	**0.16**	<0.0093	**39**	**5.7**	**75**	**46**	**0.39**	**38**	<0.75	<0.19	<0.37	**26**	**80**	**1.2**
SS-5-1'	<0.42	**7.2**	**49**	**0.18**	**0.10**	**48**	**7.4**	**200**	**54**	**3.8**	**56**	<0.83	<0.21	<0.42	**30**	**130**	**1.4**
SS-6-0.5'	<0.44	**6.0**	**35**	**0.17**	<0.11	**46**	**6.7**	**120**	**37**	**0.87**	**40**	<0.88	<0.22	<0.44	**29**	**94**	**0.99**
SS-6-1'	<1.6	**11**	**44**	<0.33	<0.41	**78**	**10**	**380**	**100**	**10**	**100**	<3.3	<0.81	<1.6	**39**	**180**	**1.9**
SS-7-0.5'	**3.0**	**11**	**170**	<0.28	<0.35	**76**	**9.6**	**390**	**580**	**13**	**66**	<02.8	<0.69	<1.4	**28**	**2000**	**2.3**
SS-7-1'	**4.2**	**11**	**90**	<0.38	<0.48	**120**	**10**	**650**	**300**	**7.9**	**77**	<3.8	<0.95	<1.9	**28**	**450**	**3.1**
SS-8-0.5'	<1.5	**9.5**	**120**	<0.30	<0.37	**82**	**11**	**620**	**190**	**2.7**	**67**	<3.0	<0.75	<1.5	**35**	**370**	**4.7**
FD-1	<1.7	**9.7**	**140**	<0.34	<0.42	**82**	**10**	**540**	**220**	**3.2**	**59**	<3.4	<0.84	<1.7	**34**	**350**	**5.1**
SS-8-1'	<1.6	**24**	**96**	<0.32	**0.43**	**85**	**10**	**1200**	**600**	**3.4**	**62**	<3.2	<0.80	<1.6	**30**	**440**	**10**
SS-9-0.5'	<2.8	**38**	**120**	<0.22	**1.4**	**110**	**14**	**27000**	**480**	**10**	**93**	<2.2	**0.94**	<2.8	**24**	**4000**	**10**
SS-9-1'	<1.1	**75**	**110**	<0.23	**0.86**	**140**	**21**	**2400**	**540**	**1.4**	**360**	<2.3	<0.57	<1.1	**26**	**540**	**23**
SS-10-0.5'	<0.45	**8.2**	**36**	<0.090	**0.20**	**56**	**6.4**	**310**	**41**	**0.78**	**42**	<0.90	<0.23	<0.45	**32**	**170**	**2.4**
SS-10-1'	<1.3	**12**	**35**	<0.27	<0.33	**62**	**6.7**	**840**	**63**	**1.6**	**53**	<2.7	<0.67	<1.3	**29**	**240**	**4.6**
FD-2	<0.41	**9.5**	**38**	<0.082	**0.28**	**63**	**7.2**	**670**	**60**	**1.6**	**49**	<0.82	<0.20	<0.41	**29**	**260**	**4.1**
RSL-Resident mg/kg	31	0.67	15,000	160	70	120,000	23	3,100	400	390	1,500	390	390	0.78	390	23,000	9.4
RSL-Industrial mg/kg	470	3	220,000	2,300	980	1,800,000	350	47,000	800	5,800	22,000	5,800	5,800	12	5,800	350,000	40

Notes:
Units in mg/Kg unless otherwise stated
FD-1 is a field duplicate of SS-8-0.5'
FD-2 is a field duplicate of SS-10-1'
Blue shaded values exceed Resident RSLs
Green shaded values exceed Industrial RSLs

Table 2
Diesel Range Organics and Motor Oil Range Organics Analytical Results
Foreshore Sediment Sampling
900 Innes Avenue, San Francisco, CA

Diesel Range Organics		
Sample ID	**Diesel Range Organics (C10-C28)**	**Motor Oil Range Organics (C24-C36)**
SS-1-0.5'	**180**	**420**
SS-1-1'	**260**	**610**
SS-2-0.5'	**320**	**640**
SS-2-1'	**360**	**800**
SS-3-0.5'	**110**	**140**
SS-3-1'	**340**	**570**
SS-4-0.5'	**370**	**620**
SS-4-1'	**5500**	**2900**
SS-5-0.5'	**39**	**74**
SS-5-1'	**120**	**210**
SS-6-0.5'	**59**	**100**
SS-6-1'	**150**	**160**
SS-7-0.5'	**240**	**560**
SS-7-1'	**220**	**460**
SS-8-0.5'	**260**	**480**
FD-1	**210**	**390**
SS-8-1'	**300**	**630**
SS-9-0.5'	**600**	**1100**
SS-9-1'	**780**	**1800**
SS-10-0.5'	**39**	**78**
SS-10-1'	**120**	**230**
FD-2	**100**	**190**
ESL-Residential mg/kg	100	100
ESL-Industrial mg/kg	110	500

Notes:
Units in mg/Kg
FD-1 is a field duplicate of SS-8-0.5'
FD-2 is a field duplicate of SS-10-1'
Blue shaded values exceed Residential ESLs
Green shaded values exceed Commercial / Industrial ESLs

Table 3

Polychlorinated Biphenyls Analytical Results

Foreshore Sediment Sampling - 900 Innes Avenue, San Francisco, CA

Polychlorinated Biphenyls (PCBs)								
Sample ID	**PCB-1016**	**PCB-1221**	**PCB-1232**	**PCB-1242**	**PCB-1248**	**PCB-1254**	**PCB-1260**	**Total PCBs**
SS-1-0.5'	<49	<49	<49	<49	<49	**74**	<49	**74**
SS-1-1'	<50	<50	<50	<50	<50	**180**	<50	**180**
SS-2-0.5'	<50	<50	<50	<50	<50	**54**	<50	**54**
SS-2-1'	<50	<50	<50	<50	<50	**180**	<50	**180**
SS-3-0.5'	<49	<49	<49	<49	<49	<49	<49	<49
SS-3-1'	<250	<250	<250	<250	<250	**980**	<250	**980**
SS-4-0.5'	<250	<250	<250	<250	<250	**920**	<250	**920**
SS-4-1'	<240	<240	<240	<240	<240	**1100**	<240	**1100**
SS-5-0.5'	<49	<49	<49	<49	<49	**59**	<49	**59**
SS-5-1'	<50	<50	<50	<50	<50	**79**	<50	**79**
SS-6-0.5'	<49	<49	<49	<49	**50**	<49	<49	**50**
SS-6-1'	<49	<49	<49	<49	<49	**210**	<49	**210**
SS-7-0.5'	<97	<97	<97	<97	**410**	<97	<97	**410**
SS-7-1'	<480	<480	<480	**1900**	<480	<480	<480	**1900**
SS-8-0.5'	<250	<250	<250	<250	<250	<250	**710 J**	**710**
FD-1	<2500	<2500	<2500	<2500	<2500	<2500	**7800 J**	**7800**
SS-8-1'	<500	<500	<500	<500	**1600**	<500	<52	**1600**
SS-9-0.5'	<490	<490	<490	<490	**2500**	<490	<490	**2500**
SS-9-1'	<2500	<2500	<2500	<2500	**8900**	<2500	<2500	**8900**
SS-10-0.5'	<99	<99	<99	<99	<99	<99	**360 J**	**360**
SS-10-1'	<490	<490	<490	<490	**1500 J**	<490	<490 UJ	**1500**
FD-2	<250	<250	<250	<250	<250 UJ	<250	**870 J**	**870**
RSL-Resident ug/kg	4000	1500	1500	2400	2400	2400	2400	NV
RSL-Industrial ug/kg	300000	6600	6600	10000	10000	10000	10000	NV

Notes:

Units are in ug/Kg

FD-1 is a field duplicate of SS-8-0.5'

FD-2 is a field duplicate of SS-10-1'

NA (1) PCBs not regulated under RCRA

NV No value for either individual or total PCBs

Blue shaded values exceed Resident RSLs

Green shaded values exceed Industrial RSLs

Table 4
Semivolatile Organic Compounds Analytical Results
Foreshore Sediment Sampling
900 Innes Avenue, San Francisco, CA

Semivolatile Organic Compounds																	
Sample ID	**Naphthalene**	**Acenaphthylene**	**Acenaphthene**	**Fluorene**	**Phenanthrene**	**Anthracene**	**Fluoranthene**	**Pyrene**	**Benzo[a]anthracene**	**Chrysene**	**Benzo[b]fluoranthene**	**Benzo[k]fluoranthene**	**Benzo[a]pyrene**	**Indeno[1,2,3-cd]pyrene**	**Benzo[g,h,i]perylene**	**2-Methylnaphthalene**	**Dibenz(a,h)anthracene**
SS-1-0.5'	<0.67	<0.67	<0.67	<0.67	<0.67	<0.67	<0.67	<0.67	<3.3	<0.67	<0.67	<0.67	<0.67	<0.67	<0.67	<0.67	<0.67
SS-1-1'	<1.3	<1.3	<1.3	<1.3	**4.4**	<1.3	<1.3	<1.3	<6.6	**27**	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3
SS-2-0.5'	<0.67	<0.67	<0.67	<0.67	<0.67	<0.67	<0.67	<0.67	<3.3	<0.67	<0.67	<0.67	<0.67	<0.67	<0.67	<0.67	<0.67
SS-2-1'	<0.67	<0.67	<0.67	<0.67	<0.67	<0.67	<0.67	**0.73**	<3.3	<0.67	<0.67	<0.67	<0.67	<0.67	<0.67	<0.67	<0.67
SS-3-0.5'	<0.13	<0.13	**0.17**	**0.20**	**1.0**	**0.62**	**2.0**	**2.0**	<0.66	**0.94**	**0.63**	**0.23**	**0.44**	**0.22**	**0.20**	<0.13	<0.13
SS-3-1'	<0.27	<0.27	<0.27	<0.27	**0.44**	**0.33**	**3.6**	**7.6**	<1.3	**0.93**	**1.8**	**0.73**	**1.1**	**0.62**	**0.62**	<0.27	<0.27
SS-4-0.5'	<0.27	<0.27	<0.27	<0.27	**1.5**	**0.58**	**2.6**	**3.1**	<0.27	**1.5**	**1.6**	**0.56**	**1.1**	**0.61**	**0.72**	<0.27	<0.060
SS-4-1'	**1.4**	<1.3	**1.8**	**2.3**	**7.6**	**2.3**	**2.6**	**3.7**	<6.6	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	**4.8**	<1.3
SS-5-0.5'	<0.33	<0.33	<0.33	<0.33	<0.33	**0.46**	**0.76**	**1.0**	<1.6	**1.1**	**1.3**	**0.53**	**0.87**	**0.48**	**0.45**	<0.33	<0.33
SS-5-1'	<0.33	<0.33	<0.33	<0.33	**0.45**	**0.34**	**0.67**	**1.7**	<1.6	**1.2**	**1.8**	**0.74**	**1.2**	**0.68**	**0.65**	<0.33	<0.33
SS-6-0.5'	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	0.28	<1.3	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27
SS-6-1'	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	**0.32**	**0.99**	<1.3	**0.47**	**0.63**	<0.27	**0.40**	<0.27	**0.27**	<0.27	<0.27
SS-7-0.5'	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3
SS-7-1'	<0.66	<0.66	<0.66	<0.66	<0.66	<0.66	**0.86**	**1.5**	<0.66	<0.66	**1.0**	<0.66	**0.78**	<0.66	<0.66	<0.66	<0.66
SS-8-0.5'	<0.048	<0.056	<0.038	<0.040	**0.96**	<0.043	**1.4**	**1.9**	<0.18	**0.90**	**1.4**	**0.70**	**1.1**	<0.13	<0.20	<0.062	<0.15
FD-1	<0.33	<0.33	<0.33	<0.33	**0.58**	<0.33	**0.99**	**1.2**	<1.6	**0.80**	**1.1**	**0.47**	**0.83**	**0.49**	**0.49**	<0.33	<0.33
SS-8-1'	<0.33	<0.33	<0.33	<0.33	**1.1**	**0.70**	**1.4**	**3.5**	<1.6	**0.88**	**3.1**	**3.0**	**1.7**	**0.77**	**0.81**	<0.33	<0.33
SS-9-0.5'	<0.67	<0.67	<0.67	<0.67	**0.72**	<0.67	**1.4**	**1.3**	<3.3	**0.75**	**0.88**	<0.67	<0.67	<0.67	<0.67	<0.67	<0.67
SS-9-1'	<0.66	<0.66	<0.66	<0.66	**1.1**	<0.66	**3.0**	**3.2**	<3.3	**1.1**	**1.1**	<0.66	**0.80**	<0.66	<0.66	<0.66	<0.66
SS-10-0.5'	<0.066	<0.066	<0.066	<0.066	**0.066**	<0.066	**0.10**	**0.16**	<0.33	**0.069**	**0.093**	<0.066	**0.072**	<0.066	<0.066	<0.066	<0.066
SS-10-1'	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	**0.20**	**0.43**	<0.65	**0.13**	**0.21**	<0.13	**0.16**	<0.13	<0.13	<0.13	<0.13
FD-2	<0.13	<0.13	<0.13	<0.13	**0.43**	**0.13**	**0.45**	**0.75**	<0.65	**0.24**	**0.31**	<0.13	**0.21**	**0.13**	<0.13	<0.13	<0.13
RSL-Resident mg/kg	3.8	NV	3,500	4,700	NV	17,000	**2,300**	**1,700**	0.15	**15**	**0.15**	1.5	**0.015**	0.15	NV	230	0.015
RSL-Industrial mg/kg	17	NV	45,000	70,000	NV	230,000	**30,000**	**23,000**	2.9	**290**	**2.9**	29	**0.29**	2.9	NV	3,000	0.29

Notes:
Units in mg/Kg
FD-1 is a field duplicate of SS-8-0.5'
FD-2 is a field duplicate of SS-10-1'
Blue shaded values exceed Resident RSLs
Green shaded values exceed Industrial RSLs

Table 5
Organotins Analytical Results
Foreshore Sediment Sampling
900 Innes Avenue, San Francisco, CA

Organotins				
Sample ID	**Dibutyltin**	**Monobutyltin**	**Tetra-n-butyltin**	**Tributyltin**
SS-1-0.5'	**81**	**24**	<2.5 UJ	**70**
SS-1-1'	**230**	**69**	<2.5 UJ	**150**
SS-2-0.5'	**62**	<4.9	<13 UJ	<4.9
SS-2-1'	**83**	<0.95	<2.6 UJ	**110**
SS-3-0.5'	**31**	<0.92	<2.5 UJ	**25**
SS-3-1'	**990**	**92**	**61 J**	**2200**
SS-4-0.5'	**130**	**57 J**	**26**	**160**
SS-4-1'	**76**	<1.1 UJ	<2.9	**150**
SS-5-0.5'	<1.0	<1.0 UJ	<2.8	<1.0
SS-5-1'	**38**	<1.0 UJ	<2.8	**74**
SS-6-0.5'	**12**	<1.0 UJ	<2.8	**32**
SS-6-1'	**26**	<1.0 UJ	<2.8	**62**
SS-7-0.5'	**120 J**	**76 J**	<2.9 UJ	**650 J**
SS-7-1'	**110**	<1.0 UJ	**42**	**180**
SS-8-0.5'	**79 J**	<1.1 UJ	<3.0	**130**
FD-1	**37 J**	**12 J**	<2.8	**89**
SS-8-1'	**66**	<1.0 UJ	<2.7	**130**
SS-9-0.5'	**16000**	**3900 J**	**150**	**13000**
SS-9-1'	**670**	**94 J**	**27**	**980**
SS-10-0.5'	**110**	**29 J**	<2.9	**130**
SS-10-1'	**260**	**50 J**	**40 J**	**780 J**
FD-2	330	**78 J**	**19 J**	**360 J**
RSL-Resident mg/kg	**18**	**NV**	**NV**	**18**
RSL-Industrial mg/kg	**250**	**NV**	**NV**	**250**

Notes:
Units are in ug/Kg
FD-1 is a field duplicate of SS-8-0.5'
FD-2 is a field duplicate of SS-10-1'
Blue shaded values exceed Resident RSLs
Green shaded values exceed Industrial RSLs

Table 6
Metals Analytical Results Compared to Disposal Criteria
Foreshore Sediment Sampling
900 Innes Avenue, San Francisco, CA

CAM17 Metals																	
Sample ID	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury
SS-1-0.5'	<1.7	7.0	58	<0.33	<0.41	68	11	180	76	<1.7	90	<3.3	<0.83	<1.7	40	140	0.54
SS-1-1'	<1.4	8.6	69	<0.29	<0.36	64	12	370	120	2.2	88	<2.9	<0.72	<1.4	37	220	3.2
SS-2-0.5'	<1.6	5.0	77	<0.33	<0.41	37	8.3	120	140	1.9	59	<3.3	<0.82	<1.6	25	730	0.49
SS-2-1'	3.0	16	97	<0.37	2.3	130	18	650	410	17	230	<3.7	<0.92	<1.8	28	2400	1.8
SS-3-0.5'	<0.41	4.6	28	<0.083	<0.010	41	6.2	80	28	<0.41	41	<0.83	<0.21	<0.41	29	80	0.49
SS-3-1'	<1.9	16	130	<0.38	0.49	82	19	1100	150	20	81	<3.8	<0.94	<1.9	44	440	4.6
SS-4-0.5'	3.5	20	180	<0.34	0.47	94	10	700	350	2.0	74	<3.4	<0.86	<1.7	29	660	88
SS-4-1'	3.6	20	250	<0.34	33	100	26	850	1600	9.7	94	<3.4	<0.85	<1.7	31	1900	9.1
SS-5-0.5'	<0.37	4.8	27	0.16	<0.0093	39	5.7	75	46	0.39	38	<0.75	<0.19	<0.37	26	80	1.2
SS-5-1'	<0.42	7.2	49	0.18	0.10	48	7.4	200	54	3.8	56	<0.83	<0.21	<0.42	30	130	1.4
SS-6-0.5'	<0.44	6.0	35	0.17	<0.11	46	6.7	120	37	0.87	40	<0.88	<0.22	<0.44	29	94	0.99
SS-6-1'	<1.6	11	44	<0.33	<0.41	78	10	380	100	10	100	<3.3	<0.81	<1.6	39	180	1.9
SS-7-0.5'	3.0	11	170	<0.28	<0.35	76	9.6	390	580	13	66	<02.8	<0.69	<1.4	28	2000	2.3
SS-7-1'	4.2	11	90	<0.38	<0.48	120	10	650	300	7.9	77	<3.8	<0.95	<1.9	28	450	3.1
SS-8-0.5'	<1.5	9.5	120	<0.30	<0.37	82	11	620	190	2.7	67	<3.0	<0.75	<1.5	35	370	4.7
FD-1	<1.7	9.7	140	<0.34	<0.42	82	10	540	220	3.2	59	<3.4	<0.84	<1.7	34	350	5.1
SS-8-1'	<1.6	24	96	<0.32	0.43	85	10	1200	600	3.4	62	<3.2	<0.80	<1.6	30	440	10
SS-9-0.5'	<2.8	38	120	<0.22	1.4	110	14	27000	480	10	93	<2.2	0.94	<2.8	24	4000	10
SS-9-1'	<1.1	75	110	<0.23	0.86	140	21	2400	540	1.4	360	<2.3	<0.57	<1.1	26	540	23
SS-10-0.5'	<0.45	8.2	36	<0.090	0.20	56	6.4	310	41	0.78	42	<0.90	<0.23	<0.45	32	170	2.4
SS-10-1'	<1.3	12	35	<0.27	<0.33	62	6.7	840	63	1.6	53	<2.7	<0.67	<1.3	29	240	4.6
FD-2	<0.41	9.5	38	<0.082	0.28	63	7.2	670	60	1.6	49	<0.82	<0.20	<0.41	29	260	4.1
TTLC	500	500	10,000	75	100	2,500	8,000	2,500	1,000	3,500	2,000	100	500	700	2,400	5,000	20
STLC (mg/L)	15	5	100	0.75	1	5	80	25	5	350	20	1	5	7	24	250	0.2
TCLP (mg/L)	NV	5	100	NV	1	5	NV	NV	5	NV	NV	1	5	NV	NV	NV	0.2

Notes:
Units in mg/Kg unless otherwise stated
FD-1 is a field duplicate of SS-8-0.5'
FD-2 is a field duplicate of SS-10-1'
Greater than 10X STLC
Greater than 10X STLC and 20X TCLP
Greater than TTLC

Table 7
Soluable Metals Analytical Results
Foreshore Sediment Sampling
900 Innes Avenue, San Francisco, CA

Sample ID	Arsenic STLC	Cadmium STLC	Cadmium TCLP	Chromium STLC	Chromium TCLP	Copper STLC	Lead STLC	Lead TCLP	Nickel STLC	Mercury STLC	Mercury TCLP
SS-1-1'	NA	NA	NA	**0.75**	NA	<0.20	**4.1**	<0.050	NA	<0.0050 UJ	NA
SS-2-1'	NA	NA	NA	**0.92**	<0.10	<0.20	**40**	**13**	NA	NA	NA
SS-4-0.5'	NA	NA	NA	**1.1**	NA	<0.20	**24**	**0.16**	NA	NA	<0.0020 UJ
SS-4-1'	NA	<0.020	<0.10	**1.6**	<0.10	<0.20	NA	<0.050	NA	<0.0050 UJ	<0.0020
SS-7-0.5'	NA	NA	NA	**0.4**	NA	**10**	**4.8**	<0.050	NA	<0.0050 UJ	NA
SS-8-1'	NA	NA	NA	**1.6**	NA	<0.20	<0.050	<0.050	NA	<0.0050 UJ	<0.0020
SS-9-1'	**0.31**	NA	NA	**2.5**	<0.10	<0.20	<0.050	<0.050	**6.9**	NA	<0.0020 UJ
SS-10-1'	NA	NA	NA	NA	NA	<0.20	**1.5**	NA	NA	<0.0050 UJ	<0.0020 UJ
STLC (mg/L)	5	1	1	5	5	25	5	5	20	0.2	0.2
TCLP (mg/L)	5	1	1	5	5	NV	5	5	NV	0.2	0.2

Notes:
Units in mg/L unless otherwise stated
Greater than STLC
Greater than STLC and TCLP

FIGURES

SITE VICINITY MAP

Foreshore Sediment Sampling
900 Innes Avenue
October 2015 San Francisco, California

FIGURE 1

09/11/15 hk T:\Bluegreen Way\Fig1_site_vicinity.indd

SEDIMENT SAMPLING LOCATIONS

Foreshore Sediment Sampling
900 Innes Avenue
October 2015 San Francisco, California

FIGURE 2

9/11/15 hk ...T:\Bluegreen Way\Fig2_sediment_xample_loc.ai

Site Boundary

SS-1	0.5'	1'
Arsenic	7	8.6

SS-2	0.5'	1'
Arsenic	5	16
Lead	N/A	410

SS-3	0.5'	1'
Arsenic	4.6	16

SS-4	0.5'	1'
Arsenic	20	20
Mercury	88	26
Lead	N/A	1600
Cobalt	N/A	26

SS-5	0.5'	1'
Arsenic	4.8	7.2

SS-6	0.5'	1'
Arsenic	6	11

SS-7	0.5'	1'
Arsenic	11	11
Lead	580	N/A

SS-8	0.5'	1'
Arsenic	9.5	24
Lead	N/A	600
Mercury	N/A	10

SS-9	0.5'	1'
Arsenic	38	75
Copper	27000	N/A
Lead	480	540
Mercury	10	23

SS-10	0.5'	1'
Arsenic	8.2	12

SS-1 SS-2 SS-3 SS-4 SS-5 SS-6 SS-7 SS-8 SS-9 SS-10

Sediment Sample
Exceeds Resident RSL
Exceeds Industrial RSL
N/A Concentration less than screening level
Note: Unit=mg/Kg

N

0 50 100 FEET

SAMPLING RESULTS MAP
METAL EXCEEDING SCREENING LEVELS

Foreshore Sediment Sampling
900 Innes Avenue
San Francisco, California
October 2015

FIGURE 3

09/17/15 hk T:\Bluegreen Way\Figs_BluegreenWay.indd

Site Boundary

SS-1	0.5'	1'
Diesel Range Organics	180	260
Motor Oil Range Organics	420	610

SS-2	0.5'	1'
Diesel Range Organics	320	360
Motor Oil Range Organics	640	800

SS-3	0.5'	1'
Diesel Range Organics	110	340
Motor Oil Range Organics	140	570

SS-4	0.5'	1'
Diesel Range Organics	370	5500
Motor Oil Range Organics	620	2900

SS-5	1'
Diesel Range Organics	120
Motor Oil Range Organics	210

SS-6	0.5'	1'
Diesel Range Organics	N/A	150
Motor Oil Range Organics	100	160

SS-7	0.5'	1'
Diesel Range Organics	240	220
Motor Oil Range Organics	560	460

SS-8	0.5'	1'
Diesel Range Organics	260	300
Motor Oil Range Organics	480	630

SS-9	0.5'	1'
Diesel Range Organics	600	780
Motor Oil Range Organics	1100	1800

SS-10	1'
Diesel Range Organics	120
Motor Oil Range Organics	230

SS-1 SS-2 SS-3 SS-4 SS-5 SS-6 SS-7 SS-8 SS-9 SS-10

Sediment Sample

Exceeds Residential ESL

Exceeds Commercial/Industrial ESL

N/A Concentration less than screening level

Note: Unit=mg/Kg

N

0 50 100 FEET

SAMPLING RESULTS MAP
DIESEL RANGE ORGANICS AND MOTOR OIL RANGE ORGANICS EXCEEDING SCREENING LEVELS

Foreshore Sediment Sampling
900 Innes Avenue
San Francisco, California

October 2015

FIGURE 4

09/17/15 hk T:\Bluegreen Way\Figs_BluegreenWay.indd

Site Boundary

SS-1
SS-2
SS-3
SS-4
SS-5
SS-6
SS-7
SS-8
SS-9
SS-10

SS-4	1'
PCB-1254	1100

SS-7	0.5'	1'
PCB-1248	410	N/A
PCB-1242	N/A	1900

SS-8	0.5'	1'
PCB-1260	710	N/A
PCB-1248	N/A	1600

SS-9	0.5'	1'
PCB-1248	2500	8900

SS-10	0.5'	1'
PCB-1260	360	N/A
PCB-1248	N/A	1500

Sediment Sample
Exceeds Resident RSL
Exceeds Industrial RSL
N/A Concentration less than screening level
Note: Unit=µg/Kg

N
0 50 100 FEET

SAMPLING RESULTS MAP –
PCBs EXCEEDING SCREENING LEVELS

Foreshore Sediment Sampling
900 Innes Avenue
San Francisco, California
October 2015

FIGURE 5

09/17/15 nk T:\Bluegreen Way\Figs_BluegreenWay.indd

Site Boundary

SS-1	1'
Chrysene	27

SS-3	0.05'	1'
Benzo[b]fluoranthene	0.63	1.8
Benzo[a]pyrene	0.44	1.1
Indeno[1,2,3-cd]pyrene	0.22	0.62

SS-4	0.05'
Benzo[b]fluoranthene	1.6
Benzo[a]pyrene	1.1
Indeno[1,2,3-cd]pyrene	0.61

SS-5	0.05'	1'
Benzo[b]fluoranthene	1.3	1.8
Benzo[a]pyrene	0.87	1.2
Indeno[1,2,3-cd]pyrene	0.48	0.68

SS-6	1'
Benzo[b]fluoranthene	0.63
Benzo[a]pyrene	0.40

SS-7	1'
Benzo[b]fluoranthene	1.0
Benzo[a]pyrene	0.78

SS-8	0.05'	1'
Benzo[b]fluoranthene	1.4	3.1
Benzo[k]fluoranthene	N/A	3.0
Benzo[a]pyrene	1.1	1.7
Indeno[1,2,3-cd]pyrene	N/A	0.77

SS-9	0.05'	1'
Benzo[b]fluoranthene	0.88	1.1
Benzo[a]pyrene	N/A	0.8

SS-10	0.05'	1'
Benzo[b]fluoranthene	N/A	0.21
Benzo[a]pyrene	0.072	0.16

SS-1 SS-2 SS-3 SS-4 SS-5 SS-6 SS-7 SS-8 SS-9 SS-10

Sediment Sample

Exceeds Resident RSL

Exceeds Industrial RSL

N/A Concentration less than screening level

Note: Unit=mg/Kg

N

0 50 100 FEET

SAMPLING RESULTS MAP – SVOCs EXCEEDING SCREENING LEVELS

Foreshore Sediment Sampling
900 Innes Avenue
San Francisco, California

October 2015

FIGURE 6

09/17/15 hk T:\Bluegreen Way\Figs_BluegreenWay.indd

Site Boundary

SS-1	0.5'	1'
Dibutyltin	81	230
Tributyltin	70	150

SS-2	0.5'	1'
Dibutyltin	62	83
Tributyltin	NA	110

SS-3	0.5'	1'
Dibutyltin	31	990
Tributyltin	25	2200

SS-4	0.5'	1'
Dibutyltin	130	76
Tributyltin	160	150

SS-5	1'
Dibutyltin	38
Tributyltin	74

SS-6	0.5'	1'
Dibutyltin	NA	26
Tributyltin	32	62

SS-7	0.5'	1'
Dibutyltin	120	110
Tributyltin	650	180

SS-8	0.5'	1'
Dibutyltin	79	66
Tributyltin	130	130

SS-9	0.5'	1'
Dibutyltin	16000	670
Tributyltin	13000	980

SS-10	0.5'	1'
Dibutyltin	110	260
Tributyltin	130	780

SS-1 SS-2 SS-3 SS-4 SS-5 SS-6 SS-7 SS-8 SS-9 SS-10

Sediment Sample
Exceeds Resident RSL
Exceeds Industrial RSL
N/A Concentration less than screening level
Note: Unit=mg/Kg

N
0 50 100 FEET

SAMPLING RESULTS MAP
ORGANOTINS EXCEEDING SCREENING LEVELS

Foreshore Sediment Sampling
900 Innes Avenue
San Francisco, California
October 2015

FIGURE 7

09/17/15 hk T:\Bluegreen Way\Figs_BluegreenWay.indd

APPENDIX A

WESTON FIGURES

SITE LAYOUT MAP

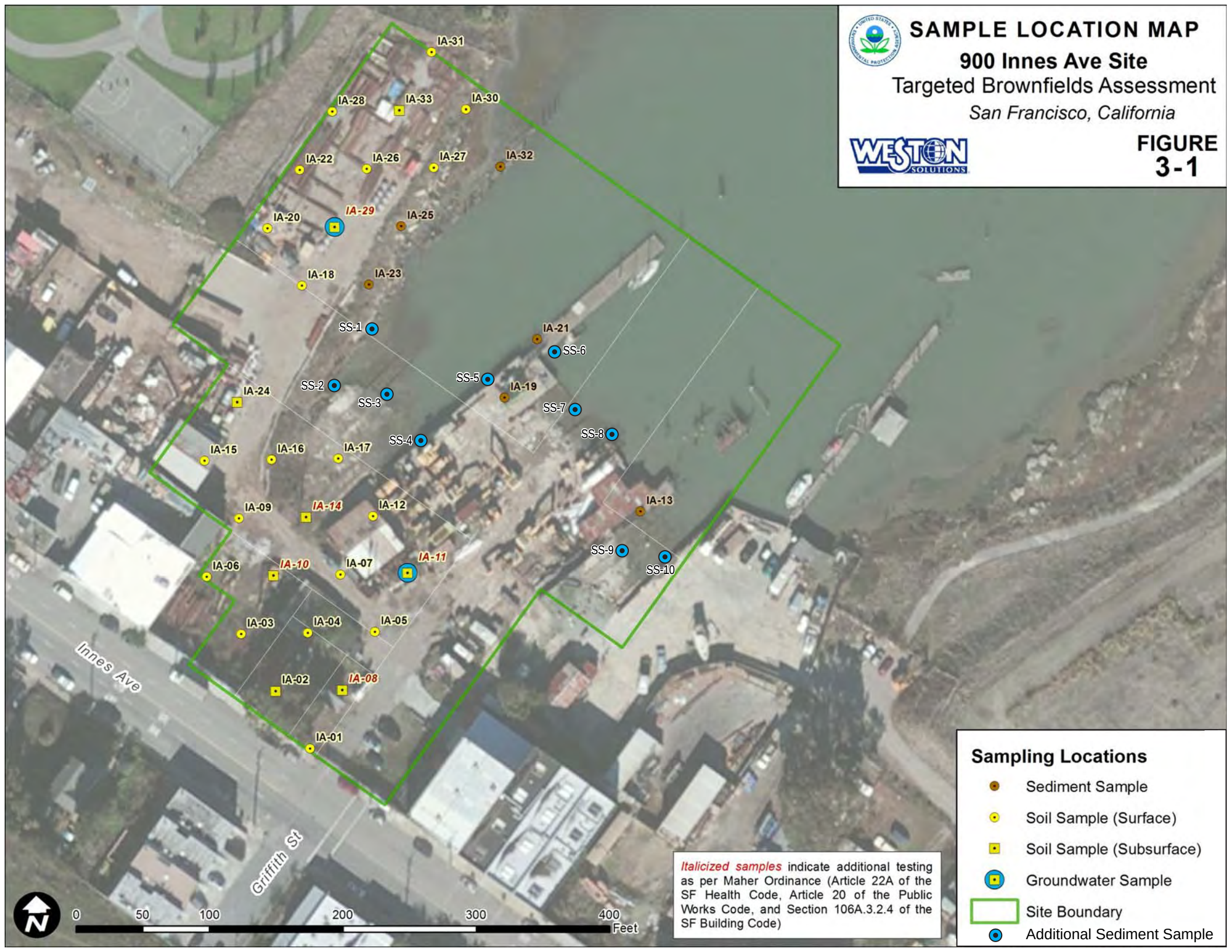
900 Innes Ave Site

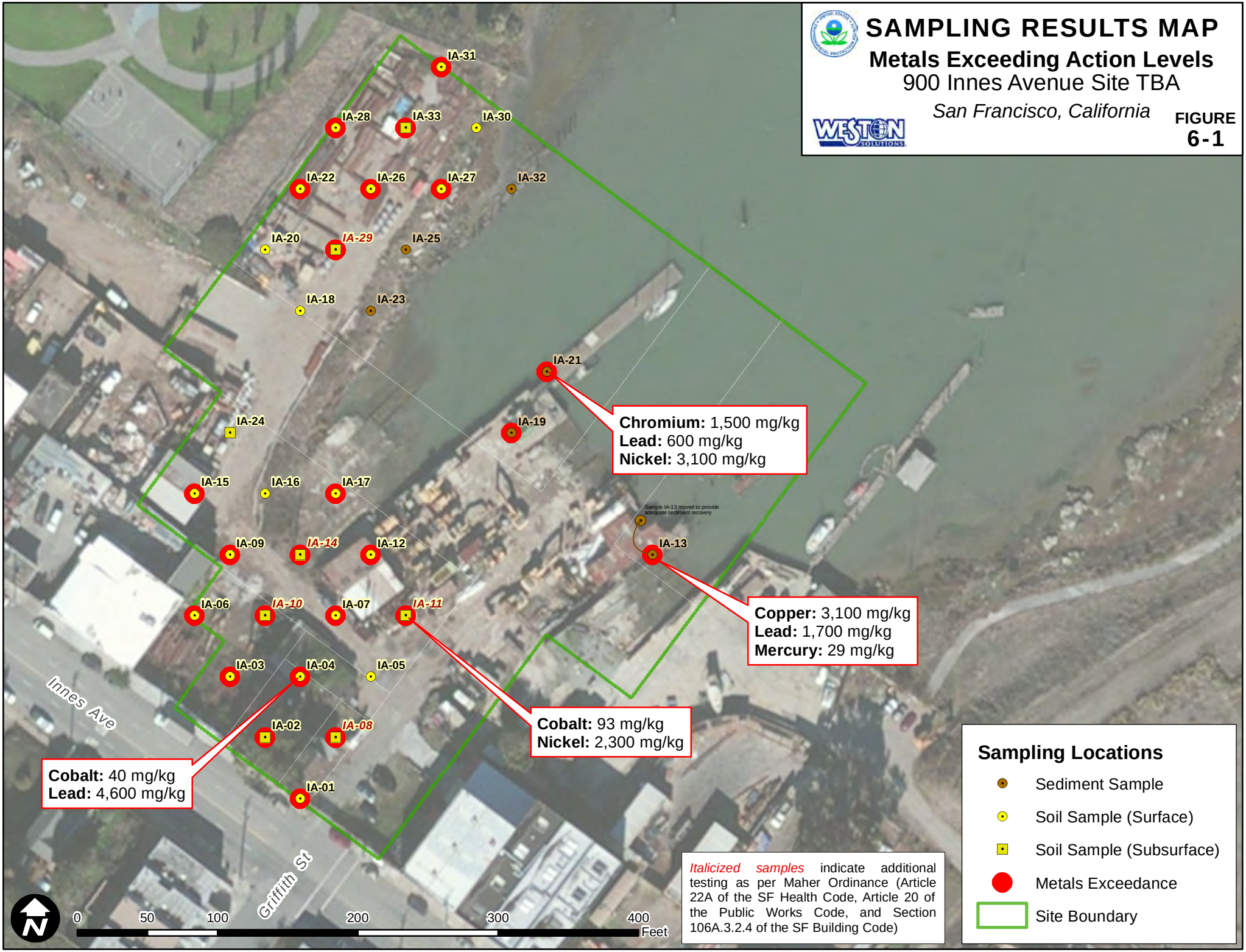
Targeted Brownfields Assessment

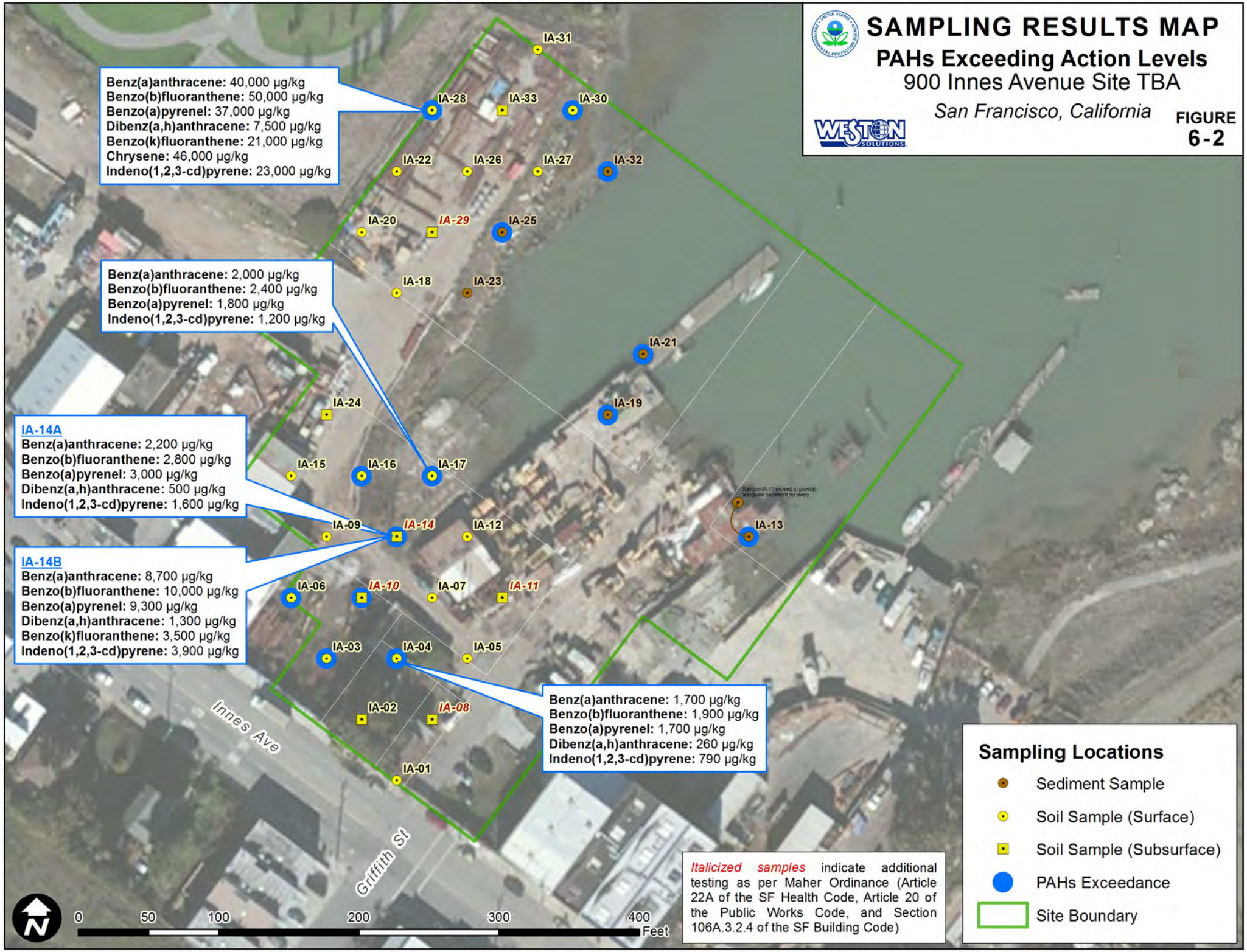
San Francisco, California

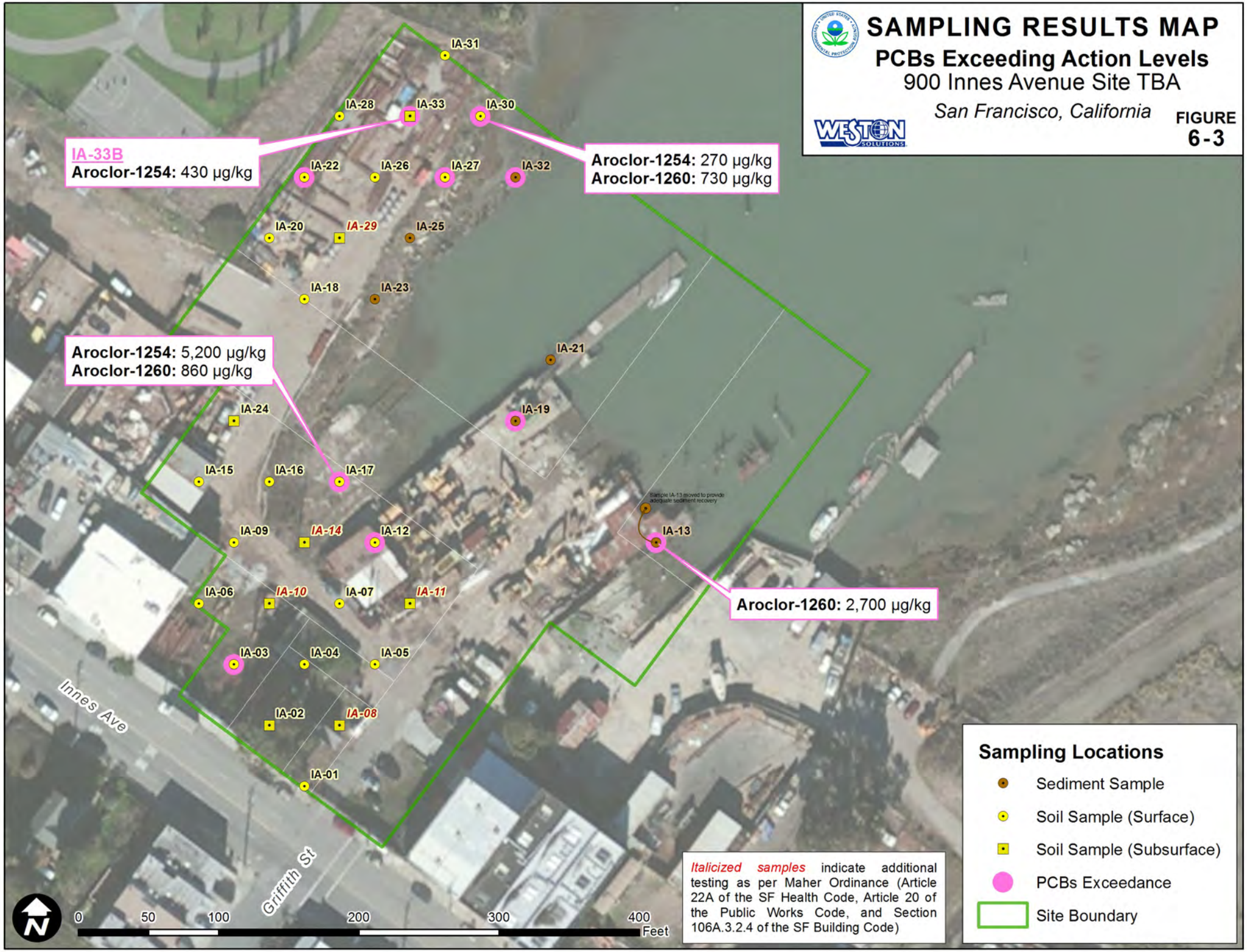
WESTON SOLUTIONS

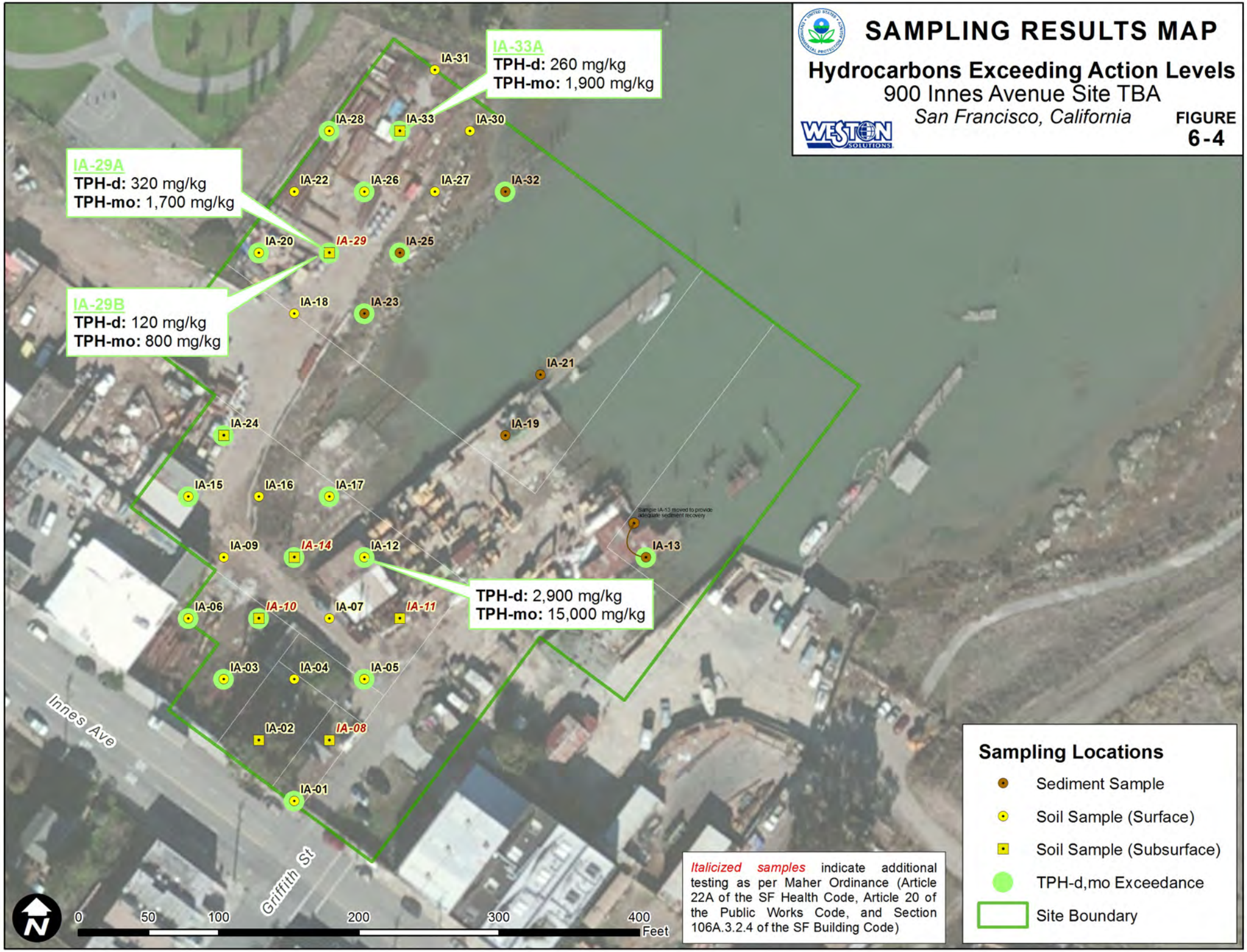
FIGURE 2-2


SAMPLE LOCATION MAP
900 Innes Ave Site
Targeted Brownfields Assessment
San Francisco, California
WESTON SOLUTIONS
FIGURE
3-1
IA-31
IA-28
IA-33
IA-30
IA-22
IA-26
IA-27
IA-32
IA-20
IA-29
IA-25
IA-18
IA-23
SS-1
IA-21
SS-6
SS-5
IA-19
SS-2
SS-3
IA-24
SS-7
SS-8
SS-4
IA-15
IA-16
IA-17
IA-13
IA-09
IA-14
IA-12
SS-9
SS-10
IA-06
IA-10
IA-07
IA-11
IA-03
IA-04
IA-05
IA-02
IA-08
IA-01
Innes Ave
Griffith St
0
50
100
200
300
400
Feet
Italicized samples indicate additional testing as per Maher Ordinance (Article 22A of the SF Health Code, Article 20 of the Public Works Code, and Section 106A.3.2.4 of the SF Building Code)
Sampling Locations
Sediment Sample
Soil Sample (Surface)
Soil Sample (Subsurface)
Groundwater Sample
Site Boundary
Additional Sediment Sample


SAMPLING RESULTS MAP
Metals Exceeding Action Levels
900 Innes Avenue Site TBA
San Francisco, California
FIGURE
6-1
IA-31
IA-28
IA-33
IA-30
IA-22
IA-26
IA-27
IA-32
IA-20
IA-29
IA-25
IA-18
IA-23
IA-21
IA-24
IA-19
IA-15
IA-16
IA-17
Sample IA-13 moved to provide adequate sediment recovery
IA-09
IA-14
IA-12
IA-13
IA-06
IA-10
IA-07
IA-11
IA-03
IA-04
IA-05
IA-02
IA-08
IA-01
Chromium: 1,500 mg/kg
Lead: 600 mg/kg
Nickel: 3,100 mg/kg
Copper: 3,100 mg/kg
Lead: 1,700 mg/kg
Mercury: 29 mg/kg
Cobalt: 93 mg/kg
Nickel: 2,300 mg/kg
Cobalt: 40 mg/kg
Lead: 4,600 mg/kg
Innes Ave
Griffith St
0
50
100
200
300
400
Feet
Italicized samples indicate additional testing as per Maher Ordinance (Article 22A of the SF Health Code, Article 20 of the Public Works Code, and Section 106A.3.2.4 of the SF Building Code)
Sampling Locations
Sediment Sample
Soil Sample (Surface)
Soil Sample (Subsurface)
Metals Exceedance
Site Boundary


SAMPLING RESULTS MAP
PAHs Exceeding Action Levels
900 Innes Avenue Site TBA
San Francisco, California
FIGURE 6-2
WESTON SOLUTIONS
Benz(a)anthracene: 40,000 µg/kg
Benzo(b)fluoranthene: 50,000 µg/kg
Benzo(a)pyrenel: 37,000 µg/kg
Dibenz(a,h)anthracene: 7,500 µg/kg
Benzo(k)fluoranthene: 21,000 µg/kg
Chrysene: 46,000 µg/kg
Indeno(1,2,3-cd)pyrene: 23,000 µg/kg
Benz(a)anthracene: 2,000 µg/kg
Benzo(b)fluoranthene: 2,400 µg/kg
Benzo(a)pyrenel: 1,800 µg/kg
Indeno(1,2,3-cd)pyrene: 1,200 µg/kg
IA-14A
Benz(a)anthracene: 2,200 µg/kg
Benzo(b)fluoranthene: 2,800 µg/kg
Benzo(a)pyrenel: 3,000 µg/kg
Dibenz(a,h)anthracene: 500 µg/kg
Indeno(1,2,3-cd)pyrene: 1,600 µg/kg
IA-14B
Benz(a)anthracene: 8,700 µg/kg
Benzo(b)fluoranthene: 10,000 µg/kg
Benzo(a)pyrenel: 9,300 µg/kg
Dibenz(a,h)anthracene: 1,300 µg/kg
Benzo(k)fluoranthene: 3,500 µg/kg
Indeno(1,2,3-cd)pyrene: 3,900 µg/kg
Benz(a)anthracene: 1,700 µg/kg
Benzo(b)fluoranthene: 1,900 µg/kg
Benzo(a)pyrenel: 1,700 µg/kg
Dibenz(a,h)anthracene: 260 µg/kg
Indeno(1,2,3-cd)pyrene: 790 µg/kg
IA-31
IA-28
IA-33
IA-30
IA-22
IA-26
IA-27
IA-32
IA-20
IA-29
IA-25
IA-18
IA-23
IA-21
IA-24
IA-19
IA-15
IA-16
IA-17
Sample IA-13 moved to provide adequate sediment recovery
IA-09
IA-14
IA-12
IA-13
IA-06
IA-10
IA-07
IA-11
IA-03
IA-04
IA-05
IA-02
IA-08
IA-01
Innes Ave
Griffith St
0
50
100
200
300
400
Feet
Italicized samples indicate additional testing as per Maher Ordinance (Article 22A of the SF Health Code, Article 20 of the Public Works Code, and Section 106A.3.2.4 of the SF Building Code)
Sampling Locations
Sediment Sample
Soil Sample (Surface)
Soil Sample (Subsurface)
PAHs Exceedance
Site Boundary


SAMPLING RESULTS MAP
PCBs Exceeding Action Levels
900 Innes Avenue Site TBA
San Francisco, California
FIGURE
6-3
IA-33B
Aroclor-1254: 430 µg/kg
Aroclor-1254: 270 µg/kg
Aroclor-1260: 730 µg/kg
Aroclor-1254: 5,200 µg/kg
Aroclor-1260: 860 µg/kg
Aroclor-1260: 2,700 µg/kg
IA-31
IA-28
IA-33
IA-30
IA-22
IA-26
IA-27
IA-32
IA-20
IA-29
IA-25
IA-18
IA-23
IA-21
IA-24
IA-19
IA-15
IA-16
IA-17
IA-09
IA-14
IA-12
IA-13
IA-06
IA-10
IA-07
IA-11
IA-03
IA-04
IA-05
IA-02
IA-08
IA-01
Sample IA-13 moved to provide adequate sediment recovery
Innes Ave
Griffith St
0
50
100
200
300
400
Feet
Italicized samples indicate additional testing as per Maher Ordinance (Article 22A of the SF Health Code, Article 20 of the Public Works Code, and Section 106A.3.2.4 of the SF Building Code)
Sampling Locations
Sediment Sample
Soil Sample (Surface)
Soil Sample (Subsurface)
PCBs Exceedance
Site Boundary


SAMPLING RESULTS MAP
Hydrocarbons Exceeding Action Levels
900 Innes Avenue Site TBA
San Francisco, California
FIGURE
6-4
IA-33A
TPH-d: 260 mg/kg
TPH-mo: 1,900 mg/kg
IA-29A
TPH-d: 320 mg/kg
TPH-mo: 1,700 mg/kg
IA-29B
TPH-d: 120 mg/kg
TPH-mo: 800 mg/kg
TPH-d: 2,900 mg/kg
TPH-mo: 15,000 mg/kg
IA-31
IA-28
IA-33
IA-30
IA-22
IA-26
IA-27
IA-32
IA-20
IA-29
IA-25
IA-18
IA-23
IA-21
IA-24
IA-19
IA-15
IA-16
IA-17
Sample IA-13 moved to provide adequate sediment recovery
IA-09
IA-14
IA-12
IA-13
IA-06
IA-10
IA-07
IA-11
IA-03
IA-04
IA-05
IA-02
IA-08
IA-01
Innes Ave
Griffith St
0
50
100
200
300
400
Feet
Italicized samples indicate additional testing as per Maher Ordinance (Article 22A of the SF Health Code, Article 20 of the Public Works Code, and Section 106A.3.2.4 of the SF Building Code)
Sampling Locations
Sediment Sample
Soil Sample (Surface)
Soil Sample (Subsurface)
TPH-d,mo Exceedance
Site Boundary

APPENDIX B

ANALYTICAL LABORATORY AND DATA VALIDATION REPORTS

LEVEL III Data Validation Report

PROJECT: Blue Greenway, 900 Innes

LABORATORY: Test America, Pleasanton, CA

LAB NUMBER: 720-64901

SAMPLES: SS-1-1', SS-2-0.5', SS-2-1', SS-3-0.5', SS-3-1', SS-4-0.5', SS-4-1', SS-5-0.5', SS-5-1', SS-6-0.5', SS-6-1', SS-7-0.5', SS-7-1', SS-8-0.5', SS-8-1', SS-9-0.5', SS-9-1', SS-10-0.5', SS-10-1', FD-1, FD-2

MATRIX: Sediment

Analysis	PAHs 8270C
Holding Time	✓
Surrogate Recovery	Note 1
MS/MSD	NA
LCS (Blank Spike)	✓
Method Blanks	✓
Field Duplicates (FD-1 and SS-8-0.5'; FD-2 and SS-10-1')	✓
Field/Equipment Blanks	NA
Reporting Limits	Note 2

✓ – QC criteria were met.

Notes: 1. The following surrogate recoveries were outside of their QC acceptance range:

Sample	Surrogate	Percent Recovery	Acceptance Range
SS-6-0.5'	Terphenyl-d_{14}	118	32% to 117%
SS-10-0.5'	Terphenyl-d_{14}	134	32% to 117%
SS-10-1'	Terphenyl-d_{14}	121	32% to 117%

Since only one of the surrogates was out, data were not qualified.

2. Due to the presence of non-target compounds, the following dilutions were required:

Sample	Dilution Factor
SS-5-1' SS-6-1' SS-5-0.5' SS-2-1' SS-1-0.5' SS-2-0.5' SS-7-1' SS-8-0.5' SS-8-1' SS-9-0.5' FD-1 FD-2	5
SS-9-1' SS-4-1' SS-1-1' SS-7-0.5'	10
SS-6-0.5' SS-4-0.5' SS-3-0.5' SS-3-1' SS-10-1'	2

Reporting limits were increased by the same factors as the dilution.

Summary:

Based on this Level III validation, these data are usable for their intended purpose. None of these data were qualified or rejected.

LEVEL III Data Validation Report

PROJECT: Blue Greenway, 900 Innes

LABORATORY: Test America, Pleasanton, CA

LAB NUMBER: 720-64901

SAMPLES: SS-1-1', SS-2-0.5', SS-2-1', SS-3-0.5', SS-3-1', SS-4-0.5', SS-4-1', SS-5-0.5', SS-5-1', SS-6-0.5', SS-6-1', SS-7-0.5', SS-7-1', SS-8-0.5', SS-8-1', SS-9-0.5', SS-9-1', SS-10-0.5', SS-10-1', FD-1, FD-2

MATRIX: Sediment

Analysis	Diesel Range Organics, Motor Oil Range 8015B
Holding Time	✓
Surrogate Recovery	Note 1
MS/MSD	NA
LCS (Blank Spike)	✓
Method Blanks	✓
Field Duplicates (FD-1 and SS-8-0.5'; FD-2 and SS-10-1')	✓
Field/Equipment Blanks	NA
Reporting Limits	Note 2

✓ – QC criteria were met.

Notes:
1. For dilutions by factors of five or greater, the surrogate was diluted out. Results are not qualified when surrogates are diluted from the sample (0% recovery).

2. In order to quantitate diesel, the following dilutions were required:

Sample	Dilution Factor
SS-7-1' SS-8-1' SS-7-0.5' SS-4-0.5' SS-1-0.5' SS-3-1'	5
SS-2-1' SS-1-1' SS-2-0.5' SS-9-0.5'	10
SS-6-1' SS-5-1' SS-3-0.5' FD-2	2
SS-4-1'	50
FD-1 SS-8-0.5' SS-10-1'	3
SS-9-1'	20

Reporting limits were increased by the same factors as the dilution. Reported concentrations exceeded the elevated reporting limits.

Summary:

Based on this Level III validation, these data are usable for their intended purpose. None of these data were qualified or rejected.

LEVEL III Data Validation Report

PROJECT: Blue Greenway, 900 Innes

LABORATORY: Test America, Pleasanton, CA

LAB NUMBER: 720-64901

SAMPLES: SS-1-1', SS-2-0.5', SS-2-1', SS-3-0.5', SS-3-1', SS-4-0.5', SS-4-1', SS-5-0.5', SS-5-1', SS-6-0.5', SS-6-1', SS-7-0.5', SS-7-1', SS-8-0.5', SS-8-1', SS-9-0.5', SS-9-1', SS-10-0.5', SS-10-1', FD-1, FD-2

MATRIX: Sediment

Analysis	PCBs 8082
Holding Time	✓
Surrogate Recovery	Note 1
MS/MSD (SS-1-0.5')	✓
LCS (Blank Spike)	✓
Method Blanks	✓
Field Duplicates (FD-1 and SS-8-0.5'; FD-2 and SS-10-1')	Note 2
Field/Equipment Blanks	NA
Reporting Limits	Note 3

✓ – QC criteria were met.

Notes:

1. Surrogates were diluted out of samples SS-7-1', SS-9-0.5', SS-9-1', SS-10-1', and FD-1. Results are not qualified when surrogates are diluted from samples.
2. In both field duplicate pairs, significant discrepancies for reported concentrations were noted. In the case of FD-1 and SS-8-0.5', the reported concentrations of PCB-1260 were flagged "J," in each sample (710 µg/kg and 7800 µg/kg); (RPD=166.6%). In the duplicate pair FD-2 and SS-10-1', no RPD was calculated due to the non-detects. By inspection PCB-1248 in SS-10-1' and PCB-1260 in FD-2 were flagged "J," estimated. In the FD-1, SS-8-0.5' the mean should be used for the reported concentration PCB-1260.
3. Reporting limits of the associated non-detects were flagged "UJ," estimated.

Summary:

Based on this Level III validation, these data are usable, as qualified, for their intended purpose. None of these data were rejected.

LEVEL III Data Validation Report

PROJECT: Blue Greenway, 900 Innes

LABORATORY: Test America, Pleasanton, CA

LAB NUMBER: 720-64901

SAMPLES: SS-1-1', SS-2-0.5', SS-2-1', SS-3-0.5', SS-3-1', SS-4-0.5', SS-4-1', SS-5-0.5', SS-5-1', SS-6-0.5', SS-6-1', SS-7-0.5', SS-7-1', SS-8-0.5', SS-8-1', SS-9-0.5', SS-9-1', SS-10-0.5', SS-10-1', FD-1, FD-2

MATRIX: Sediment

Analysis	Organotins* PSEP (GC/MS)
Holding Time	✓
Surrogate Recovery	✓
MS/MSD (SS-7-0.5')	Note 1
LCS (Blank Spike)	Note 2
Method Blanks	✓
Field Duplicates (FD-1 and SS-8-0.5'; FD-2 and SS-10-1')	Note 3
Field/Equipment Blanks	NA
Reporting Limits	Note 4

* Monobutyltin, tetra-n-butyltin, dibutyltin, tributyltin

✓ – QC criteria were met.

Notes:

1. The MS/MSD run on sample SS-7-0.5' had percent recoveries outside of QC acceptance range for all four compounds. In addition, the RPD was either not calculated or above the QC limit for all compounds. Since the concentration of tributyltin in sample SS-07-0.5' exceeded the spiking concentration by a factor greater than four, no qualifiers were required for this compound due to the MS/MSD. All reported concentrations in the spiked sample were flagged "J," estimated.

2. The following LCS recoveries had RPDs between the LCS and the LCSD that exceeded the QC limit.

Prep Batch	Compound	RPD	RPD Limit
190241	Tetra-n-butyltin	36	25
190247	Monobutyltin	65	36

Samples were flagged "J," and "UJ" for results of Tetra-butyltin in prep Batch 190241 and Monobutyltin in Prep Batch 190247.

3. The RPD between the reported Dibutytin concentrations in the field duplicate pair FD-1 and SS-8-0.5' of 103% exceeded the QC limit of 50%. Both results were flagged "J."

For the duplicate pair, SS-10-1' and FD-2, the RPD between the reported concentration of Tetra-n-butytin of 71% and between Tributyltin reported concentrations of 73% exceed the QC limit of 50%. All four reported concentrations were flagged "J," estimated. The mean of all ~~three~~ flagged duplicate pairs ~~compounds~~ should be used as the estimated concentration for each sampling point - sets of

4. In order to quantitate target compounds, the following dilutions were required:

Sample	Compounds (-Butyltin)	Dilution Factor
SS-1-1'	Dibutyltin	5
SS-2-0.5'	All	5
SS-3-1'	Mono and Tetro-n	5
	Di and Tri	25
SS-9-0.5'	Mono	50
	Di and Tri	250
SS-10-1'	Di and Tri	10
SS-9-1'		
FD-2	Di and Tri	5

Reporting limits were increased by the same factors as the dilutions.

Summary:

Based on this Level III validation, these data are usable, as qualified, for their intended purpose. None of these data were rejected.

2. The following LCS recoveries had RPDs between the LCS and the LCSD that exceeded the QC limit.

Prep Batch	Compound	RPD	RPD Limit
190241	Tetra-n-butyltin	36	25
190247	Monobutyltin	65	36

Samples were flagged "J," and "UJ" for results of Tetra-butyltin in prep Batch 190241 and Monobutyltin in Prep Batch 190247.

3. The RPD between the reported Dibutytin concentrations in the field duplicate pair FD-1 and SS-8-0.5' of 103% exceeded the QC limit of 50%. Both results were flagged "J."

   For the duplicate pair, SS-10-1' and FD-2, the RPD between the reported concentration of Tetra-n-butytin of 71% and between Tributyltin reported concentrations of 73% exceed the QC limit of 50%. All four reported concentrations were flagged "J," estimated. The mean of all sets of flagged duplicate pairs should be used as the estimated concentration for each sampling point.

4. In order to quantitate target compounds, the following dilutions were required:

Sample	Compounds (-Butyltin)	Dilution Factor
SS-1-1'	Dibutyltin	5
SS-2-0.5'	All	5
SS-3-1'	Mono and Tetro-n	5
	Di and Tri	25
SS-9-0.5'	Mono	50
	Di and Tri	250
SS-10-1'	Di and Tri	10
SS-9-1'		
FD-2	Di and Tri	5

Reporting limits were increased by the same factors as the dilutions.

Summary:

Based on this Level III validation, these data are usable, as qualified, for their intended purpose. None of these data were rejected.

LEVEL III Data Validation Report

PROJECT: Blue Greenway, 900 Innes

LABORATORY: Test America, Pleasanton, CA

LAB NUMBER: 720-64901

SAMPLES: SS-1-1', SS-2-0.5', SS-2-1', SS-3-0.5', SS-3-1', SS-4-0.5', SS-4-1', SS-5-0.5', SS-5-1', SS-6-0.5', SS-6-1', SS-7-0.5', SS-7-1', SS-8-0.5', SS-8-1', SS-9-0.5', SS-9-1', SS-10-0.5', SS-10-1', FD-1, FD-2

MATRIX: Sediment

Analysis	CAM 17 Metals 6010B / Hg by 7471A
Holding Time	✓
Surrogate Recovery	NA
MS/MSD	✓
LCS (Blank Spike)	✓
Method Blanks	✓
Field Duplicates (FD-1 and SS-8-0.5')	✓
Field/Equipment Blanks	NA
Reporting Limits	Note 1

✓ – QC criteria were met.

Notes: 1. 6010B Metals were diluted by factors of four in all samples other than the specifid metals listed below:

Sample	Un-diluted Metals
SS-3-0.5'	Sb, Be, Cd, Mo, Se, Ag, Tl
SS-5-0.5'	Sb, Be, Cd, Mo, Se, As, Tl
SS-5-1'	Sb, Be, Cd, Se, Ag, Tl
SS-6-0.5'	Sb, Be, Cd, Mo, Se, As, Tl
SS-10-0.5'	Sb, Be, Cd, Pb, Mo, Ni, Se, Ag, Tl
FD-2	Sb, Be, Cd, Pb, Ni, Se, Ag, Tl

Higher dilutions than four were needed in sample SS-9-0.5' as follows:

Sb (10)

Cu (50), [Pb, Mo, Ni, Tl (10)]

Reporting limits were increased by the same factors as the dilutions.

For Mercury, the following dilutions were required:

Sample	Hg Dilution Factor
SS-7-0.5' SS-2-1' SS-7-1' SS-1-1' SS-6-1'	5
SS-10-1' SS-10-0.5' SS-3-1' SS-8-0.5' FD-1 FD-2	10
SS-4-1' SS-4-0.5' SS-8-1' SS-9-0.5' SS-9-1'	100

Reporting limits were increased by the same factors as the dilutions. Reported concentrations of mercury exceeded the elevated reporting limits.

Summary:

Based on this Level III validation, these data are usable for their intended purpose. None of these data were qualified or rejected.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-64901-1
Client Project/Site: Blue Greenway 900 Innes

For:
URS Corporation
One Montgomery Street
Suite 900
San Francisco, California 94104-4538

Attn: Mr. Erik Skov

Authorized for release by:
5/29/2015 4:09:06 PM

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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.

Table of Contents

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits
X	Surrogate is outside control limits
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
E	Result exceeded calibration range.
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.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

GC Semi VOA

Qualifier	Qualifier Description
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
X	Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, 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)

Job ID: 720-64901-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-64901-1

Comments
No additional comments.

Receipt
The samples were received on 5/19/2015 3:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.3° C.

GC/MS Semi VOA
Method(s) 8270C: The following samples was diluted due to the abundance of non-target analytes: SS-9-1' (720-64901-18) and SS-10-1' (720-64901-20). Elevated reporting limits (RLs) are provided.

Method(s) 8270C: Surrogate recovery for the following samples was outside control limits: SS-10-0.5' (720-64901-19) and SS-10-1' (720-64901-20). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8270C: Surrogate recovery for the following sample was outside the upper control limit: (MB 720-182427/1-A). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8270C: The following samples was diluted due to the abundance of non-target analytes: SS-2-0.5' (720-64901-3), SS-2-1' (720-64901-4), SS-3-0.5' (720-64901-5), SS-3-1' (720-64901-6), FD-1 (720-64901-21) and FD-2 (720-64901-22). Elevated reporting limits (RLs) are provided.

Method(s) 8270C: The following samples was diluted due to the abundance of non-target analytes: SS-1-1' (720-64901-2), SS-4-0.5' (720-64901-7) and SS-4-1' (720-64901-8). Elevated reporting limits (RLs) are provided.

Method(s) Organotins: The continuing calibration verification (CCV) associated with batch 580-190365 recovered above the upper control limit for Monobutyl Tin. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: SS-1-0.5' (720-64901-1), SS-1-1' (720-64901-2), SS-2-0.5' (720-64901-3), SS-2-1' (720-64901-4), SS-3-0.5' (720-64901-5), SS-3-1' (720-64901-6), (LCS 580-190241/2-A), (LCSD 580-190241/3-A), (MB 580-190241/1-A) and (580-47466-A-7-C MDLS).

Method(s) Organotins: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 580-190241, 580-190241 and 580-190241 recovered outside control limits for Tetrabutyltin. All targets had passing recovery in both the LCS and LCSD.

Method(s) Organotins: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 580-190247, 580-190247 and 580-190247 recovered outside control limits for MonobutylTin. All targets had passing recovery in the LCS and LCSD.

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 samples required a dilution due to the nature of the sample matrix: SS-1-1' (720-64901-2), SS-2-0.5' (720-64901-3) and SS-2-1' (720-64901-4). 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) 8082: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: SS-1-0.5' (720-64901-1), SS-1-1' (720-64901-2), SS-2-0.5' (720-64901-3), SS-2-1' (720-64901-4), SS-3-0.5' (720-64901-5), (LCS 720-182348/2-A), (MB 720-182348/1-A), (720-64901-A-1-B MS) and (720-64901-A-1-C MSD).

Method(s) 8082: The following sample(s) contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor: SS-1-0.5' (720-64901-1), SS-1-1' (720-64901-2), SS-2-0.5' (720-64901-3) and SS-2-1' (720-64901-4).

Job ID: 720-64901-1 (Continued)

Laboratory: TestAmerica Pleasanton (Continued)

Method(s) 8082: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: SS-5-1' (720-64901-10), SS-6-0.5' (720-64901-11) and SS-6-1' (720-64901-12).

Method(s) 8082: The following sample(s) contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor: SS-5-1' (720-64901-10), SS-6-0.5' (720-64901-11) and SS-6-1' (720-64901-12).

Method(s) 8015B: The following sample required a dilution due to the nature of the sample matrix: SS-4-1' (720-64901-8). 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 samples required a dilution due to the nature of the sample matrix: SS-3-1' (720-64901-6) and SS-4-0.5' (720-64901-7). 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) 8015B: The following sample required a dilution due to the nature of the sample matrix: SS-1-0.5' (720-64901-1). 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: The following samples required a dilution due to the nature of the sample matrix: SS-7-1' (720-64901-14), SS-9-0.5' (720-64901-17) and SS-9-1' (720-64901-18). 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: The following sample(s) contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor: SS-7-0.5' (720-64901-13), SS-7-1' (720-64901-14), SS-8-0.5' (720-64901-15), SS-8-1' (720-64901-16), SS-9-0.5' (720-64901-17), SS-9-1' (720-64901-18) and FD-2 (720-64901-22).

Method(s) 8082: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: SS-7-0.5' (720-64901-13), SS-7-1' (720-64901-14), SS-8-0.5' (720-64901-15), SS-8-1' (720-64901-16), SS-9-0.5' (720-64901-17), SS-9-1' (720-64901-18), FD-2 (720-64901-22), (LCS 720-182388/2-A), (MB 720-182388/1-A), (720-64909-A-1-G), (720-64909-A-1-E MS) and (720-64909-A-1-F MSD).

Method(s) 8082: The following samples required a dilution due to the nature of the sample matrix: SS-10-1' (720-64901-20) and FD-1 (720-64901-21). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method(s) 8082: The following sample(s) contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor: SS-3-1' (720-64901-6), SS-4-0.5' (720-64901-7), SS-4-1' (720-64901-8), SS-5-0.5' (720-64901-9), SS-10-0.5' (720-64901-19), SS-10-1' (720-64901-20) and FD-1 (720-64901-21).

Method(s) 8082: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: SS-3-1' (720-64901-6), SS-4-0.5' (720-64901-7), SS-4-1' (720-64901-8), SS-5-0.5' (720-64901-9), SS-10-0.5' (720-64901-19), SS-10-1' (720-64901-20) and FD-1 (720-64901-21).

Method(s) 8015B: The following samples required a dilution due to the nature of the sample matrix: SS-7-0.5' (720-64901-13) and SS-7-1' (720-64901-14). 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 Diesel Range Organics (DRO) concentration reported for the following sample is due to the presence of discrete peaks: (720-64909-B-1-E).

Method(s) 8015B: The following samples required a dilution due to the nature of the sample matrix: SS-8-1' (720-64901-16), SS-9-0.5' (720-64901-17) and SS-9-1' (720-64901-18). 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.

Job ID: 720-64901-1 (Continued)

Laboratory: TestAmerica Pleasanton (Continued)

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

Metals

Method(s) 6010B: The following samples was diluted due to the abundance of non-target analyte : SS-1-0.5' (720-64901-1), SS-1-1' (720-64901-2), SS-2-0.5' (720-64901-3), SS-2-1' (720-64901-4), SS-3-1' (720-64901-6), SS-4-0.5' (720-64901-7) and SS-4-1' (720-64901-8). Elevated reporting limits (RLs) are provided.

Method(s) 6010B: The following samples was diluted due to the abundance of non-target analyte: SS-6-1' (720-64901-12), SS-7-0.5' (720-64901-13), SS-7-1' (720-64901-14), SS-8-0.5' (720-64901-15), SS-8-1' (720-64901-16), SS-9-0.5' (720-64901-17), SS-9-1' (720-64901-18), SS-10-1' (720-64901-20) and FD-1 (720-64901-21). Elevated reporting limits (RLs) are provided.

Method(s) 6010B: The following sample was diluted to bring the concentration of target analytes within the calibration range: SS-9-0.5' (720-64901-17). Elevated reporting limits (RLs) are provided.

Method(s) 6010B: The following sample was diluted due to the abundance of non-target analyte : FD-1 (720-64901-21). Elevated reporting limits (RLs) are provided.

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

Organic Prep

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

Detection Summary

Client: URS Corporation
Project/Site: Blue Greenway 900 Innes

TestAmerica Job ID: 720-64901-1

Client Sample ID: SS-1-0.5' — Lab Sample ID: 720-64901-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dibutyltin	81		0.93		ug/Kg	1		Organotins	Total/NA
Monobutyltin	24		0.93		ug/Kg	1		Organotins	Total/NA
Tributyltin	70		0.93		ug/Kg	1		Organotins	Total/NA
Diesel Range Organics [C10-C28]	180		5.0		mg/Kg	5		8015B	Total/NA
Motor Oil Range Organics [C24-C36]	420		250		mg/Kg	5		8015B	Total/NA
PCB-1254	74		49		ug/Kg	1		8082	Total/NA
Arsenic	7.0		3.3		mg/Kg	4		6010B	Total/NA
Barium	58		1.7		mg/Kg	4		6010B	Total/NA
Chromium	68		1.7		mg/Kg	4		6010B	Total/NA
Cobalt	11		0.66		mg/Kg	4		6010B	Total/NA
Copper	180		5.0		mg/Kg	4		6010B	Total/NA
Lead	76		1.7		mg/Kg	4		6010B	Total/NA
Nickel	90		1.7		mg/Kg	4		6010B	Total/NA
Vanadium	40		1.7		mg/Kg	4		6010B	Total/NA
Zinc	140		5.0		mg/Kg	4		6010B	Total/NA
Mercury	0.54		0.0095		mg/Kg	1		7471A	Total/NA

Client Sample ID: SS-1-1' — Lab Sample ID: 720-64901-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	4.4		1.3		mg/Kg	10		8270C	Total/NA
Chrysene	27		1.3		mg/Kg	10		8270C	Total/NA
Monobutyltin	69		0.94		ug/Kg	1		Organotins	Total/NA
Tributyltin	150		0.94		ug/Kg	1		Organotins	Total/NA
Dibutyltin - DL	230		4.7		ug/Kg	5		Organotins	Total/NA
Diesel Range Organics [C10-C28]	260		9.9		mg/Kg	10		8015B	Total/NA
Motor Oil Range Organics [C24-C36]	610		500		mg/Kg	10		8015B	Total/NA
PCB-1254	180		50		ug/Kg	1		8082	Total/NA
Arsenic	8.6		2.9		mg/Kg	4		6010B	Total/NA
Barium	69		1.4		mg/Kg	4		6010B	Total/NA
Chromium	64		1.4		mg/Kg	4		6010B	Total/NA
Cobalt	12		0.58		mg/Kg	4		6010B	Total/NA
Copper	370		4.3		mg/Kg	4		6010B	Total/NA
Lead	120		1.4		mg/Kg	4		6010B	Total/NA
Molybdenum	2.2		1.4		mg/Kg	4		6010B	Total/NA
Nickel	88		1.4		mg/Kg	4		6010B	Total/NA
Vanadium	37		1.4		mg/Kg	4		6010B	Total/NA
Zinc	220		4.3		mg/Kg	4		6010B	Total/NA
Mercury	3.2		0.047		mg/Kg	5		7471A	Total/NA

Client Sample ID: SS-2-0.5' — Lab Sample ID: 720-64901-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dibutyltin	62		4.9		ug/Kg	5		Organotins	Total/NA
Diesel Range Organics [C10-C28]	320		9.9		mg/Kg	10		8015B	Total/NA
Motor Oil Range Organics [C24-C36]	640		500		mg/Kg	10		8015B	Total/NA
PCB-1254	54		50		ug/Kg	1		8082	Total/NA
Arsenic	5.0		3.3		mg/Kg	4		6010B	Total/NA
Barium	77		1.6		mg/Kg	4		6010B	Total/NA
Chromium	37		1.6		mg/Kg	4		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SS-2-0.5' (Continued)

Lab Sample ID: 720-64901-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	8.3		0.66		mg/Kg	4		6010B	Total/NA
Copper	120		4.9		mg/Kg	4		6010B	Total/NA
Lead	140		1.6		mg/Kg	4		6010B	Total/NA
Molybdenum	1.9		1.6		mg/Kg	4		6010B	Total/NA
Nickel	59		1.6		mg/Kg	4		6010B	Total/NA
Vanadium	25		1.6		mg/Kg	4		6010B	Total/NA
Zinc	730		4.9		mg/Kg	4		6010B	Total/NA
Mercury	0.49		0.0088		mg/Kg	1		7471A	Total/NA

Client Sample ID: SS-2-1'

Lab Sample ID: 720-64901-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pyrene	0.73		0.67		mg/Kg	5		8270C	Total/NA
Dibutyltin	83		0.95		ug/Kg	1		Organotins	Total/NA
Tributyltin	110		0.95		ug/Kg	1		Organotins	Total/NA
Diesel Range Organics [C10-C28]	360		9.9		mg/Kg	10		8015B	Total/NA
Motor Oil Range Organics [C24-C36]	800		490		mg/Kg	10		8015B	Total/NA
PCB-1254	180		50		ug/Kg	1		8082	Total/NA
Antimony	3.0		1.8		mg/Kg	4		6010B	Total/NA
Arsenic	16		3.7		mg/Kg	4		6010B	Total/NA
Barium	97		1.8		mg/Kg	4		6010B	Total/NA
Cadmium	2.3		0.46		mg/Kg	4		6010B	Total/NA
Chromium	130		1.8		mg/Kg	4		6010B	Total/NA
Cobalt	18		0.73		mg/Kg	4		6010B	Total/NA
Copper	650		5.5		mg/Kg	4		6010B	Total/NA
Lead	410		1.8		mg/Kg	4		6010B	Total/NA
Molybdenum	17		1.8		mg/Kg	4		6010B	Total/NA
Nickel	230		1.8		mg/Kg	4		6010B	Total/NA
Vanadium	28		1.8		mg/Kg	4		6010B	Total/NA
Zinc	2400		5.5		mg/Kg	4		6010B	Total/NA
Mercury	1.8		0.045		mg/Kg	5		7471A	Total/NA

Client Sample ID: SS-3-0.5'

Lab Sample ID: 720-64901-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	0.17		0.13		mg/Kg	2		8270C	Total/NA
Fluorene	0.20		0.13		mg/Kg	2		8270C	Total/NA
Phenanthrene	1.0		0.13		mg/Kg	2		8270C	Total/NA
Anthracene	0.62		0.13		mg/Kg	2		8270C	Total/NA
Fluoranthene	2.0		0.13		mg/Kg	2		8270C	Total/NA
Pyrene	2.0		0.13		mg/Kg	2		8270C	Total/NA
Chrysene	0.94		0.13		mg/Kg	2		8270C	Total/NA
Benzo[b]fluoranthene	0.63		0.13		mg/Kg	2		8270C	Total/NA
Benzo[k]fluoranthene	0.23		0.13		mg/Kg	2		8270C	Total/NA
Benzo[a]pyrene	0.44		0.13		mg/Kg	2		8270C	Total/NA
Indeno[1,2,3-cd]pyrene	0.22		0.13		mg/Kg	2		8270C	Total/NA
Benzo[g,h,i]perylene	0.20		0.13		mg/Kg	2		8270C	Total/NA
Dibutyltin	31		0.92		ug/Kg	1		Organotins	Total/NA
Tributyltin	25		0.92		ug/Kg	1		Organotins	Total/NA
Diesel Range Organics [C10-C28]	110		2.0		mg/Kg	2		8015B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SS-3-0.5' (Continued) — Lab Sample ID: 720-64901-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Motor Oil Range Organics [C24-C36]	140		99		mg/Kg	2		8015B	Total/NA
Arsenic	4.6		3.3		mg/Kg	4		6010B	Total/NA
Barium	28		1.7		mg/Kg	4		6010B	Total/NA
Chromium	41		1.7		mg/Kg	4		6010B	Total/NA
Cobalt	6.2		0.66		mg/Kg	4		6010B	Total/NA
Copper	80		5.0		mg/Kg	4		6010B	Total/NA
Lead	28		1.7		mg/Kg	4		6010B	Total/NA
Nickel	41		1.7		mg/Kg	4		6010B	Total/NA
Vanadium	29		1.7		mg/Kg	4		6010B	Total/NA
Zinc	80		5.0		mg/Kg	4		6010B	Total/NA
Mercury	0.49		0.0090		mg/Kg	1		7471A	Total/NA

Client Sample ID: SS-3-1' — Lab Sample ID: 720-64901-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.44		0.27		mg/Kg	2		8270C	Total/NA
Anthracene	0.33		0.27		mg/Kg	2		8270C	Total/NA
Fluoranthene	3.6		0.27		mg/Kg	2		8270C	Total/NA
Pyrene	7.6		0.27		mg/Kg	2		8270C	Total/NA
Chrysene	0.93		0.27		mg/Kg	2		8270C	Total/NA
Benzo[b]fluoranthene	1.8		0.27		mg/Kg	2		8270C	Total/NA
Benzo[k]fluoranthene	0.73		0.27		mg/Kg	2		8270C	Total/NA
Benzo[a]pyrene	1.1		0.27		mg/Kg	2		8270C	Total/NA
Indeno[1,2,3-cd]pyrene	0.62		0.27		mg/Kg	2		8270C	Total/NA
Benzo[g,h,i]perylene	0.62		0.27		mg/Kg	2		8270C	Total/NA
Monobutyltin	92		4.7		ug/Kg	5		Organotins	Total/NA
Tetra-n-butyltin	61	*	13		ug/Kg	5		Organotins	Total/NA
Dibutyltin - DL	990		24		ug/Kg	25		Organotins	Total/NA
Tributyltin - DL	2200		24		ug/Kg	25		Organotins	Total/NA
Diesel Range Organics [C10-C28]	340		5.0		mg/Kg	5		8015B	Total/NA
Motor Oil Range Organics [C24-C36]	570		250		mg/Kg	5		8015B	Total/NA
PCB-1254	980		250		ug/Kg	5		8082	Total/NA
Arsenic	16		3.8		mg/Kg	4		6010B	Total/NA
Barium	130		1.9		mg/Kg	4		6010B	Total/NA
Cadmium	0.49		0.47		mg/Kg	4		6010B	Total/NA
Chromium	82		1.9		mg/Kg	4		6010B	Total/NA
Cobalt	19		0.75		mg/Kg	4		6010B	Total/NA
Copper	1100		5.7		mg/Kg	4		6010B	Total/NA
Lead	150		1.9		mg/Kg	4		6010B	Total/NA
Molybdenum	20		1.9		mg/Kg	4		6010B	Total/NA
Nickel	81		1.9		mg/Kg	4		6010B	Total/NA
Vanadium	44		1.9		mg/Kg	4		6010B	Total/NA
Zinc	440		5.7		mg/Kg	4		6010B	Total/NA
Mercury	4.6		0.097		mg/Kg	10		7471A	Total/NA

Client Sample ID: SS-4-0.5' — Lab Sample ID: 720-64901-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	1.5		0.27		mg/Kg	2		8270C	Total/NA
Anthracene	0.58		0.27		mg/Kg	2		8270C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SS-4-0.5' (Continued)

Lab Sample ID: 720-64901-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	2.6		0.27		mg/Kg	2		8270C	Total/NA
Pyrene	3.1		0.27		mg/Kg	2		8270C	Total/NA
Chrysene	1.5		0.27		mg/Kg	2		8270C	Total/NA
Benzo[b]fluoranthene	1.6		0.27		mg/Kg	2		8270C	Total/NA
Benzo[k]fluoranthene	0.56		0.27		mg/Kg	2		8270C	Total/NA
Benzo[a]pyrene	1.1		0.27		mg/Kg	2		8270C	Total/NA
Indeno[1,2,3-cd]pyrene	0.61		0.27		mg/Kg	2		8270C	Total/NA
Benzo[g,h,i]perylene	0.72		0.27		mg/Kg	2		8270C	Total/NA
Dibutyltin	130		1.1		ug/Kg	1		Organotins	Total/NA
Monobutyltin	57		1.1		ug/Kg	1		Organotins	Total/NA
Tetra-n-butyltin	26		2.9		ug/Kg	1		Organotins	Total/NA
Tributyltin	160		1.1		ug/Kg	1		Organotins	Total/NA
Diesel Range Organics [C10-C28]	370		5.0		mg/Kg	5		8015B	Total/NA
Motor Oil Range Organics [C24-C36]	620		250		mg/Kg	5		8015B	Total/NA
PCB-1254	920		250		ug/Kg	5		8082	Total/NA
Antimony	3.5		1.7		mg/Kg	4		6010B	Total/NA
Arsenic	20		3.4		mg/Kg	4		6010B	Total/NA
Barium	180		1.7		mg/Kg	4		6010B	Total/NA
Cadmium	0.47		0.43		mg/Kg	4		6010B	Total/NA
Chromium	94		1.7		mg/Kg	4		6010B	Total/NA
Cobalt	10		0.69		mg/Kg	4		6010B	Total/NA
Copper	700		5.2		mg/Kg	4		6010B	Total/NA
Lead	350		1.7		mg/Kg	4		6010B	Total/NA
Molybdenum	2.0		1.7		mg/Kg	4		6010B	Total/NA
Nickel	74		1.7		mg/Kg	4		6010B	Total/NA
Vanadium	29		1.7		mg/Kg	4		6010B	Total/NA
Zinc	660		5.2		mg/Kg	4		6010B	Total/NA
Mercury	88		0.91		mg/Kg	100		7471A	Total/NA

Client Sample ID: SS-4-1'

Lab Sample ID: 720-64901-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	1.4		1.3		mg/Kg	10		8270C	Total/NA
Acenaphthene	1.8		1.3		mg/Kg	10		8270C	Total/NA
Fluorene	2.3		1.3		mg/Kg	10		8270C	Total/NA
Phenanthrene	7.6		1.3		mg/Kg	10		8270C	Total/NA
Anthracene	2.3		1.3		mg/Kg	10		8270C	Total/NA
Fluoranthene	2.6		1.3		mg/Kg	10		8270C	Total/NA
Pyrene	3.7		1.3		mg/Kg	10		8270C	Total/NA
2-Methylnaphthalene	4.8		1.3		mg/Kg	10		8270C	Total/NA
Dibutyltin	76		1.1		ug/Kg	1		Organotins	Total/NA
Tributyltin	150		1.1		ug/Kg	1		Organotins	Total/NA
Diesel Range Organics [C10-C28]	5500		50		mg/Kg	50		8015B	Total/NA
Motor Oil Range Organics [C24-C36]	2900		2500		mg/Kg	50		8015B	Total/NA
PCB-1254	1100		240		ug/Kg	5		8082	Total/NA
Antimony	3.6		1.7		mg/Kg	4		6010B	Total/NA
Arsenic	20		3.4		mg/Kg	4		6010B	Total/NA
Barium	250		1.7		mg/Kg	4		6010B	Total/NA
Cadmium	33		0.43		mg/Kg	4		6010B	Total/NA
Chromium	100		1.7		mg/Kg	4		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SS-4-1' (Continued) — Lab Sample ID: 720-64901-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	26		0.68		mg/Kg	4		6010B	Total/NA
Copper	850		5.1		mg/Kg	4		6010B	Total/NA
Lead	1600		1.7		mg/Kg	4		6010B	Total/NA
Molybdenum	9.7		1.7		mg/Kg	4		6010B	Total/NA
Nickel	94		1.7		mg/Kg	4		6010B	Total/NA
Vanadium	31		1.7		mg/Kg	4		6010B	Total/NA
Zinc	1900		5.1		mg/Kg	4		6010B	Total/NA
Mercury	9.1		0.94		mg/Kg	100		7471A	Total/NA

Client Sample ID: SS-5-0.5' — Lab Sample ID: 720-64901-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	0.46		0.33		mg/Kg	5		8270C	Total/NA
Fluoranthene	0.76		0.33		mg/Kg	5		8270C	Total/NA
Pyrene	1.0		0.33		mg/Kg	5		8270C	Total/NA
Chrysene	1.1		0.33		mg/Kg	5		8270C	Total/NA
Benzo[b]fluoranthene	1.3		0.33		mg/Kg	5		8270C	Total/NA
Benzo[k]fluoranthene	0.53		0.33		mg/Kg	5		8270C	Total/NA
Benzo[a]pyrene	0.87		0.33		mg/Kg	5		8270C	Total/NA
Indeno[1,2,3-cd]pyrene	0.48		0.33		mg/Kg	5		8270C	Total/NA
Benzo[g,h,i]perylene	0.45		0.33		mg/Kg	5		8270C	Total/NA
Diesel Range Organics [C10-C28]	39		1.0		mg/Kg	1		8015B	Total/NA
Motor Oil Range Organics [C24-C36]	74		50		mg/Kg	1		8015B	Total/NA
PCB-1254	59		49		ug/Kg	1		8082	Total/NA
Arsenic	4.8		3.0		mg/Kg	4		6010B	Total/NA
Barium	27		1.5		mg/Kg	4		6010B	Total/NA
Beryllium	0.16		0.075		mg/Kg	1		6010B	Total/NA
Chromium	39		1.5		mg/Kg	4		6010B	Total/NA
Cobalt	5.7		0.60		mg/Kg	4		6010B	Total/NA
Copper	75		4.5		mg/Kg	4		6010B	Total/NA
Lead	46		1.5		mg/Kg	4		6010B	Total/NA
Molybdenum	0.39		0.37		mg/Kg	1		6010B	Total/NA
Nickel	38		1.5		mg/Kg	4		6010B	Total/NA
Vanadium	26		1.5		mg/Kg	4		6010B	Total/NA
Zinc	80		4.5		mg/Kg	4		6010B	Total/NA
Mercury	1.2		0.0085		mg/Kg	1		7471A	Total/NA

Client Sample ID: SS-5-1' — Lab Sample ID: 720-64901-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.45		0.33		mg/Kg	5		8270C	Total/NA
Anthracene	0.34		0.33		mg/Kg	5		8270C	Total/NA
Fluoranthene	0.67		0.33		mg/Kg	5		8270C	Total/NA
Pyrene	1.7		0.33		mg/Kg	5		8270C	Total/NA
Chrysene	1.2		0.33		mg/Kg	5		8270C	Total/NA
Benzo[b]fluoranthene	1.8		0.33		mg/Kg	5		8270C	Total/NA
Benzo[k]fluoranthene	0.74		0.33		mg/Kg	5		8270C	Total/NA
Benzo[a]pyrene	1.2		0.33		mg/Kg	5		8270C	Total/NA
Indeno[1,2,3-cd]pyrene	0.68		0.33		mg/Kg	5		8270C	Total/NA
Benzo[g,h,i]perylene	0.65		0.33		mg/Kg	5		8270C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SS-5-1' (Continued) — Lab Sample ID: 720-64901-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dibutyltin	38		1.0		ug/Kg	1		Organotins	Total/NA
Tributyltin	74		1.0		ug/Kg	1		Organotins	Total/NA
Diesel Range Organics [C10-C28]	120		2.0		mg/Kg	2		8015B	Total/NA
Motor Oil Range Organics [C24-C36]	210		100		mg/Kg	2		8015B	Total/NA
PCB-1254	79		50		ug/Kg	1		8082	Total/NA
Arsenic	7.2		3.3		mg/Kg	4		6010B	Total/NA
Barium	49		1.7		mg/Kg	4		6010B	Total/NA
Beryllium	0.18		0.083		mg/Kg	1		6010B	Total/NA
Cadmium	0.10		0.10		mg/Kg	1		6010B	Total/NA
Chromium	48		1.7		mg/Kg	4		6010B	Total/NA
Cobalt	7.4		0.67		mg/Kg	4		6010B	Total/NA
Copper	200		5.0		mg/Kg	4		6010B	Total/NA
Lead	54		1.7		mg/Kg	4		6010B	Total/NA
Molybdenum	3.8		1.7		mg/Kg	4		6010B	Total/NA
Nickel	56		1.7		mg/Kg	4		6010B	Total/NA
Vanadium	30		1.7		mg/Kg	4		6010B	Total/NA
Zinc	130		5.0		mg/Kg	4		6010B	Total/NA
Mercury	1.4		0.0085		mg/Kg	1		7471A	Total/NA

Client Sample ID: SS-6-0.5' — Lab Sample ID: 720-64901-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pyrene	0.28		0.27		mg/Kg	2		8270C	Total/NA
Dibutyltin	12		1.0		ug/Kg	1		Organotins	Total/NA
Tributyltin	32		1.0		ug/Kg	1		Organotins	Total/NA
Diesel Range Organics [C10-C28]	59		1.0		mg/Kg	1		8015B	Total/NA
Motor Oil Range Organics [C24-C36]	100		50		mg/Kg	1		8015B	Total/NA
PCB-1248	50		49		ug/Kg	1		8082	Total/NA
Arsenic	6.0		3.5		mg/Kg	4		6010B	Total/NA
Barium	35		1.8		mg/Kg	4		6010B	Total/NA
Beryllium	0.17		0.088		mg/Kg	1		6010B	Total/NA
Chromium	46		1.8		mg/Kg	4		6010B	Total/NA
Cobalt	6.7		0.70		mg/Kg	4		6010B	Total/NA
Copper	120		5.3		mg/Kg	4		6010B	Total/NA
Lead	37		1.8		mg/Kg	4		6010B	Total/NA
Molybdenum	0.87		0.44		mg/Kg	1		6010B	Total/NA
Nickel	40		1.8		mg/Kg	4		6010B	Total/NA
Vanadium	29		1.8		mg/Kg	4		6010B	Total/NA
Zinc	94		5.3		mg/Kg	4		6010B	Total/NA
Mercury	0.99		0.0087		mg/Kg	1		7471A	Total/NA

Client Sample ID: SS-6-1' — Lab Sample ID: 720-64901-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	0.32		0.27		mg/Kg	2		8270C	Total/NA
Pyrene	0.99		0.27		mg/Kg	2		8270C	Total/NA
Chrysene	0.47		0.27		mg/Kg	2		8270C	Total/NA
Benzo[b]fluoranthene	0.63		0.27		mg/Kg	2		8270C	Total/NA
Benzo[a]pyrene	0.40		0.27		mg/Kg	2		8270C	Total/NA
Benzo[g,h,i]perylene	0.27		0.27		mg/Kg	2		8270C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SS-6-1' (Continued) — Lab Sample ID: 720-64901-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dibutyltin	26		1.0		ug/Kg	1		Organotins	Total/NA
Tributyltin	62		1.0		ug/Kg	1		Organotins	Total/NA
Diesel Range Organics [C10-C28]	150		2.0		mg/Kg	2		8015B	Total/NA
Motor Oil Range Organics [C24-C36]	160		99		mg/Kg	2		8015B	Total/NA
PCB-1254	210		49		ug/Kg	1		8082	Total/NA
Arsenic	11		3.3		mg/Kg	4		6010B	Total/NA
Barium	44		1.6		mg/Kg	4		6010B	Total/NA
Chromium	78		1.6		mg/Kg	4		6010B	Total/NA
Cobalt	10		0.65		mg/Kg	4		6010B	Total/NA
Copper	380		4.9		mg/Kg	4		6010B	Total/NA
Lead	100		1.6		mg/Kg	4		6010B	Total/NA
Molybdenum	10		1.6		mg/Kg	4		6010B	Total/NA
Nickel	100		1.6		mg/Kg	4		6010B	Total/NA
Vanadium	39		1.6		mg/Kg	4		6010B	Total/NA
Zinc	180		4.9		mg/Kg	4		6010B	Total/NA
Mercury	1.9		0.050		mg/Kg	5		7471A	Total/NA

Client Sample ID: SS-7-0.5' — Lab Sample ID: 720-64901-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dibutyltin	120	F2 F1	1.1		ug/Kg	1		Organotins	Total/NA
Monobutyltin	76	F2 F1 *	1.1		ug/Kg	1		Organotins	Total/NA
Tributyltin	650	F2 E	1.1		ug/Kg	1		Organotins	Total/NA
Diesel Range Organics [C10-C28]	240		5.0		mg/Kg	5		8015B	Total/NA
Motor Oil Range Organics [C24-C36]	560		250		mg/Kg	5		8015B	Total/NA
PCB-1248	410		97		ug/Kg	2		8082	Total/NA
Antimony	3.0		1.4		mg/Kg	4		6010B	Total/NA
Arsenic	11		2.8		mg/Kg	4		6010B	Total/NA
Barium	170		1.4		mg/Kg	4		6010B	Total/NA
Chromium	76		1.4		mg/Kg	4		6010B	Total/NA
Cobalt	9.6		0.56		mg/Kg	4		6010B	Total/NA
Copper	390		4.2		mg/Kg	4		6010B	Total/NA
Lead	580		1.4		mg/Kg	4		6010B	Total/NA
Molybdenum	13		1.4		mg/Kg	4		6010B	Total/NA
Nickel	66		1.4		mg/Kg	4		6010B	Total/NA
Vanadium	28		1.4		mg/Kg	4		6010B	Total/NA
Zinc	2000		4.2		mg/Kg	4		6010B	Total/NA
Mercury	2.3		0.045		mg/Kg	5		7471A	Total/NA

Client Sample ID: SS-7-1' — Lab Sample ID: 720-64901-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	0.86		0.66		mg/Kg	5		8270C	Total/NA
Pyrene	1.5		0.66		mg/Kg	5		8270C	Total/NA
Benzo[b]fluoranthene	1.0		0.66		mg/Kg	5		8270C	Total/NA
Benzo[a]pyrene	0.78		0.66		mg/Kg	5		8270C	Total/NA
Dibutyltin	110		1.0		ug/Kg	1		Organotins	Total/NA
Tetra-n-butyltin	42		2.8		ug/Kg	1		Organotins	Total/NA
Tributyltin	180		1.0		ug/Kg	1		Organotins	Total/NA
Diesel Range Organics [C10-C28]	220		5.0		mg/Kg	5		8015B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SS-7-1' (Continued)

Lab Sample ID: 720-64901-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Motor Oil Range Organics [C24-C36]	460		250		mg/Kg	5		8015B	Total/NA
PCB-1242	1900		480		ug/Kg	10		8082	Total/NA
Antimony	4.2		1.9		mg/Kg	4		6010B	Total/NA
Arsenic	11		3.8		mg/Kg	4		6010B	Total/NA
Barium	90		1.9		mg/Kg	4		6010B	Total/NA
Chromium	120		1.9		mg/Kg	4		6010B	Total/NA
Cobalt	10		0.76		mg/Kg	4		6010B	Total/NA
Copper	650		5.7		mg/Kg	4		6010B	Total/NA
Lead	300		1.9		mg/Kg	4		6010B	Total/NA
Molybdenum	7.9		1.9		mg/Kg	4		6010B	Total/NA
Nickel	77		1.9		mg/Kg	4		6010B	Total/NA
Vanadium	28		1.9		mg/Kg	4		6010B	Total/NA
Zinc	450		5.7		mg/Kg	4		6010B	Total/NA
Mercury	3.1		0.049		mg/Kg	5		7471A	Total/NA

Client Sample ID: SS-8-0.5'

Lab Sample ID: 720-64901-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.96		0.67		mg/Kg	5		8270C	Total/NA
Fluoranthene	1.4		0.67		mg/Kg	5		8270C	Total/NA
Pyrene	1.9		0.67		mg/Kg	5		8270C	Total/NA
Chrysene	0.90		0.67		mg/Kg	5		8270C	Total/NA
Benzo[b]fluoranthene	1.4		0.67		mg/Kg	5		8270C	Total/NA
Benzo[k]fluoranthene	0.70		0.67		mg/Kg	5		8270C	Total/NA
Benzo[a]pyrene	1.1		0.67		mg/Kg	5		8270C	Total/NA
Dibutyltin	79		1.1		ug/Kg	1		Organotins	Total/NA
Tributyltin	130		1.1		ug/Kg	1		Organotins	Total/NA
Diesel Range Organics [C10-C28]	260		3.0		mg/Kg	3		8015B	Total/NA
Motor Oil Range Organics [C24-C36]	480		150		mg/Kg	3		8015B	Total/NA
PCB-1260	710		250		ug/Kg	5		8082	Total/NA
Arsenic	9.5		3.0		mg/Kg	4		6010B	Total/NA
Barium	120		1.5		mg/Kg	4		6010B	Total/NA
Chromium	82		1.5		mg/Kg	4		6010B	Total/NA
Cobalt	11		0.60		mg/Kg	4		6010B	Total/NA
Copper	620		4.5		mg/Kg	4		6010B	Total/NA
Lead	190		1.5		mg/Kg	4		6010B	Total/NA
Molybdenum	2.7		1.5		mg/Kg	4		6010B	Total/NA
Nickel	67		1.5		mg/Kg	4		6010B	Total/NA
Vanadium	35		1.5		mg/Kg	4		6010B	Total/NA
Zinc	370		4.5		mg/Kg	4		6010B	Total/NA
Mercury	4.7		0.097		mg/Kg	10		7471A	Total/NA

Client Sample ID: SS-8-1'

Lab Sample ID: 720-64901-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	1.1		0.33		mg/Kg	5		8270C	Total/NA
Anthracene	0.70		0.33		mg/Kg	5		8270C	Total/NA
Fluoranthene	1.4		0.33		mg/Kg	5		8270C	Total/NA
Pyrene	3.5		0.33		mg/Kg	5		8270C	Total/NA
Chrysene	0.88		0.33		mg/Kg	5		8270C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SS-8-1' (Continued)

Lab Sample ID: 720-64901-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	3.1		0.33		mg/Kg	5		8270C	Total/NA
Benzo[k]fluoranthene	3.0		0.33		mg/Kg	5		8270C	Total/NA
Benzo[a]pyrene	1.7		0.33		mg/Kg	5		8270C	Total/NA
Indeno[1,2,3-cd]pyrene	0.77		0.33		mg/Kg	5		8270C	Total/NA
Benzo[g,h,i]perylene	0.81		0.33		mg/Kg	5		8270C	Total/NA
Dibutyltin	66		1.0		ug/Kg	1		Organotins	Total/NA
Tributyltin	130		1.0		ug/Kg	1		Organotins	Total/NA
Diesel Range Organics [C10-C28]	300		5.0		mg/Kg	5		8015B	Total/NA
Motor Oil Range Organics [C24-C36]	630		250		mg/Kg	5		8015B	Total/NA
PCB-1248	1600		500		ug/Kg	10		8082	Total/NA
Arsenic	24		3.2		mg/Kg	4		6010B	Total/NA
Barium	96		1.6		mg/Kg	4		6010B	Total/NA
Cadmium	0.43		0.40		mg/Kg	4		6010B	Total/NA
Chromium	85		1.6		mg/Kg	4		6010B	Total/NA
Cobalt	10		0.64		mg/Kg	4		6010B	Total/NA
Copper	1200		4.8		mg/Kg	4		6010B	Total/NA
Lead	600		1.6		mg/Kg	4		6010B	Total/NA
Molybdenum	3.4		1.6		mg/Kg	4		6010B	Total/NA
Nickel	62		1.6		mg/Kg	4		6010B	Total/NA
Vanadium	30		1.6		mg/Kg	4		6010B	Total/NA
Zinc	440		4.8		mg/Kg	4		6010B	Total/NA
Mercury	10		0.85		mg/Kg	100		7471A	Total/NA

Client Sample ID: SS-9-0.5'

Lab Sample ID: 720-64901-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.72		0.67		mg/Kg	5		8270C	Total/NA
Fluoranthene	1.4		0.67		mg/Kg	5		8270C	Total/NA
Pyrene	1.3		0.67		mg/Kg	5		8270C	Total/NA
Chrysene	0.75		0.67		mg/Kg	5		8270C	Total/NA
Benzo[b]fluoranthene	0.88		0.67		mg/Kg	5		8270C	Total/NA
Tetra-n-butyltin	150		2.7		ug/Kg	1		Organotins	Total/NA
Monobutyltin - DL2	3900	*	50		ug/Kg	50		Organotins	Total/NA
Dibutyltin - DL3	16000		250		ug/Kg	250		Organotins	Total/NA
Tributyltin - DL3	13000		250		ug/Kg	250		Organotins	Total/NA
Diesel Range Organics [C10-C28]	600		9.9		mg/Kg	10		8015B	Total/NA
Motor Oil Range Organics [C24-C36]	1100		500		mg/Kg	10		8015B	Total/NA
PCB-1248	2500		490		ug/Kg	10		8082	Total/NA
Arsenic	38		2.2		mg/Kg	4		6010B	Total/NA
Barium	120		1.1		mg/Kg	4		6010B	Total/NA
Cadmium	1.4		0.28		mg/Kg	4		6010B	Total/NA
Chromium	110		1.1		mg/Kg	4		6010B	Total/NA
Cobalt	14		0.45		mg/Kg	4		6010B	Total/NA
Copper	27000		42		mg/Kg	50		6010B	Total/NA
Lead	480		2.8		mg/Kg	10		6010B	Total/NA
Molybdenum	10		2.8		mg/Kg	10		6010B	Total/NA
Nickel	93		2.8		mg/Kg	10		6010B	Total/NA
Silver	0.94		0.56		mg/Kg	4		6010B	Total/NA
Vanadium	24		1.1		mg/Kg	4		6010B	Total/NA
Zinc	4000		42		mg/Kg	50		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SS-9-0.5' (Continued)

Lab Sample ID: 720-64901-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	10		0.91		mg/Kg	100		7471A	Total/NA

Client Sample ID: SS-9-1'

Lab Sample ID: 720-64901-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	1.1		0.66		mg/Kg	10		8270C	Total/NA
Fluoranthene	3.0		0.66		mg/Kg	10		8270C	Total/NA
Pyrene	3.2		0.66		mg/Kg	10		8270C	Total/NA
Chrysene	1.1		0.66		mg/Kg	10		8270C	Total/NA
Benzo[b]fluoranthene	1.1		0.66		mg/Kg	10		8270C	Total/NA
Benzo[a]pyrene	0.80		0.66		mg/Kg	10		8270C	Total/NA
Monobutyltin	94	*	1.0		ug/Kg	1		Organotins	Total/NA
Tetra-n-butyltin	27		2.7		ug/Kg	1		Organotins	Total/NA
Dibutyltin - DL	670		10		ug/Kg	10		Organotins	Total/NA
Tributyltin - DL	980		10		ug/Kg	10		Organotins	Total/NA
Diesel Range Organics [C10-C28]	780		20		mg/Kg	20		8015B	Total/NA
Motor Oil Range Organics [C24-C36]	1800		990		mg/Kg	20		8015B	Total/NA
PCB-1248	8900		2500		ug/Kg	50		8082	Total/NA
Arsenic	75		2.3		mg/Kg	4		6010B	Total/NA
Barium	110		1.1		mg/Kg	4		6010B	Total/NA
Cadmium	0.86		0.29		mg/Kg	4		6010B	Total/NA
Chromium	140		1.1		mg/Kg	4		6010B	Total/NA
Cobalt	21		0.46		mg/Kg	4		6010B	Total/NA
Copper	2400		3.4		mg/Kg	4		6010B	Total/NA
Lead	540		1.1		mg/Kg	4		6010B	Total/NA
Molybdenum	1.4		1.1		mg/Kg	4		6010B	Total/NA
Nickel	360		1.1		mg/Kg	4		6010B	Total/NA
Vanadium	26		1.1		mg/Kg	4		6010B	Total/NA
Zinc	540		3.4		mg/Kg	4		6010B	Total/NA
Mercury	23		0.91		mg/Kg	100		7471A	Total/NA

Client Sample ID: SS-10-0.5'

Lab Sample ID: 720-64901-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.066		0.066		mg/Kg	1		8270C	Total/NA
Fluoranthene	0.10		0.066		mg/Kg	1		8270C	Total/NA
Pyrene	0.16		0.066		mg/Kg	1		8270C	Total/NA
Chrysene	0.069		0.066		mg/Kg	1		8270C	Total/NA
Benzo[b]fluoranthene	0.093		0.066		mg/Kg	1		8270C	Total/NA
Benzo[a]pyrene	0.072		0.066		mg/Kg	1		8270C	Total/NA
Dibutyltin	110		1.1		ug/Kg	1		Organotins	Total/NA
Monobutyltin	29	*	1.1		ug/Kg	1		Organotins	Total/NA
Tributyltin	130		1.1		ug/Kg	1		Organotins	Total/NA
Diesel Range Organics [C10-C28]	39		0.99		mg/Kg	1		8015B	Total/NA
Motor Oil Range Organics [C24-C36]	78		49		mg/Kg	1		8015B	Total/NA
PCB-1260	360		99		ug/Kg	2		8082	Total/NA
Arsenic	8.2		3.6		mg/Kg	4		6010B	Total/NA
Barium	36		1.8		mg/Kg	4		6010B	Total/NA
Cadmium	0.20		0.11		mg/Kg	1		6010B	Total/NA
Chromium	56		1.8		mg/Kg	4		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SS-10-0.5' (Continued)

Lab Sample ID: 720-64901-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	6.4		0.72		mg/Kg	4		6010B	Total/NA
Copper	310		5.4		mg/Kg	4		6010B	Total/NA
Lead	41		0.45		mg/Kg	1		6010B	Total/NA
Molybdenum	0.78		0.45		mg/Kg	1		6010B	Total/NA
Nickel	42		0.45		mg/Kg	1		6010B	Total/NA
Vanadium	32		1.8		mg/Kg	4		6010B	Total/NA
Zinc	170		5.4		mg/Kg	4		6010B	Total/NA
Mercury	2.4		0.087		mg/Kg	10		7471A	Total/NA

Client Sample ID: SS-10-1'

Lab Sample ID: 720-64901-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	0.20		0.13		mg/Kg	2		8270C	Total/NA
Pyrene	0.43		0.13		mg/Kg	2		8270C	Total/NA
Chrysene	0.13		0.13		mg/Kg	2		8270C	Total/NA
Benzo[b]fluoranthene	0.21		0.13		mg/Kg	2		8270C	Total/NA
Benzo[a]pyrene	0.16		0.13		mg/Kg	2		8270C	Total/NA
Monobutyltin	50	*	1.0		ug/Kg	1		Organotins	Total/NA
Tetra-n-butyltin	40		2.7		ug/Kg	1		Organotins	Total/NA
Dibutyltin - DL	260		10		ug/Kg	10		Organotins	Total/NA
Tributyltin - DL	780		10		ug/Kg	10		Organotins	Total/NA
Diesel Range Organics [C10-C28]	120		3.0		mg/Kg	3		8015B	Total/NA
Motor Oil Range Organics [C24-C36]	230		150		mg/Kg	3		8015B	Total/NA
PCB-1248	1500		490		ug/Kg	10		8082	Total/NA
Arsenic	12		2.7		mg/Kg	4		6010B	Total/NA
Barium	35		1.3		mg/Kg	4		6010B	Total/NA
Chromium	62		1.3		mg/Kg	4		6010B	Total/NA
Cobalt	6.7		0.53		mg/Kg	4		6010B	Total/NA
Copper	840		4.0		mg/Kg	4		6010B	Total/NA
Lead	63		1.3		mg/Kg	4		6010B	Total/NA
Molybdenum	1.6		1.3		mg/Kg	4		6010B	Total/NA
Nickel	53		1.3		mg/Kg	4		6010B	Total/NA
Vanadium	29		1.3		mg/Kg	4		6010B	Total/NA
Zinc	240		4.0		mg/Kg	4		6010B	Total/NA
Mercury	4.6		0.086		mg/Kg	10		7471A	Total/NA

Client Sample ID: FD-1

Lab Sample ID: 720-64901-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.58		0.33		mg/Kg	5		8270C	Total/NA
Fluoranthene	0.99		0.33		mg/Kg	5		8270C	Total/NA
Pyrene	1.2		0.33		mg/Kg	5		8270C	Total/NA
Chrysene	0.80		0.33		mg/Kg	5		8270C	Total/NA
Benzo[b]fluoranthene	1.1		0.33		mg/Kg	5		8270C	Total/NA
Benzo[k]fluoranthene	0.47		0.33		mg/Kg	5		8270C	Total/NA
Benzo[a]pyrene	0.83		0.33		mg/Kg	5		8270C	Total/NA
Indeno[1,2,3-cd]pyrene	0.49		0.33		mg/Kg	5		8270C	Total/NA
Benzo[g,h,i]perylene	0.49		0.33		mg/Kg	5		8270C	Total/NA
Dibutyltin	37		1.0		ug/Kg	1		Organotins	Total/NA
Monobutyltin	12	*	1.0		ug/Kg	1		Organotins	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FD-1 (Continued)

Lab Sample ID: 720-64901-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tributyltin	89		1.0		ug/Kg	1		Organotins	Total/NA
Diesel Range Organics [C10-C28]	210		3.0		mg/Kg	3		8015B	Total/NA
Motor Oil Range Organics [C24-C36]	390		150		mg/Kg	3		8015B	Total/NA
PCB-1260	7800		2500		ug/Kg	50		8082	Total/NA
Arsenic	9.7		3.4		mg/Kg	4		6010B	Total/NA
Barium	140		1.7		mg/Kg	4		6010B	Total/NA
Chromium	82		1.7		mg/Kg	4		6010B	Total/NA
Cobalt	10		0.67		mg/Kg	4		6010B	Total/NA
Copper	540		5.0		mg/Kg	4		6010B	Total/NA
Lead	220		1.7		mg/Kg	4		6010B	Total/NA
Molybdenum	3.2		1.7		mg/Kg	4		6010B	Total/NA
Nickel	59		1.7		mg/Kg	4		6010B	Total/NA
Vanadium	34		1.7		mg/Kg	4		6010B	Total/NA
Zinc	350		5.0		mg/Kg	4		6010B	Total/NA
Mercury	5.1		0.090		mg/Kg	10		7471A	Total/NA

Client Sample ID: FD-2

Lab Sample ID: 720-64901-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.43		0.13		mg/Kg	2		8270C	Total/NA
Anthracene	0.13		0.13		mg/Kg	2		8270C	Total/NA
Fluoranthene	0.45		0.13		mg/Kg	2		8270C	Total/NA
Pyrene	0.75		0.13		mg/Kg	2		8270C	Total/NA
Chrysene	0.24		0.13		mg/Kg	2		8270C	Total/NA
Benzo[b]fluoranthene	0.31		0.13		mg/Kg	2		8270C	Total/NA
Benzo[a]pyrene	0.21		0.13		mg/Kg	2		8270C	Total/NA
Indeno[1,2,3-cd]pyrene	0.13		0.13		mg/Kg	2		8270C	Total/NA
Monobutyltin	78	*	1.0		ug/Kg	1		Organotins	Total/NA
Tetra-n-butyltin	19		2.7		ug/Kg	1		Organotins	Total/NA
Dibutyltin - DL	330		5.0		ug/Kg	5		Organotins	Total/NA
Tributyltin - DL	360		5.0		ug/Kg	5		Organotins	Total/NA
Diesel Range Organics [C10-C28]	100		2.0		mg/Kg	2		8015B	Total/NA
Motor Oil Range Organics [C24-C36]	190		99		mg/Kg	2		8015B	Total/NA
PCB-1260	870		250		ug/Kg	5		8082	Total/NA
Arsenic	9.5		3.3		mg/Kg	4		6010B	Total/NA
Barium	38		1.6		mg/Kg	4		6010B	Total/NA
Cadmium	0.28		0.10		mg/Kg	1		6010B	Total/NA
Chromium	63		1.6		mg/Kg	4		6010B	Total/NA
Cobalt	7.2		0.66		mg/Kg	4		6010B	Total/NA
Copper	670		4.9		mg/Kg	4		6010B	Total/NA
Lead	60		0.41		mg/Kg	1		6010B	Total/NA
Molybdenum	1.6		1.6		mg/Kg	4		6010B	Total/NA
Nickel	49		0.41		mg/Kg	1		6010B	Total/NA
Vanadium	29		1.6		mg/Kg	4		6010B	Total/NA
Zinc	260		4.9		mg/Kg	4		6010B	Total/NA
Mercury	4.1		0.092		mg/Kg	10		7471A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SS-1-0.5'
Date Collected: 05/19/15 07:31
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-1
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.67		mg/Kg		05/26/15 23:13	05/27/15 23:58	5
Acenaphthylene	ND		0.67		mg/Kg		05/26/15 23:13	05/27/15 23:58	5
Acenaphthene	ND		0.67		mg/Kg		05/26/15 23:13	05/27/15 23:58	5
Fluorene	ND		0.67		mg/Kg		05/26/15 23:13	05/27/15 23:58	5
Phenanthrene	ND		0.67		mg/Kg		05/26/15 23:13	05/27/15 23:58	5
Anthracene	ND		0.67		mg/Kg		05/26/15 23:13	05/27/15 23:58	5
Fluoranthene	ND		0.67		mg/Kg		05/26/15 23:13	05/27/15 23:58	5
Pyrene	ND		0.67		mg/Kg		05/26/15 23:13	05/27/15 23:58	5
Benzo[a]anthracene	ND		3.3		mg/Kg		05/26/15 23:13	05/27/15 23:58	5
Chrysene	ND		0.67		mg/Kg		05/26/15 23:13	05/27/15 23:58	5
Benzo[b]fluoranthene	ND		0.67		mg/Kg		05/26/15 23:13	05/27/15 23:58	5
Benzo[k]fluoranthene	ND		0.67		mg/Kg		05/26/15 23:13	05/27/15 23:58	5
Benzo[a]pyrene	ND		0.67		mg/Kg		05/26/15 23:13	05/27/15 23:58	5
Indeno[1,2,3-cd]pyrene	ND		0.67		mg/Kg		05/26/15 23:13	05/27/15 23:58	5
Benzo[g,h,i]perylene	ND		0.67		mg/Kg		05/26/15 23:13	05/27/15 23:58	5
2-Methylnaphthalene	ND		0.67		mg/Kg		05/26/15 23:13	05/27/15 23:58	5
Dibenz(a,h)anthracene	ND		0.67		mg/Kg		05/26/15 23:13	05/27/15 23:58	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*64*		*21 - 98*	*05/26/15 23:13*	*05/27/15 23:58*	*5*
2-Fluorobiphenyl	*71*		*30 - 112*	*05/26/15 23:13*	*05/27/15 23:58*	*5*
Terphenyl-d14	*70*		*32 - 117*	*05/26/15 23:13*	*05/27/15 23:58*	*5*

Method: Organotins - Organotins, PSEP (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibutyltin	**81**		0.93		ug/Kg		05/23/15 15:17	05/27/15 20:49	1
Monobutyltin	**24**		0.93		ug/Kg		05/23/15 15:17	05/27/15 20:49	1
Tetra-n-butyltin	ND	*	2.5 UJ		ug/Kg		05/23/15 15:17	05/27/15 20:49	1
Tributyltin	**70**		0.93		ug/Kg		05/23/15 15:17	05/27/15 20:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*56*		*20 - 151*	*05/23/15 15:17*	*05/27/15 20:49*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**180**		5.0		mg/Kg		05/22/15 12:51	05/27/15 15:07	5
Motor Oil Range Organics [C24-C36]	**420**		250		mg/Kg		05/22/15 12:51	05/27/15 15:07	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*0*	*X D*	*40 - 130*	*05/22/15 12:51*	*05/27/15 15:07*	*5*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		49		ug/Kg		05/26/15 13:18	05/26/15 22:22	1
PCB-1221	ND		49		ug/Kg		05/26/15 13:18	05/26/15 22:22	1
PCB-1232	ND		49		ug/Kg		05/26/15 13:18	05/26/15 22:22	1
PCB-1242	ND		49		ug/Kg		05/26/15 13:18	05/26/15 22:22	1
PCB-1248	ND		49		ug/Kg		05/26/15 13:18	05/26/15 22:22	1
PCB-1254	**74**		49		ug/Kg		05/26/15 13:18	05/26/15 22:22	1
PCB-1260	ND		49		ug/Kg		05/26/15 13:18	05/26/15 22:22	1

Client: URS Corporation
Project/Site: Blue Greenway 900 Innes

TestAmerica Job ID: 720-64901-1

Client Sample ID: SS-1-0.5'
Date Collected: 05/19/15 07:31
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-1
Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*70*		*45 - 132*	*05/26/15 13:18*	*05/26/15 22:22*	*1*
DCB Decachlorobiphenyl	*70*		*42 - 146*	*05/26/15 13:18*	*05/26/15 22:22*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.7		mg/Kg		05/26/15 17:30	05/27/15 12:32	4
Arsenic	**7.0**		3.3		mg/Kg		05/26/15 17:30	05/27/15 12:32	4
Barium	**58**		1.7		mg/Kg		05/26/15 17:30	05/27/15 12:32	4
Beryllium	ND		0.33		mg/Kg		05/26/15 17:30	05/27/15 12:32	4
Cadmium	ND		0.41		mg/Kg		05/26/15 17:30	05/27/15 12:32	4
Chromium	**68**		1.7		mg/Kg		05/26/15 17:30	05/27/15 12:32	4
Cobalt	**11**		0.66		mg/Kg		05/26/15 17:30	05/27/15 12:32	4
Copper	**180**		5.0		mg/Kg		05/26/15 17:30	05/27/15 12:32	4
Lead	**76**		1.7		mg/Kg		05/26/15 17:30	05/27/15 12:32	4
Molybdenum	ND		1.7		mg/Kg		05/26/15 17:30	05/27/15 12:32	4
Nickel	**90**		1.7		mg/Kg		05/26/15 17:30	05/27/15 12:32	4
Selenium	ND		3.3		mg/Kg		05/26/15 17:30	05/27/15 12:32	4
Silver	ND		0.83		mg/Kg		05/26/15 17:30	05/27/15 12:32	4
Thallium	ND		1.7		mg/Kg		05/26/15 17:30	05/27/15 12:32	4
Vanadium	**40**		1.7		mg/Kg		05/26/15 17:30	05/27/15 12:32	4
Zinc	**140**		5.0		mg/Kg		05/26/15 17:30	05/27/15 12:32	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.54**		0.0095		mg/Kg		05/26/15 16:15	05/27/15 19:09	1

Client Sample ID: SS-1-1'
Date Collected: 05/19/15 07:35
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-2
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 18:01	10
Acenaphthylene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 18:01	10
Acenaphthene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 18:01	10
Fluorene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 18:01	10
Phenanthrene	**4.4**		1.3		mg/Kg		05/26/15 23:13	05/28/15 18:01	10
Anthracene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 18:01	10
Fluoranthene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 18:01	10
Pyrene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 18:01	10
Benzo[a]anthracene	ND		6.6		mg/Kg		05/26/15 23:13	05/28/15 18:01	10
Chrysene	**27**		1.3		mg/Kg		05/26/15 23:13	05/28/15 18:01	10
Benzo[b]fluoranthene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 18:01	10
Benzo[k]fluoranthene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 18:01	10
Benzo[a]pyrene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 18:01	10
Indeno[1,2,3-cd]pyrene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 18:01	10
Benzo[g,h,i]perylene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 18:01	10
2-Methylnaphthalene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 18:01	10
Dibenz(a,h)anthracene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 18:01	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*59*		*21 - 98*	*05/26/15 23:13*	*05/28/15 18:01*	*10*
2-Fluorobiphenyl	*69*		*30 - 112*	*05/26/15 23:13*	*05/28/15 18:01*	*10*
Terphenyl-d14	*70*		*32 - 117*	*05/26/15 23:13*	*05/28/15 18:01*	*10*

Method: Organotins - Organotins, PSEP (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monobutyltin	**69**		0.94		ug/Kg		05/23/15 15:17	05/27/15 21:12	1
Tetra-n-butyltin	ND	*	2.5 UJ		ug/Kg		05/23/15 15:17	05/27/15 21:12	1
Tributyltin	**150**		0.94		ug/Kg		05/23/15 15:17	05/27/15 21:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*74*		*20 - 151*	*05/23/15 15:17*	*05/27/15 21:12*	*1*

Method: Organotins - Organotins, PSEP (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibutyltin	**230**		4.7		ug/Kg		05/23/15 15:17	05/27/15 21:35	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*124*		*20 - 151*	*05/23/15 15:17*	*05/27/15 21:35*	*5*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**260**		9.9		mg/Kg		05/22/15 12:51	05/23/15 23:01	10
Motor Oil Range Organics [C24-C36]	**610**		500		mg/Kg		05/22/15 12:51	05/23/15 23:01	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*0*	*X D*	*40 - 130*	*05/22/15 12:51*	*05/23/15 23:01*	*10*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		50		ug/Kg		05/26/15 13:18	05/26/15 22:39	1

Client Sample ID: SS-1-1'
Date Collected: 05/19/15 07:35
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-2
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1221	ND		50		ug/Kg		05/26/15 13:18	05/26/15 22:39	1
PCB-1232	ND		50		ug/Kg		05/26/15 13:18	05/26/15 22:39	1
PCB-1242	ND		50		ug/Kg		05/26/15 13:18	05/26/15 22:39	1
PCB-1248	ND		50		ug/Kg		05/26/15 13:18	05/26/15 22:39	1
PCB-1254	**180**		50		ug/Kg		05/26/15 13:18	05/26/15 22:39	1
PCB-1260	ND		50		ug/Kg		05/26/15 13:18	05/26/15 22:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*69*		*45 - 132*	*05/26/15 13:18*	*05/26/15 22:39*	*1*
DCB Decachlorobiphenyl	*70*		*42 - 146*	*05/26/15 13:18*	*05/26/15 22:39*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.4		mg/Kg		05/26/15 17:30	05/27/15 12:37	4
Arsenic	**8.6**		2.9		mg/Kg		05/26/15 17:30	05/27/15 12:37	4
Barium	**69**		1.4		mg/Kg		05/26/15 17:30	05/27/15 12:37	4
Beryllium	ND		0.29		mg/Kg		05/26/15 17:30	05/27/15 12:37	4
Cadmium	ND		0.36		mg/Kg		05/26/15 17:30	05/27/15 12:37	4
Chromium	**64**		1.4		mg/Kg		05/26/15 17:30	05/27/15 12:37	4
Cobalt	**12**		0.58		mg/Kg		05/26/15 17:30	05/27/15 12:37	4
Copper	**370**		4.3		mg/Kg		05/26/15 17:30	05/27/15 12:37	4
Lead	**120**		1.4		mg/Kg		05/26/15 17:30	05/27/15 12:37	4
Molybdenum	**2.2**		1.4		mg/Kg		05/26/15 17:30	05/27/15 12:37	4
Nickel	**88**		1.4		mg/Kg		05/26/15 17:30	05/27/15 12:37	4
Selenium	ND		2.9		mg/Kg		05/26/15 17:30	05/27/15 12:37	4
Silver	ND		0.72		mg/Kg		05/26/15 17:30	05/27/15 12:37	4
Thallium	ND		1.4		mg/Kg		05/26/15 17:30	05/27/15 12:37	4
Vanadium	**37**		1.4		mg/Kg		05/26/15 17:30	05/27/15 12:37	4
Zinc	**220**		4.3		mg/Kg		05/26/15 17:30	05/27/15 12:37	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**3.2**		0.047		mg/Kg		05/26/15 16:15	05/27/15 20:07	5

Client Sample ID: SS-2-0.5'
Date Collected: 05/19/15 07:43
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 16:38	5
Acenaphthylene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 16:38	5
Acenaphthene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 16:38	5
Fluorene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 16:38	5
Phenanthrene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 16:38	5
Anthracene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 16:38	5
Fluoranthene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 16:38	5
Pyrene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 16:38	5
Benzo[a]anthracene	ND		3.3		mg/Kg		05/26/15 23:13	05/28/15 16:38	5
Chrysene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 16:38	5
Benzo[b]fluoranthene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 16:38	5
Benzo[k]fluoranthene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 16:38	5
Benzo[a]pyrene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 16:38	5
Indeno[1,2,3-cd]pyrene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 16:38	5
Benzo[g,h,i]perylene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 16:38	5
2-Methylnaphthalene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 16:38	5
Dibenz(a,h)anthracene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 16:38	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*56*		*21 - 98*	*05/26/15 23:13*	*05/28/15 16:38*	*5*
2-Fluorobiphenyl	*52*		*30 - 112*	*05/26/15 23:13*	*05/28/15 16:38*	*5*
Terphenyl-d14	*76*		*32 - 117*	*05/26/15 23:13*	*05/28/15 16:38*	*5*

Method: Organotins - Organotins, PSEP (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibutyltin	**62**		4.9		ug/Kg		05/23/15 15:17	05/27/15 01:57	5
Monobutyltin	ND	^	4.9		ug/Kg		05/23/15 15:17	05/27/15 01:57	5
Tetra-n-butyltin	ND	*	13 UJ		ug/Kg		05/23/15 15:17	05/27/15 01:57	5
Tributyltin	ND		4.9		ug/Kg		05/23/15 15:17	05/27/15 01:57	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*79*		*20 - 151*	*05/23/15 15:17*	*05/27/15 01:57*	*5*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**320**		9.9		mg/Kg		05/22/15 12:51	05/24/15 00:58	10
Motor Oil Range Organics [C24-C36]	**640**		500		mg/Kg		05/22/15 12:51	05/24/15 00:58	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*0*	*X D*	*40 - 130*	*05/22/15 12:51*	*05/24/15 00:58*	*10*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		50		ug/Kg		05/26/15 13:18	05/26/15 22:55	1
PCB-1221	ND		50		ug/Kg		05/26/15 13:18	05/26/15 22:55	1
PCB-1232	ND		50		ug/Kg		05/26/15 13:18	05/26/15 22:55	1
PCB-1242	ND		50		ug/Kg		05/26/15 13:18	05/26/15 22:55	1
PCB-1248	ND		50		ug/Kg		05/26/15 13:18	05/26/15 22:55	1
PCB-1254	**54**		50		ug/Kg		05/26/15 13:18	05/26/15 22:55	1
PCB-1260	ND		50		ug/Kg		05/26/15 13:18	05/26/15 22:55	1

Client Sample ID: SS-2-0.5'
Date Collected: 05/19/15 07:43
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-3
Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	*73*		*45 - 132*	*05/26/15 13:18*	*05/26/15 22:55*	*1*
DCB Decachlorobiphenyl	*69*		*42 - 146*	*05/26/15 13:18*	*05/26/15 22:55*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.6		mg/Kg		05/26/15 17:30	05/27/15 12:42	4
Arsenic	**5.0**		3.3		mg/Kg		05/26/15 17:30	05/27/15 12:42	4
Barium	**77**		1.6		mg/Kg		05/26/15 17:30	05/27/15 12:42	4
Beryllium	ND		0.33		mg/Kg		05/26/15 17:30	05/27/15 12:42	4
Cadmium	ND		0.41		mg/Kg		05/26/15 17:30	05/27/15 12:42	4
Chromium	**37**		1.6		mg/Kg		05/26/15 17:30	05/27/15 12:42	4
Cobalt	**8.3**		0.66		mg/Kg		05/26/15 17:30	05/27/15 12:42	4
Copper	**120**		4.9		mg/Kg		05/26/15 17:30	05/27/15 12:42	4
Lead	**140**		1.6		mg/Kg		05/26/15 17:30	05/27/15 12:42	4
Molybdenum	**1.9**		1.6		mg/Kg		05/26/15 17:30	05/27/15 12:42	4
Nickel	**59**		1.6		mg/Kg		05/26/15 17:30	05/27/15 12:42	4
Selenium	ND		3.3		mg/Kg		05/26/15 17:30	05/27/15 12:42	4
Silver	ND		0.82		mg/Kg		05/26/15 17:30	05/27/15 12:42	4
Thallium	ND		1.6		mg/Kg		05/26/15 17:30	05/27/15 12:42	4
Vanadium	**25**		1.6		mg/Kg		05/26/15 17:30	05/27/15 12:42	4
Zinc	**730**		4.9		mg/Kg		05/26/15 17:30	05/27/15 12:42	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.49**		0.0088		mg/Kg		05/26/15 16:15	05/27/15 19:14	1

Client Sample ID: SS-2-1'
Date Collected: 05/19/15 07:47
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-4
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 16:59	5
Acenaphthylene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 16:59	5
Acenaphthene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 16:59	5
Fluorene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 16:59	5
Phenanthrene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 16:59	5
Anthracene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 16:59	5
Fluoranthene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 16:59	5
Pyrene	**0.73**		0.67		mg/Kg		05/26/15 23:13	05/28/15 16:59	5
Benzo[a]anthracene	ND		3.3		mg/Kg		05/26/15 23:13	05/28/15 16:59	5
Chrysene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 16:59	5
Benzo[b]fluoranthene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 16:59	5
Benzo[k]fluoranthene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 16:59	5
Benzo[a]pyrene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 16:59	5
Indeno[1,2,3-cd]pyrene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 16:59	5
Benzo[g,h,i]perylene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 16:59	5
2-Methylnaphthalene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 16:59	5
Dibenz(a,h)anthracene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 16:59	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*64*		*21 - 98*	*05/26/15 23:13*	*05/28/15 16:59*	*5*
2-Fluorobiphenyl	*56*		*30 - 112*	*05/26/15 23:13*	*05/28/15 16:59*	*5*
Terphenyl-d14	*84*		*32 - 117*	*05/26/15 23:13*	*05/28/15 16:59*	*5*

Method: Organotins - Organotins, PSEP (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibutyltin	**83**		0.95		ug/Kg		05/23/15 15:17	05/27/15 02:20	1
Monobutyltin	ND	^	0.95		ug/Kg		05/23/15 15:17	05/27/15 02:20	1
Tetra-n-butyltin	ND	*	2.6	UJ	ug/Kg		05/23/15 15:17	05/27/15 02:20	1
Tributyltin	**110**		0.95		ug/Kg		05/23/15 15:17	05/27/15 02:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*68*		*20 - 151*	*05/23/15 15:17*	*05/27/15 02:20*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**360**		9.9		mg/Kg		05/22/15 12:51	05/24/15 01:27	10
Motor Oil Range Organics [C24-C36]	**800**		490		mg/Kg		05/22/15 12:51	05/24/15 01:27	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*0*	*X D*	*40 - 130*	*05/22/15 12:51*	*05/24/15 01:27*	*10*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		50		ug/Kg		05/26/15 13:18	05/26/15 23:12	1
PCB-1221	ND		50		ug/Kg		05/26/15 13:18	05/26/15 23:12	1
PCB-1232	ND		50		ug/Kg		05/26/15 13:18	05/26/15 23:12	1
PCB-1242	ND		50		ug/Kg		05/26/15 13:18	05/26/15 23:12	1
PCB-1248	ND		50		ug/Kg		05/26/15 13:18	05/26/15 23:12	1
PCB-1254	**180**		50		ug/Kg		05/26/15 13:18	05/26/15 23:12	1
PCB-1260	ND		50		ug/Kg		05/26/15 13:18	05/26/15 23:12	1

Client: URS Corporation
Project/Site: Blue Greenway 900 Innes

TestAmerica Job ID: 720-64901-1

Client Sample ID: SS-2-1'
Date Collected: 05/19/15 07:47
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-4
Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	71		45 - 132	05/26/15 13:18	05/26/15 23:12	1
DCB Decachlorobiphenyl	74		42 - 146	05/26/15 13:18	05/26/15 23:12	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**3.0**		1.8		mg/Kg		05/26/15 17:30	05/27/15 12:47	4
Arsenic	**16**		3.7		mg/Kg		05/26/15 17:30	05/27/15 12:47	4
Barium	**97**		1.8		mg/Kg		05/26/15 17:30	05/27/15 12:47	4
Beryllium	ND		0.37		mg/Kg		05/26/15 17:30	05/27/15 12:47	4
Cadmium	**2.3**		0.46		mg/Kg		05/26/15 17:30	05/27/15 12:47	4
Chromium	**130**		1.8		mg/Kg		05/26/15 17:30	05/27/15 12:47	4
Cobalt	**18**		0.73		mg/Kg		05/26/15 17:30	05/27/15 12:47	4
Copper	**650**		5.5		mg/Kg		05/26/15 17:30	05/27/15 12:47	4
Lead	**410**		1.8		mg/Kg		05/26/15 17:30	05/27/15 12:47	4
Molybdenum	**17**		1.8		mg/Kg		05/26/15 17:30	05/27/15 12:47	4
Nickel	**230**		1.8		mg/Kg		05/26/15 17:30	05/27/15 12:47	4
Selenium	ND		3.7		mg/Kg		05/26/15 17:30	05/27/15 12:47	4
Silver	ND		0.92		mg/Kg		05/26/15 17:30	05/27/15 12:47	4
Thallium	ND		1.8		mg/Kg		05/26/15 17:30	05/27/15 12:47	4
Vanadium	**28**		1.8		mg/Kg		05/26/15 17:30	05/27/15 12:47	4
Zinc	**2400**		5.5		mg/Kg		05/26/15 17:30	05/27/15 12:47	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**1.8**		0.045		mg/Kg		05/26/15 16:15	05/27/15 20:10	5

Client Sample ID: SS-3-0.5'
Date Collected: 05/19/15 07:55
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-5
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.13		mg/Kg		05/26/15 23:13	05/28/15 17:21	2
Acenaphthylene	ND		0.13		mg/Kg		05/26/15 23:13	05/28/15 17:21	2
Acenaphthene	**0.17**		0.13		mg/Kg		05/26/15 23:13	05/28/15 17:21	2
Fluorene	**0.20**		0.13		mg/Kg		05/26/15 23:13	05/28/15 17:21	2
Phenanthrene	**1.0**		0.13		mg/Kg		05/26/15 23:13	05/28/15 17:21	2
Anthracene	**0.62**		0.13		mg/Kg		05/26/15 23:13	05/28/15 17:21	2
Fluoranthene	**2.0**		0.13		mg/Kg		05/26/15 23:13	05/28/15 17:21	2
Pyrene	**2.0**		0.13		mg/Kg		05/26/15 23:13	05/28/15 17:21	2
Benzo[a]anthracene	ND		0.66		mg/Kg		05/26/15 23:13	05/28/15 17:21	2
Chrysene	**0.94**		0.13		mg/Kg		05/26/15 23:13	05/28/15 17:21	2
Benzo[b]fluoranthene	**0.63**		0.13		mg/Kg		05/26/15 23:13	05/28/15 17:21	2
Benzo[k]fluoranthene	**0.23**		0.13		mg/Kg		05/26/15 23:13	05/28/15 17:21	2
Benzo[a]pyrene	**0.44**		0.13		mg/Kg		05/26/15 23:13	05/28/15 17:21	2
Indeno[1,2,3-cd]pyrene	**0.22**		0.13		mg/Kg		05/26/15 23:13	05/28/15 17:21	2
Benzo[g,h,i]perylene	**0.20**		0.13		mg/Kg		05/26/15 23:13	05/28/15 17:21	2
2-Methylnaphthalene	ND		0.13		mg/Kg		05/26/15 23:13	05/28/15 17:21	2
Dibenz(a,h)anthracene	ND		0.13		mg/Kg		05/26/15 23:13	05/28/15 17:21	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*59*		*21 - 98*	*05/26/15 23:13*	*05/28/15 17:21*	*2*
2-Fluorobiphenyl	*61*		*30 - 112*	*05/26/15 23:13*	*05/28/15 17:21*	*2*
Terphenyl-d14	*100*		*32 - 117*	*05/26/15 23:13*	*05/28/15 17:21*	*2*

Method: Organotins - Organotins, PSEP (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibutyltin	**31**		0.92		ug/Kg		05/23/15 15:17	05/27/15 02:43	1
Monobutyltin	ND	^	0.92		ug/Kg		05/23/15 15:17	05/27/15 02:43	1
Tetra-n-butyltin	ND	*	2.5 UJ		ug/Kg		05/23/15 15:17	05/27/15 02:43	1
Tributyltin	**25**		0.92		ug/Kg		05/23/15 15:17	05/27/15 02:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*60*		*20 - 151*	*05/23/15 15:17*	*05/27/15 02:43*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**110**		2.0		mg/Kg		05/22/15 12:51	05/24/15 01:56	2
Motor Oil Range Organics [C24-C36]	**140**		99		mg/Kg		05/22/15 12:51	05/24/15 01:56	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*57*		*40 - 130*	*05/22/15 12:51*	*05/24/15 01:56*	*2*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		49		ug/Kg		05/26/15 13:18	05/26/15 23:29	1
PCB-1221	ND		49		ug/Kg		05/26/15 13:18	05/26/15 23:29	1
PCB-1232	ND		49		ug/Kg		05/26/15 13:18	05/26/15 23:29	1
PCB-1242	ND		49		ug/Kg		05/26/15 13:18	05/26/15 23:29	1
PCB-1248	ND		49		ug/Kg		05/26/15 13:18	05/26/15 23:29	1
PCB-1254	ND		49		ug/Kg		05/26/15 13:18	05/26/15 23:29	1
PCB-1260	ND		49		ug/Kg		05/26/15 13:18	05/26/15 23:29	1

Client Sample ID: SS-3-0.5'
Date Collected: 05/19/15 07:55
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-5
Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	*67*		*45 - 132*	*05/26/15 13:18*	*05/26/15 23:29*	*1*
DCB Decachlorobiphenyl	*71*		*42 - 146*	*05/26/15 13:18*	*05/26/15 23:29*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.41		mg/Kg		05/26/15 17:30	05/27/15 22:41	1
Arsenic	**4.6**		3.3		mg/Kg		05/26/15 17:30	05/27/15 12:52	4
Barium	**28**		1.7		mg/Kg		05/26/15 17:30	05/27/15 12:52	4
Beryllium	ND		0.083		mg/Kg		05/26/15 17:30	05/28/15 18:15	1
Cadmium	ND		0.10		mg/Kg		05/26/15 17:30	05/27/15 22:41	1
Chromium	**41**		1.7		mg/Kg		05/26/15 17:30	05/27/15 12:52	4
Cobalt	**6.2**		0.66		mg/Kg		05/26/15 17:30	05/27/15 12:52	4
Copper	**80**		5.0		mg/Kg		05/26/15 17:30	05/27/15 12:52	4
Lead	**28**		1.7		mg/Kg		05/26/15 17:30	05/27/15 12:52	4
Molybdenum	ND		0.41		mg/Kg		05/26/15 17:30	05/28/15 18:15	1
Nickel	**41**		1.7		mg/Kg		05/26/15 17:30	05/27/15 12:52	4
Selenium	ND		0.83		mg/Kg		05/26/15 17:30	05/27/15 22:41	1
Silver	ND		0.21		mg/Kg		05/26/15 17:30	05/27/15 22:41	1
Thallium	ND		0.41		mg/Kg		05/26/15 17:30	05/28/15 18:15	1
Vanadium	**29**		1.7		mg/Kg		05/26/15 17:30	05/27/15 12:52	4
Zinc	**80**		5.0		mg/Kg		05/26/15 17:30	05/27/15 12:52	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.49**		0.0090		mg/Kg		05/26/15 16:15	05/27/15 19:19	1

Client Sample ID: SS-3-1'
Date Collected: 05/19/15 07:59
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-6
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 17:42	2
Acenaphthylene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 17:42	2
Acenaphthene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 17:42	2
Fluorene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 17:42	2
Phenanthrene	**0.44**		0.27		mg/Kg		05/26/15 23:13	05/28/15 17:42	2
Anthracene	**0.33**		0.27		mg/Kg		05/26/15 23:13	05/28/15 17:42	2
Fluoranthene	**3.6**		0.27		mg/Kg		05/26/15 23:13	05/28/15 17:42	2
Pyrene	**7.6**		0.27		mg/Kg		05/26/15 23:13	05/28/15 17:42	2
Benzo[a]anthracene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 17:42	2
Chrysene	**0.93**		0.27		mg/Kg		05/26/15 23:13	05/28/15 17:42	2
Benzo[b]fluoranthene	**1.8**		0.27		mg/Kg		05/26/15 23:13	05/28/15 17:42	2
Benzo[k]fluoranthene	**0.73**		0.27		mg/Kg		05/26/15 23:13	05/28/15 17:42	2
Benzo[a]pyrene	**1.1**		0.27		mg/Kg		05/26/15 23:13	05/28/15 17:42	2
Indeno[1,2,3-cd]pyrene	**0.62**		0.27		mg/Kg		05/26/15 23:13	05/28/15 17:42	2
Benzo[g,h,i]perylene	**0.62**		0.27		mg/Kg		05/26/15 23:13	05/28/15 17:42	2
2-Methylnaphthalene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 17:42	2
Dibenz(a,h)anthracene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 17:42	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*65*		*21 - 98*	*05/26/15 23:13*	*05/28/15 17:42*	*2*
2-Fluorobiphenyl	*62*		*30 - 112*	*05/26/15 23:13*	*05/28/15 17:42*	*2*
Terphenyl-d14	*99*		*32 - 117*	*05/26/15 23:13*	*05/28/15 17:42*	*2*

Method: Organotins - Organotins, PSEP (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monobutyltin	**92**		4.7		ug/Kg		05/23/15 15:17	05/27/15 21:58	5
Tetra-n-butyltin	**61**	* J	13		ug/Kg		05/23/15 15:17	05/27/15 21:58	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*70*		*20 - 151*	*05/23/15 15:17*	*05/27/15 21:58*	*5*

Method: Organotins - Organotins, PSEP (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibutyltin	**990**		24		ug/Kg		05/23/15 15:17	05/28/15 12:01	25
Tributyltin	**2200**		24		ug/Kg		05/23/15 15:17	05/28/15 12:01	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*74*		*20 - 151*	*05/23/15 15:17*	*05/28/15 12:01*	*25*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**340**		5.0		mg/Kg		05/22/15 12:51	05/27/15 02:18	5
Motor Oil Range Organics [C24-C36]	**570**		250		mg/Kg		05/22/15 12:51	05/27/15 02:18	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*0*	*X*	*40 - 130*	*05/22/15 12:51*	*05/27/15 02:18*	*5*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		250		ug/Kg		05/26/15 13:18	05/27/15 10:49	5

Client Sample ID: SS-3-1'
Date Collected: 05/19/15 07:59
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-6
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1221	ND		250		ug/Kg		05/26/15 13:18	05/27/15 10:49	5
PCB-1232	ND		250		ug/Kg		05/26/15 13:18	05/27/15 10:49	5
PCB-1242	ND		250		ug/Kg		05/26/15 13:18	05/27/15 10:49	5
PCB-1248	ND		250		ug/Kg		05/26/15 13:18	05/27/15 10:49	5
PCB-1254	**980**		250		ug/Kg		05/26/15 13:18	05/27/15 10:49	5
PCB-1260	ND		250		ug/Kg		05/26/15 13:18	05/27/15 10:49	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*72*		*45 - 132*	*05/26/15 13:18*	*05/27/15 10:49*	*5*
DCB Decachlorobiphenyl	*93*		*42 - 146*	*05/26/15 13:18*	*05/27/15 10:49*	*5*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.9		mg/Kg		05/26/15 17:30	05/27/15 13:07	4
Arsenic	**16**		3.8		mg/Kg		05/26/15 17:30	05/27/15 13:07	4
Barium	**130**		1.9		mg/Kg		05/26/15 17:30	05/27/15 13:07	4
Beryllium	ND		0.38		mg/Kg		05/26/15 17:30	05/27/15 13:07	4
Cadmium	**0.49**		0.47		mg/Kg		05/26/15 17:30	05/27/15 13:07	4
Chromium	**82**		1.9		mg/Kg		05/26/15 17:30	05/27/15 13:07	4
Cobalt	**19**		0.75		mg/Kg		05/26/15 17:30	05/27/15 13:07	4
Copper	**1100**		5.7		mg/Kg		05/26/15 17:30	05/27/15 13:07	4
Lead	**150**		1.9		mg/Kg		05/26/15 17:30	05/27/15 13:07	4
Molybdenum	**20**		1.9		mg/Kg		05/26/15 17:30	05/27/15 13:07	4
Nickel	**81**		1.9		mg/Kg		05/26/15 17:30	05/27/15 13:07	4
Selenium	ND		3.8		mg/Kg		05/26/15 17:30	05/27/15 13:07	4
Silver	ND		0.94		mg/Kg		05/26/15 17:30	05/27/15 13:07	4
Thallium	ND		1.9		mg/Kg		05/26/15 17:30	05/27/15 13:07	4
Vanadium	**44**		1.9		mg/Kg		05/26/15 17:30	05/27/15 13:07	4
Zinc	**440**		5.7		mg/Kg		05/26/15 17:30	05/27/15 13:07	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**4.6**		0.097		mg/Kg		05/26/15 16:15	05/27/15 20:12	10

Client Sample ID: SS-4-0.5'
Date Collected: 05/19/15 08:19
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-7
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 18:27	2
Acenaphthylene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 18:27	2
Acenaphthene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 18:27	2
Fluorene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 18:27	2
Phenanthrene	**1.5**		0.27		mg/Kg		05/26/15 23:13	05/28/15 18:27	2
Anthracene	**0.58**		0.27		mg/Kg		05/26/15 23:13	05/28/15 18:27	2
Fluoranthene	**2.6**		0.27		mg/Kg		05/26/15 23:13	05/28/15 18:27	2
Pyrene	**3.1**		0.27		mg/Kg		05/26/15 23:13	05/28/15 18:27	2
Benzo[a]anthracene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 18:27	2
Chrysene	**1.5**		0.27		mg/Kg		05/26/15 23:13	05/28/15 18:27	2
Benzo[b]fluoranthene	**1.6**		0.27		mg/Kg		05/26/15 23:13	05/28/15 18:27	2
Benzo[k]fluoranthene	**0.56**		0.27		mg/Kg		05/26/15 23:13	05/28/15 18:27	2
Benzo[a]pyrene	**1.1**		0.27		mg/Kg		05/26/15 23:13	05/28/15 18:27	2
Indeno[1,2,3-cd]pyrene	**0.61**		0.27		mg/Kg		05/26/15 23:13	05/28/15 18:27	2
Benzo[g,h,i]perylene	**0.72**		0.27		mg/Kg		05/26/15 23:13	05/28/15 18:27	2
2-Methylnaphthalene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 18:27	2
Dibenz(a,h)anthracene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 18:27	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*67*		*21 - 98*	*05/26/15 23:13*	*05/28/15 18:27*	*2*
2-Fluorobiphenyl	*73*		*30 - 112*	*05/26/15 23:13*	*05/28/15 18:27*	*2*
Terphenyl-d14	*108*		*32 - 117*	*05/26/15 23:13*	*05/28/15 18:27*	*2*

Method: Organotins - Organotins, PSEP (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibutyltin	**130**		1.1		ug/Kg		05/24/15 18:29	05/28/15 00:15	1
Monobutyltin	**57**	* J	1.1		ug/Kg		05/24/15 18:29	05/28/15 00:15	1
Tetra-n-butyltin	**26**		2.9		ug/Kg		05/24/15 18:29	05/28/15 00:15	1
Tributyltin	**160**		1.1		ug/Kg		05/24/15 18:29	05/28/15 00:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*48*		*20 - 151*	*05/24/15 18:29*	*05/28/15 00:15*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**370**		5.0		mg/Kg		05/22/15 12:51	05/27/15 02:42	5
Motor Oil Range Organics [C24-C36]	**620**		250		mg/Kg		05/22/15 12:51	05/27/15 02:42	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*0*	*X*	*40 - 130*	*05/22/15 12:51*	*05/27/15 02:42*	*5*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		250		ug/Kg		05/26/15 13:18	05/27/15 09:59	5
PCB-1221	ND		250		ug/Kg		05/26/15 13:18	05/27/15 09:59	5
PCB-1232	ND		250		ug/Kg		05/26/15 13:18	05/27/15 09:59	5
PCB-1242	ND		250		ug/Kg		05/26/15 13:18	05/27/15 09:59	5
PCB-1248	ND		250		ug/Kg		05/26/15 13:18	05/27/15 09:59	5
PCB-1254	**920**		250		ug/Kg		05/26/15 13:18	05/27/15 09:59	5
PCB-1260	ND		250		ug/Kg		05/26/15 13:18	05/27/15 09:59	5

Client: URS Corporation
Project/Site: Blue Greenway 900 Innes

TestAmerica Job ID: 720-64901-1

Client Sample ID: SS-4-0.5'
Date Collected: 05/19/15 08:19
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-7
Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*70*		*45 - 132*	*05/26/15 13:18*	*05/27/15 09:59*	*5*
DCB Decachlorobiphenyl	*77*		*42 - 146*	*05/26/15 13:18*	*05/27/15 09:59*	*5*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**3.5**		1.7		mg/Kg		05/26/15 17:30	05/27/15 13:12	4
Arsenic	**20**		3.4		mg/Kg		05/26/15 17:30	05/27/15 13:12	4
Barium	**180**		1.7		mg/Kg		05/26/15 17:30	05/27/15 13:12	4
Beryllium	ND		0.34		mg/Kg		05/26/15 17:30	05/27/15 13:12	4
Cadmium	**0.47**		0.43		mg/Kg		05/26/15 17:30	05/27/15 13:12	4
Chromium	**94**		1.7		mg/Kg		05/26/15 17:30	05/27/15 13:12	4
Cobalt	**10**		0.69		mg/Kg		05/26/15 17:30	05/27/15 13:12	4
Copper	**700**		5.2		mg/Kg		05/26/15 17:30	05/27/15 13:12	4
Lead	**350**		1.7		mg/Kg		05/26/15 17:30	05/27/15 13:12	4
Molybdenum	**2.0**		1.7		mg/Kg		05/26/15 17:30	05/27/15 13:12	4
Nickel	**74**		1.7		mg/Kg		05/26/15 17:30	05/27/15 13:12	4
Selenium	ND		3.4		mg/Kg		05/26/15 17:30	05/27/15 13:12	4
Silver	ND		0.86		mg/Kg		05/26/15 17:30	05/27/15 13:12	4
Thallium	ND		1.7		mg/Kg		05/26/15 17:30	05/27/15 13:12	4
Vanadium	**29**		1.7		mg/Kg		05/26/15 17:30	05/27/15 13:12	4
Zinc	**660**		5.2		mg/Kg		05/26/15 17:30	05/27/15 13:12	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**88**		0.91		mg/Kg		05/26/15 16:15	05/27/15 20:14	100

Client Sample ID: SS-4-1'
Date Collected: 05/19/15 08:28
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-8
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**1.4**		1.3		mg/Kg		05/26/15 23:13	05/28/15 18:52	10
Acenaphthylene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 18:52	10
Acenaphthene	**1.8**		1.3		mg/Kg		05/26/15 23:13	05/28/15 18:52	10
Fluorene	**2.3**		1.3		mg/Kg		05/26/15 23:13	05/28/15 18:52	10
Phenanthrene	**7.6**		1.3		mg/Kg		05/26/15 23:13	05/28/15 18:52	10
Anthracene	**2.3**		1.3		mg/Kg		05/26/15 23:13	05/28/15 18:52	10
Fluoranthene	**2.6**		1.3		mg/Kg		05/26/15 23:13	05/28/15 18:52	10
Pyrene	**3.7**		1.3		mg/Kg		05/26/15 23:13	05/28/15 18:52	10
Benzo[a]anthracene	ND		6.6		mg/Kg		05/26/15 23:13	05/28/15 18:52	10
Chrysene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 18:52	10
Benzo[b]fluoranthene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 18:52	10
Benzo[k]fluoranthene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 18:52	10
Benzo[a]pyrene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 18:52	10
Indeno[1,2,3-cd]pyrene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 18:52	10
Benzo[g,h,i]perylene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 18:52	10
2-Methylnaphthalene	**4.8**		1.3		mg/Kg		05/26/15 23:13	05/28/15 18:52	10
Dibenz(a,h)anthracene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 18:52	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*64*		*21 - 98*	*05/26/15 23:13*	*05/28/15 18:52*	*10*
2-Fluorobiphenyl	*64*		*30 - 112*	*05/26/15 23:13*	*05/28/15 18:52*	*10*
Terphenyl-d14	*77*		*32 - 117*	*05/26/15 23:13*	*05/28/15 18:52*	*10*

Method: Organotins - Organotins, PSEP (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibutyltin	**76**		1.1		ug/Kg		05/24/15 18:29	05/28/15 00:38	1
Monobutyltin	ND	*	1.1 UJ		ug/Kg		05/24/15 18:29	05/28/15 00:38	1
Tetra-n-butyltin	ND		2.9		ug/Kg		05/24/15 18:29	05/28/15 00:38	1
Tributyltin	**150**		1.1		ug/Kg		05/24/15 18:29	05/28/15 00:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*100*		*20 - 151*	*05/24/15 18:29*	*05/28/15 00:38*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**5500**		50		mg/Kg		05/22/15 12:51	05/27/15 13:12	50
Motor Oil Range Organics [C24-C36]	**2900**		2500		mg/Kg		05/22/15 12:51	05/27/15 13:12	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*0*	*X D*	*40 - 130*	*05/22/15 12:51*	*05/27/15 13:12*	*50*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		240		ug/Kg		05/26/15 13:18	05/27/15 10:16	5
PCB-1221	ND		240		ug/Kg		05/26/15 13:18	05/27/15 10:16	5
PCB-1232	ND		240		ug/Kg		05/26/15 13:18	05/27/15 10:16	5
PCB-1242	ND		240		ug/Kg		05/26/15 13:18	05/27/15 10:16	5
PCB-1248	ND		240		ug/Kg		05/26/15 13:18	05/27/15 10:16	5
PCB-1254	**1100**		240		ug/Kg		05/26/15 13:18	05/27/15 10:16	5
PCB-1260	ND		240		ug/Kg		05/26/15 13:18	05/27/15 10:16	5

Client Sample ID: SS-4-1'

Date Collected: 05/19/15 08:28
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-8

Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*58*		*45 - 132*	*05/26/15 13:18*	*05/27/15 10:16*	*5*
DCB Decachlorobiphenyl	*90*		*42 - 146*	*05/26/15 13:18*	*05/27/15 10:16*	*5*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**3.6**		1.7		mg/Kg		05/26/15 17:30	05/27/15 13:17	4
Arsenic	**20**		3.4		mg/Kg		05/26/15 17:30	05/27/15 13:17	4
Barium	**250**		1.7		mg/Kg		05/26/15 17:30	05/27/15 13:17	4
Beryllium	ND		0.34		mg/Kg		05/26/15 17:30	05/27/15 13:17	4
Cadmium	**33**		0.43		mg/Kg		05/26/15 17:30	05/27/15 13:17	4
Chromium	**100**		1.7		mg/Kg		05/26/15 17:30	05/27/15 13:17	4
Cobalt	**26**		0.68		mg/Kg		05/26/15 17:30	05/27/15 13:17	4
Copper	**850**		5.1		mg/Kg		05/26/15 17:30	05/27/15 13:17	4
Lead	**1600**		1.7		mg/Kg		05/26/15 17:30	05/27/15 13:17	4
Molybdenum	**9.7**		1.7		mg/Kg		05/26/15 17:30	05/27/15 13:17	4
Nickel	**94**		1.7		mg/Kg		05/26/15 17:30	05/27/15 13:17	4
Selenium	ND		3.4		mg/Kg		05/26/15 17:30	05/27/15 13:17	4
Silver	ND		0.85		mg/Kg		05/26/15 17:30	05/27/15 13:17	4
Thallium	ND		1.7		mg/Kg		05/26/15 17:30	05/27/15 13:17	4
Vanadium	**31**		1.7		mg/Kg		05/26/15 17:30	05/27/15 13:17	4
Zinc	**1900**		5.1		mg/Kg		05/26/15 17:30	05/27/15 13:17	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**9.1**		0.94		mg/Kg		05/26/15 16:15	05/27/15 20:22	100

Client Sample ID: SS-5-0.5'
Date Collected: 05/19/15 08:40
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-9
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.33		mg/Kg		05/26/15 23:13	05/28/15 04:32	5
Acenaphthylene	ND		0.33		mg/Kg		05/26/15 23:13	05/28/15 04:32	5
Acenaphthene	ND		0.33		mg/Kg		05/26/15 23:13	05/28/15 04:32	5
Fluorene	ND		0.33		mg/Kg		05/26/15 23:13	05/28/15 04:32	5
Phenanthrene	ND		0.33		mg/Kg		05/26/15 23:13	05/28/15 04:32	5
Anthracene	**0.46**		0.33		mg/Kg		05/26/15 23:13	05/28/15 04:32	5
Fluoranthene	**0.76**		0.33		mg/Kg		05/26/15 23:13	05/28/15 04:32	5
Pyrene	**1.0**		0.33		mg/Kg		05/26/15 23:13	05/28/15 04:32	5
Benzo[a]anthracene	ND		1.6		mg/Kg		05/26/15 23:13	05/28/15 04:32	5
Chrysene	**1.1**		0.33		mg/Kg		05/26/15 23:13	05/28/15 04:32	5
Benzo[b]fluoranthene	**1.3**		0.33		mg/Kg		05/26/15 23:13	05/28/15 04:32	5
Benzo[k]fluoranthene	**0.53**		0.33		mg/Kg		05/26/15 23:13	05/28/15 04:32	5
Benzo[a]pyrene	**0.87**		0.33		mg/Kg		05/26/15 23:13	05/28/15 04:32	5
Indeno[1,2,3-cd]pyrene	**0.48**		0.33		mg/Kg		05/26/15 23:13	05/28/15 04:32	5
Benzo[g,h,i]perylene	**0.45**		0.33		mg/Kg		05/26/15 23:13	05/28/15 04:32	5
2-Methylnaphthalene	ND		0.33		mg/Kg		05/26/15 23:13	05/28/15 04:32	5
Dibenz(a,h)anthracene	ND		0.33		mg/Kg		05/26/15 23:13	05/28/15 04:32	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*60*		*21 - 98*	*05/26/15 23:13*	*05/28/15 04:32*	*5*
2-Fluorobiphenyl	*52*		*30 - 112*	*05/26/15 23:13*	*05/28/15 04:32*	*5*
Terphenyl-d14	*90*		*32 - 117*	*05/26/15 23:13*	*05/28/15 04:32*	*5*

Method: Organotins - Organotins, PSEP (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibutyltin	ND		1.0		ug/Kg		05/24/15 18:29	05/28/15 01:01	1
Monobutyltin	ND	*	1.0 UJ		ug/Kg		05/24/15 18:29	05/28/15 01:01	1
Tetra-n-butyltin	ND		2.8		ug/Kg		05/24/15 18:29	05/28/15 01:01	1
Tributyltin	ND		1.0		ug/Kg		05/24/15 18:29	05/28/15 01:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*37*		*20 - 151*	*05/24/15 18:29*	*05/28/15 01:01*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**39**		1.0		mg/Kg		05/22/15 12:51	05/27/15 01:53	1
Motor Oil Range Organics [C24-C36]	**74**		50		mg/Kg		05/22/15 12:51	05/27/15 01:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*111*		*40 - 130*	*05/22/15 12:51*	*05/27/15 01:53*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		49		ug/Kg		05/26/15 13:18	05/27/15 10:32	1
PCB-1221	ND		49		ug/Kg		05/26/15 13:18	05/27/15 10:32	1
PCB-1232	ND		49		ug/Kg		05/26/15 13:18	05/27/15 10:32	1
PCB-1242	ND		49		ug/Kg		05/26/15 13:18	05/27/15 10:32	1
PCB-1248	ND		49		ug/Kg		05/26/15 13:18	05/27/15 10:32	1
PCB-1254	**59**		49		ug/Kg		05/26/15 13:18	05/27/15 10:32	1
PCB-1260	ND		49		ug/Kg		05/26/15 13:18	05/27/15 10:32	1

Client Sample ID: SS-5-0.5'
Date Collected: 05/19/15 08:40
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-9
Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	*69*		*45 - 132*	*05/26/15 13:18*	*05/27/15 10:32*	*1*
DCB Decachlorobiphenyl	*75*		*42 - 146*	*05/26/15 13:18*	*05/27/15 10:32*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.37		mg/Kg		05/26/15 17:30	05/27/15 22:46	1
Arsenic	**4.8**		3.0		mg/Kg		05/26/15 17:30	05/27/15 13:22	4
Barium	**27**		1.5		mg/Kg		05/26/15 17:30	05/27/15 13:22	4
Beryllium	**0.16**		0.075		mg/Kg		05/26/15 17:30	05/27/15 22:46	1
Cadmium	ND		0.093		mg/Kg		05/26/15 17:30	05/27/15 22:46	1
Chromium	**39**		1.5		mg/Kg		05/26/15 17:30	05/27/15 13:22	4
Cobalt	**5.7**		0.60		mg/Kg		05/26/15 17:30	05/27/15 13:22	4
Copper	**75**		4.5		mg/Kg		05/26/15 17:30	05/27/15 13:22	4
Lead	**46**		1.5		mg/Kg		05/26/15 17:30	05/27/15 13:22	4
Molybdenum	**0.39**		0.37		mg/Kg		05/26/15 17:30	05/28/15 18:20	1
Nickel	**38**		1.5		mg/Kg		05/26/15 17:30	05/27/15 13:22	4
Selenium	ND		0.75		mg/Kg		05/26/15 17:30	05/27/15 22:46	1
Silver	ND		0.19		mg/Kg		05/26/15 17:30	05/27/15 22:46	1
Thallium	ND		0.37		mg/Kg		05/26/15 17:30	05/28/15 18:20	1
Vanadium	**26**		1.5		mg/Kg		05/26/15 17:30	05/27/15 13:22	4
Zinc	**80**		4.5		mg/Kg		05/26/15 17:30	05/27/15 13:22	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**1.2**		0.0085		mg/Kg		05/26/15 16:15	05/27/15 19:55	1

Client Sample ID: SS-5-1'
Date Collected: 05/19/15 08:47
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-10
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.33		mg/Kg		05/26/15 23:13	05/28/15 04:53	5
Acenaphthylene	ND		0.33		mg/Kg		05/26/15 23:13	05/28/15 04:53	5
Acenaphthene	ND		0.33		mg/Kg		05/26/15 23:13	05/28/15 04:53	5
Fluorene	ND		0.33		mg/Kg		05/26/15 23:13	05/28/15 04:53	5
Phenanthrene	**0.45**		0.33		mg/Kg		05/26/15 23:13	05/28/15 04:53	5
Anthracene	**0.34**		0.33		mg/Kg		05/26/15 23:13	05/28/15 04:53	5
Fluoranthene	**0.67**		0.33		mg/Kg		05/26/15 23:13	05/28/15 04:53	5
Pyrene	**1.7**		0.33		mg/Kg		05/26/15 23:13	05/28/15 04:53	5
Benzo[a]anthracene	ND		1.6		mg/Kg		05/26/15 23:13	05/28/15 04:53	5
Chrysene	**1.2**		0.33		mg/Kg		05/26/15 23:13	05/28/15 04:53	5
Benzo[b]fluoranthene	**1.8**		0.33		mg/Kg		05/26/15 23:13	05/28/15 04:53	5
Benzo[k]fluoranthene	**0.74**		0.33		mg/Kg		05/26/15 23:13	05/28/15 04:53	5
Benzo[a]pyrene	**1.2**		0.33		mg/Kg		05/26/15 23:13	05/28/15 04:53	5
Indeno[1,2,3-cd]pyrene	**0.68**		0.33		mg/Kg		05/26/15 23:13	05/28/15 04:53	5
Benzo[g,h,i]perylene	**0.65**		0.33		mg/Kg		05/26/15 23:13	05/28/15 04:53	5
2-Methylnaphthalene	ND		0.33		mg/Kg		05/26/15 23:13	05/28/15 04:53	5
Dibenz(a,h)anthracene	ND		0.33		mg/Kg		05/26/15 23:13	05/28/15 04:53	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*69*		*21 - 98*	*05/26/15 23:13*	*05/28/15 04:53*	*5*
2-Fluorobiphenyl	*58*		*30 - 112*	*05/26/15 23:13*	*05/28/15 04:53*	*5*
Terphenyl-d14	*82*		*32 - 117*	*05/26/15 23:13*	*05/28/15 04:53*	*5*

Method: Organotins - Organotins, PSEP (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibutyltin	**38**		1.0		ug/Kg		05/24/15 18:29	05/28/15 01:23	1
Monobutyltin	ND	*	1.0 UJ		ug/Kg		05/24/15 18:29	05/28/15 01:23	1
Tetra-n-butyltin	ND		2.8		ug/Kg		05/24/15 18:29	05/28/15 01:23	1
Tributyltin	**74**		1.0		ug/Kg		05/24/15 18:29	05/28/15 01:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*52*		*20 - 151*	*05/24/15 18:29*	*05/28/15 01:23*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**120**		2.0		mg/Kg		05/26/15 18:29	05/27/15 21:53	2
Motor Oil Range Organics [C24-C36]	**210**		100		mg/Kg		05/26/15 18:29	05/27/15 21:53	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*55*		*40 - 130*	*05/26/15 18:29*	*05/27/15 21:53*	*2*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		50		ug/Kg		05/26/15 13:18	05/26/15 22:22	1
PCB-1221	ND		50		ug/Kg		05/26/15 13:18	05/26/15 22:22	1
PCB-1232	ND		50		ug/Kg		05/26/15 13:18	05/26/15 22:22	1
PCB-1242	ND		50		ug/Kg		05/26/15 13:18	05/26/15 22:22	1
PCB-1248	ND		50		ug/Kg		05/26/15 13:18	05/26/15 22:22	1
PCB-1254	**79**		50		ug/Kg		05/26/15 13:18	05/26/15 22:22	1
PCB-1260	ND		50		ug/Kg		05/26/15 13:18	05/26/15 22:22	1

Client Sample ID: SS-5-1'
Date Collected: 05/19/15 08:47
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-10
Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	70		45 - 132	05/26/15 13:18	05/26/15 22:22	1
DCB Decachlorobiphenyl	75		42 - 146	05/26/15 13:18	05/26/15 22:22	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.42		mg/Kg		05/26/15 17:30	05/27/15 22:51	1
Arsenic	**7.2**		3.3		mg/Kg		05/26/15 17:30	05/27/15 13:27	4
Barium	**49**		1.7		mg/Kg		05/26/15 17:30	05/27/15 13:27	4
Beryllium	**0.18**		0.083		mg/Kg		05/26/15 17:30	05/27/15 22:51	1
Cadmium	**0.10**		0.10		mg/Kg		05/26/15 17:30	05/27/15 22:51	1
Chromium	**48**		1.7		mg/Kg		05/26/15 17:30	05/27/15 13:27	4
Cobalt	**7.4**		0.67		mg/Kg		05/26/15 17:30	05/27/15 13:27	4
Copper	**200**		5.0		mg/Kg		05/26/15 17:30	05/27/15 13:27	4
Lead	**54**		1.7		mg/Kg		05/26/15 17:30	05/27/15 13:27	4
Molybdenum	**3.8**		1.7		mg/Kg		05/26/15 17:30	05/27/15 13:27	4
Nickel	**56**		1.7		mg/Kg		05/26/15 17:30	05/27/15 13:27	4
Selenium	ND		0.83		mg/Kg		05/26/15 17:30	05/27/15 22:51	1
Silver	ND		0.21		mg/Kg		05/26/15 17:30	05/27/15 22:51	1
Thallium	ND		0.42		mg/Kg		05/26/15 17:30	05/28/15 20:10	1
Vanadium	**30**		1.7		mg/Kg		05/26/15 17:30	05/27/15 13:27	4
Zinc	**130**		5.0		mg/Kg		05/26/15 17:30	05/27/15 13:27	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**1.4**		0.0085		mg/Kg		05/26/15 16:15	05/27/15 19:57	1

Client Sample ID: SS-6-0.5'
Date Collected: 05/19/15 09:01
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-11
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 05:15	2
Acenaphthylene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 05:15	2
Acenaphthene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 05:15	2
Fluorene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 05:15	2
Phenanthrene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 05:15	2
Anthracene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 05:15	2
Fluoranthene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 05:15	2
Pyrene	**0.28**		0.27		mg/Kg		05/26/15 23:13	05/28/15 05:15	2
Benzo[a]anthracene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 05:15	2
Chrysene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 05:15	2
Benzo[b]fluoranthene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 05:15	2
Benzo[k]fluoranthene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 05:15	2
Benzo[a]pyrene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 05:15	2
Indeno[1,2,3-cd]pyrene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 05:15	2
Benzo[g,h,i]perylene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 05:15	2
2-Methylnaphthalene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 05:15	2
Dibenz(a,h)anthracene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 05:15	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*66*		*21 - 98*	*05/26/15 23:13*	*05/28/15 05:15*	*2*
2-Fluorobiphenyl	*57*		*30 - 112*	*05/26/15 23:13*	*05/28/15 05:15*	*2*
Terphenyl-d14	*118*	*X*	*32 - 117*	*05/26/15 23:13*	*05/28/15 05:15*	*2*

Method: Organotins - Organotins, PSEP (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibutyltin	**12**		1.0		ug/Kg		05/24/15 18:29	05/28/15 01:46	1
Monobutyltin	ND	*	1.0		ug/Kg		05/24/15 18:29	05/28/15 01:46	1
Tetra-n-butyltin	ND		2.8		ug/Kg		05/24/15 18:29	05/28/15 01:46	1
Tributyltin	**32**		1.0		ug/Kg		05/24/15 18:29	05/28/15 01:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*61*		*20 - 151*	*05/24/15 18:29*	*05/28/15 01:46*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**59**		1.0		mg/Kg		05/22/15 12:51	05/24/15 02:55	1
Motor Oil Range Organics [C24-C36]	**100**		50		mg/Kg		05/22/15 12:51	05/24/15 02:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*57*		*40 - 130*	*05/22/15 12:51*	*05/24/15 02:55*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		49		ug/Kg		05/26/15 13:18	05/26/15 22:39	1
PCB-1221	ND		49		ug/Kg		05/26/15 13:18	05/26/15 22:39	1
PCB-1232	ND		49		ug/Kg		05/26/15 13:18	05/26/15 22:39	1
PCB-1242	ND		49		ug/Kg		05/26/15 13:18	05/26/15 22:39	1
PCB-1248	**50**		49		ug/Kg		05/26/15 13:18	05/26/15 22:39	1
PCB-1254	ND		49		ug/Kg		05/26/15 13:18	05/26/15 22:39	1
PCB-1260	ND		49		ug/Kg		05/26/15 13:18	05/26/15 22:39	1

Client Sample ID: SS-6-0.5'
Date Collected: 05/19/15 09:01
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-11
Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*64*		*45 - 132*	*05/26/15 13:18*	*05/26/15 22:39*	*1*
DCB Decachlorobiphenyl	*71*		*42 - 146*	*05/26/15 13:18*	*05/26/15 22:39*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.44		mg/Kg		05/26/15 17:30	05/27/15 22:55	1
Arsenic	**6.0**		3.5		mg/Kg		05/26/15 17:30	05/27/15 13:32	4
Barium	**35**		1.8		mg/Kg		05/26/15 17:30	05/27/15 13:32	4
Beryllium	**0.17**		0.088		mg/Kg		05/26/15 17:30	05/27/15 22:55	1
Cadmium	ND		0.11		mg/Kg		05/26/15 17:30	05/27/15 22:55	1
Chromium	**46**		1.8		mg/Kg		05/26/15 17:30	05/27/15 13:32	4
Cobalt	**6.7**		0.70		mg/Kg		05/26/15 17:30	05/27/15 13:32	4
Copper	**120**		5.3		mg/Kg		05/26/15 17:30	05/27/15 13:32	4
Lead	**37**		1.8		mg/Kg		05/26/15 17:30	05/27/15 13:32	4
Molybdenum	**0.87**		0.44		mg/Kg		05/26/15 17:30	05/28/15 18:29	1
Nickel	**40**		1.8		mg/Kg		05/26/15 17:30	05/27/15 13:32	4
Selenium	ND		0.88		mg/Kg		05/26/15 17:30	05/27/15 22:55	1
Silver	ND		0.22		mg/Kg		05/26/15 17:30	05/27/15 22:55	1
Thallium	ND		0.44		mg/Kg		05/26/15 17:30	05/28/15 18:29	1
Vanadium	**29**		1.8		mg/Kg		05/26/15 17:30	05/27/15 13:32	4
Zinc	**94**		5.3		mg/Kg		05/26/15 17:30	05/27/15 13:32	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.99**		0.0087		mg/Kg		05/26/15 20:56	05/27/15 16:44	1

Client Sample ID: SS-6-1'
Date Collected: 05/19/15 09:10
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-12
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 05:36	2
Acenaphthylene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 05:36	2
Acenaphthene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 05:36	2
Fluorene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 05:36	2
Phenanthrene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 05:36	2
Anthracene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 05:36	2
Fluoranthene	**0.32**		0.27		mg/Kg		05/26/15 23:13	05/28/15 05:36	2
Pyrene	**0.99**		0.27		mg/Kg		05/26/15 23:13	05/28/15 05:36	2
Benzo[a]anthracene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 05:36	2
Chrysene	**0.47**		0.27		mg/Kg		05/26/15 23:13	05/28/15 05:36	2
Benzo[b]fluoranthene	**0.63**		0.27		mg/Kg		05/26/15 23:13	05/28/15 05:36	2
Benzo[k]fluoranthene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 05:36	2
Benzo[a]pyrene	**0.40**		0.27		mg/Kg		05/26/15 23:13	05/28/15 05:36	2
Indeno[1,2,3-cd]pyrene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 05:36	2
Benzo[g,h,i]perylene	**0.27**		0.27		mg/Kg		05/26/15 23:13	05/28/15 05:36	2
2-Methylnaphthalene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 05:36	2
Dibenz(a,h)anthracene	ND		0.27		mg/Kg		05/26/15 23:13	05/28/15 05:36	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*68*		*21 - 98*	*05/26/15 23:13*	*05/28/15 05:36*	*2*
2-Fluorobiphenyl	*59*		*30 - 112*	*05/26/15 23:13*	*05/28/15 05:36*	*2*
Terphenyl-d14	*113*		*32 - 117*	*05/26/15 23:13*	*05/28/15 05:36*	*2*

Method: Organotins - Organotins, PSEP (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibutyltin	**26**		1.0		ug/Kg		05/24/15 18:29	05/28/15 02:09	1
Monobutyltin	ND	*	1.0	U J	ug/Kg		05/24/15 18:29	05/28/15 02:09	1
Tetra-n-butyltin	ND		2.8		ug/Kg		05/24/15 18:29	05/28/15 02:09	1
Tributyltin	**62**		1.0		ug/Kg		05/24/15 18:29	05/28/15 02:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*45*		*20 - 151*	*05/24/15 18:29*	*05/28/15 02:09*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**150**		2.0		mg/Kg		05/26/15 16:23	05/27/15 18:28	2
Motor Oil Range Organics [C24-C36]	**160**		99		mg/Kg		05/26/15 16:23	05/27/15 18:28	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*88*		*40 - 130*	*05/26/15 16:23*	*05/27/15 18:28*	*2*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		49		ug/Kg		05/26/15 13:18	05/26/15 22:55	1
PCB-1221	ND		49		ug/Kg		05/26/15 13:18	05/26/15 22:55	1
PCB-1232	ND		49		ug/Kg		05/26/15 13:18	05/26/15 22:55	1
PCB-1242	ND		49		ug/Kg		05/26/15 13:18	05/26/15 22:55	1
PCB-1248	ND		49		ug/Kg		05/26/15 13:18	05/26/15 22:55	1
PCB-1254	**210**		49		ug/Kg		05/26/15 13:18	05/26/15 22:55	1
PCB-1260	ND		49		ug/Kg		05/26/15 13:18	05/26/15 22:55	1

Client Sample ID: SS-6-1'
Date Collected: 05/19/15 09:10
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-12
Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	*71*		*45 - 132*	*05/26/15 13:18*	*05/26/15 22:55*	*1*
DCB Decachlorobiphenyl	*79*		*42 - 146*	*05/26/15 13:18*	*05/26/15 22:55*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.6		mg/Kg		05/26/15 20:54	05/28/15 02:18	4
Arsenic	**11**		3.3		mg/Kg		05/26/15 20:54	05/28/15 02:18	4
Barium	**44**		1.6		mg/Kg		05/26/15 20:54	05/28/15 02:18	4
Beryllium	ND		0.33		mg/Kg		05/26/15 20:54	05/28/15 02:18	4
Cadmium	ND		0.41		mg/Kg		05/26/15 20:54	05/28/15 02:18	4
Chromium	**78**		1.6		mg/Kg		05/26/15 20:54	05/28/15 02:18	4
Cobalt	**10**		0.65		mg/Kg		05/26/15 20:54	05/28/15 02:18	4
Copper	**380**		4.9		mg/Kg		05/26/15 20:54	05/28/15 02:18	4
Lead	**100**		1.6		mg/Kg		05/26/15 20:54	05/28/15 17:10	4
Molybdenum	**10**		1.6		mg/Kg		05/26/15 20:54	05/28/15 17:10	4
Nickel	**100**		1.6		mg/Kg		05/26/15 20:54	05/28/15 17:10	4
Selenium	ND		3.3		mg/Kg		05/26/15 20:54	05/28/15 02:18	4
Silver	ND		0.81		mg/Kg		05/26/15 20:54	05/28/15 02:18	4
Thallium	ND		1.6		mg/Kg		05/26/15 20:54	05/28/15 17:10	4
Vanadium	**39**		1.6		mg/Kg		05/26/15 20:54	05/28/15 02:18	4
Zinc	**180**		4.9		mg/Kg		05/26/15 20:54	05/28/15 02:18	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**1.9**		0.050		mg/Kg		05/26/15 20:56	05/27/15 17:36	5

Client Sample ID: SS-7-0.5'
Date Collected: 05/19/15 09:18
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-13
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 05:58	10
Acenaphthylene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 05:58	10
Acenaphthene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 05:58	10
Fluorene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 05:58	10
Phenanthrene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 05:58	10
Anthracene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 05:58	10
Fluoranthene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 05:58	10
Pyrene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 05:58	10
Benzo[a]anthracene	ND		6.6		mg/Kg		05/26/15 23:13	05/28/15 05:58	10
Chrysene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 05:58	10
Benzo[b]fluoranthene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 05:58	10
Benzo[k]fluoranthene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 05:58	10
Benzo[a]pyrene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 05:58	10
Indeno[1,2,3-cd]pyrene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 05:58	10
Benzo[g,h,i]perylene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 05:58	10
2-Methylnaphthalene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 05:58	10
Dibenz(a,h)anthracene	ND		1.3		mg/Kg		05/26/15 23:13	05/28/15 05:58	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*76*		*21 - 98*	*05/26/15 23:13*	*05/28/15 05:58*	*10*
2-Fluorobiphenyl	*66*		*30 - 112*	*05/26/15 23:13*	*05/28/15 05:58*	*10*
Terphenyl-d14	*106*		*32 - 117*	*05/26/15 23:13*	*05/28/15 05:58*	*10*

Method: Organotins - Organotins, PSEP (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibutyltin	**120**	**F2 F1** J	1.1		ug/Kg		05/24/15 18:29	05/28/15 02:32	1
Monobutyltin	**76**	**F2 F1 *** J	1.1		ug/Kg		05/24/15 18:29	05/28/15 02:32	1
Tetra-n-butyltin	ND	F1	2.9	UJ	ug/Kg		05/24/15 18:29	05/28/15 02:32	1
Tributyltin	**650**	**F2 E** J	1.1		ug/Kg		05/24/15 18:29	05/28/15 02:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*50*		*20 - 151*	*05/24/15 18:29*	*05/28/15 02:32*	*1*

Method: Organotins - Organotins, PSEP (GC/MS) - DL

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*70*		*20 - 151*	*05/24/15 18:29*	*05/28/15 12:24*	*10*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**240**		5.0		mg/Kg		05/26/15 16:23	05/27/15 18:57	5
Motor Oil Range Organics [C24-C36]	**560**		250		mg/Kg		05/26/15 16:23	05/27/15 18:57	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*0*	*X D*	*40 - 130*	*05/26/15 16:23*	*05/27/15 18:57*	*5*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		97		ug/Kg		05/26/15 13:18	05/27/15 09:59	2
PCB-1221	ND		97		ug/Kg		05/26/15 13:18	05/27/15 09:59	2
PCB-1232	ND		97		ug/Kg		05/26/15 13:18	05/27/15 09:59	2

Client Sample ID: SS-7-0.5'
Date Collected: 05/19/15 09:18
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-13
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1242	ND		97		ug/Kg		05/26/15 13:18	05/27/15 09:59	2
PCB-1248	**410**		97		ug/Kg		05/26/15 13:18	05/27/15 09:59	2
PCB-1254	ND		97		ug/Kg		05/26/15 13:18	05/27/15 09:59	2
PCB-1260	ND		97		ug/Kg		05/26/15 13:18	05/27/15 09:59	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*71*		*45 - 132*	*05/26/15 13:18*	*05/27/15 09:59*	*2*
DCB Decachlorobiphenyl	*77*		*42 - 146*	*05/26/15 13:18*	*05/27/15 09:59*	*2*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**3.0**		1.4		mg/Kg		05/26/15 20:54	05/28/15 02:22	4
Arsenic	**11**		2.8		mg/Kg		05/26/15 20:54	05/28/15 02:22	4
Barium	**170**		1.4		mg/Kg		05/26/15 20:54	05/28/15 02:22	4
Beryllium	ND		0.28		mg/Kg		05/26/15 20:54	05/28/15 02:22	4
Cadmium	ND		0.35		mg/Kg		05/26/15 20:54	05/28/15 02:22	4
Chromium	**76**		1.4		mg/Kg		05/26/15 20:54	05/28/15 02:22	4
Cobalt	**9.6**		0.56		mg/Kg		05/26/15 20:54	05/28/15 02:22	4
Copper	**390**		4.2		mg/Kg		05/26/15 20:54	05/28/15 02:22	4
Lead	**580**		1.4		mg/Kg		05/26/15 20:54	05/28/15 17:14	4
Molybdenum	**13**		1.4		mg/Kg		05/26/15 20:54	05/28/15 17:14	4
Nickel	**66**		1.4		mg/Kg		05/26/15 20:54	05/28/15 17:14	4
Selenium	ND		2.8		mg/Kg		05/26/15 20:54	05/28/15 02:22	4
Silver	ND		0.69		mg/Kg		05/26/15 20:54	05/28/15 02:22	4
Thallium	ND		1.4		mg/Kg		05/26/15 20:54	05/28/15 17:14	4
Vanadium	**28**		1.4		mg/Kg		05/26/15 20:54	05/28/15 02:22	4
Zinc	**2000**		4.2		mg/Kg		05/26/15 20:54	05/28/15 02:22	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**2.3**		0.045		mg/Kg		05/26/15 20:56	05/27/15 17:38	5

Client Sample ID: SS-7-1'
Date Collected: 05/19/15 09:31
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-14
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.66		mg/Kg		05/26/15 23:13	05/28/15 06:19	5
Acenaphthylene	ND		0.66		mg/Kg		05/26/15 23:13	05/28/15 06:19	5
Acenaphthene	ND		0.66		mg/Kg		05/26/15 23:13	05/28/15 06:19	5
Fluorene	ND		0.66		mg/Kg		05/26/15 23:13	05/28/15 06:19	5
Phenanthrene	ND		0.66		mg/Kg		05/26/15 23:13	05/28/15 06:19	5
Anthracene	ND		0.66		mg/Kg		05/26/15 23:13	05/28/15 06:19	5
Fluoranthene	**0.86**		0.66		mg/Kg		05/26/15 23:13	05/28/15 06:19	5
Pyrene	**1.5**		0.66		mg/Kg		05/26/15 23:13	05/28/15 06:19	5
Benzo[a]anthracene	ND		3.3		mg/Kg		05/26/15 23:13	05/28/15 06:19	5
Chrysene	ND		0.66		mg/Kg		05/26/15 23:13	05/28/15 06:19	5
Benzo[b]fluoranthene	**1.0**		0.66		mg/Kg		05/26/15 23:13	05/28/15 06:19	5
Benzo[k]fluoranthene	ND		0.66		mg/Kg		05/26/15 23:13	05/28/15 06:19	5
Benzo[a]pyrene	**0.78**		0.66		mg/Kg		05/26/15 23:13	05/28/15 06:19	5
Indeno[1,2,3-cd]pyrene	ND		0.66		mg/Kg		05/26/15 23:13	05/28/15 06:19	5
Benzo[g,h,i]perylene	ND		0.66		mg/Kg		05/26/15 23:13	05/28/15 06:19	5
2-Methylnaphthalene	ND		0.66		mg/Kg		05/26/15 23:13	05/28/15 06:19	5
Dibenz(a,h)anthracene	ND		0.66		mg/Kg		05/26/15 23:13	05/28/15 06:19	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*82*		*21 - 98*	*05/26/15 23:13*	*05/28/15 06:19*	*5*
2-Fluorobiphenyl	*72*		*30 - 112*	*05/26/15 23:13*	*05/28/15 06:19*	*5*
Terphenyl-d14	*111*		*32 - 117*	*05/26/15 23:13*	*05/28/15 06:19*	*5*

Method: Organotins - Organotins, PSEP (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibutyltin	**110**		1.0		ug/Kg		05/24/15 18:29	05/28/15 03:41	1
Monobutyltin	ND	*	1.0		ug/Kg		05/24/15 18:29	05/28/15 03:41	1
Tetra-n-butyltin	**42**		2.8		ug/Kg		05/24/15 18:29	05/28/15 03:41	1
Tributyltin	**180**		1.0		ug/Kg		05/24/15 18:29	05/28/15 03:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*33*		*20 - 151*	*05/24/15 18:29*	*05/28/15 03:41*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**220**		5.0		mg/Kg		05/26/15 16:23	05/27/15 19:26	5
Motor Oil Range Organics [C24-C36]	**460**		250		mg/Kg		05/26/15 16:23	05/27/15 19:26	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*0*	*X D*	*40 - 130*	*05/26/15 16:23*	*05/27/15 19:26*	*5*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		480		ug/Kg		05/26/15 13:18	05/27/15 10:16	10
PCB-1221	ND		480		ug/Kg		05/26/15 13:18	05/27/15 10:16	10
PCB-1232	ND		480		ug/Kg		05/26/15 13:18	05/27/15 10:16	10
PCB-1242	**1900**		480		ug/Kg		05/26/15 13:18	05/27/15 10:16	10
PCB-1248	ND		480		ug/Kg		05/26/15 13:18	05/27/15 10:16	10
PCB-1254	ND		480		ug/Kg		05/26/15 13:18	05/27/15 10:16	10
PCB-1260	ND		480		ug/Kg		05/26/15 13:18	05/27/15 10:16	10

Client Sample ID: SS-7-1'
Date Collected: 05/19/15 09:31
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-14
Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*0*	*X D*	*45 - 132*	*05/26/15 13:18*	*05/27/15 10:16*	*10*
DCB Decachlorobiphenyl	*0*	*X D*	*42 - 146*	*05/26/15 13:18*	*05/27/15 10:16*	*10*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**4.2**		1.9		mg/Kg		05/26/15 20:54	05/28/15 02:27	4
Arsenic	**11**		3.8		mg/Kg		05/26/15 20:54	05/28/15 02:27	4
Barium	**90**		1.9		mg/Kg		05/26/15 20:54	05/28/15 02:27	4
Beryllium	ND		0.38		mg/Kg		05/26/15 20:54	05/28/15 02:27	4
Cadmium	ND		0.48		mg/Kg		05/26/15 20:54	05/28/15 02:27	4
Chromium	**120**		1.9		mg/Kg		05/26/15 20:54	05/28/15 02:27	4
Cobalt	**10**		0.76		mg/Kg		05/26/15 20:54	05/28/15 02:27	4
Copper	**650**		5.7		mg/Kg		05/26/15 20:54	05/28/15 02:27	4
Lead	**300**		1.9		mg/Kg		05/26/15 20:54	05/28/15 17:19	4
Molybdenum	**7.9**		1.9		mg/Kg		05/26/15 20:54	05/28/15 17:19	4
Nickel	**77**		1.9		mg/Kg		05/26/15 20:54	05/28/15 17:19	4
Selenium	ND		3.8		mg/Kg		05/26/15 20:54	05/28/15 02:27	4
Silver	ND		0.95		mg/Kg		05/26/15 20:54	05/28/15 02:27	4
Thallium	ND		1.9		mg/Kg		05/26/15 20:54	05/28/15 17:19	4
Vanadium	**28**		1.9		mg/Kg		05/26/15 20:54	05/28/15 02:27	4
Zinc	**450**		5.7		mg/Kg		05/26/15 20:54	05/28/15 02:27	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**3.1**		0.049		mg/Kg		05/26/15 20:56	05/27/15 17:40	5

Client Sample ID: SS-8-0.5'
Date Collected: 05/19/15 09:36
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-15
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 06:41	5
Acenaphthylene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 06:41	5
Acenaphthene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 06:41	5
Fluorene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 06:41	5
Phenanthrene	**0.96**		0.67		mg/Kg		05/26/15 23:13	05/28/15 06:41	5
Anthracene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 06:41	5
Fluoranthene	**1.4**		0.67		mg/Kg		05/26/15 23:13	05/28/15 06:41	5
Pyrene	**1.9**		0.67		mg/Kg		05/26/15 23:13	05/28/15 06:41	5
Benzo[a]anthracene	ND		3.3		mg/Kg		05/26/15 23:13	05/28/15 06:41	5
Chrysene	**0.90**		0.67		mg/Kg		05/26/15 23:13	05/28/15 06:41	5
Benzo[b]fluoranthene	**1.4**		0.67		mg/Kg		05/26/15 23:13	05/28/15 06:41	5
Benzo[k]fluoranthene	**0.70**		0.67		mg/Kg		05/26/15 23:13	05/28/15 06:41	5
Benzo[a]pyrene	**1.1**		0.67		mg/Kg		05/26/15 23:13	05/28/15 06:41	5
Indeno[1,2,3-cd]pyrene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 06:41	5
Benzo[g,h,i]perylene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 06:41	5
2-Methylnaphthalene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 06:41	5
Dibenz(a,h)anthracene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 06:41	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*72*		*21 - 98*	*05/26/15 23:13*	*05/28/15 06:41*	*5*
2-Fluorobiphenyl	*63*		*30 - 112*	*05/26/15 23:13*	*05/28/15 06:41*	*5*
Terphenyl-d14	*100*		*32 - 117*	*05/26/15 23:13*	*05/28/15 06:41*	*5*

Method: Organotins - Organotins, PSEP (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibutyltin	**79**	J	1.1		ug/Kg		05/24/15 18:29	05/28/15 04:03	1
Monobutyltin	ND		1.1 UJ		ug/Kg		05/24/15 18:29	05/28/15 04:03	1
Tetra-n-butyltin	ND		3.0		ug/Kg		05/24/15 18:29	05/28/15 04:03	1
Tributyltin	**130**		1.1		ug/Kg		05/24/15 18:29	05/28/15 04:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*41*		*20 - 151*	*05/24/15 18:29*	*05/28/15 04:03*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**260**		3.0		mg/Kg		05/26/15 16:23	05/27/15 19:56	3
Motor Oil Range Organics [C24-C36]	**480**		150		mg/Kg		05/26/15 16:23	05/27/15 19:56	3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*45*		*40 - 130*	*05/26/15 16:23*	*05/27/15 19:56*	*3*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		250		ug/Kg		05/26/15 13:18	05/27/15 10:32	5
PCB-1221	ND		250		ug/Kg		05/26/15 13:18	05/27/15 10:32	5
PCB-1232	ND		250		ug/Kg		05/26/15 13:18	05/27/15 10:32	5
PCB-1242	ND		250		ug/Kg		05/26/15 13:18	05/27/15 10:32	5
PCB-1248	ND		250		ug/Kg		05/26/15 13:18	05/27/15 10:32	5
PCB-1254	ND		250		ug/Kg		05/26/15 13:18	05/27/15 10:32	5
PCB-1260	**710**	J	250		ug/Kg		05/26/15 13:18	05/27/15 10:32	5

Client Sample ID: SS-8-0.5'
Date Collected: 05/19/15 09:36
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-15
Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*78*		*45 - 132*	*05/26/15 13:18*	*05/27/15 10:32*	*5*
DCB Decachlorobiphenyl	*91*		*42 - 146*	*05/26/15 13:18*	*05/27/15 10:32*	*5*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.5		mg/Kg		05/26/15 20:54	05/28/15 02:32	4
Arsenic	**9.5**		3.0		mg/Kg		05/26/15 20:54	05/28/15 02:32	4
Barium	**120**		1.5		mg/Kg		05/26/15 20:54	05/28/15 02:32	4
Beryllium	ND		0.30		mg/Kg		05/26/15 20:54	05/28/15 02:32	4
Cadmium	ND		0.37		mg/Kg		05/26/15 20:54	05/28/15 02:32	4
Chromium	**82**		1.5		mg/Kg		05/26/15 20:54	05/28/15 02:32	4
Cobalt	**11**		0.60		mg/Kg		05/26/15 20:54	05/28/15 02:32	4
Copper	**620**		4.5		mg/Kg		05/26/15 20:54	05/28/15 02:32	4
Lead	**190**		1.5		mg/Kg		05/26/15 20:54	05/28/15 17:24	4
Molybdenum	**2.7**		1.5		mg/Kg		05/26/15 20:54	05/28/15 17:24	4
Nickel	**67**		1.5		mg/Kg		05/26/15 20:54	05/28/15 17:24	4
Selenium	ND		3.0		mg/Kg		05/26/15 20:54	05/28/15 02:32	4
Silver	ND		0.75		mg/Kg		05/26/15 20:54	05/28/15 02:32	4
Thallium	ND		1.5		mg/Kg		05/26/15 20:54	05/28/15 17:24	4
Vanadium	**35**		1.5		mg/Kg		05/26/15 20:54	05/28/15 02:32	4
Zinc	**370**		4.5		mg/Kg		05/26/15 20:54	05/28/15 02:32	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**4.7**		0.097		mg/Kg		05/26/15 20:56	05/27/15 17:42	10

Client Sample ID: SS-8-1'
Date Collected: 05/19/15 09:51
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-16
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.33		mg/Kg		05/26/15 23:13	05/28/15 07:02	5
Acenaphthylene	ND		0.33		mg/Kg		05/26/15 23:13	05/28/15 07:02	5
Acenaphthene	ND		0.33		mg/Kg		05/26/15 23:13	05/28/15 07:02	5
Fluorene	ND		0.33		mg/Kg		05/26/15 23:13	05/28/15 07:02	5
Phenanthrene	**1.1**		0.33		mg/Kg		05/26/15 23:13	05/28/15 07:02	5
Anthracene	**0.70**		0.33		mg/Kg		05/26/15 23:13	05/28/15 07:02	5
Fluoranthene	**1.4**		0.33		mg/Kg		05/26/15 23:13	05/28/15 07:02	5
Pyrene	**3.5**		0.33		mg/Kg		05/26/15 23:13	05/28/15 07:02	5
Benzo[a]anthracene	ND		1.6		mg/Kg		05/26/15 23:13	05/28/15 07:02	5
Chrysene	**0.88**		0.33		mg/Kg		05/26/15 23:13	05/28/15 07:02	5
Benzo[b]fluoranthene	**3.1**		0.33		mg/Kg		05/26/15 23:13	05/28/15 07:02	5
Benzo[k]fluoranthene	**3.0**		0.33		mg/Kg		05/26/15 23:13	05/28/15 07:02	5
Benzo[a]pyrene	**1.7**		0.33		mg/Kg		05/26/15 23:13	05/28/15 07:02	5
Indeno[1,2,3-cd]pyrene	**0.77**		0.33		mg/Kg		05/26/15 23:13	05/28/15 07:02	5
Benzo[g,h,i]perylene	**0.81**		0.33		mg/Kg		05/26/15 23:13	05/28/15 07:02	5
2-Methylnaphthalene	ND		0.33		mg/Kg		05/26/15 23:13	05/28/15 07:02	5
Dibenz(a,h)anthracene	ND		0.33		mg/Kg		05/26/15 23:13	05/28/15 07:02	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*81*		*21 - 98*	*05/26/15 23:13*	*05/28/15 07:02*	*5*
2-Fluorobiphenyl	*71*		*30 - 112*	*05/26/15 23:13*	*05/28/15 07:02*	*5*
Terphenyl-d14	*89*		*32 - 117*	*05/26/15 23:13*	*05/28/15 07:02*	*5*

Method: Organotins - Organotins, PSEP (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibutyltin	**66**		1.0		ug/Kg		05/24/15 18:29	05/28/15 04:26	1
Monobutyltin	ND	*	1.0 UJ		ug/Kg		05/24/15 18:29	05/28/15 04:26	1
Tetra-n-butyltin	ND		2.7		ug/Kg		05/24/15 18:29	05/28/15 04:26	1
Tributyltin	**130**		1.0		ug/Kg		05/24/15 18:29	05/28/15 04:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*67*		*20 - 151*	*05/24/15 18:29*	*05/28/15 04:26*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**300**		5.0		mg/Kg		05/26/15 16:23	05/28/15 11:23	5
Motor Oil Range Organics [C24-C36]	**630**		250		mg/Kg		05/26/15 16:23	05/28/15 11:23	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*0*	*X D*	*40 - 130*	*05/26/15 16:23*	*05/28/15 11:23*	*5*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		500		ug/Kg		05/26/15 13:18	05/27/15 10:49	10
PCB-1221	ND		500		ug/Kg		05/26/15 13:18	05/27/15 10:49	10
PCB-1232	ND		500		ug/Kg		05/26/15 13:18	05/27/15 10:49	10
PCB-1242	ND		500		ug/Kg		05/26/15 13:18	05/27/15 10:49	10
PCB-1248	**1600**		500		ug/Kg		05/26/15 13:18	05/27/15 10:49	10
PCB-1254	ND		500		ug/Kg		05/26/15 13:18	05/27/15 10:49	10
PCB-1260	ND		500		ug/Kg		05/26/15 13:18	05/27/15 10:49	10

Client Sample ID: SS-8-1'
Date Collected: 05/19/15 09:51
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-16
Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*89*		*45 - 132*	*05/26/15 13:18*	*05/27/15 10:49*	*10*
DCB Decachlorobiphenyl	*123*		*42 - 146*	*05/26/15 13:18*	*05/27/15 10:49*	*10*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.6		mg/Kg		05/26/15 20:54	05/28/15 02:36	4
Arsenic	**24**		3.2		mg/Kg		05/26/15 20:54	05/28/15 02:36	4
Barium	**96**		1.6		mg/Kg		05/26/15 20:54	05/28/15 02:36	4
Beryllium	ND		0.32		mg/Kg		05/26/15 20:54	05/28/15 02:36	4
Cadmium	**0.43**		0.40		mg/Kg		05/26/15 20:54	05/28/15 02:36	4
Chromium	**85**		1.6		mg/Kg		05/26/15 20:54	05/28/15 02:36	4
Cobalt	**10**		0.64		mg/Kg		05/26/15 20:54	05/28/15 02:36	4
Copper	**1200**		4.8		mg/Kg		05/26/15 20:54	05/28/15 02:36	4
Lead	**600**		1.6		mg/Kg		05/26/15 20:54	05/28/15 17:28	4
Molybdenum	**3.4**		1.6		mg/Kg		05/26/15 20:54	05/28/15 17:28	4
Nickel	**62**		1.6		mg/Kg		05/26/15 20:54	05/28/15 17:28	4
Selenium	ND		3.2		mg/Kg		05/26/15 20:54	05/28/15 02:36	4
Silver	ND		0.80		mg/Kg		05/26/15 20:54	05/28/15 02:36	4
Thallium	ND		1.6		mg/Kg		05/26/15 20:54	05/28/15 17:28	4
Vanadium	**30**		1.6		mg/Kg		05/26/15 20:54	05/28/15 02:36	4
Zinc	**440**		4.8		mg/Kg		05/26/15 20:54	05/28/15 02:36	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**10**		0.85		mg/Kg		05/26/15 20:56	05/27/15 17:45	100

Client Sample ID: SS-9-0.5'
Date Collected: 05/19/15 10:26
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-17
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 07:24	5
Acenaphthylene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 07:24	5
Acenaphthene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 07:24	5
Fluorene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 07:24	5
Phenanthrene	**0.72**		0.67		mg/Kg		05/26/15 23:13	05/28/15 07:24	5
Anthracene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 07:24	5
Fluoranthene	**1.4**		0.67		mg/Kg		05/26/15 23:13	05/28/15 07:24	5
Pyrene	**1.3**		0.67		mg/Kg		05/26/15 23:13	05/28/15 07:24	5
Benzo[a]anthracene	ND		3.3		mg/Kg		05/26/15 23:13	05/28/15 07:24	5
Chrysene	**0.75**		0.67		mg/Kg		05/26/15 23:13	05/28/15 07:24	5
Benzo[b]fluoranthene	**0.88**		0.67		mg/Kg		05/26/15 23:13	05/28/15 07:24	5
Benzo[k]fluoranthene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 07:24	5
Benzo[a]pyrene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 07:24	5
Indeno[1,2,3-cd]pyrene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 07:24	5
Benzo[g,h,i]perylene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 07:24	5
2-Methylnaphthalene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 07:24	5
Dibenz(a,h)anthracene	ND		0.67		mg/Kg		05/26/15 23:13	05/28/15 07:24	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*71*		*21 - 98*	*05/26/15 23:13*	*05/28/15 07:24*	*5*
2-Fluorobiphenyl	*59*		*30 - 112*	*05/26/15 23:13*	*05/28/15 07:24*	*5*
Terphenyl-d14	*78*		*32 - 117*	*05/26/15 23:13*	*05/28/15 07:24*	*5*

Method: Organotins - Organotins, PSEP (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetra-n-butyltin	**150**		2.7		ug/Kg		05/24/15 18:29	05/28/15 04:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*60*		*20 - 151*	*05/24/15 18:29*	*05/28/15 04:49*	*1*

Method: Organotins - Organotins, PSEP (GC/MS) - DL

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*45*		*20 - 151*	*05/24/15 18:29*	*05/28/15 12:47*	*5*

Method: Organotins - Organotins, PSEP (GC/MS) - DL2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monobutyltin	**3900**	* J	50		ug/Kg		05/24/15 18:29	05/28/15 13:10	50

Method: Organotins - Organotins, PSEP (GC/MS) - DL3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibutyltin	**16000**		250		ug/Kg		05/24/15 18:29	05/28/15 15:05	250
Tributyltin	**13000**		250		ug/Kg		05/24/15 18:29	05/28/15 15:05	250

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**600**		9.9		mg/Kg		05/26/15 16:23	05/28/15 11:47	10
Motor Oil Range Organics [C24-C36]	**1100**		500		mg/Kg		05/26/15 16:23	05/28/15 11:47	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*0*	*X D*	*40 - 130*	*05/26/15 16:23*	*05/28/15 11:47*	*10*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		490		ug/Kg		05/26/15 13:18	05/27/15 11:06	10
PCB-1221	ND		490		ug/Kg		05/26/15 13:18	05/27/15 11:06	10
PCB-1232	ND		490		ug/Kg		05/26/15 13:18	05/27/15 11:06	10
PCB-1242	ND		490		ug/Kg		05/26/15 13:18	05/27/15 11:06	10
PCB-1248	**2500**		490		ug/Kg		05/26/15 13:18	05/27/15 11:06	10
PCB-1254	ND		490		ug/Kg		05/26/15 13:18	05/27/15 11:06	10
PCB-1260	ND		490		ug/Kg		05/26/15 13:18	05/27/15 11:06	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*0*	*X D*	*45 - 132*	*05/26/15 13:18*	*05/27/15 11:06*	*10*
DCB Decachlorobiphenyl	*0*	*X D*	*42 - 146*	*05/26/15 13:18*	*05/27/15 11:06*	*10*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.8		mg/Kg		05/26/15 20:54	05/28/15 17:47	10
Arsenic	**38**		2.2		mg/Kg		05/26/15 20:54	05/28/15 02:41	4
Barium	**120**		1.1		mg/Kg		05/26/15 20:54	05/28/15 02:41	4
Beryllium	ND		0.22		mg/Kg		05/26/15 20:54	05/28/15 02:41	4
Cadmium	**1.4**		0.28		mg/Kg		05/26/15 20:54	05/28/15 02:41	4
Chromium	**110**		1.1		mg/Kg		05/26/15 20:54	05/28/15 02:41	4
Cobalt	**14**		0.45		mg/Kg		05/26/15 20:54	05/28/15 02:41	4
Copper	**27000**		42		mg/Kg		05/26/15 20:54	05/28/15 17:52	50
Lead	**480**		2.8		mg/Kg		05/26/15 20:54	05/28/15 17:47	10
Molybdenum	**10**		2.8		mg/Kg		05/26/15 20:54	05/28/15 17:47	10
Nickel	**93**		2.8		mg/Kg		05/26/15 20:54	05/28/15 17:47	10
Selenium	ND		2.2		mg/Kg		05/26/15 20:54	05/28/15 02:41	4
Silver	**0.94**		0.56		mg/Kg		05/26/15 20:54	05/28/15 02:41	4
Thallium	ND		2.8		mg/Kg		05/26/15 20:54	05/28/15 17:47	10
Vanadium	**24**		1.1		mg/Kg		05/26/15 20:54	05/28/15 02:41	4
Zinc	**4000**		42		mg/Kg		05/26/15 20:54	05/28/15 17:52	50

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**10**		0.91		mg/Kg		05/26/15 20:56	05/27/15 17:48	100

Client Sample ID: SS-9-1'
Date Collected: 05/19/15 10:20
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-18
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.66		mg/Kg		05/27/15 09:39	05/28/15 14:50	10
Acenaphthylene	ND		0.66		mg/Kg		05/27/15 09:39	05/28/15 14:50	10
Acenaphthene	ND		0.66		mg/Kg		05/27/15 09:39	05/28/15 14:50	10
Fluorene	ND		0.66		mg/Kg		05/27/15 09:39	05/28/15 14:50	10
Phenanthrene	**1.1**		0.66		mg/Kg		05/27/15 09:39	05/28/15 14:50	10
Anthracene	ND		0.66		mg/Kg		05/27/15 09:39	05/28/15 14:50	10
Fluoranthene	**3.0**		0.66		mg/Kg		05/27/15 09:39	05/28/15 14:50	10
Pyrene	**3.2**		0.66		mg/Kg		05/27/15 09:39	05/28/15 14:50	10
Benzo[a]anthracene	ND		3.3		mg/Kg		05/27/15 09:39	05/28/15 14:50	10
Chrysene	**1.1**		0.66		mg/Kg		05/27/15 09:39	05/28/15 14:50	10
Benzo[b]fluoranthene	**1.1**		0.66		mg/Kg		05/27/15 09:39	05/28/15 14:50	10
Benzo[k]fluoranthene	ND		0.66		mg/Kg		05/27/15 09:39	05/28/15 14:50	10
Benzo[a]pyrene	**0.80**		0.66		mg/Kg		05/27/15 09:39	05/28/15 14:50	10
Indeno[1,2,3-cd]pyrene	ND		0.66		mg/Kg		05/27/15 09:39	05/28/15 14:50	10
Benzo[g,h,i]perylene	ND		0.66		mg/Kg		05/27/15 09:39	05/28/15 14:50	10
2-Methylnaphthalene	ND		0.66		mg/Kg		05/27/15 09:39	05/28/15 14:50	10
Dibenz(a,h)anthracene	ND		0.66		mg/Kg		05/27/15 09:39	05/28/15 14:50	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*48*		*21 - 98*	*05/27/15 09:39*	*05/28/15 14:50*	*10*
2-Fluorobiphenyl	*51*		*30 - 112*	*05/27/15 09:39*	*05/28/15 14:50*	*10*
Terphenyl-d14	*71*		*32 - 117*	*05/27/15 09:39*	*05/28/15 14:50*	*10*

Method: Organotins - Organotins, PSEP (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monobutyltin	**94**	* J	1.0		ug/Kg		05/24/15 18:29	05/28/15 05:11	1
Tetra-n-butyltin	**27**		2.7		ug/Kg		05/24/15 18:29	05/28/15 05:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*62*		*20 - 151*	*05/24/15 18:29*	*05/28/15 05:11*	*1*

Method: Organotins - Organotins, PSEP (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibutyltin	**670**		10		ug/Kg		05/24/15 18:29	05/28/15 13:33	10
Tributyltin	**980**		10		ug/Kg		05/24/15 18:29	05/28/15 13:33	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*69*		*20 - 151*	*05/24/15 18:29*	*05/28/15 13:33*	*10*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**780**		20		mg/Kg		05/26/15 16:23	05/28/15 12:11	20
Motor Oil Range Organics [C24-C36]	**1800**		990		mg/Kg		05/26/15 16:23	05/28/15 12:11	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*0*	*X D*	*40 - 130*	*05/26/15 16:23*	*05/28/15 12:11*	*20*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		2500		ug/Kg		05/26/15 13:18	05/27/15 11:22	50

Client Sample ID: SS-9-1'
Date Collected: 05/19/15 10:20
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-18
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1221	ND		2500		ug/Kg		05/26/15 13:18	05/27/15 11:22	50
PCB-1232	ND		2500		ug/Kg		05/26/15 13:18	05/27/15 11:22	50
PCB-1242	ND		2500		ug/Kg		05/26/15 13:18	05/27/15 11:22	50
PCB-1248	**8900**		2500		ug/Kg		05/26/15 13:18	05/27/15 11:22	50
PCB-1254	ND		2500		ug/Kg		05/26/15 13:18	05/27/15 11:22	50
PCB-1260	ND		2500		ug/Kg		05/26/15 13:18	05/27/15 11:22	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*0*	*X D*	*45 - 132*	*05/26/15 13:18*	*05/27/15 11:22*	*50*
DCB Decachlorobiphenyl	*0*	*X D*	*42 - 146*	*05/26/15 13:18*	*05/27/15 11:22*	*50*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.1		mg/Kg		05/26/15 20:54	05/28/15 02:46	4
Arsenic	**75**		2.3		mg/Kg		05/26/15 20:54	05/28/15 02:46	4
Barium	**110**		1.1		mg/Kg		05/26/15 20:54	05/28/15 02:46	4
Beryllium	ND		0.23		mg/Kg		05/26/15 20:54	05/28/15 02:46	4
Cadmium	**0.86**		0.29		mg/Kg		05/26/15 20:54	05/28/15 02:46	4
Chromium	**140**		1.1		mg/Kg		05/26/15 20:54	05/28/15 02:46	4
Cobalt	**21**		0.46		mg/Kg		05/26/15 20:54	05/28/15 02:46	4
Copper	**2400**		3.4		mg/Kg		05/26/15 20:54	05/28/15 02:46	4
Lead	**540**		1.1		mg/Kg		05/26/15 20:54	05/28/15 17:33	4
Molybdenum	**1.4**		1.1		mg/Kg		05/26/15 20:54	05/28/15 17:33	4
Nickel	**360**		1.1		mg/Kg		05/26/15 20:54	05/28/15 17:33	4
Selenium	ND		2.3		mg/Kg		05/26/15 20:54	05/28/15 02:46	4
Silver	ND		0.57		mg/Kg		05/26/15 20:54	05/28/15 02:46	4
Thallium	ND		1.1		mg/Kg		05/26/15 20:54	05/28/15 17:33	4
Vanadium	**26**		1.1		mg/Kg		05/26/15 20:54	05/28/15 02:46	4
Zinc	**540**		3.4		mg/Kg		05/26/15 20:54	05/28/15 02:46	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**23**		0.91		mg/Kg		05/26/15 20:56	05/27/15 17:50	100

Client Sample ID: SS-10-0.5'
Date Collected: 05/19/15 10:10
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-19
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.066		mg/Kg		05/27/15 09:39	05/28/15 15:11	1
Acenaphthylene	ND		0.066		mg/Kg		05/27/15 09:39	05/28/15 15:11	1
Acenaphthene	ND		0.066		mg/Kg		05/27/15 09:39	05/28/15 15:11	1
Fluorene	ND		0.066		mg/Kg		05/27/15 09:39	05/28/15 15:11	1
Phenanthrene	**0.066**		0.066		mg/Kg		05/27/15 09:39	05/28/15 15:11	1
Anthracene	ND		0.066		mg/Kg		05/27/15 09:39	05/28/15 15:11	1
Fluoranthene	**0.10**		0.066		mg/Kg		05/27/15 09:39	05/28/15 15:11	1
Pyrene	**0.16**		0.066		mg/Kg		05/27/15 09:39	05/28/15 15:11	1
Benzo[a]anthracene	ND		0.33		mg/Kg		05/27/15 09:39	05/28/15 15:11	1
Chrysene	**0.069**		0.066		mg/Kg		05/27/15 09:39	05/28/15 15:11	1
Benzo[b]fluoranthene	**0.093**		0.066		mg/Kg		05/27/15 09:39	05/28/15 15:11	1
Benzo[k]fluoranthene	ND		0.066		mg/Kg		05/27/15 09:39	05/28/15 15:11	1
Benzo[a]pyrene	**0.072**		0.066		mg/Kg		05/27/15 09:39	05/28/15 15:11	1
Indeno[1,2,3-cd]pyrene	ND		0.066		mg/Kg		05/27/15 09:39	05/28/15 15:11	1
Benzo[g,h,i]perylene	ND		0.066		mg/Kg		05/27/15 09:39	05/28/15 15:11	1
2-Methylnaphthalene	ND		0.066		mg/Kg		05/27/15 09:39	05/28/15 15:11	1
Dibenz(a,h)anthracene	ND		0.066		mg/Kg		05/27/15 09:39	05/28/15 15:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*57*		*21 - 98*	*05/27/15 09:39*	*05/28/15 15:11*	*1*
2-Fluorobiphenyl	*66*		*30 - 112*	*05/27/15 09:39*	*05/28/15 15:11*	*1*
Terphenyl-d14	*134*	*X*	*32 - 117*	*05/27/15 09:39*	*05/28/15 15:11*	*1*

Method: Organotins - Organotins, PSEP (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibutyltin	**110**		1.1		ug/Kg		05/24/15 18:29	05/28/15 05:34	1
Monobutyltin	**29**	* J	1.1		ug/Kg		05/24/15 18:29	05/28/15 05:34	1
Tetra-n-butyltin	ND		2.9		ug/Kg		05/24/15 18:29	05/28/15 05:34	1
Tributyltin	**130**		1.1		ug/Kg		05/24/15 18:29	05/28/15 05:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*63*		*20 - 151*	*05/24/15 18:29*	*05/28/15 05:34*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**39**		0.99		mg/Kg		05/26/15 16:23	05/28/15 10:59	1
Motor Oil Range Organics [C24-C36]	**78**		49		mg/Kg		05/26/15 16:23	05/28/15 10:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*79*		*40 - 130*	*05/26/15 16:23*	*05/28/15 10:59*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		99		ug/Kg		05/26/15 13:18	05/27/15 11:06	2
PCB-1221	ND		99		ug/Kg		05/26/15 13:18	05/27/15 11:06	2
PCB-1232	ND		99		ug/Kg		05/26/15 13:18	05/27/15 11:06	2
PCB-1242	ND		99		ug/Kg		05/26/15 13:18	05/27/15 11:06	2
PCB-1248	ND		99		ug/Kg		05/26/15 13:18	05/27/15 11:06	2
PCB-1254	ND		99		ug/Kg		05/26/15 13:18	05/27/15 11:06	2
PCB-1260	**360**	J	99		ug/Kg		05/26/15 13:18	05/27/15 11:06	2

Client Sample ID: SS-10-0.5'
Date Collected: 05/19/15 10:10
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-19
Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*69*		*45 - 132*	*05/26/15 13:18*	*05/27/15 11:06*	*2*
DCB Decachlorobiphenyl	*83*		*42 - 146*	*05/26/15 13:18*	*05/27/15 11:06*	*2*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.45		mg/Kg		05/26/15 20:54	05/28/15 17:57	1
Arsenic	**8.2**		3.6		mg/Kg		05/26/15 20:54	05/28/15 02:50	4
Barium	**36**		1.8		mg/Kg		05/26/15 20:54	05/28/15 02:50	4
Beryllium	ND		0.090		mg/Kg		05/26/15 20:54	05/28/15 17:57	1
Cadmium	**0.20**		0.11		mg/Kg		05/26/15 20:54	05/28/15 17:57	1
Chromium	**56**		1.8		mg/Kg		05/26/15 20:54	05/28/15 02:50	4
Cobalt	**6.4**		0.72		mg/Kg		05/26/15 20:54	05/28/15 02:50	4
Copper	**310**		5.4		mg/Kg		05/26/15 20:54	05/28/15 02:50	4
Lead	**41**		0.45		mg/Kg		05/26/15 20:54	05/28/15 17:57	1
Molybdenum	**0.78**		0.45		mg/Kg		05/26/15 20:54	05/28/15 17:57	1
Nickel	**42**		0.45		mg/Kg		05/26/15 20:54	05/28/15 17:57	1
Selenium	ND		0.90		mg/Kg		05/26/15 20:54	05/28/15 17:57	1
Silver	ND		0.23		mg/Kg		05/26/15 20:54	05/28/15 17:57	1
Thallium	ND		0.45		mg/Kg		05/26/15 20:54	05/28/15 17:57	1
Vanadium	**32**		1.8		mg/Kg		05/26/15 20:54	05/28/15 02:50	4
Zinc	**170**		5.4		mg/Kg		05/26/15 20:54	05/28/15 02:50	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**2.4**		0.087		mg/Kg		05/26/15 20:56	05/27/15 17:52	10

Client Sample ID: SS-10-1'
Date Collected: 05/19/15 10:14
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-20
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.13		mg/Kg		05/27/15 09:39	05/28/15 15:33	2
Acenaphthylene	ND		0.13		mg/Kg		05/27/15 09:39	05/28/15 15:33	2
Acenaphthene	ND		0.13		mg/Kg		05/27/15 09:39	05/28/15 15:33	2
Fluorene	ND		0.13		mg/Kg		05/27/15 09:39	05/28/15 15:33	2
Phenanthrene	ND		0.13		mg/Kg		05/27/15 09:39	05/28/15 15:33	2
Anthracene	ND		0.13		mg/Kg		05/27/15 09:39	05/28/15 15:33	2
Fluoranthene	**0.20**		0.13		mg/Kg		05/27/15 09:39	05/28/15 15:33	2
Pyrene	**0.43**		0.13		mg/Kg		05/27/15 09:39	05/28/15 15:33	2
Benzo[a]anthracene	ND		0.65		mg/Kg		05/27/15 09:39	05/28/15 15:33	2
Chrysene	**0.13**		0.13		mg/Kg		05/27/15 09:39	05/28/15 15:33	2
Benzo[b]fluoranthene	**0.21**		0.13		mg/Kg		05/27/15 09:39	05/28/15 15:33	2
Benzo[k]fluoranthene	ND		0.13		mg/Kg		05/27/15 09:39	05/28/15 15:33	2
Benzo[a]pyrene	**0.16**		0.13		mg/Kg		05/27/15 09:39	05/28/15 15:33	2
Indeno[1,2,3-cd]pyrene	ND		0.13		mg/Kg		05/27/15 09:39	05/28/15 15:33	2
Benzo[g,h,i]perylene	ND		0.13		mg/Kg		05/27/15 09:39	05/28/15 15:33	2
2-Methylnaphthalene	ND		0.13		mg/Kg		05/27/15 09:39	05/28/15 15:33	2
Dibenz(a,h)anthracene	ND		0.13		mg/Kg		05/27/15 09:39	05/28/15 15:33	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*66*		*21 - 98*	*05/27/15 09:39*	*05/28/15 15:33*	*2*
2-Fluorobiphenyl	*68*		*30 - 112*	*05/27/15 09:39*	*05/28/15 15:33*	*2*
Terphenyl-d14	*121*	*X*	*32 - 117*	*05/27/15 09:39*	*05/28/15 15:33*	*2*

Method: Organotins - Organotins, PSEP (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monobutyltin	**50**	J	1.0		ug/Kg		05/24/15 18:29	05/28/15 05:57	1
Tetra-n-butyltin	**40**	J	2.7		ug/Kg		05/24/15 18:29	05/28/15 05:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*42*		*20 - 151*	*05/24/15 18:29*	*05/28/15 05:57*	*1*

Method: Organotins - Organotins, PSEP (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibutyltin	**260**		10		ug/Kg		05/24/15 18:29	05/28/15 13:56	10
Tributyltin	**780**	J	10		ug/Kg		05/24/15 18:29	05/28/15 13:56	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*33*		*20 - 151*	*05/24/15 18:29*	*05/28/15 13:56*	*10*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**120**		3.0		mg/Kg		05/26/15 16:23	05/27/15 22:22	3
Motor Oil Range Organics [C24-C36]	**230**		150		mg/Kg		05/26/15 16:23	05/27/15 22:22	3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*67*		*40 - 130*	*05/26/15 16:23*	*05/27/15 22:22*	*3*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		490		ug/Kg		05/26/15 13:18	05/27/15 11:22	10

Client Sample ID: SS-10-1'
Date Collected: 05/19/15 10:14
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-20
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1221	ND		490		ug/Kg		05/26/15 13:18	05/27/15 11:22	10
PCB-1232	ND		490		ug/Kg		05/26/15 13:18	05/27/15 11:22	10
PCB-1242	ND		490		ug/Kg		05/26/15 13:18	05/27/15 11:22	10
PCB-1248	**1500**	J	490		ug/Kg		05/26/15 13:18	05/27/15 11:22	10
PCB-1254	ND		490		ug/Kg		05/26/15 13:18	05/27/15 11:22	10
PCB-1260	ND		490	UJ	ug/Kg		05/26/15 13:18	05/27/15 11:22	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*0*	*X D*	*45 - 132*	*05/26/15 13:18*	*05/27/15 11:22*	*10*
DCB Decachlorobiphenyl	*0*	*X D*	*42 - 146*	*05/26/15 13:18*	*05/27/15 11:22*	*10*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.3		mg/Kg		05/26/15 20:54	05/28/15 02:55	4
Arsenic	**12**		2.7		mg/Kg		05/26/15 20:54	05/28/15 02:55	4
Barium	**35**		1.3		mg/Kg		05/26/15 20:54	05/28/15 02:55	4
Beryllium	ND		0.27		mg/Kg		05/26/15 20:54	05/28/15 02:55	4
Cadmium	ND		0.33		mg/Kg		05/26/15 20:54	05/28/15 02:55	4
Chromium	**62**		1.3		mg/Kg		05/26/15 20:54	05/28/15 02:55	4
Cobalt	**6.7**		0.53		mg/Kg		05/26/15 20:54	05/28/15 02:55	4
Copper	**840**		4.0		mg/Kg		05/26/15 20:54	05/28/15 02:55	4
Lead	**63**		1.3		mg/Kg		05/26/15 20:54	05/28/15 18:02	4
Molybdenum	**1.6**		1.3		mg/Kg		05/26/15 20:54	05/28/15 18:02	4
Nickel	**53**		1.3		mg/Kg		05/26/15 20:54	05/28/15 18:02	4
Selenium	ND		2.7		mg/Kg		05/26/15 20:54	05/28/15 02:55	4
Silver	ND		0.67		mg/Kg		05/26/15 20:54	05/28/15 02:55	4
Thallium	ND		1.3		mg/Kg		05/26/15 20:54	05/28/15 18:02	4
Vanadium	**29**		1.3		mg/Kg		05/26/15 20:54	05/28/15 02:55	4
Zinc	**240**		4.0		mg/Kg		05/26/15 20:54	05/28/15 02:55	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**4.6**		0.086		mg/Kg		05/26/15 20:56	05/27/15 17:55	10

Client Sample ID: FD-1
Date Collected: 05/19/15 00:00
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-21
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.33		mg/Kg		05/27/15 09:39	05/28/15 15:54	5
Acenaphthylene	ND		0.33		mg/Kg		05/27/15 09:39	05/28/15 15:54	5
Acenaphthene	ND		0.33		mg/Kg		05/27/15 09:39	05/28/15 15:54	5
Fluorene	ND		0.33		mg/Kg		05/27/15 09:39	05/28/15 15:54	5
Phenanthrene	**0.58**		0.33		mg/Kg		05/27/15 09:39	05/28/15 15:54	5
Anthracene	ND		0.33		mg/Kg		05/27/15 09:39	05/28/15 15:54	5
Fluoranthene	**0.99**		0.33		mg/Kg		05/27/15 09:39	05/28/15 15:54	5
Pyrene	**1.2**		0.33		mg/Kg		05/27/15 09:39	05/28/15 15:54	5
Benzo[a]anthracene	ND		1.6		mg/Kg		05/27/15 09:39	05/28/15 15:54	5
Chrysene	**0.80**		0.33		mg/Kg		05/27/15 09:39	05/28/15 15:54	5
Benzo[b]fluoranthene	**1.1**		0.33		mg/Kg		05/27/15 09:39	05/28/15 15:54	5
Benzo[k]fluoranthene	**0.47**		0.33		mg/Kg		05/27/15 09:39	05/28/15 15:54	5
Benzo[a]pyrene	**0.83**		0.33		mg/Kg		05/27/15 09:39	05/28/15 15:54	5
Indeno[1,2,3-cd]pyrene	**0.49**		0.33		mg/Kg		05/27/15 09:39	05/28/15 15:54	5
Benzo[g,h,i]perylene	**0.49**		0.33		mg/Kg		05/27/15 09:39	05/28/15 15:54	5
2-Methylnaphthalene	ND		0.33		mg/Kg		05/27/15 09:39	05/28/15 15:54	5
Dibenz(a,h)anthracene	ND		0.33		mg/Kg		05/27/15 09:39	05/28/15 15:54	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*65*		*21 - 98*	*05/27/15 09:39*	*05/28/15 15:54*	*5*
2-Fluorobiphenyl	*64*		*30 - 112*	*05/27/15 09:39*	*05/28/15 15:54*	*5*
Terphenyl-d14	*90*		*32 - 117*	*05/27/15 09:39*	*05/28/15 15:54*	*5*

Method: Organotins - Organotins, PSEP (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibutyltin	**37**	J	1.0		ug/Kg		05/24/15 18:29	05/28/15 10:53	1
Monobutyltin	**12**	J	1.0		ug/Kg		05/24/15 18:29	05/28/15 10:53	1
Tetra-n-butyltin	ND		2.8		ug/Kg		05/24/15 18:29	05/28/15 10:53	1
Tributyltin	**89**		1.0		ug/Kg		05/24/15 18:29	05/28/15 10:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*29*		*20 - 151*	*05/24/15 18:29*	*05/28/15 10:53*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**210**		3.0		mg/Kg		05/26/15 16:23	05/27/15 19:26	3
Motor Oil Range Organics [C24-C36]	**390**		150		mg/Kg		05/26/15 16:23	05/27/15 19:26	3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*50*		*40 - 130*	*05/26/15 16:23*	*05/27/15 19:26*	*3*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		2500		ug/Kg		05/26/15 19:49	05/27/15 15:46	50
PCB-1221	ND		2500		ug/Kg		05/26/15 19:49	05/27/15 15:46	50
PCB-1232	ND		2500		ug/Kg		05/26/15 19:49	05/27/15 15:46	50
PCB-1242	ND		2500		ug/Kg		05/26/15 19:49	05/27/15 15:46	50
PCB-1248	ND		2500		ug/Kg		05/26/15 19:49	05/27/15 15:46	50
PCB-1254	ND		2500		ug/Kg		05/26/15 19:49	05/27/15 15:46	50
PCB-1260	**7800**	J	2500		ug/Kg		05/26/15 19:49	05/27/15 15:46	50

Client Sample ID: FD-1

Date Collected: 05/19/15 00:00
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-21

Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	*0*	*X D*	*45 - 132*	*05/26/15 19:49*	*05/27/15 15:46*	*50*
DCB Decachlorobiphenyl	*0*	*X D*	*42 - 146*	*05/26/15 19:49*	*05/27/15 15:46*	*50*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.7		mg/Kg		05/26/15 20:54	05/28/15 03:00	4
Arsenic	**9.7**		3.4		mg/Kg		05/26/15 20:54	05/28/15 03:00	4
Barium	**140**		1.7		mg/Kg		05/26/15 20:54	05/28/15 03:00	4
Beryllium	ND		0.34		mg/Kg		05/26/15 20:54	05/28/15 03:00	4
Cadmium	ND		0.42		mg/Kg		05/26/15 20:54	05/28/15 03:00	4
Chromium	**82**		1.7		mg/Kg		05/26/15 20:54	05/28/15 03:00	4
Cobalt	**10**		0.67		mg/Kg		05/26/15 20:54	05/28/15 03:00	4
Copper	**540**		5.0		mg/Kg		05/26/15 20:54	05/28/15 03:00	4
Lead	**220**		1.7		mg/Kg		05/26/15 20:54	05/28/15 20:05	4
Molybdenum	**3.2**		1.7		mg/Kg		05/26/15 20:54	05/28/15 20:05	4
Nickel	**59**		1.7		mg/Kg		05/26/15 20:54	05/28/15 20:05	4
Selenium	ND		3.4		mg/Kg		05/26/15 20:54	05/28/15 03:00	4
Silver	ND		0.84		mg/Kg		05/26/15 20:54	05/28/15 03:00	4
Thallium	ND		1.7		mg/Kg		05/26/15 20:54	05/28/15 20:05	4
Vanadium	**34**		1.7		mg/Kg		05/26/15 20:54	05/28/15 03:00	4
Zinc	**350**		5.0		mg/Kg		05/26/15 20:54	05/28/15 03:00	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**5.1**		0.090		mg/Kg		05/26/15 20:56	05/27/15 17:57	10

Client Sample ID: FD-2
Date Collected: 05/19/15 00:00
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-22
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.13		mg/Kg		05/27/15 09:39	05/28/15 16:16	2
Acenaphthylene	ND		0.13		mg/Kg		05/27/15 09:39	05/28/15 16:16	2
Acenaphthene	ND		0.13		mg/Kg		05/27/15 09:39	05/28/15 16:16	2
Fluorene	ND		0.13		mg/Kg		05/27/15 09:39	05/28/15 16:16	2
Phenanthrene	**0.43**		0.13		mg/Kg		05/27/15 09:39	05/28/15 16:16	2
Anthracene	**0.13**		0.13		mg/Kg		05/27/15 09:39	05/28/15 16:16	2
Fluoranthene	**0.45**		0.13		mg/Kg		05/27/15 09:39	05/28/15 16:16	2
Pyrene	**0.75**		0.13		mg/Kg		05/27/15 09:39	05/28/15 16:16	2
Benzo[a]anthracene	ND		0.65		mg/Kg		05/27/15 09:39	05/28/15 16:16	2
Chrysene	**0.24**		0.13		mg/Kg		05/27/15 09:39	05/28/15 16:16	2
Benzo[b]fluoranthene	**0.31**		0.13		mg/Kg		05/27/15 09:39	05/28/15 16:16	2
Benzo[k]fluoranthene	ND		0.13		mg/Kg		05/27/15 09:39	05/28/15 16:16	2
Benzo[a]pyrene	**0.21**		0.13		mg/Kg		05/27/15 09:39	05/28/15 16:16	2
Indeno[1,2,3-cd]pyrene	**0.13**		0.13		mg/Kg		05/27/15 09:39	05/28/15 16:16	2
Benzo[g,h,i]perylene	ND		0.13		mg/Kg		05/27/15 09:39	05/28/15 16:16	2
2-Methylnaphthalene	ND		0.13		mg/Kg		05/27/15 09:39	05/28/15 16:16	2
Dibenz(a,h)anthracene	ND		0.13		mg/Kg		05/27/15 09:39	05/28/15 16:16	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*68*		*21 - 98*	*05/27/15 09:39*	*05/28/15 16:16*	*2*
2-Fluorobiphenyl	*69*		*30 - 112*	*05/27/15 09:39*	*05/28/15 16:16*	*2*
Terphenyl-d14	*113*		*32 - 117*	*05/27/15 09:39*	*05/28/15 16:16*	*2*

Method: Organotins - Organotins, PSEP (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monobutyltin	**78**	* J	1.0		ug/Kg		05/24/15 18:29	05/28/15 11:15	1
Tetra-n-butyltin	**19**	J	2.7		ug/Kg		05/24/15 18:29	05/28/15 11:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*61*		*20 - 151*	*05/24/15 18:29*	*05/28/15 11:15*	*1*

Method: Organotins - Organotins, PSEP (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibutyltin	**330**		5.0		ug/Kg		05/24/15 18:29	05/28/15 11:38	5
Tributyltin	**360**	J	5.0		ug/Kg		05/24/15 18:29	05/28/15 11:38	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*51*		*20 - 151*	*05/24/15 18:29*	*05/28/15 11:38*	*5*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**100**		2.0		mg/Kg		05/26/15 16:23	05/27/15 19:56	2
Motor Oil Range Organics [C24-C36]	**190**		99		mg/Kg		05/26/15 16:23	05/27/15 19:56	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*51*		*40 - 130*	*05/26/15 16:23*	*05/27/15 19:56*	*2*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		250		ug/Kg		05/26/15 19:49	05/27/15 16:20	5

Client: URS Corporation
Project/Site: Blue Greenway 900 Innes

TestAmerica Job ID: 720-64901-1

Client Sample ID: FD-2
Date Collected: 05/19/15 00:00
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-22
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1221	ND		250		ug/Kg		05/26/15 19:49	05/27/15 16:20	5
PCB-1232	ND		250		ug/Kg		05/26/15 19:49	05/27/15 16:20	5
PCB-1242	ND		250		ug/Kg		05/26/15 19:49	05/27/15 16:20	5
PCB-1248	ND		250	UJ	ug/Kg		05/26/15 19:49	05/27/15 16:20	5
PCB-1254	ND		250		ug/Kg		05/26/15 19:49	05/27/15 16:20	5
PCB-1260	**870**	J	250		ug/Kg		05/26/15 19:49	05/27/15 16:20	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*98*		*45 - 132*	*05/26/15 19:49*	*05/27/15 16:20*	*5*
DCB Decachlorobiphenyl	*120*		*42 - 146*	*05/26/15 19:49*	*05/27/15 16:20*	*5*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.41		mg/Kg		05/26/15 20:54	05/28/15 18:11	1
Arsenic	**9.5**		3.3		mg/Kg		05/26/15 20:54	05/28/15 03:14	4
Barium	**38**		1.6		mg/Kg		05/26/15 20:54	05/28/15 03:14	4
Beryllium	ND		0.082		mg/Kg		05/26/15 20:54	05/28/15 18:11	1
Cadmium	**0.28**		0.10		mg/Kg		05/26/15 20:54	05/28/15 18:11	1
Chromium	**63**		1.6		mg/Kg		05/26/15 20:54	05/28/15 03:14	4
Cobalt	**7.2**		0.66		mg/Kg		05/26/15 20:54	05/28/15 03:14	4
Copper	**670**		4.9		mg/Kg		05/26/15 20:54	05/28/15 03:14	4
Lead	**60**		0.41		mg/Kg		05/26/15 20:54	05/28/15 18:11	1
Molybdenum	**1.6**		1.6		mg/Kg		05/26/15 20:54	05/28/15 03:14	4
Nickel	**49**		0.41		mg/Kg		05/26/15 20:54	05/28/15 18:11	1
Selenium	ND		0.82		mg/Kg		05/26/15 20:54	05/28/15 18:11	1
Silver	ND		0.20		mg/Kg		05/26/15 20:54	05/28/15 18:11	1
Thallium	ND		0.41		mg/Kg		05/26/15 20:54	05/28/15 18:11	1
Vanadium	**29**		1.6		mg/Kg		05/26/15 20:54	05/28/15 03:14	4
Zinc	**260**		4.9		mg/Kg		05/26/15 20:54	05/28/15 03:14	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**4.1**		0.092		mg/Kg		05/26/15 20:56	05/27/15 18:04	10

Surrogate Summary

Client: URS Corporation
Project/Site: Blue Greenway 900 Innes

TestAmerica Job ID: 720-64901-1

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

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

		Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	NBZ (21-98)	FBP (30-112)	TPH (32-117)
720-64901-1	SS-1-0.5'	64	71	70
720-64901-2	SS-1-1'	59	69	70
720-64901-3	SS-2-0.5'	56	52	76
720-64901-4	SS-2-1'	64	56	84
720-64901-5	SS-3-0.5'	59	61	100
720-64901-6	SS-3-1'	65	62	99
720-64901-7	SS-4-0.5'	67	73	108
720-64901-8	SS-4-1'	64	64	77
720-64901-9	SS-5-0.5'	60	52	90
720-64901-10	SS-5-1'	69	58	82
720-64901-11	SS-6-0.5'	66	57	118 X
720-64901-12	SS-6-1'	68	59	113
720-64901-13	SS-7-0.5'	76	66	106
720-64901-14	SS-7-1'	82	72	111
720-64901-15	SS-8-0.5'	72	63	100
720-64901-16	SS-8-1'	81	71	89
720-64901-17	SS-9-0.5'	71	59	78
720-64901-18	SS-9-1'	48	51	71
720-64901-19	SS-10-0.5'	57	66	134 X
720-64901-20	SS-10-1'	66	68	121 X
720-64901-21	FD-1	65	64	90
720-64901-22	FD-2	68	69	113
LCS 720-182401/2-A	Lab Control Sample	77	85	129 X
LCS 720-182427/2-A	Lab Control Sample	75	74	88
MB 720-182401/1-A	Method Blank	64	71	76
MB 720-182427/1-A	Method Blank	96	89	135 X

Surrogate Legend

NBZ = Nitrobenzene-d5
FBP = 2-Fluorobiphenyl
TPH = Terphenyl-d14

Method: Organotins - Organotins, PSEP (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	TPT (20-151)
720-64901-1	SS-1-0.5'	56
720-64901-2	SS-1-1'	74
720-64901-2 - DL	SS-1-1'	124
720-64901-3	SS-2-0.5'	79
720-64901-4	SS-2-1'	68
720-64901-5	SS-3-0.5'	60
720-64901-6	SS-3-1'	70
720-64901-6 - DL	SS-3-1'	74
720-64901-7	SS-4-0.5'	48
720-64901-8	SS-4-1'	100
720-64901-9	SS-5-0.5'	37

Method: Organotins - Organotins, PSEP (GC/MS) (Continued)

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

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	TPT (20-151)
720-64901-10	SS-5-1'	52
720-64901-11	SS-6-0.5'	61
720-64901-12	SS-6-1'	45
720-64901-13	SS-7-0.5'	50
720-64901-13 - DL	SS-7-0.5'	70
720-64901-13 MS	SS-7-0.5'	65
720-64901-13 MSD	SS-7-0.5'	58
720-64901-14	SS-7-1'	33
720-64901-15	SS-8-0.5'	41
720-64901-16	SS-8-1'	67
720-64901-17	SS-9-0.5'	60
720-64901-17 - DL	SS-9-0.5'	45
720-64901-18	SS-9-1'	62
720-64901-18 - DL	SS-9-1'	69
720-64901-19	SS-10-0.5'	63
720-64901-20	SS-10-1'	42
720-64901-20 - DL	SS-10-1'	33
720-64901-21	FD-1	29
720-64901-22	FD-2	61
720-64901-22 - DL	FD-2	51
LCS 580-190241/2-A	Lab Control Sample	70
LCS 580-190247/2-A	Lab Control Sample	71
LCSD 580-190241/3-A	Lab Control Sample Dup	88
LCSD 580-190247/3-A	Lab Control Sample Dup	83
MB 580-190241/1-A	Method Blank	71
MB 580-190247/1-A	Method Blank	73

Surrogate Legend
TPT = Tripentyltin

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

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

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	PTP1 (40-130)
720-64901-1	SS-1-0.5'	0 X D
720-64901-2	SS-1-1'	0 X D
720-64901-3	SS-2-0.5'	0 X D
720-64901-4	SS-2-1'	0 X D
720-64901-5	SS-3-0.5'	57
720-64901-6	SS-3-1'	0 X
720-64901-7	SS-4-0.5'	0 X
720-64901-8	SS-4-1'	0 X D
720-64901-9	SS-5-0.5'	111
720-64901-10	SS-5-1'	55
720-64901-11	SS-6-0.5'	57
720-64901-12	SS-6-1'	88
720-64901-13	SS-7-0.5'	0 X D

Surrogate Summary

Client: URS Corporation
Project/Site: Blue Greenway 900 Innes

TestAmerica Job ID: 720-64901-1

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

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

		Percent Surrogate Recovery (Acceptance Limits)
		PTP1
Lab Sample ID	Client Sample ID	(40-130)
720-64901-14	SS-7-1'	0 X D
720-64901-15	SS-8-0.5'	45
720-64901-16	SS-8-1'	0 X D
720-64901-17	SS-9-0.5'	0 X D
720-64901-18	SS-9-1'	0 X D
720-64901-19	SS-10-0.5'	79
720-64901-20	SS-10-1'	67
720-64901-21	FD-1	50
720-64901-22	FD-2	51
LCS 720-182263/2-A	Lab Control Sample	93
LCS 720-182368/2-A	Lab Control Sample	111
MB 720-182263/1-A	Method Blank	103
MB 720-182368/1-A	Method Blank	103

Surrogate Legend

PTP = p-Terphenyl

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX1	DCB1
Lab Sample ID	Client Sample ID	(45-132)	(42-146)
720-64901-1	SS-1-0.5'	70	70
720-64901-1 MS	SS-1-0.5'	73	70
720-64901-1 MSD	SS-1-0.5'	72	69
720-64901-2	SS-1-1'	69	70
720-64901-3	SS-2-0.5'	73	69
720-64901-4	SS-2-1'	71	74
720-64901-5	SS-3-0.5'	67	71
720-64901-6	SS-3-1'	72	93
720-64901-7	SS-4-0.5'	70	77
720-64901-8	SS-4-1'	58	90
720-64901-9	SS-5-0.5'	69	75
720-64901-10	SS-5-1'	70	75
720-64901-11	SS-6-0.5'	64	71
720-64901-12	SS-6-1'	71	79
720-64901-13	SS-7-0.5'	71	77
720-64901-14	SS-7-1'	0 X D	0 X D
720-64901-15	SS-8-0.5'	78	91
720-64901-16	SS-8-1'	89	123
720-64901-17	SS-9-0.5'	0 X D	0 X D
720-64901-18	SS-9-1'	0 X D	0 X D
720-64901-19	SS-10-0.5'	69	83
720-64901-20	SS-10-1'	0 X D	0 X D
720-64901-21	FD-1	0 X D	0 X D
720-64901-22	FD-2	98	120
LCS 720-182348/2-A	Lab Control Sample	79	88
LCS 720-182388/2-A	Lab Control Sample	95	106

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	TCX1 (45-132)	DCB1 (42-146)
MB 720-182348/1-A	Method Blank	79	86
MB 720-182388/1-A	Method Blank	87	102

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

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

Lab Sample ID: MB 720-182401/1-A
Matrix: Solid
Analysis Batch: 182430

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 182401

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.067		mg/Kg		05/26/15 23:13	05/27/15 18:47	1
Acenaphthylene	ND		0.067		mg/Kg		05/26/15 23:13	05/27/15 18:47	1
Acenaphthene	ND		0.067		mg/Kg		05/26/15 23:13	05/27/15 18:47	1
Fluorene	ND		0.067		mg/Kg		05/26/15 23:13	05/27/15 18:47	1
Phenanthrene	ND		0.067		mg/Kg		05/26/15 23:13	05/27/15 18:47	1
Anthracene	ND		0.067		mg/Kg		05/26/15 23:13	05/27/15 18:47	1
Fluoranthene	ND		0.067		mg/Kg		05/26/15 23:13	05/27/15 18:47	1
Pyrene	ND		0.067		mg/Kg		05/26/15 23:13	05/27/15 18:47	1
Benzo[a]anthracene	ND		0.33		mg/Kg		05/26/15 23:13	05/27/15 18:47	1
Chrysene	ND		0.067		mg/Kg		05/26/15 23:13	05/27/15 18:47	1
Benzo[b]fluoranthene	ND		0.067		mg/Kg		05/26/15 23:13	05/27/15 18:47	1
Benzo[k]fluoranthene	ND		0.067		mg/Kg		05/26/15 23:13	05/27/15 18:47	1
Benzo[a]pyrene	ND		0.067		mg/Kg		05/26/15 23:13	05/27/15 18:47	1
Indeno[1,2,3-cd]pyrene	ND		0.067		mg/Kg		05/26/15 23:13	05/27/15 18:47	1
Benzo[g,h,i]perylene	ND		0.067		mg/Kg		05/26/15 23:13	05/27/15 18:47	1
2-Methylnaphthalene	ND		0.067		mg/Kg		05/26/15 23:13	05/27/15 18:47	1
Dibenz(a,h)anthracene	ND		0.067		mg/Kg		05/26/15 23:13	05/27/15 18:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*64*		*21 - 98*	*05/26/15 23:13*	*05/27/15 18:47*	*1*
2-Fluorobiphenyl	*71*		*30 - 112*	*05/26/15 23:13*	*05/27/15 18:47*	*1*
Terphenyl-d14	*76*		*32 - 117*	*05/26/15 23:13*	*05/27/15 18:47*	*1*

Lab Sample ID: LCS 720-182401/2-A
Matrix: Solid
Analysis Batch: 182550

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 182401

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	1.33	1.10		mg/Kg		83	44 - 115
Acenaphthylene	1.33	1.09		mg/Kg		82	61 - 129
Acenaphthene	1.33	1.07		mg/Kg		80	50 - 115
Fluorene	1.33	1.19		mg/Kg		90	54 - 115
Phenanthrene	1.33	1.25		mg/Kg		94	54 - 115
Anthracene	1.33	1.28		mg/Kg		96	55 - 115
Fluoranthene	1.33	1.23		mg/Kg		92	52 - 130
Pyrene	1.33	1.48		mg/Kg		111	48 - 115
Benzo[a]anthracene	1.33	1.16		mg/Kg		87	55 - 115
Chrysene	1.33	1.09		mg/Kg		82	58 - 115
Benzo[b]fluoranthene	1.33	1.24		mg/Kg		93	50 - 119
Benzo[k]fluoranthene	1.33	1.24		mg/Kg		93	55 - 120
Benzo[a]pyrene	1.33	1.29		mg/Kg		97	57 - 122
Indeno[1,2,3-cd]pyrene	1.33	1.32		mg/Kg		99	56 - 115
Benzo[g,h,i]perylene	1.33	1.24		mg/Kg		93	56 - 115
2-Methylnaphthalene	1.33	1.11		mg/Kg		83	49 - 115
Dibenz(a,h)anthracene	1.33	1.33		mg/Kg		100	57 - 121

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

Lab Sample ID: LCS 720-182401/2-A
Matrix: Solid
Analysis Batch: 182550

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 182401

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5	77		21 - 98
2-Fluorobiphenyl	85		30 - 112
Terphenyl-d14	129	X	32 - 117

Lab Sample ID: MB 720-182427/1-A
Matrix: Solid
Analysis Batch: 182478

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 182427

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.067		mg/Kg		05/27/15 09:39	05/27/15 23:51	1
Acenaphthylene	ND		0.067		mg/Kg		05/27/15 09:39	05/27/15 23:51	1
Acenaphthene	ND		0.067		mg/Kg		05/27/15 09:39	05/27/15 23:51	1
Fluorene	ND		0.067		mg/Kg		05/27/15 09:39	05/27/15 23:51	1
Phenanthrene	ND		0.067		mg/Kg		05/27/15 09:39	05/27/15 23:51	1
Anthracene	ND		0.067		mg/Kg		05/27/15 09:39	05/27/15 23:51	1
Fluoranthene	ND		0.067		mg/Kg		05/27/15 09:39	05/27/15 23:51	1
Pyrene	ND		0.067		mg/Kg		05/27/15 09:39	05/27/15 23:51	1
Benzo[a]anthracene	ND		0.33		mg/Kg		05/27/15 09:39	05/27/15 23:51	1
Chrysene	ND		0.067		mg/Kg		05/27/15 09:39	05/27/15 23:51	1
Benzo[b]fluoranthene	ND		0.067		mg/Kg		05/27/15 09:39	05/27/15 23:51	1
Benzo[k]fluoranthene	ND		0.067		mg/Kg		05/27/15 09:39	05/27/15 23:51	1
Benzo[a]pyrene	ND		0.067		mg/Kg		05/27/15 09:39	05/27/15 23:51	1
Indeno[1,2,3-cd]pyrene	ND		0.067		mg/Kg		05/27/15 09:39	05/27/15 23:51	1
Benzo[g,h,i]perylene	ND		0.067		mg/Kg		05/27/15 09:39	05/27/15 23:51	1
2-Methylnaphthalene	ND		0.067		mg/Kg		05/27/15 09:39	05/27/15 23:51	1
Dibenz(a,h)anthracene	ND		0.067		mg/Kg		05/27/15 09:39	05/27/15 23:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	96		21 - 98	05/27/15 09:39	05/27/15 23:51	1
2-Fluorobiphenyl	89		30 - 112	05/27/15 09:39	05/27/15 23:51	1
Terphenyl-d14	135	X	32 - 117	05/27/15 09:39	05/27/15 23:51	1

Lab Sample ID: LCS 720-182427/2-A
Matrix: Solid
Analysis Batch: 182536

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 182427

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	1.33	1.17		mg/Kg		88	44 - 115
Acenaphthylene	1.33	1.17		mg/Kg		88	61 - 129
Acenaphthene	1.33	1.12		mg/Kg		85	50 - 115
Fluorene	1.33	1.19		mg/Kg		89	54 - 115
Phenanthrene	1.33	1.30		mg/Kg		98	54 - 115
Anthracene	1.33	1.35		mg/Kg		101	55 - 115
Fluoranthene	1.33	1.28		mg/Kg		97	52 - 130
Pyrene	1.33	1.31		mg/Kg		99	48 - 115
Benzo[a]anthracene	1.33	1.25		mg/Kg		94	55 - 115
Chrysene	1.33	1.19		mg/Kg		90	58 - 115
Benzo[b]fluoranthene	1.33	1.24		mg/Kg		93	50 - 119

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

Lab Sample ID: LCS 720-182427/2-A
Matrix: Solid
Analysis Batch: 182536

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 182427

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[k]fluoranthene	1.33	1.24		mg/Kg		94	55 - 120
Benzo[a]pyrene	1.33	1.30		mg/Kg		98	57 - 122
Indeno[1,2,3-cd]pyrene	1.33	1.37		mg/Kg		103	56 - 115
Benzo[g,h,i]perylene	1.33	1.45		mg/Kg		109	56 - 115
2-Methylnaphthalene	1.33	1.21		mg/Kg		92	49 - 115
Dibenz(a,h)anthracene	1.33	1.35		mg/Kg		102	57 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*75*		*21 - 98*
2-Fluorobiphenyl	*74*		*30 - 112*
Terphenyl-d14	*88*		*32 - 117*

Method: Organotins - Organotins, PSEP (GC/MS)

Lab Sample ID: MB 580-190241/1-A
Matrix: Solid
Analysis Batch: 190365

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 190241

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibutyltin	ND		1.0		ug/Kg		05/23/15 14:45	05/26/15 18:43	1
Monobutyltin	ND	^	1.0		ug/Kg		05/23/15 14:45	05/26/15 18:43	1
Tetra-n-butyltin	ND		2.7		ug/Kg		05/23/15 14:45	05/26/15 18:43	1
Tributyltin	ND		1.0		ug/Kg		05/23/15 14:45	05/26/15 18:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*71*		*20 - 151*	*05/23/15 14:45*	*05/26/15 18:43*	*1*

Lab Sample ID: LCS 580-190241/2-A
Matrix: Solid
Analysis Batch: 190365

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 190241

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibutyltin	30.7	15.2		ug/Kg		49	25 - 142
Monobutyltin	24.9	15.4	^	ug/Kg		62	24 - 125
Tetra-n-butyltin	40.0	30.0		ug/Kg		75	26 - 149
Tributyltin	35.6	24.5		ug/Kg		69	20 - 146

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tripentyltin	*70*		*20 - 151*

Lab Sample ID: LCSD 580-190241/3-A
Matrix: Solid
Analysis Batch: 190365

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 190241

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibutyltin	30.7	16.9		ug/Kg		55	25 - 142	11	30
Monobutyltin	24.9	17.0	^	ug/Kg		68	24 - 125	10	36

Method: Organotins - Organotins, PSEP (GC/MS) (Continued)

Lab Sample ID: LCSD 580-190241/3-A
Matrix: Solid
Analysis Batch: 190365

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 190241

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tetra-n-butyltin	40.0	20.8	*	ug/Kg		52	26 - 149	36	25
Tributyltin	35.6	28.5		ug/Kg		80	20 - 146	15	28

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tripentyltin	*88*		*20 - 151*

Lab Sample ID: MB 580-190247/1-A
Matrix: Solid
Analysis Batch: 190417

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 190247

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibutyltin	ND		1.0		ug/Kg		05/24/15 18:29	05/27/15 22:21	1
Monobutyltin	ND		1.0		ug/Kg		05/24/15 18:29	05/27/15 22:21	1
Tetra-n-butyltin	ND		2.7		ug/Kg		05/24/15 18:29	05/27/15 22:21	1
Tributyltin	ND		1.0		ug/Kg		05/24/15 18:29	05/27/15 22:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*73*		*20 - 151*	*05/24/15 18:29*	*05/27/15 22:21*	*1*

Lab Sample ID: LCS 580-190247/2-A
Matrix: Solid
Analysis Batch: 190417

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 190247

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibutyltin	30.7	20.9		ug/Kg		68	25 - 142
Monobutyltin	24.9	14.2		ug/Kg		57	24 - 125
Tetra-n-butyltin	40.0	20.9		ug/Kg		52	26 - 149
Tributyltin	35.6	25.7		ug/Kg		72	20 - 146

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tripentyltin	*71*		*20 - 151*

Lab Sample ID: LCSD 580-190247/3-A
Matrix: Solid
Analysis Batch: 190417

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 190247

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibutyltin	30.7	21.5		ug/Kg		70	25 - 142	3	30
Monobutyltin	24.9	7.20	*	ug/Kg		29	24 - 125	65	36
Tetra-n-butyltin	40.0	23.3		ug/Kg		58	26 - 149	11	25
Tributyltin	35.6	25.5		ug/Kg		71	20 - 146	1	28

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tripentyltin	*83*		*20 - 151*

Method: Organotins - Organotins, PSEP (GC/MS) (Continued)

Lab Sample ID: 720-64901-13 MS
Matrix: Solid
Analysis Batch: 190417

Client Sample ID: SS-7-0.5'
Prep Type: Total/NA
Prep Batch: 190247

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibutyltin	120	F2 F1	30.7	94.2	F1	ug/Kg		-85	25 - 142
Monobutyltin	76	F2 F1 *	24.9	55.0	F1	ug/Kg		-82	24 - 125
Tetra-n-butyltin	ND	F1	40.0	ND	F1	ug/Kg		0	26 - 149
Tributyltin	650	F2 E	35.6	75.7	4	ug/Kg		-1623	20 - 146

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tripentyltin	65		*20 - 151*

Lab Sample ID: 720-64901-13 MSD
Matrix: Solid
Analysis Batch: 190417

Client Sample ID: SS-7-0.5'
Prep Type: Total/NA
Prep Batch: 190247

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibutyltin	120	F2 F1	30.7	166	F1 F2	ug/Kg		149	25 - 142	55	30
Monobutyltin	76	F2 F1 *	24.9	92.7	F2	ug/Kg		69	24 - 125	51	36
Tetra-n-butyltin	ND	F1	40.0	47.7		ug/Kg		119	26 - 149	NC	25
Tributyltin	650	F2 E	35.6	102	4 F2	ug/Kg		-1550	20 - 146	29	28

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tripentyltin	58		*20 - 151*

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

Lab Sample ID: MB 720-182263/1-A
Matrix: Solid
Analysis Batch: 182306

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 182263

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		05/22/15 12:51	05/23/15 16:40	1
Motor Oil Range Organics [C24-C36]	ND		49		mg/Kg		05/22/15 12:51	05/23/15 16:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	103		*40 - 130*	*05/22/15 12:51*	*05/23/15 16:40*	*1*

Lab Sample ID: LCS 720-182263/2-A
Matrix: Solid
Analysis Batch: 182306

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 182263

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	83.0	74.2		mg/Kg		89	50 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
p-Terphenyl	93		*40 - 130*

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

Lab Sample ID: MB 720-182368/1-A
Matrix: Solid
Analysis Batch: 182423

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 182368

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		1.0		mg/Kg		05/26/15 16:23	05/27/15 23:21	1
Motor Oil Range Organics [C24-C36]	ND		50		mg/Kg		05/26/15 16:23	05/27/15 23:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*103*		*40 - 130*	*05/26/15 16:23*	*05/27/15 23:21*	*1*

Lab Sample ID: LCS 720-182368/2-A
Matrix: Solid
Analysis Batch: 182423

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 182368

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	82.1	87.4		mg/Kg		106	50 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
p-Terphenyl	*111*		*40 - 130*

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

Lab Sample ID: MB 720-182348/1-A
Matrix: Solid
Analysis Batch: 182321

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 182348

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		50		ug/Kg		05/26/15 13:18	05/27/15 02:15	1
PCB-1221	ND		50		ug/Kg		05/26/15 13:18	05/27/15 02:15	1
PCB-1232	ND		50		ug/Kg		05/26/15 13:18	05/27/15 02:15	1
PCB-1242	ND		50		ug/Kg		05/26/15 13:18	05/27/15 02:15	1
PCB-1248	ND		50		ug/Kg		05/26/15 13:18	05/27/15 02:15	1
PCB-1254	ND		50		ug/Kg		05/26/15 13:18	05/27/15 02:15	1
PCB-1260	ND		50		ug/Kg		05/26/15 13:18	05/27/15 02:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*79*		*45 - 132*	*05/26/15 13:18*	*05/27/15 02:15*	*1*
DCB Decachlorobiphenyl	*86*		*42 - 146*	*05/26/15 13:18*	*05/27/15 02:15*	*1*

Lab Sample ID: LCS 720-182348/2-A
Matrix: Solid
Analysis Batch: 182321

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 182348

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	131	105		ug/Kg		81	65 - 121
PCB-1260	131	99.8		ug/Kg		76	68 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*79*		*45 - 132*
DCB Decachlorobiphenyl	*88*		*42 - 146*

Lab Sample ID: 720-64901-1 MS
Matrix: Solid
Analysis Batch: 182321

Client Sample ID: SS-1-0.5'
Prep Type: Total/NA
Prep Batch: 182348

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	ND		131	109		ug/Kg		83	69 - 120
PCB-1260	ND		131	118		ug/Kg		90	73 - 114

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*73*		*45 - 132*
DCB Decachlorobiphenyl	*70*		*42 - 146*

Lab Sample ID: 720-64901-1 MSD
Matrix: Solid
Analysis Batch: 182321

Client Sample ID: SS-1-0.5'
Prep Type: Total/NA
Prep Batch: 182348

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	ND		131	110		ug/Kg		84	69 - 120	1	20
PCB-1260	ND		131	118		ug/Kg		90	73 - 114	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*72*		*45 - 132*
DCB Decachlorobiphenyl	*69*		*42 - 146*

Lab Sample ID: MB 720-182388/1-A
Matrix: Solid
Analysis Batch: 182412

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 182388

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		50		ug/Kg		05/26/15 19:45	05/27/15 15:13	1
PCB-1221	ND		50		ug/Kg		05/26/15 19:45	05/27/15 15:13	1
PCB-1232	ND		50		ug/Kg		05/26/15 19:45	05/27/15 15:13	1
PCB-1242	ND		50		ug/Kg		05/26/15 19:45	05/27/15 15:13	1
PCB-1248	ND		50		ug/Kg		05/26/15 19:45	05/27/15 15:13	1
PCB-1254	ND		50		ug/Kg		05/26/15 19:45	05/27/15 15:13	1
PCB-1260	ND		50		ug/Kg		05/26/15 19:45	05/27/15 15:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*87*		*45 - 132*	*05/26/15 19:45*	*05/27/15 15:13*	*1*
DCB Decachlorobiphenyl	*102*		*42 - 146*	*05/26/15 19:45*	*05/27/15 15:13*	*1*

Lab Sample ID: LCS 720-182388/2-A
Matrix: Solid
Analysis Batch: 182412

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 182388

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	131	127		ug/Kg		97	65 - 121
PCB-1260	131	121		ug/Kg		92	68 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*95*		*45 - 132*
DCB Decachlorobiphenyl	*106*		*42 - 146*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-182381/1-A
Matrix: Solid
Analysis Batch: 182451

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 182381

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.50		mg/Kg		05/26/15 17:30	05/27/15 11:08	1
Arsenic	ND		1.0		mg/Kg		05/26/15 17:30	05/27/15 11:08	1
Barium	ND		0.50		mg/Kg		05/26/15 17:30	05/27/15 11:08	1
Beryllium	ND		0.10		mg/Kg		05/26/15 17:30	05/27/15 11:08	1
Cadmium	ND		0.13		mg/Kg		05/26/15 17:30	05/27/15 11:08	1
Chromium	ND		0.50		mg/Kg		05/26/15 17:30	05/27/15 11:08	1
Cobalt	ND		0.20		mg/Kg		05/26/15 17:30	05/27/15 11:08	1
Copper	ND		1.5		mg/Kg		05/26/15 17:30	05/27/15 11:08	1
Lead	ND		0.50		mg/Kg		05/26/15 17:30	05/27/15 11:08	1
Molybdenum	ND		0.50		mg/Kg		05/26/15 17:30	05/27/15 11:08	1
Nickel	ND		0.50		mg/Kg		05/26/15 17:30	05/27/15 11:08	1
Selenium	ND		1.0		mg/Kg		05/26/15 17:30	05/27/15 11:08	1
Silver	ND		0.25		mg/Kg		05/26/15 17:30	05/27/15 11:08	1
Thallium	ND		0.50		mg/Kg		05/26/15 17:30	05/27/15 11:08	1
Vanadium	ND		0.50		mg/Kg		05/26/15 17:30	05/27/15 11:08	1
Zinc	ND		1.5		mg/Kg		05/26/15 17:30	05/27/15 11:08	1

Lab Sample ID: LCS 720-182381/2-A
Matrix: Solid
Analysis Batch: 182451

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 182381

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	50.0	48.1		mg/Kg		96	80 - 120
Arsenic	50.0	47.5		mg/Kg		95	80 - 120
Barium	50.0	50.0		mg/Kg		100	80 - 120
Beryllium	50.0	48.3		mg/Kg		97	80 - 120
Cadmium	50.0	50.3		mg/Kg		101	80 - 120
Chromium	50.0	49.1		mg/Kg		98	80 - 120
Cobalt	50.0	51.9		mg/Kg		104	80 - 120
Copper	50.0	48.3		mg/Kg		97	80 - 120
Lead	50.0	50.0		mg/Kg		100	80 - 120
Molybdenum	50.0	50.4		mg/Kg		101	80 - 120
Nickel	50.0	50.2		mg/Kg		100	80 - 120
Selenium	50.0	46.8		mg/Kg		94	80 - 120
Silver	25.0	24.2		mg/Kg		97	80 - 120
Thallium	50.0	49.2		mg/Kg		98	80 - 120
Vanadium	50.0	46.7		mg/Kg		93	80 - 120
Zinc	50.0	51.4		mg/Kg		103	80 - 120

Lab Sample ID: LCSD 720-182381/3-A
Matrix: Solid
Analysis Batch: 182451

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 182381

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	50.0	50.4		mg/Kg		101	80 - 120	5	20
Arsenic	50.0	49.1		mg/Kg		98	80 - 120	3	20
Barium	50.0	52.1		mg/Kg		104	80 - 120	4	20
Beryllium	50.0	49.8		mg/Kg		100	80 - 120	3	20

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

Lab Sample ID: LCSD 720-182381/3-A
Matrix: Solid
Analysis Batch: 182451

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 182381

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	50.0	52.3		mg/Kg		105	80 - 120	4	20
Chromium	50.0	51.1		mg/Kg		102	80 - 120	4	20
Cobalt	50.0	54.2		mg/Kg		108	80 - 120	4	20
Copper	50.0	49.8		mg/Kg		100	80 - 120	3	20
Lead	50.0	51.7		mg/Kg		103	80 - 120	3	20
Molybdenum	50.0	52.2		mg/Kg		104	80 - 120	3	20
Nickel	50.0	52.1		mg/Kg		104	80 - 120	4	20
Selenium	50.0	48.8		mg/Kg		98	80 - 120	4	20
Silver	25.0	25.3		mg/Kg		101	80 - 120	4	20
Thallium	50.0	50.8		mg/Kg		102	80 - 120	3	20
Vanadium	50.0	48.1		mg/Kg		96	80 - 120	3	20
Zinc	50.0	53.8		mg/Kg		108	80 - 120	4	20

Lab Sample ID: LCSSRM 720-182381/25-A
Matrix: Solid
Analysis Batch: 182451

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 182381

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	74.6	44.9		mg/Kg		60	11 - 101
Arsenic	45.5	43.1		mg/Kg		95	69 - 119
Barium	579	550		mg/Kg		95	61 - 117
Beryllium	155	140		mg/Kg		90	56 - 102
Cadmium	201	193		mg/Kg		96	67 - 118
Chromium	106	101		mg/Kg		95	67 - 121
Cobalt	247	245		mg/Kg		99	64 - 133
Copper	130	119		mg/Kg		92	68 - 126
Lead	302	276		mg/Kg		91	62 - 113
Molybdenum	165	152		mg/Kg		92	62 - 128
Nickel	305	289		mg/Kg		95	65 - 117
Selenium	133	128		mg/Kg		96	63 - 126
Silver	33.5	32.0		mg/Kg		95	51 - 130
Thallium	191	173		mg/Kg		90	64 - 124
Vanadium	214	193		mg/Kg		90	67 - 123
Zinc	388	382		mg/Kg		98	62 - 110

Lab Sample ID: MB 720-182392/1-A
Matrix: Solid
Analysis Batch: 182468

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 182392

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.50		mg/Kg		05/26/15 20:54	05/27/15 13:49	1
Arsenic	ND		1.0		mg/Kg		05/26/15 20:54	05/27/15 13:49	1
Barium	ND		0.50		mg/Kg		05/26/15 20:54	05/27/15 13:49	1
Beryllium	ND		0.10		mg/Kg		05/26/15 20:54	05/27/15 13:49	1
Cadmium	ND		0.13		mg/Kg		05/26/15 20:54	05/27/15 13:49	1
Chromium	ND		0.50		mg/Kg		05/26/15 20:54	05/27/15 13:49	1
Cobalt	ND		0.20		mg/Kg		05/26/15 20:54	05/27/15 13:49	1
Copper	ND		1.5		mg/Kg		05/26/15 20:54	05/27/15 13:49	1
Lead	ND		0.50		mg/Kg		05/26/15 20:54	05/27/15 13:49	1

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

Lab Sample ID: MB 720-182392/1-A
Matrix: Solid
Analysis Batch: 182468

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 182392

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		0.50		mg/Kg		05/26/15 20:54	05/27/15 13:49	1
Nickel	ND		0.50		mg/Kg		05/26/15 20:54	05/27/15 13:49	1
Selenium	ND		1.0		mg/Kg		05/26/15 20:54	05/27/15 13:49	1
Silver	ND		0.25		mg/Kg		05/26/15 20:54	05/27/15 13:49	1
Thallium	ND		0.50		mg/Kg		05/26/15 20:54	05/27/15 13:49	1
Vanadium	ND		0.50		mg/Kg		05/26/15 20:54	05/27/15 13:49	1
Zinc	ND		1.5		mg/Kg		05/26/15 20:54	05/27/15 13:49	1

Lab Sample ID: LCS 720-182392/2-A
Matrix: Solid
Analysis Batch: 182468

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 182392

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	50.0	50.2		mg/Kg		100	80 - 120
Arsenic	50.0	47.8		mg/Kg		96	80 - 120
Barium	50.0	52.2		mg/Kg		104	80 - 120
Beryllium	50.0	48.4		mg/Kg		97	80 - 120
Cadmium	50.0	51.7		mg/Kg		103	80 - 120
Chromium	50.0	49.4		mg/Kg		99	80 - 120
Cobalt	50.0	54.0		mg/Kg		108	80 - 120
Copper	50.0	48.1		mg/Kg		96	80 - 120
Lead	50.0	50.3		mg/Kg		101	80 - 120
Molybdenum	50.0	50.5		mg/Kg		101	80 - 120
Nickel	50.0	51.3		mg/Kg		103	80 - 120
Selenium	50.0	47.6		mg/Kg		95	80 - 120
Silver	25.0	25.2		mg/Kg		101	80 - 120
Thallium	50.0	49.9		mg/Kg		100	80 - 120
Vanadium	50.0	46.2		mg/Kg		92	80 - 120
Zinc	50.0	53.5		mg/Kg		107	80 - 120

Lab Sample ID: LCSD 720-182392/3-A
Matrix: Solid
Analysis Batch: 182468

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 182392

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	50.0	52.8		mg/Kg		106	80 - 120	5	20
Arsenic	50.0	50.1		mg/Kg		100	80 - 120	5	20
Barium	50.0	54.1		mg/Kg		108	80 - 120	4	20
Beryllium	50.0	50.5		mg/Kg		101	80 - 120	4	20
Cadmium	50.0	53.9		mg/Kg		108	80 - 120	4	20
Chromium	50.0	51.8		mg/Kg		104	80 - 120	5	20
Cobalt	50.0	56.4		mg/Kg		113	80 - 120	4	20
Copper	50.0	50.4		mg/Kg		101	80 - 120	5	20
Lead	50.0	52.4		mg/Kg		105	80 - 120	4	20
Molybdenum	50.0	53.0		mg/Kg		106	80 - 120	5	20
Nickel	50.0	53.6		mg/Kg		107	80 - 120	4	20
Selenium	50.0	49.9		mg/Kg		100	80 - 120	5	20
Silver	25.0	26.2		mg/Kg		105	80 - 120	4	20
Thallium	50.0	52.1		mg/Kg		104	80 - 120	4	20

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

Lab Sample ID: LCSD 720-182392/3-A
Matrix: Solid
Analysis Batch: 182468

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 182392

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vanadium	50.0	48.4		mg/Kg		97	80 - 120	5	20
Zinc	50.0	55.9		mg/Kg		112	80 - 120	4	20

Lab Sample ID: LCSSRM 720-182392/25-A
Matrix: Solid
Analysis Batch: 182468

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 182392

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	74.6	49.0		mg/Kg		66	11 - 101
Arsenic	45.5	43.2		mg/Kg		95	69 - 119
Barium	579	575		mg/Kg		99	61 - 117
Beryllium	155	142		mg/Kg		92	56 - 102
Cadmium	201	196		mg/Kg		97	67 - 118
Chromium	106	99.9		mg/Kg		94	67 - 121
Cobalt	247	251		mg/Kg		102	64 - 133
Copper	130	122		mg/Kg		94	68 - 126
Lead	302	279		mg/Kg		92	62 - 113
Molybdenum	165	157		mg/Kg		95	62 - 128
Nickel	305	294		mg/Kg		96	65 - 117
Selenium	133	127		mg/Kg		96	63 - 126
Silver	33.5	32.5		mg/Kg		97	51 - 130
Thallium	191	176		mg/Kg		92	64 - 124
Vanadium	214	194		mg/Kg		91	67 - 123
Zinc	388	389		mg/Kg		100	62 - 110

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 720-182367/1-A
Matrix: Solid
Analysis Batch: 182500

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 182367

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.010		mg/Kg		05/26/15 16:15	05/27/15 18:29	1

Lab Sample ID: LCS 720-182367/2-A
Matrix: Solid
Analysis Batch: 182500

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 182367

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.833	0.900		mg/Kg		108	80 - 120

Lab Sample ID: LCSD 720-182367/3-A
Matrix: Solid
Analysis Batch: 182500

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 182367

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.833	0.917		mg/Kg		110	80 - 120	2	20

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

Lab Sample ID: MB 720-182393/1-A
Matrix: Solid
Analysis Batch: 182486

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 182393

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.010		mg/Kg		05/26/15 20:56	05/27/15 16:01	1

Lab Sample ID: LCS 720-182393/2-A
Matrix: Solid
Analysis Batch: 182486

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 182393

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.833	0.950		mg/Kg		114	80 - 120

Lab Sample ID: LCSD 720-182393/3-A
Matrix: Solid
Analysis Batch: 182486

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 182393

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.833	0.992		mg/Kg		119	80 - 120	4	20

GC/MS Semi VOA

Prep Batch: 182401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-1	SS-1-0.5'	Total/NA	Solid	3546	
720-64901-2	SS-1-1'	Total/NA	Solid	3546	
720-64901-3	SS-2-0.5'	Total/NA	Solid	3546	
720-64901-4	SS-2-1'	Total/NA	Solid	3546	
720-64901-5	SS-3-0.5'	Total/NA	Solid	3546	
720-64901-6	SS-3-1'	Total/NA	Solid	3546	
720-64901-7	SS-4-0.5'	Total/NA	Solid	3546	
720-64901-8	SS-4-1'	Total/NA	Solid	3546	
720-64901-9	SS-5-0.5'	Total/NA	Solid	3546	
720-64901-10	SS-5-1'	Total/NA	Solid	3546	
720-64901-11	SS-6-0.5'	Total/NA	Solid	3546	
720-64901-12	SS-6-1'	Total/NA	Solid	3546	
720-64901-13	SS-7-0.5'	Total/NA	Solid	3546	
720-64901-14	SS-7-1'	Total/NA	Solid	3546	
720-64901-15	SS-8-0.5'	Total/NA	Solid	3546	
720-64901-16	SS-8-1'	Total/NA	Solid	3546	
720-64901-17	SS-9-0.5'	Total/NA	Solid	3546	
LCS 720-182401/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 720-182401/1-A	Method Blank	Total/NA	Solid	3546	

Prep Batch: 182427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-18	SS-9-1'	Total/NA	Solid	3546	
720-64901-19	SS-10-0.5'	Total/NA	Solid	3546	
720-64901-20	SS-10-1'	Total/NA	Solid	3546	
720-64901-21	FD-1	Total/NA	Solid	3546	
720-64901-22	FD-2	Total/NA	Solid	3546	
LCS 720-182427/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 720-182427/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 182430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-1	SS-1-0.5'	Total/NA	Solid	8270C	182401
MB 720-182401/1-A	Method Blank	Total/NA	Solid	8270C	182401

Analysis Batch: 182478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-9	SS-5-0.5'	Total/NA	Solid	8270C	182401
720-64901-10	SS-5-1'	Total/NA	Solid	8270C	182401
720-64901-11	SS-6-0.5'	Total/NA	Solid	8270C	182401
720-64901-12	SS-6-1'	Total/NA	Solid	8270C	182401
720-64901-13	SS-7-0.5'	Total/NA	Solid	8270C	182401
720-64901-14	SS-7-1'	Total/NA	Solid	8270C	182401
720-64901-15	SS-8-0.5'	Total/NA	Solid	8270C	182401
720-64901-16	SS-8-1'	Total/NA	Solid	8270C	182401
720-64901-17	SS-9-0.5'	Total/NA	Solid	8270C	182401
MB 720-182427/1-A	Method Blank	Total/NA	Solid	8270C	182427

Analysis Batch: 182536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-2	SS-1-1'	Total/NA	Solid	8270C	182401

GC/MS Semi VOA (Continued)

Analysis Batch: 182536 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-7	SS-4-0.5'	Total/NA	Solid	8270C	182401
720-64901-8	SS-4-1'	Total/NA	Solid	8270C	182401
LCS 720-182427/2-A	Lab Control Sample	Total/NA	Solid	8270C	182427

Analysis Batch: 182550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-3	SS-2-0.5'	Total/NA	Solid	8270C	182401
720-64901-4	SS-2-1'	Total/NA	Solid	8270C	182401
720-64901-5	SS-3-0.5'	Total/NA	Solid	8270C	182401
720-64901-6	SS-3-1'	Total/NA	Solid	8270C	182401
720-64901-18	SS-9-1'	Total/NA	Solid	8270C	182427
720-64901-19	SS-10-0.5'	Total/NA	Solid	8270C	182427
720-64901-20	SS-10-1'	Total/NA	Solid	8270C	182427
720-64901-21	FD-1	Total/NA	Solid	8270C	182427
720-64901-22	FD-2	Total/NA	Solid	8270C	182427
LCS 720-182401/2-A	Lab Control Sample	Total/NA	Solid	8270C	182401

Prep Batch: 190241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-1	SS-1-0.5'	Total/NA	Solid	Organotin Prep	
720-64901-2	SS-1-1'	Total/NA	Solid	Organotin Prep	
720-64901-2 - DL	SS-1-1'	Total/NA	Solid	Organotin Prep	
720-64901-3	SS-2-0.5'	Total/NA	Solid	Organotin Prep	
720-64901-4	SS-2-1'	Total/NA	Solid	Organotin Prep	
720-64901-5	SS-3-0.5'	Total/NA	Solid	Organotin Prep	
720-64901-6 - DL	SS-3-1'	Total/NA	Solid	Organotin Prep	
720-64901-6	SS-3-1'	Total/NA	Solid	Organotin Prep	
LCS 580-190241/2-A	Lab Control Sample	Total/NA	Solid	Organotin Prep	
LCSD 580-190241/3-A	Lab Control Sample Dup	Total/NA	Solid	Organotin Prep	
MB 580-190241/1-A	Method Blank	Total/NA	Solid	Organotin Prep	

Prep Batch: 190247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-7	SS-4-0.5'	Total/NA	Solid	Organotin Prep	
720-64901-8	SS-4-1'	Total/NA	Solid	Organotin Prep	
720-64901-9	SS-5-0.5'	Total/NA	Solid	Organotin Prep	
720-64901-10	SS-5-1'	Total/NA	Solid	Organotin Prep	
720-64901-11	SS-6-0.5'	Total/NA	Solid	Organotin Prep	
720-64901-12	SS-6-1'	Total/NA	Solid	Organotin Prep	
720-64901-13 - DL	SS-7-0.5'	Total/NA	Solid	Organotin Prep	
720-64901-13	SS-7-0.5'	Total/NA	Solid	Organotin Prep	
720-64901-13 MS	SS-7-0.5'	Total/NA	Solid	Organotin Prep	
720-64901-13 MSD	SS-7-0.5'	Total/NA	Solid	Organotin Prep	
720-64901-14	SS-7-1'	Total/NA	Solid	Organotin Prep	
720-64901-15	SS-8-0.5'	Total/NA	Solid	Organotin Prep	
720-64901-16	SS-8-1'	Total/NA	Solid	Organotin Prep	
720-64901-17 - DL	SS-9-0.5'	Total/NA	Solid	Organotin Prep	
720-64901-17	SS-9-0.5'	Total/NA	Solid	Organotin Prep	
720-64901-17 - DL2	SS-9-0.5'	Total/NA	Solid	Organotin Prep	
720-64901-17 - DL3	SS-9-0.5'	Total/NA	Solid	Organotin Prep	
720-64901-18	SS-9-1'	Total/NA	Solid	Organotin Prep	

GC/MS Semi VOA (Continued)

Prep Batch: 190247 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-18 - DL	SS-9-1'	Total/NA	Solid	Organotin Prep	
720-64901-19	SS-10-0.5'	Total/NA	Solid	Organotin Prep	
720-64901-20 - DL	SS-10-1'	Total/NA	Solid	Organotin Prep	
720-64901-20	SS-10-1'	Total/NA	Solid	Organotin Prep	
720-64901-21	FD-1	Total/NA	Solid	Organotin Prep	
720-64901-22 - DL	FD-2	Total/NA	Solid	Organotin Prep	
720-64901-22	FD-2	Total/NA	Solid	Organotin Prep	
LCS 580-190247/2-A	Lab Control Sample	Total/NA	Solid	Organotin Prep	
LCSD 580-190247/3-A	Lab Control Sample Dup	Total/NA	Solid	Organotin Prep	
MB 580-190247/1-A	Method Blank	Total/NA	Solid	Organotin Prep	

Analysis Batch: 190365

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-3	SS-2-0.5'	Total/NA	Solid	Organotins	190241
720-64901-4	SS-2-1'	Total/NA	Solid	Organotins	190241
720-64901-5	SS-3-0.5'	Total/NA	Solid	Organotins	190241
LCS 580-190241/2-A	Lab Control Sample	Total/NA	Solid	Organotins	190241
LCSD 580-190241/3-A	Lab Control Sample Dup	Total/NA	Solid	Organotins	190241
MB 580-190241/1-A	Method Blank	Total/NA	Solid	Organotins	190241

Analysis Batch: 190417

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-1	SS-1-0.5'	Total/NA	Solid	Organotins	190241
720-64901-2	SS-1-1'	Total/NA	Solid	Organotins	190241
720-64901-2 - DL	SS-1-1'	Total/NA	Solid	Organotins	190241
720-64901-6	SS-3-1'	Total/NA	Solid	Organotins	190241
720-64901-7	SS-4-0.5'	Total/NA	Solid	Organotins	190247
720-64901-8	SS-4-1'	Total/NA	Solid	Organotins	190247
720-64901-9	SS-5-0.5'	Total/NA	Solid	Organotins	190247
720-64901-10	SS-5-1'	Total/NA	Solid	Organotins	190247
720-64901-11	SS-6-0.5'	Total/NA	Solid	Organotins	190247
720-64901-12	SS-6-1'	Total/NA	Solid	Organotins	190247
720-64901-13	SS-7-0.5'	Total/NA	Solid	Organotins	190247
720-64901-13 MS	SS-7-0.5'	Total/NA	Solid	Organotins	190247
720-64901-13 MSD	SS-7-0.5'	Total/NA	Solid	Organotins	190247
720-64901-14	SS-7-1'	Total/NA	Solid	Organotins	190247
720-64901-15	SS-8-0.5'	Total/NA	Solid	Organotins	190247
720-64901-16	SS-8-1'	Total/NA	Solid	Organotins	190247
720-64901-17	SS-9-0.5'	Total/NA	Solid	Organotins	190247
720-64901-18	SS-9-1'	Total/NA	Solid	Organotins	190247
720-64901-19	SS-10-0.5'	Total/NA	Solid	Organotins	190247
720-64901-20	SS-10-1'	Total/NA	Solid	Organotins	190247
LCS 580-190247/2-A	Lab Control Sample	Total/NA	Solid	Organotins	190247
LCSD 580-190247/3-A	Lab Control Sample Dup	Total/NA	Solid	Organotins	190247
MB 580-190247/1-A	Method Blank	Total/NA	Solid	Organotins	190247

Analysis Batch: 190539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-6 - DL	SS-3-1'	Total/NA	Solid	Organotins	190241
720-64901-13 - DL	SS-7-0.5'	Total/NA	Solid	Organotins	190247
720-64901-17 - DL	SS-9-0.5'	Total/NA	Solid	Organotins	190247

GC/MS Semi VOA (Continued)

Analysis Batch: 190539 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-17 - DL2	SS-9-0.5'	Total/NA	Solid	Organotins	190247
720-64901-17 - DL3	SS-9-0.5'	Total/NA	Solid	Organotins	190247
720-64901-18 - DL	SS-9-1'	Total/NA	Solid	Organotins	190247
720-64901-20 - DL	SS-10-1'	Total/NA	Solid	Organotins	190247
720-64901-21	FD-1	Total/NA	Solid	Organotins	190247
720-64901-22	FD-2	Total/NA	Solid	Organotins	190247
720-64901-22 - DL	FD-2	Total/NA	Solid	Organotins	190247

GC Semi VOA

Prep Batch: 182263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-1	SS-1-0.5'	Total/NA	Solid	3546	
720-64901-2	SS-1-1'	Total/NA	Solid	3546	
720-64901-3	SS-2-0.5'	Total/NA	Solid	3546	
720-64901-4	SS-2-1'	Total/NA	Solid	3546	
720-64901-5	SS-3-0.5'	Total/NA	Solid	3546	
720-64901-6	SS-3-1'	Total/NA	Solid	3546	
720-64901-7	SS-4-0.5'	Total/NA	Solid	3546	
720-64901-8	SS-4-1'	Total/NA	Solid	3546	
720-64901-9	SS-5-0.5'	Total/NA	Solid	3546	
720-64901-11	SS-6-0.5'	Total/NA	Solid	3546	
LCS 720-182263/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 720-182263/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 182305

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-2	SS-1-1'	Total/NA	Solid	8015B	182263
720-64901-3	SS-2-0.5'	Total/NA	Solid	8015B	182263
720-64901-4	SS-2-1'	Total/NA	Solid	8015B	182263
720-64901-5	SS-3-0.5'	Total/NA	Solid	8015B	182263

Analysis Batch: 182306

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-11	SS-6-0.5'	Total/NA	Solid	8015B	182263
LCS 720-182263/2-A	Lab Control Sample	Total/NA	Solid	8015B	182263
MB 720-182263/1-A	Method Blank	Total/NA	Solid	8015B	182263

Analysis Batch: 182320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-10	SS-5-1'	Total/NA	Solid	8082	182348
720-64901-11	SS-6-0.5'	Total/NA	Solid	8082	182348
720-64901-12	SS-6-1'	Total/NA	Solid	8082	182348

Analysis Batch: 182321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-1	SS-1-0.5'	Total/NA	Solid	8082	182348
720-64901-1 MS	SS-1-0.5'	Total/NA	Solid	8082	182348
720-64901-1 MSD	SS-1-0.5'	Total/NA	Solid	8082	182348
720-64901-2	SS-1-1'	Total/NA	Solid	8082	182348

GC Semi VOA (Continued)

Analysis Batch: 182321 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-3	SS-2-0.5'	Total/NA	Solid	8082	182348
720-64901-4	SS-2-1'	Total/NA	Solid	8082	182348
720-64901-5	SS-3-0.5'	Total/NA	Solid	8082	182348
LCS 720-182348/2-A	Lab Control Sample	Total/NA	Solid	8082	182348
MB 720-182348/1-A	Method Blank	Total/NA	Solid	8082	182348

Analysis Batch: 182323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-6	SS-3-1'	Total/NA	Solid	8015B	182263
720-64901-7	SS-4-0.5'	Total/NA	Solid	8015B	182263
720-64901-9	SS-5-0.5'	Total/NA	Solid	8015B	182263

Prep Batch: 182348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-1	SS-1-0.5'	Total/NA	Solid	3546	
720-64901-1 MS	SS-1-0.5'	Total/NA	Solid	3546	
720-64901-1 MSD	SS-1-0.5'	Total/NA	Solid	3546	
720-64901-2	SS-1-1'	Total/NA	Solid	3546	
720-64901-3	SS-2-0.5'	Total/NA	Solid	3546	
720-64901-4	SS-2-1'	Total/NA	Solid	3546	
720-64901-5	SS-3-0.5'	Total/NA	Solid	3546	
720-64901-6	SS-3-1'	Total/NA	Solid	3546	
720-64901-7	SS-4-0.5'	Total/NA	Solid	3546	
720-64901-8	SS-4-1'	Total/NA	Solid	3546	
720-64901-9	SS-5-0.5'	Total/NA	Solid	3546	
720-64901-10	SS-5-1'	Total/NA	Solid	3546	
720-64901-11	SS-6-0.5'	Total/NA	Solid	3546	
720-64901-12	SS-6-1'	Total/NA	Solid	3546	
720-64901-13	SS-7-0.5'	Total/NA	Solid	3546	
720-64901-14	SS-7-1'	Total/NA	Solid	3546	
720-64901-15	SS-8-0.5'	Total/NA	Solid	3546	
720-64901-16	SS-8-1'	Total/NA	Solid	3546	
720-64901-17	SS-9-0.5'	Total/NA	Solid	3546	
720-64901-18	SS-9-1'	Total/NA	Solid	3546	
720-64901-19	SS-10-0.5'	Total/NA	Solid	3546	
720-64901-20	SS-10-1'	Total/NA	Solid	3546	
LCS 720-182348/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 720-182348/1-A	Method Blank	Total/NA	Solid	3546	

Prep Batch: 182368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-10	SS-5-1'	Total/NA	Solid	3546	
720-64901-12	SS-6-1'	Total/NA	Solid	3546	
720-64901-13	SS-7-0.5'	Total/NA	Solid	3546	
720-64901-14	SS-7-1'	Total/NA	Solid	3546	
720-64901-15	SS-8-0.5'	Total/NA	Solid	3546	
720-64901-16	SS-8-1'	Total/NA	Solid	3546	
720-64901-17	SS-9-0.5'	Total/NA	Solid	3546	
720-64901-18	SS-9-1'	Total/NA	Solid	3546	
720-64901-19	SS-10-0.5'	Total/NA	Solid	3546	
720-64901-20	SS-10-1'	Total/NA	Solid	3546	

GC Semi VOA (Continued)

Prep Batch: 182368 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-21	FD-1	Total/NA	Solid	3546	
720-64901-22	FD-2	Total/NA	Solid	3546	
LCS 720-182368/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 720-182368/1-A	Method Blank	Total/NA	Solid	3546	

Prep Batch: 182388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-21	FD-1	Total/NA	Solid	3546	
720-64901-22	FD-2	Total/NA	Solid	3546	
LCS 720-182388/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 720-182388/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 182412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-13	SS-7-0.5'	Total/NA	Solid	8082	182348
720-64901-14	SS-7-1'	Total/NA	Solid	8082	182348
720-64901-15	SS-8-0.5'	Total/NA	Solid	8082	182348
720-64901-16	SS-8-1'	Total/NA	Solid	8082	182348
720-64901-17	SS-9-0.5'	Total/NA	Solid	8082	182348
720-64901-18	SS-9-1'	Total/NA	Solid	8082	182348
720-64901-22	FD-2	Total/NA	Solid	8082	182388
LCS 720-182388/2-A	Lab Control Sample	Total/NA	Solid	8082	182388
MB 720-182388/1-A	Method Blank	Total/NA	Solid	8082	182388

Analysis Batch: 182413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-6	SS-3-1'	Total/NA	Solid	8082	182348
720-64901-7	SS-4-0.5'	Total/NA	Solid	8082	182348
720-64901-8	SS-4-1'	Total/NA	Solid	8082	182348
720-64901-9	SS-5-0.5'	Total/NA	Solid	8082	182348
720-64901-19	SS-10-0.5'	Total/NA	Solid	8082	182348
720-64901-20	SS-10-1'	Total/NA	Solid	8082	182348
720-64901-21	FD-1	Total/NA	Solid	8082	182388

Analysis Batch: 182422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-8	SS-4-1'	Total/NA	Solid	8015B	182263
720-64901-12	SS-6-1'	Total/NA	Solid	8015B	182368
720-64901-13	SS-7-0.5'	Total/NA	Solid	8015B	182368
720-64901-14	SS-7-1'	Total/NA	Solid	8015B	182368
720-64901-15	SS-8-0.5'	Total/NA	Solid	8015B	182368
720-64901-20	SS-10-1'	Total/NA	Solid	8015B	182368

Analysis Batch: 182423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-1	SS-1-0.5'	Total/NA	Solid	8015B	182263
720-64901-10	SS-5-1'	Total/NA	Solid	8015B	182368
720-64901-21	FD-1	Total/NA	Solid	8015B	182368
720-64901-22	FD-2	Total/NA	Solid	8015B	182368
LCS 720-182368/2-A	Lab Control Sample	Total/NA	Solid	8015B	182368
MB 720-182368/1-A	Method Blank	Total/NA	Solid	8015B	182368

Analysis Batch: 182528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-16	SS-8-1'	Total/NA	Solid	8015B	182368
720-64901-17	SS-9-0.5'	Total/NA	Solid	8015B	182368
720-64901-18	SS-9-1'	Total/NA	Solid	8015B	182368
720-64901-19	SS-10-0.5'	Total/NA	Solid	8015B	182368

Metals

Prep Batch: 182367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-1	SS-1-0.5'	Total/NA	Solid	7471A	
720-64901-2	SS-1-1'	Total/NA	Solid	7471A	
720-64901-3	SS-2-0.5'	Total/NA	Solid	7471A	
720-64901-4	SS-2-1'	Total/NA	Solid	7471A	
720-64901-5	SS-3-0.5'	Total/NA	Solid	7471A	
720-64901-6	SS-3-1'	Total/NA	Solid	7471A	
720-64901-7	SS-4-0.5'	Total/NA	Solid	7471A	
720-64901-8	SS-4-1'	Total/NA	Solid	7471A	
720-64901-9	SS-5-0.5'	Total/NA	Solid	7471A	
720-64901-10	SS-5-1'	Total/NA	Solid	7471A	
LCS 720-182367/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 720-182367/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
MB 720-182367/1-A	Method Blank	Total/NA	Solid	7471A	

Prep Batch: 182381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-1	SS-1-0.5'	Total/NA	Solid	3050B	
720-64901-2	SS-1-1'	Total/NA	Solid	3050B	
720-64901-3	SS-2-0.5'	Total/NA	Solid	3050B	
720-64901-4	SS-2-1'	Total/NA	Solid	3050B	
720-64901-5	SS-3-0.5'	Total/NA	Solid	3050B	
720-64901-6	SS-3-1'	Total/NA	Solid	3050B	
720-64901-7	SS-4-0.5'	Total/NA	Solid	3050B	
720-64901-8	SS-4-1'	Total/NA	Solid	3050B	
720-64901-9	SS-5-0.5'	Total/NA	Solid	3050B	
720-64901-10	SS-5-1'	Total/NA	Solid	3050B	
720-64901-11	SS-6-0.5'	Total/NA	Solid	3050B	
LCS 720-182381/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 720-182381/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
LCSSRM 720-182381/25-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 720-182381/1-A	Method Blank	Total/NA	Solid	3050B	

Prep Batch: 182392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-12	SS-6-1'	Total/NA	Solid	3050B	
720-64901-13	SS-7-0.5'	Total/NA	Solid	3050B	
720-64901-14	SS-7-1'	Total/NA	Solid	3050B	
720-64901-15	SS-8-0.5'	Total/NA	Solid	3050B	
720-64901-16	SS-8-1'	Total/NA	Solid	3050B	
720-64901-17	SS-9-0.5'	Total/NA	Solid	3050B	
720-64901-18	SS-9-1'	Total/NA	Solid	3050B	
720-64901-19	SS-10-0.5'	Total/NA	Solid	3050B	
720-64901-20	SS-10-1'	Total/NA	Solid	3050B	
720-64901-21	FD-1	Total/NA	Solid	3050B	

Metals (Continued)

Prep Batch: 182392 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-22	FD-2	Total/NA	Solid	3050B	
LCS 720-182392/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 720-182392/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
LCSSRM 720-182392/25-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 720-182392/1-A	Method Blank	Total/NA	Solid	3050B	

Prep Batch: 182393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-11	SS-6-0.5'	Total/NA	Solid	7471A	
720-64901-12	SS-6-1'	Total/NA	Solid	7471A	
720-64901-13	SS-7-0.5'	Total/NA	Solid	7471A	
720-64901-14	SS-7-1'	Total/NA	Solid	7471A	
720-64901-15	SS-8-0.5'	Total/NA	Solid	7471A	
720-64901-16	SS-8-1'	Total/NA	Solid	7471A	
720-64901-17	SS-9-0.5'	Total/NA	Solid	7471A	
720-64901-18	SS-9-1'	Total/NA	Solid	7471A	
720-64901-19	SS-10-0.5'	Total/NA	Solid	7471A	
720-64901-20	SS-10-1'	Total/NA	Solid	7471A	
720-64901-21	FD-1	Total/NA	Solid	7471A	
720-64901-22	FD-2	Total/NA	Solid	7471A	
LCS 720-182393/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 720-182393/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
MB 720-182393/1-A	Method Blank	Total/NA	Solid	7471A	

Analysis Batch: 182451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-1	SS-1-0.5'	Total/NA	Solid	6010B	182381
720-64901-2	SS-1-1'	Total/NA	Solid	6010B	182381
720-64901-3	SS-2-0.5'	Total/NA	Solid	6010B	182381
720-64901-4	SS-2-1'	Total/NA	Solid	6010B	182381
720-64901-5	SS-3-0.5'	Total/NA	Solid	6010B	182381
720-64901-6	SS-3-1'	Total/NA	Solid	6010B	182381
720-64901-7	SS-4-0.5'	Total/NA	Solid	6010B	182381
720-64901-8	SS-4-1'	Total/NA	Solid	6010B	182381
720-64901-9	SS-5-0.5'	Total/NA	Solid	6010B	182381
720-64901-10	SS-5-1'	Total/NA	Solid	6010B	182381
720-64901-11	SS-6-0.5'	Total/NA	Solid	6010B	182381
LCS 720-182381/2-A	Lab Control Sample	Total/NA	Solid	6010B	182381
LCSD 720-182381/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	182381
LCSSRM 720-182381/25-A	Lab Control Sample	Total/NA	Solid	6010B	182381
MB 720-182381/1-A	Method Blank	Total/NA	Solid	6010B	182381

Analysis Batch: 182468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-182392/2-A	Lab Control Sample	Total/NA	Solid	6010B	182392
LCSD 720-182392/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	182392
LCSSRM 720-182392/25-A	Lab Control Sample	Total/NA	Solid	6010B	182392
MB 720-182392/1-A	Method Blank	Total/NA	Solid	6010B	182392

Metals (Continued)

Analysis Batch: 182486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-11	SS-6-0.5'	Total/NA	Solid	7471A	182393
720-64901-12	SS-6-1'	Total/NA	Solid	7471A	182393
720-64901-13	SS-7-0.5'	Total/NA	Solid	7471A	182393
720-64901-14	SS-7-1'	Total/NA	Solid	7471A	182393
720-64901-15	SS-8-0.5'	Total/NA	Solid	7471A	182393
720-64901-16	SS-8-1'	Total/NA	Solid	7471A	182393
720-64901-17	SS-9-0.5'	Total/NA	Solid	7471A	182393
720-64901-18	SS-9-1'	Total/NA	Solid	7471A	182393
720-64901-19	SS-10-0.5'	Total/NA	Solid	7471A	182393
720-64901-20	SS-10-1'	Total/NA	Solid	7471A	182393
720-64901-21	FD-1	Total/NA	Solid	7471A	182393
720-64901-22	FD-2	Total/NA	Solid	7471A	182393
LCS 720-182393/2-A	Lab Control Sample	Total/NA	Solid	7471A	182393
LCSD 720-182393/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	182393
MB 720-182393/1-A	Method Blank	Total/NA	Solid	7471A	182393

Analysis Batch: 182500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-1	SS-1-0.5'	Total/NA	Solid	7471A	182367
720-64901-2	SS-1-1'	Total/NA	Solid	7471A	182367
720-64901-3	SS-2-0.5'	Total/NA	Solid	7471A	182367
720-64901-4	SS-2-1'	Total/NA	Solid	7471A	182367
720-64901-5	SS-3-0.5'	Total/NA	Solid	7471A	182367
720-64901-6	SS-3-1'	Total/NA	Solid	7471A	182367
720-64901-7	SS-4-0.5'	Total/NA	Solid	7471A	182367
720-64901-8	SS-4-1'	Total/NA	Solid	7471A	182367
720-64901-9	SS-5-0.5'	Total/NA	Solid	7471A	182367
720-64901-10	SS-5-1'	Total/NA	Solid	7471A	182367
LCS 720-182367/2-A	Lab Control Sample	Total/NA	Solid	7471A	182367
LCSD 720-182367/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	182367
MB 720-182367/1-A	Method Blank	Total/NA	Solid	7471A	182367

Analysis Batch: 182523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-5	SS-3-0.5'	Total/NA	Solid	6010B	182381
720-64901-9	SS-5-0.5'	Total/NA	Solid	6010B	182381
720-64901-10	SS-5-1'	Total/NA	Solid	6010B	182381
720-64901-11	SS-6-0.5'	Total/NA	Solid	6010B	182381

Analysis Batch: 182527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-12	SS-6-1'	Total/NA	Solid	6010B	182392
720-64901-13	SS-7-0.5'	Total/NA	Solid	6010B	182392
720-64901-14	SS-7-1'	Total/NA	Solid	6010B	182392
720-64901-15	SS-8-0.5'	Total/NA	Solid	6010B	182392
720-64901-16	SS-8-1'	Total/NA	Solid	6010B	182392
720-64901-17	SS-9-0.5'	Total/NA	Solid	6010B	182392
720-64901-18	SS-9-1'	Total/NA	Solid	6010B	182392
720-64901-19	SS-10-0.5'	Total/NA	Solid	6010B	182392
720-64901-20	SS-10-1'	Total/NA	Solid	6010B	182392
720-64901-21	FD-1	Total/NA	Solid	6010B	182392

Metals (Continued)

Analysis Batch: 182527 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-22	FD-2	Total/NA	Solid	6010B	182392

Analysis Batch: 182594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-12	SS-6-1'	Total/NA	Solid	6010B	182392
720-64901-13	SS-7-0.5'	Total/NA	Solid	6010B	182392
720-64901-14	SS-7-1'	Total/NA	Solid	6010B	182392
720-64901-15	SS-8-0.5'	Total/NA	Solid	6010B	182392
720-64901-16	SS-8-1'	Total/NA	Solid	6010B	182392
720-64901-17	SS-9-0.5'	Total/NA	Solid	6010B	182392
720-64901-17	SS-9-0.5'	Total/NA	Solid	6010B	182392
720-64901-18	SS-9-1'	Total/NA	Solid	6010B	182392
720-64901-19	SS-10-0.5'	Total/NA	Solid	6010B	182392
720-64901-20	SS-10-1'	Total/NA	Solid	6010B	182392
720-64901-22	FD-2	Total/NA	Solid	6010B	182392

Analysis Batch: 182595

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-5	SS-3-0.5'	Total/NA	Solid	6010B	182381
720-64901-9	SS-5-0.5'	Total/NA	Solid	6010B	182381
720-64901-11	SS-6-0.5'	Total/NA	Solid	6010B	182381

Analysis Batch: 182602

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-21	FD-1	Total/NA	Solid	6010B	182392

Analysis Batch: 182603

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-64901-10	SS-5-1'	Total/NA	Solid	6010B	182381

Client Sample ID: SS-1-0.5'

Date Collected: 05/19/15 07:31
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			182401	05/26/15 23:13	DFR	TAL PLS
Total/NA	Analysis	8270C		5	182430	05/27/15 23:58	MQL	TAL PLS
Total/NA	Prep	Organotin Prep			190241	05/23/15 15:17	ERZ	TAL SEA
Total/NA	Analysis	Organotins		1	190417	05/27/15 20:49	ERB	TAL SEA
Total/NA	Prep	3546			182263	05/22/15 12:51	DFR	TAL PLS
Total/NA	Analysis	8015B		5	182423	05/27/15 15:07	JXL	TAL PLS
Total/NA	Prep	3546			182348	05/26/15 13:18	JRD	TAL PLS
Total/NA	Analysis	8082		1	182321	05/26/15 22:22	DCH	TAL PLS
Total/NA	Prep	3050B			182381	05/26/15 17:30	ASB	TAL PLS
Total/NA	Analysis	6010B		4	182451	05/27/15 12:32	EFH	TAL PLS
Total/NA	Prep	7471A			182367	05/26/15 16:15	ECT	TAL PLS
Total/NA	Analysis	7471A		1	182500	05/27/15 19:09	SLK	TAL PLS

Client Sample ID: SS-1-1'

Date Collected: 05/19/15 07:35
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			182401	05/26/15 23:13	DFR	TAL PLS
Total/NA	Analysis	8270C		10	182536	05/28/15 18:01	MQL	TAL PLS
Total/NA	Prep	Organotin Prep			190241	05/23/15 15:17	ERZ	TAL SEA
Total/NA	Analysis	Organotins		1	190417	05/27/15 21:12	ERB	TAL SEA
Total/NA	Prep	Organotin Prep	DL		190241	05/23/15 15:17	ERZ	TAL SEA
Total/NA	Analysis	Organotins	DL	5	190417	05/27/15 21:35	ERB	TAL SEA
Total/NA	Prep	3546			182263	05/22/15 12:51	DFR	TAL PLS
Total/NA	Analysis	8015B		10	182305	05/23/15 23:01	JXL	TAL PLS
Total/NA	Prep	3546			182348	05/26/15 13:18	JRD	TAL PLS
Total/NA	Analysis	8082		1	182321	05/26/15 22:39	DCH	TAL PLS
Total/NA	Prep	3050B			182381	05/26/15 17:30	ASB	TAL PLS
Total/NA	Analysis	6010B		4	182451	05/27/15 12:37	EFH	TAL PLS
Total/NA	Prep	7471A			182367	05/26/15 16:15	ECT	TAL PLS
Total/NA	Analysis	7471A		5	182500	05/27/15 20:07	SLK	TAL PLS

Client Sample ID: SS-2-0.5'

Date Collected: 05/19/15 07:43
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			182401	05/26/15 23:13	DFR	TAL PLS
Total/NA	Analysis	8270C		5	182550	05/28/15 16:38	MQL	TAL PLS
Total/NA	Prep	Organotin Prep			190241	05/23/15 15:17	ERZ	TAL SEA
Total/NA	Analysis	Organotins		5	190365	05/27/15 01:57	ERB	TAL SEA
Total/NA	Prep	3546			182263	05/22/15 12:51	DFR	TAL PLS

Client Sample ID: SS-2-0.5'

Lab Sample ID: 720-64901-3
Matrix: Solid

Date Collected: 05/19/15 07:43
Date Received: 05/19/15 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		10	182305	05/24/15 00:58	JXL	TAL PLS
Total/NA	Prep	3546			182348	05/26/15 13:18	JRD	TAL PLS
Total/NA	Analysis	8082		1	182321	05/26/15 22:55	DCH	TAL PLS
Total/NA	Prep	3050B			182381	05/26/15 17:30	ASB	TAL PLS
Total/NA	Analysis	6010B		4	182451	05/27/15 12:42	EFH	TAL PLS
Total/NA	Prep	7471A			182367	05/26/15 16:15	ECT	TAL PLS
Total/NA	Analysis	7471A		1	182500	05/27/15 19:14	SLK	TAL PLS

Client Sample ID: SS-2-1'

Lab Sample ID: 720-64901-4
Matrix: Solid

Date Collected: 05/19/15 07:47
Date Received: 05/19/15 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			182401	05/26/15 23:13	DFR	TAL PLS
Total/NA	Analysis	8270C		5	182550	05/28/15 16:59	MQL	TAL PLS
Total/NA	Prep	Organotin Prep			190241	05/23/15 15:17	ERZ	TAL SEA
Total/NA	Analysis	Organotins		1	190365	05/27/15 02:20	ERB	TAL SEA
Total/NA	Prep	3546			182263	05/22/15 12:51	DFR	TAL PLS
Total/NA	Analysis	8015B		10	182305	05/24/15 01:27	JXL	TAL PLS
Total/NA	Prep	3546			182348	05/26/15 13:18	JRD	TAL PLS
Total/NA	Analysis	8082		1	182321	05/26/15 23:12	DCH	TAL PLS
Total/NA	Prep	3050B			182381	05/26/15 17:30	ASB	TAL PLS
Total/NA	Analysis	6010B		4	182451	05/27/15 12:47	EFH	TAL PLS
Total/NA	Prep	7471A			182367	05/26/15 16:15	ECT	TAL PLS
Total/NA	Analysis	7471A		5	182500	05/27/15 20:10	SLK	TAL PLS

Client Sample ID: SS-3-0.5'

Lab Sample ID: 720-64901-5
Matrix: Solid

Date Collected: 05/19/15 07:55
Date Received: 05/19/15 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			182401	05/26/15 23:13	DFR	TAL PLS
Total/NA	Analysis	8270C		2	182550	05/28/15 17:21	MQL	TAL PLS
Total/NA	Prep	Organotin Prep			190241	05/23/15 15:17	ERZ	TAL SEA
Total/NA	Analysis	Organotins		1	190365	05/27/15 02:43	ERB	TAL SEA
Total/NA	Prep	3546			182263	05/22/15 12:51	DFR	TAL PLS
Total/NA	Analysis	8015B		2	182305	05/24/15 01:56	JXL	TAL PLS
Total/NA	Prep	3546			182348	05/26/15 13:18	JRD	TAL PLS
Total/NA	Analysis	8082		1	182321	05/26/15 23:29	DCH	TAL PLS
Total/NA	Prep	3050B			182381	05/26/15 17:30	ASB	TAL PLS
Total/NA	Analysis	6010B		1	182523	05/27/15 22:41	SLK	TAL PLS
Total/NA	Prep	3050B			182381	05/26/15 17:30	ASB	TAL PLS
Total/NA	Analysis	6010B		1	182595	05/28/15 18:15	CAM	TAL PLS

Client Sample ID: SS-3-0.5'

Lab Sample ID: 720-64901-5
Matrix: Solid

Date Collected: 05/19/15 07:55
Date Received: 05/19/15 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			182381	05/26/15 17:30	ASB	TAL PLS
Total/NA	Analysis	6010B		4	182451	05/27/15 12:52	EFH	TAL PLS
Total/NA	Prep	7471A			182367	05/26/15 16:15	ECT	TAL PLS
Total/NA	Analysis	7471A		1	182500	05/27/15 19:19	SLK	TAL PLS

Client Sample ID: SS-3-1'

Lab Sample ID: 720-64901-6
Matrix: Solid

Date Collected: 05/19/15 07:59
Date Received: 05/19/15 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			182401	05/26/15 23:13	DFR	TAL PLS
Total/NA	Analysis	8270C		2	182550	05/28/15 17:42	MQL	TAL PLS
Total/NA	Prep	Organotin Prep			190241	05/23/15 15:17	ERZ	TAL SEA
Total/NA	Analysis	Organotins		5	190417	05/27/15 21:58	ERB	TAL SEA
Total/NA	Prep	Organotin Prep	DL		190241	05/23/15 15:17	ERZ	TAL SEA
Total/NA	Analysis	Organotins	DL	25	190539	05/28/15 12:01	ERB	TAL SEA
Total/NA	Prep	3546			182263	05/22/15 12:51	DFR	TAL PLS
Total/NA	Analysis	8015B		5	182323	05/27/15 02:18	JXL	TAL PLS
Total/NA	Prep	3546			182348	05/26/15 13:18	JRD	TAL PLS
Total/NA	Analysis	8082		5	182413	05/27/15 10:49	DCH	TAL PLS
Total/NA	Prep	3050B			182381	05/26/15 17:30	ASB	TAL PLS
Total/NA	Analysis	6010B		4	182451	05/27/15 13:07	EFH	TAL PLS
Total/NA	Prep	7471A			182367	05/26/15 16:15	ECT	TAL PLS
Total/NA	Analysis	7471A		10	182500	05/27/15 20:12	SLK	TAL PLS

Client Sample ID: SS-4-0.5'

Lab Sample ID: 720-64901-7
Matrix: Solid

Date Collected: 05/19/15 08:19
Date Received: 05/19/15 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			182401	05/26/15 23:13	DFR	TAL PLS
Total/NA	Analysis	8270C		2	182536	05/28/15 18:27	MQL	TAL PLS
Total/NA	Prep	Organotin Prep			190247	05/24/15 18:29	ERZ	TAL SEA
Total/NA	Analysis	Organotins		1	190417	05/28/15 00:15	ERB	TAL SEA
Total/NA	Prep	3546			182263	05/22/15 12:51	DFR	TAL PLS
Total/NA	Analysis	8015B		5	182323	05/27/15 02:42	JXL	TAL PLS
Total/NA	Prep	3546			182348	05/26/15 13:18	JRD	TAL PLS
Total/NA	Analysis	8082		5	182413	05/27/15 09:59	DCH	TAL PLS
Total/NA	Prep	3050B			182381	05/26/15 17:30	ASB	TAL PLS
Total/NA	Analysis	6010B		4	182451	05/27/15 13:12	EFH	TAL PLS
Total/NA	Prep	7471A			182367	05/26/15 16:15	ECT	TAL PLS
Total/NA	Analysis	7471A		100	182500	05/27/15 20:14	SLK	TAL PLS

Client Sample ID: SS-4-1'

Date Collected: 05/19/15 08:28
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			182401	05/26/15 23:13	DFR	TAL PLS
Total/NA	Analysis	8270C		10	182536	05/28/15 18:52	MQL	TAL PLS
Total/NA	Prep	Organotin Prep			190247	05/24/15 18:29	ERZ	TAL SEA
Total/NA	Analysis	Organotins		1	190417	05/28/15 00:38	ERB	TAL SEA
Total/NA	Prep	3546			182263	05/22/15 12:51	DFR	TAL PLS
Total/NA	Analysis	8015B		50	182422	05/27/15 13:12	JXL	TAL PLS
Total/NA	Prep	3546			182348	05/26/15 13:18	JRD	TAL PLS
Total/NA	Analysis	8082		5	182413	05/27/15 10:16	DCH	TAL PLS
Total/NA	Prep	3050B			182381	05/26/15 17:30	ASB	TAL PLS
Total/NA	Analysis	6010B		4	182451	05/27/15 13:17	EFH	TAL PLS
Total/NA	Prep	7471A			182367	05/26/15 16:15	ECT	TAL PLS
Total/NA	Analysis	7471A		100	182500	05/27/15 20:22	SLK	TAL PLS

Client Sample ID: SS-5-0.5'

Date Collected: 05/19/15 08:40
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			182401	05/26/15 23:13	DFR	TAL PLS
Total/NA	Analysis	8270C		5	182478	05/28/15 04:32	MQL	TAL PLS
Total/NA	Prep	Organotin Prep			190247	05/24/15 18:29	ERZ	TAL SEA
Total/NA	Analysis	Organotins		1	190417	05/28/15 01:01	ERB	TAL SEA
Total/NA	Prep	3546			182263	05/22/15 12:51	DFR	TAL PLS
Total/NA	Analysis	8015B		1	182323	05/27/15 01:53	JXL	TAL PLS
Total/NA	Prep	3546			182348	05/26/15 13:18	JRD	TAL PLS
Total/NA	Analysis	8082		1	182413	05/27/15 10:32	DCH	TAL PLS
Total/NA	Prep	3050B			182381	05/26/15 17:30	ASB	TAL PLS
Total/NA	Analysis	6010B		1	182523	05/27/15 22:46	SLK	TAL PLS
Total/NA	Prep	3050B			182381	05/26/15 17:30	ASB	TAL PLS
Total/NA	Analysis	6010B		1	182595	05/28/15 18:20	CAM	TAL PLS
Total/NA	Prep	3050B			182381	05/26/15 17:30	ASB	TAL PLS
Total/NA	Analysis	6010B		4	182451	05/27/15 13:22	EFH	TAL PLS
Total/NA	Prep	7471A			182367	05/26/15 16:15	ECT	TAL PLS
Total/NA	Analysis	7471A		1	182500	05/27/15 19:55	SLK	TAL PLS

Client Sample ID: SS-5-1'

Date Collected: 05/19/15 08:47
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			182401	05/26/15 23:13	DFR	TAL PLS
Total/NA	Analysis	8270C		5	182478	05/28/15 04:53	MQL	TAL PLS
Total/NA	Prep	Organotin Prep			190247	05/24/15 18:29	ERZ	TAL SEA

Client Sample ID: SS-5-1'

Date Collected: 05/19/15 08:47
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Organotins		1	190417	05/28/15 01:23	ERB	TAL SEA
Total/NA	Prep	3546			182368	05/26/15 18:29	JRD	TAL PLS
Total/NA	Analysis	8015B		2	182423	05/27/15 21:53	JXL	TAL PLS
Total/NA	Prep	3546			182348	05/26/15 13:18	JRD	TAL PLS
Total/NA	Analysis	8082		1	182320	05/26/15 22:22	DCH	TAL PLS
Total/NA	Prep	3050B			182381	05/26/15 17:30	ASB	TAL PLS
Total/NA	Analysis	6010B		1	182523	05/27/15 22:51	SLK	TAL PLS
Total/NA	Prep	3050B			182381	05/26/15 17:30	ASB	TAL PLS
Total/NA	Analysis	6010B		4	182451	05/27/15 13:27	EFH	TAL PLS
Total/NA	Prep	3050B			182381	05/26/15 17:30	ASB	TAL PLS
Total/NA	Analysis	6010B		1	182603	05/28/15 20:10	CAM	TAL PLS
Total/NA	Prep	7471A			182367	05/26/15 16:15	ECT	TAL PLS
Total/NA	Analysis	7471A		1	182500	05/27/15 19:57	SLK	TAL PLS

Client Sample ID: SS-6-0.5'

Date Collected: 05/19/15 09:01
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			182401	05/26/15 23:13	DFR	TAL PLS
Total/NA	Analysis	8270C		2	182478	05/28/15 05:15	MQL	TAL PLS
Total/NA	Prep	Organotin Prep			190247	05/24/15 18:29	ERZ	TAL SEA
Total/NA	Analysis	Organotins		1	190417	05/28/15 01:46	ERB	TAL SEA
Total/NA	Prep	3546			182263	05/22/15 12:51	DFR	TAL PLS
Total/NA	Analysis	8015B		1	182306	05/24/15 02:55	JXL	TAL PLS
Total/NA	Prep	3546			182348	05/26/15 13:18	JRD	TAL PLS
Total/NA	Analysis	8082		1	182320	05/26/15 22:39	DCH	TAL PLS
Total/NA	Prep	3050B			182381	05/26/15 17:30	ASB	TAL PLS
Total/NA	Analysis	6010B		1	182523	05/27/15 22:55	SLK	TAL PLS
Total/NA	Prep	3050B			182381	05/26/15 17:30	ASB	TAL PLS
Total/NA	Analysis	6010B		1	182595	05/28/15 18:29	CAM	TAL PLS
Total/NA	Prep	3050B			182381	05/26/15 17:30	ASB	TAL PLS
Total/NA	Analysis	6010B		4	182451	05/27/15 13:32	EFH	TAL PLS
Total/NA	Prep	7471A			182393	05/26/15 20:56	ECT	TAL PLS
Total/NA	Analysis	7471A		1	182486	05/27/15 16:44	SLK	TAL PLS

Client Sample ID: SS-6-1'

Date Collected: 05/19/15 09:10
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			182401	05/26/15 23:13	DFR	TAL PLS
Total/NA	Analysis	8270C		2	182478	05/28/15 05:36	MQL	TAL PLS

Client Sample ID: SS-6-1'

Lab Sample ID: 720-64901-12

Date Collected: 05/19/15 09:10

Matrix: Solid

Date Received: 05/19/15 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Organotin Prep			190247	05/24/15 18:29	ERZ	TAL SEA
Total/NA	Analysis	Organotins		1	190417	05/28/15 02:09	ERB	TAL SEA
Total/NA	Prep	3546			182368	05/26/15 16:23	JRD	TAL PLS
Total/NA	Analysis	8015B		2	182422	05/27/15 18:28	JXL	TAL PLS
Total/NA	Prep	3546			182348	05/26/15 13:18	JRD	TAL PLS
Total/NA	Analysis	8082		1	182320	05/26/15 22:55	DCH	TAL PLS
Total/NA	Prep	3050B			182392	05/26/15 20:54	ECT	TAL PLS
Total/NA	Analysis	6010B		4	182527	05/28/15 02:18	SLK	TAL PLS
Total/NA	Prep	3050B			182392	05/26/15 20:54	ECT	TAL PLS
Total/NA	Analysis	6010B		4	182594	05/28/15 17:10	CAM	TAL PLS
Total/NA	Prep	7471A			182393	05/26/15 20:56	ECT	TAL PLS
Total/NA	Analysis	7471A		5	182486	05/27/15 17:36	SLK	TAL PLS

Client Sample ID: SS-7-0.5'

Lab Sample ID: 720-64901-13

Date Collected: 05/19/15 09:18

Matrix: Solid

Date Received: 05/19/15 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			182401	05/26/15 23:13	DFR	TAL PLS
Total/NA	Analysis	8270C		10	182478	05/28/15 05:58	MQL	TAL PLS
Total/NA	Prep	Organotin Prep			190247	05/24/15 18:29	ERZ	TAL SEA
Total/NA	Analysis	Organotins		1	190417	05/28/15 02:32	ERB	TAL SEA
Total/NA	Prep	Organotin Prep	DL		190247	05/24/15 18:29	ERZ	TAL SEA
Total/NA	Analysis	Organotins	DL	10	190539	05/28/15 12:24	ERB	TAL SEA
Total/NA	Prep	3546			182368	05/26/15 16:23	JRD	TAL PLS
Total/NA	Analysis	8015B		5	182422	05/27/15 18:57	JXL	TAL PLS
Total/NA	Prep	3546			182348	05/26/15 13:18	JRD	TAL PLS
Total/NA	Analysis	8082		2	182412	05/27/15 09:59	DCH	TAL PLS
Total/NA	Prep	3050B			182392	05/26/15 20:54	ECT	TAL PLS
Total/NA	Analysis	6010B		4	182527	05/28/15 02:22	SLK	TAL PLS
Total/NA	Prep	3050B			182392	05/26/15 20:54	ECT	TAL PLS
Total/NA	Analysis	6010B		4	182594	05/28/15 17:14	CAM	TAL PLS
Total/NA	Prep	7471A			182393	05/26/15 20:56	ECT	TAL PLS
Total/NA	Analysis	7471A		5	182486	05/27/15 17:38	SLK	TAL PLS

Client Sample ID: SS-7-1'

Lab Sample ID: 720-64901-14

Date Collected: 05/19/15 09:31

Matrix: Solid

Date Received: 05/19/15 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			182401	05/26/15 23:13	DFR	TAL PLS
Total/NA	Analysis	8270C		5	182478	05/28/15 06:19	MQL	TAL PLS
Total/NA	Prep	Organotin Prep			190247	05/24/15 18:29	ERZ	TAL SEA

Lab Chronicle

Client: URS Corporation
Project/Site: Blue Greenway 900 Innes

TestAmerica Job ID: 720-64901-1

Client Sample ID: SS-7-1'

Date Collected: 05/19/15 09:31
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Organotins		1	190417	05/28/15 03:41	ERB	TAL SEA
Total/NA	Prep	3546			182368	05/26/15 16:23	JRD	TAL PLS
Total/NA	Analysis	8015B		5	182422	05/27/15 19:26	JXL	TAL PLS
Total/NA	Prep	3546			182348	05/26/15 13:18	JRD	TAL PLS
Total/NA	Analysis	8082		10	182412	05/27/15 10:16	DCH	TAL PLS
Total/NA	Prep	3050B			182392	05/26/15 20:54	ECT	TAL PLS
Total/NA	Analysis	6010B		4	182527	05/28/15 02:27	SLK	TAL PLS
Total/NA	Prep	3050B			182392	05/26/15 20:54	ECT	TAL PLS
Total/NA	Analysis	6010B		4	182594	05/28/15 17:19	CAM	TAL PLS
Total/NA	Prep	7471A			182393	05/26/15 20:56	ECT	TAL PLS
Total/NA	Analysis	7471A		5	182486	05/27/15 17:40	SLK	TAL PLS

Client Sample ID: SS-8-0.5'

Date Collected: 05/19/15 09:36
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-15
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			182401	05/26/15 23:13	DFR	TAL PLS
Total/NA	Analysis	8270C		5	182478	05/28/15 06:41	MQL	TAL PLS
Total/NA	Prep	Organotin Prep			190247	05/24/15 18:29	ERZ	TAL SEA
Total/NA	Analysis	Organotins		1	190417	05/28/15 04:03	ERB	TAL SEA
Total/NA	Prep	3546			182368	05/26/15 16:23	JRD	TAL PLS
Total/NA	Analysis	8015B		3	182422	05/27/15 19:56	JXL	TAL PLS
Total/NA	Prep	3546			182348	05/26/15 13:18	JRD	TAL PLS
Total/NA	Analysis	8082		5	182412	05/27/15 10:32	DCH	TAL PLS
Total/NA	Prep	3050B			182392	05/26/15 20:54	ECT	TAL PLS
Total/NA	Analysis	6010B		4	182527	05/28/15 02:32	SLK	TAL PLS
Total/NA	Prep	3050B			182392	05/26/15 20:54	ECT	TAL PLS
Total/NA	Analysis	6010B		4	182594	05/28/15 17:24	CAM	TAL PLS
Total/NA	Prep	7471A			182393	05/26/15 20:56	ECT	TAL PLS
Total/NA	Analysis	7471A		10	182486	05/27/15 17:42	SLK	TAL PLS

Client Sample ID: SS-8-1'

Date Collected: 05/19/15 09:51
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-16
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			182401	05/26/15 23:13	DFR	TAL PLS
Total/NA	Analysis	8270C		5	182478	05/28/15 07:02	MQL	TAL PLS
Total/NA	Prep	Organotin Prep			190247	05/24/15 18:29	ERZ	TAL SEA
Total/NA	Analysis	Organotins		1	190417	05/28/15 04:26	ERB	TAL SEA
Total/NA	Prep	3546			182368	05/26/15 16:23	JRD	TAL PLS
Total/NA	Analysis	8015B		5	182528	05/28/15 11:23	JXL	TAL PLS

Client Sample ID: SS-8-1'

Date Collected: 05/19/15 09:51
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-16
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			182348	05/26/15 13:18	JRD	TAL PLS
Total/NA	Analysis	8082		10	182412	05/27/15 10:49	DCH	TAL PLS
Total/NA	Prep	3050B			182392	05/26/15 20:54	ECT	TAL PLS
Total/NA	Analysis	6010B		4	182527	05/28/15 02:36	SLK	TAL PLS
Total/NA	Prep	3050B			182392	05/26/15 20:54	ECT	TAL PLS
Total/NA	Analysis	6010B		4	182594	05/28/15 17:28	CAM	TAL PLS
Total/NA	Prep	7471A			182393	05/26/15 20:56	ECT	TAL PLS
Total/NA	Analysis	7471A		100	182486	05/27/15 17:45	SLK	TAL PLS

Client Sample ID: SS-9-0.5'

Date Collected: 05/19/15 10:26
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-17
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			182401	05/26/15 23:13	DFR	TAL PLS
Total/NA	Analysis	8270C		5	182478	05/28/15 07:24	MQL	TAL PLS
Total/NA	Prep	Organotin Prep			190247	05/24/15 18:29	ERZ	TAL SEA
Total/NA	Analysis	Organotins		1	190417	05/28/15 04:49	ERB	TAL SEA
Total/NA	Prep	Organotin Prep	DL		190247	05/24/15 18:29	ERZ	TAL SEA
Total/NA	Analysis	Organotins	DL	5	190539	05/28/15 12:47	ERB	TAL SEA
Total/NA	Prep	Organotin Prep	DL2		190247	05/24/15 18:29	ERZ	TAL SEA
Total/NA	Analysis	Organotins	DL2	50	190539	05/28/15 13:10	ERB	TAL SEA
Total/NA	Prep	Organotin Prep	DL3		190247	05/24/15 18:29	ERZ	TAL SEA
Total/NA	Analysis	Organotins	DL3	250	190539	05/28/15 15:05	ERB	TAL SEA
Total/NA	Prep	3546			182368	05/26/15 16:23	JRD	TAL PLS
Total/NA	Analysis	8015B		10	182528	05/28/15 11:47	JXL	TAL PLS
Total/NA	Prep	3546			182348	05/26/15 13:18	JRD	TAL PLS
Total/NA	Analysis	8082		10	182412	05/27/15 11:06	DCH	TAL PLS
Total/NA	Prep	3050B			182392	05/26/15 20:54	ECT	TAL PLS
Total/NA	Analysis	6010B		4	182527	05/28/15 02:41	SLK	TAL PLS
Total/NA	Prep	3050B			182392	05/26/15 20:54	ECT	TAL PLS
Total/NA	Analysis	6010B		10	182594	05/28/15 17:47	CAM	TAL PLS
Total/NA	Prep	3050B			182392	05/26/15 20:54	ECT	TAL PLS
Total/NA	Analysis	6010B		50	182594	05/28/15 17:52	CAM	TAL PLS
Total/NA	Prep	7471A			182393	05/26/15 20:56	ECT	TAL PLS
Total/NA	Analysis	7471A		100	182486	05/27/15 17:48	SLK	TAL PLS

Client Sample ID: SS-9-1'

Date Collected: 05/19/15 10:20
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-18
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			182427	05/27/15 09:39	NVP	TAL PLS

Client Sample ID: SS-9-1'

Date Collected: 05/19/15 10:20
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-18
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270C		10	182550	05/28/15 14:50	MQL	TAL PLS
Total/NA	Prep	Organotin Prep			190247	05/24/15 18:29	ERZ	TAL SEA
Total/NA	Analysis	Organotins		1	190417	05/28/15 05:11	ERB	TAL SEA
Total/NA	Prep	Organotin Prep	DL		190247	05/24/15 18:29	ERZ	TAL SEA
Total/NA	Analysis	Organotins	DL	10	190539	05/28/15 13:33	ERB	TAL SEA
Total/NA	Prep	3546			182368	05/26/15 16:23	JRD	TAL PLS
Total/NA	Analysis	8015B		20	182528	05/28/15 12:11	JXL	TAL PLS
Total/NA	Prep	3546			182348	05/26/15 13:18	JRD	TAL PLS
Total/NA	Analysis	8082		50	182412	05/27/15 11:22	DCH	TAL PLS
Total/NA	Prep	3050B			182392	05/26/15 20:54	ECT	TAL PLS
Total/NA	Analysis	6010B		4	182527	05/28/15 02:46	SLK	TAL PLS
Total/NA	Prep	3050B			182392	05/26/15 20:54	ECT	TAL PLS
Total/NA	Analysis	6010B		4	182594	05/28/15 17:33	CAM	TAL PLS
Total/NA	Prep	7471A			182393	05/26/15 20:56	ECT	TAL PLS
Total/NA	Analysis	7471A		100	182486	05/27/15 17:50	SLK	TAL PLS

Client Sample ID: SS-10-0.5'

Date Collected: 05/19/15 10:10
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-19
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			182427	05/27/15 09:39	NVP	TAL PLS
Total/NA	Analysis	8270C		1	182550	05/28/15 15:11	MQL	TAL PLS
Total/NA	Prep	Organotin Prep			190247	05/24/15 18:29	ERZ	TAL SEA
Total/NA	Analysis	Organotins		1	190417	05/28/15 05:34	ERB	TAL SEA
Total/NA	Prep	3546			182368	05/26/15 16:23	JRD	TAL PLS
Total/NA	Analysis	8015B		1	182528	05/28/15 10:59	JXL	TAL PLS
Total/NA	Prep	3546			182348	05/26/15 13:18	JRD	TAL PLS
Total/NA	Analysis	8082		2	182413	05/27/15 11:06	DCH	TAL PLS
Total/NA	Prep	3050B			182392	05/26/15 20:54	ECT	TAL PLS
Total/NA	Analysis	6010B		4	182527	05/28/15 02:50	SLK	TAL PLS
Total/NA	Prep	3050B			182392	05/26/15 20:54	ECT	TAL PLS
Total/NA	Analysis	6010B		1	182594	05/28/15 17:57	CAM	TAL PLS
Total/NA	Prep	7471A			182393	05/26/15 20:56	ECT	TAL PLS
Total/NA	Analysis	7471A		10	182486	05/27/15 17:52	SLK	TAL PLS

Client Sample ID: SS-10-1'

Date Collected: 05/19/15 10:14
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-20
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			182427	05/27/15 09:39	NVP	TAL PLS
Total/NA	Analysis	8270C		2	182550	05/28/15 15:33	MQL	TAL PLS

Client Sample ID: SS-10-1'

Lab Sample ID: 720-64901-20

Date Collected: 05/19/15 10:14

Matrix: Solid

Date Received: 05/19/15 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Organotin Prep			190247	05/24/15 18:29	ERZ	TAL SEA
Total/NA	Analysis	Organotins		1	190417	05/28/15 05:57	ERB	TAL SEA
Total/NA	Prep	Organotin Prep	DL		190247	05/24/15 18:29	ERZ	TAL SEA
Total/NA	Analysis	Organotins	DL	10	190539	05/28/15 13:56	ERB	TAL SEA
Total/NA	Prep	3546			182368	05/26/15 16:23	JRD	TAL PLS
Total/NA	Analysis	8015B		3	182422	05/27/15 22:22	JXL	TAL PLS
Total/NA	Prep	3546			182348	05/26/15 13:18	JRD	TAL PLS
Total/NA	Analysis	8082		10	182413	05/27/15 11:22	DCH	TAL PLS
Total/NA	Prep	3050B			182392	05/26/15 20:54	ECT	TAL PLS
Total/NA	Analysis	6010B		4	182527	05/28/15 02:55	SLK	TAL PLS
Total/NA	Prep	3050B			182392	05/26/15 20:54	ECT	TAL PLS
Total/NA	Analysis	6010B		4	182594	05/28/15 18:02	CAM	TAL PLS
Total/NA	Prep	7471A			182393	05/26/15 20:56	ECT	TAL PLS
Total/NA	Analysis	7471A		10	182486	05/27/15 17:55	SLK	TAL PLS

Client Sample ID: FD-1

Lab Sample ID: 720-64901-21

Date Collected: 05/19/15 00:00

Matrix: Solid

Date Received: 05/19/15 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			182427	05/27/15 09:39	NVP	TAL PLS
Total/NA	Analysis	8270C		5	182550	05/28/15 15:54	MQL	TAL PLS
Total/NA	Prep	Organotin Prep			190247	05/24/15 18:29	ERZ	TAL SEA
Total/NA	Analysis	Organotins		1	190539	05/28/15 10:53	ERB	TAL SEA
Total/NA	Prep	3546			182368	05/26/15 16:23	JRD	TAL PLS
Total/NA	Analysis	8015B		3	182423	05/27/15 19:26	JXL	TAL PLS
Total/NA	Prep	3546			182388	05/26/15 19:49	JRD	TAL PLS
Total/NA	Analysis	8082		50	182413	05/27/15 15:46	DCH	TAL PLS
Total/NA	Prep	3050B			182392	05/26/15 20:54	ECT	TAL PLS
Total/NA	Analysis	6010B		4	182527	05/28/15 03:00	SLK	TAL PLS
Total/NA	Prep	3050B			182392	05/26/15 20:54	ECT	TAL PLS
Total/NA	Analysis	6010B		4	182602	05/28/15 20:05	CAM	TAL PLS
Total/NA	Prep	7471A			182393	05/26/15 20:56	ECT	TAL PLS
Total/NA	Analysis	7471A		10	182486	05/27/15 17:57	SLK	TAL PLS

Client Sample ID: FD-2

Lab Sample ID: 720-64901-22

Date Collected: 05/19/15 00:00

Matrix: Solid

Date Received: 05/19/15 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			182427	05/27/15 09:39	NVP	TAL PLS
Total/NA	Analysis	8270C		2	182550	05/28/15 16:16	MQL	TAL PLS
Total/NA	Prep	Organotin Prep			190247	05/24/15 18:29	ERZ	TAL SEA

Client Sample ID: FD-2
Date Collected: 05/19/15 00:00
Date Received: 05/19/15 15:00

Lab Sample ID: 720-64901-22
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Organotins		1	190539	05/28/15 11:15	ERB	TAL SEA
Total/NA	Prep	Organotin Prep	DL		190247	05/24/15 18:29	ERZ	TAL SEA
Total/NA	Analysis	Organotins	DL	5	190539	05/28/15 11:38	ERB	TAL SEA
Total/NA	Prep	3546			182368	05/26/15 16:23	JRD	TAL PLS
Total/NA	Analysis	8015B		2	182423	05/27/15 19:56	JXL	TAL PLS
Total/NA	Prep	3546			182388	05/26/15 19:49	JRD	TAL PLS
Total/NA	Analysis	8082		5	182412	05/27/15 16:20	DCH	TAL PLS
Total/NA	Prep	3050B			182392	05/26/15 20:54	ECT	TAL PLS
Total/NA	Analysis	6010B		4	182527	05/28/15 03:14	SLK	TAL PLS
Total/NA	Prep	3050B			182392	05/26/15 20:54	ECT	TAL PLS
Total/NA	Analysis	6010B		1	182594	05/28/15 18:11	CAM	TAL PLS
Total/NA	Prep	7471A			182393	05/26/15 20:56	ECT	TAL PLS
Total/NA	Analysis	7471A		10	182486	05/27/15 18:04	SLK	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Method Summary

Client: URS Corporation
Project/Site: Blue Greenway 900 Innes

TestAmerica Job ID: 720-64901-1

Method	Method Description	Protocol	Laboratory
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PLS
Organotins	Organotins, PSEP (GC/MS)	NONE	TAL SEA
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL PLS
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL PLS
6010B	Metals (ICP)	SW846	TAL PLS
7471A	Mercury (CVAA)	SW846	TAL PLS

Protocol References:

NONE = NONE

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

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Sample Summary

Client: URS Corporation
Project/Site: Blue Greenway 900 Innes

TestAmerica Job ID: 720-64901-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-64901-1	SS-1-0.5'	Solid	05/19/15 07:31	05/19/15 15:00
720-64901-2	SS-1-1'	Solid	05/19/15 07:35	05/19/15 15:00
720-64901-3	SS-2-0.5'	Solid	05/19/15 07:43	05/19/15 15:00
720-64901-4	SS-2-1'	Solid	05/19/15 07:47	05/19/15 15:00
720-64901-5	SS-3-0.5'	Solid	05/19/15 07:55	05/19/15 15:00
720-64901-6	SS-3-1'	Solid	05/19/15 07:59	05/19/15 15:00
720-64901-7	SS-4-0.5'	Solid	05/19/15 08:19	05/19/15 15:00
720-64901-8	SS-4-1'	Solid	05/19/15 08:28	05/19/15 15:00
720-64901-9	SS-5-0.5'	Solid	05/19/15 08:40	05/19/15 15:00
720-64901-10	SS-5-1'	Solid	05/19/15 08:47	05/19/15 15:00
720-64901-11	SS-6-0.5'	Solid	05/19/15 09:01	05/19/15 15:00
720-64901-12	SS-6-1'	Solid	05/19/15 09:10	05/19/15 15:00
720-64901-13	SS-7-0.5'	Solid	05/19/15 09:18	05/19/15 15:00
720-64901-14	SS-7-1'	Solid	05/19/15 09:31	05/19/15 15:00
720-64901-15	SS-8-0.5'	Solid	05/19/15 09:36	05/19/15 15:00
720-64901-16	SS-8-1'	Solid	05/19/15 09:51	05/19/15 15:00
720-64901-17	SS-9-0.5'	Solid	05/19/15 10:26	05/19/15 15:00
720-64901-18	SS-9-1'	Solid	05/19/15 10:20	05/19/15 15:00
720-64901-19	SS-10-0.5'	Solid	05/19/15 10:10	05/19/15 15:00
720-64901-20	SS-10-1'	Solid	05/19/15 10:14	05/19/15 15:00
720-64901-21	FD-1	Solid	05/19/15 00:00	05/19/15 15:00
720-64901-22	FD-2	Solid	05/19/15 00:00	05/19/15 15:00

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TESTAMERICA Pleasanton Chain of Custody
1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 • Fax: (925) 600-6002

Reference #: T61249

720-64901

Date 5/19/15 Page 1 of 3

5/29/2015

Report To

Attn: Erik Skov
Company: AECOM
Address: One Montgomery, SF, CA, 94104
Email: Erik.Skov@AECOM.com
Bill To: Kali Futrani
Attn:
Sampled By: EB/ES
Phone: 415-243-3845

Analysis Request

Sample ID	Date	Time	Matrix	Preserv.	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B	HVOCs by ☐ EPA 8260B	EPA 8260B: ☐ Gas ☐ BTEX ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol	TEPH EPA 8015B ☐ Silica Gel ☒ Diesel ☒ Motor Oil ☐ Other	SemiVolatile Organics GC/MS ☐ EPA 8270C	PNA/PAH's by ☐ 8270C ☐ 8270C SIM	Oil and Grease (EPA 1664/9071) ☐ Petroleum ☐ Total	Pesticides ☐ EPA 8081 (PCBs) ☒ EPA 8082	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ 6010B ☐ 200.7 ☐ Lead ☐ LUFT ☐ RCRA ☐ Other:	Metals: ☐ 6020 ☐ 200.8 (ICP-MS):	☐ W.E.T (STLC) ☐ W.E.T (DI) ☐ TCLP ☐ ☐	Hex. Chrom by ☐ EPA 7196 ☐ or EPA 7199	pH ☐ 9040 ☐ SM4500	☐ Spec. Cond. ☐ Alkalinity ☐ TSS ☐ SS ☐ TDS	Anions: ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4	☐ Perchlorate by EPA 314.0	COD ☐ EPA 410.4 ☐ SM5220D ☐ Turbidity	X Organochlorines	Number of Containers
SS-1-0.5'	5/19/15	731	S	None				X		X		X	X										X	1
SS-1-1'		735																						1
SS-2-0.5'		743																						1
SS-2-1'		747																						1
SS-3-0.5'		755																						1
SS-3-1'		759																						1
SS-4-0.5'		819																						1
SS-4-1'		828																						1
SS-5-0.5'		840																						1
SS-5-1'	↓	847	↓	↓				↓		↓		↓	↓										↓	1

720-64901 Chain of Custody

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Project Info.

Project Name/ #: Blue Greenway 900 Inners
PO#: 2806835B
Credit Card Y/N: N
If yes, please call with payment information ASAP

Sample Receipt

of Containers:
Head Space:
Temp: 3.3°

TAT: 10 Day | 5 Day | 4 Day | 3 Day | 2 Day | 1 Day | Other:

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ EDF
Special Instructions / Comments: ☐ Global ID _____

See Terms and Conditions on reverse

1) Relinquished by:	2) Relinquished by:	3) Relinquished by:
Signature	Signature	Signature
Time: 1215	Time: 1500	Time
Printed Name: RYAN Bringer	Printed Name: Sam Sanguinetti	Printed Name
Date: 5/19/15	Date: 5/19/15	Date
Company: AECOM	Company: TA	Company

1) Received by:	2) Received by:	3) Received by:
Signature	Signature	Signature
Time: 1215	Time: 1500	Time
Printed Name: Sam Sanguinetti	Printed Name: Mullen	Printed Name
Date: 5/19/15	Date: 5-19-15	Date
Company: TA	Company	Company

Rev.11/2014

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TESTAMERICA Pleasanton Chain of Custody
1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 • Fax (925) 600-3002

Reference #: 161249

Date 5/19/15 Page 2 of 3

720-64901

5/29/2015

Report To

Attn: Erik Skov
Company: AECOM
Address: One Montgomery, SF, CA, 94104
Email: Erik.Skov@AECOM.com
Bill To: Kali Fatmani
Sampled By: RB/ES
Attn:
Phone: 415-243-3845

Analysis Request

Sample ID	Date	Time	Matrix	Preserv.	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B	HVOCs by ☐ EPA 8260B	EPA 8260B: ☐ Gas ☐ BTEX ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol	TEPH EPA 8015B ☐ Silica Gel ☒ Diesel ☒ Motor Oil ☐ Other	SemiVolatile Organics GC/MS ☐ EPA 8270C	PNA/PAH's by ☒ 8270C ☐ 8270C SIM	Oil and Grease ☐ Petroleum (EPA 1664/9071) ☐ Total	Pesticides ☐ EPA 8081 ☒ EPA 8082 PCB	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ 6010B ☐ 200.7 ☐ Lead ☐ LUFT ☐ RCRA ☐ Other:	Metals: ☐ 6020 ☐ 200.8 (ICP-MS):	☐ W.E.T (STLC) ☐ W.E.T (DI) ☐ TCLP	Hex. Chrom by ☐ EPA 7196 ☐ or EPA 7199	pH ☐ 9040 ☐ SM4500	☐ Spec. Cond. ☐ Alkalinity ☐ TSS ☐ SS ☐ TDS	Anions: ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4	☐ Perchlorate by EPA 314.0	COD ☐ EPA 410.4 ☐ SM5220D ☐ Turbidity	X Organics by MS	Number of Containers
SS-6-0.5'	5/19/15	901	S	None				X		X		X	X										X	4
SS-6-1'		910																						1
SS-7-0.5'		918																						1
SS-7-1'		931																						1
SS-8-0.5'		936																						1
SS-8-1'		951																						1
SS-9-0.5'		1026																						1
SS-9-1'		1020																						1
SS-10-0.5'		1010																						1
SS-10-1'	↓	1014	↓	↓																				1

Project Info.

Project Name/ #: Blue Greenway 900 Innes
PO#: 280608358
Credit Card Y/N: N

Sample Receipt

of Containers:
Head Space:
Temp: 3.3°

If yes, please call with payment information ASAP

TAT: 10 Day | (5 Day) | 4 Day | 3 Day | 2 Day | 1 Day | Other:

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ EDF
Special Instructions / Comments: ☐ Global ID

See Terms and Conditions on reverse

1) Relinquished by:	2) Relinquished by:	3) Relinquished by:
Signature: [signature]	Signature: [signature]	Signature:
Time: 1215	Time: 1500	Time:
Printed Name: Ryan Bringas	Printed Name: Sam Bangsaraj	Printed Name:
Date: 5/19/15	Date: 5/19/15	Date:
Company: AECOM	Company: TA	Company:

1) Received by:	2) Received by:	3) Received by:
Signature: [signature]	Signature: [signature]	Signature:
Time: 1215	Time: 1500	Time:
Printed Name: Sam Bangsaraj	Printed Name: Mullen	Printed Name:
Date: 5/19/15	Date: 5-19-15	Date:
Company: TA	Company: [signature]	Company:

Rev.11/2014

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TESTAMERICA Pleasanton Chain of Custody
1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 Fax: (925) 600-3002

Reference #: 161249

720-64901

Date 5/19/15 Page 3 of 3

5/29/2015

Report To

Attn: Erik Skov
Company: AECOM
Address: Erik.Skov@AECOM.COM
Email: Erik.Skov@AECOM.COM
Bill To: Kali Fukuyama
Attn:
Sampled By: RB/ES
Phone: 415-243-3845

Analysis Request

Sample ID	Date	Time	Matrix	Preserv	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B	HVOCs by ☐ EPA 8260B	EPA 8260B: ☐ Gas ☐ BTEX ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol	TEPH EPA 8015B ☐ Silica Gel ☒ Diesel ☒ Motor Oil ☐ Other ___	SemiVolatile Organics GC/MS ☐ EPA 8270C	PNA/PAH's by ☒ 8270C ☐ 8270C-SIM	Oil and Grease ☐ Petroleum (EPA 1664/9071) ☐ Total	Pesticides ☐ EPA 8081 (PCBs) ☒ EPA 8082	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ 6010B ☐ 200.7 ☐ Lead ☐ LUFT ☐ RCRA ☐ Other: ___	Metals: ☐ 6020 ☐ 200.8 (ICP-MS): ___	☐ W.E.T (STLC) ☐ W.E.T (DI) ☐ TCLP	Hex. Chrom by ☐ EPA 7196 ☐ or EPA 7199	pH ☐ 9040 ☐ SM4500	☐ Spec. Cond. ☐ Alkalinity ☐ TSS ☐ SS ☐ TDS	Anions: ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4	☐ Perchlorate by EPA 314.0	COD ☐ EPA 410.4 ☐ SM5220D ☐ Turbidity	Organotins	Number of Containers
FD-1	5/19/15		S	None				X		X		X	X									X	X	—
FD-2	↓		S	None				X		X		X	X											—

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Project Info.

Project Name/ #: Blue Greenway 900 Innes
PO#: 28068358
Credit Card Y/N: N — If yes, please call with payment information ASAP

Sample Receipt

of Containers:
Head Space:
Temp: 3.3°C

TAT: 10 Day | (5 Day) | 4 Day | 3 Day | 2 Day | 1 Day | Other:

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ EDF
Special Instructions / Comments: ☐ Global ID ___

See Terms and Conditions on reverse

1) Relinquished by:	2) Relinquished by:	3) Relinquished by:
Signature: Ryan Bragg — Time: 1215	Signature: [illegible] — Time: 1800	Signature — Time
Printed Name: Ryan Bragg — Date: 5/19/15	Printed Name: Sam Barquero — Date: 5/19/15	Printed Name — Date
Company: AECOM	Company: TA	Company

1) Received by:	2) Received by:	3) Received by:
Signature: [illegible] — Time: 1215	Signature: [illegible] — Time: 1800	Signature — Time
Printed Name: Sam Barquero — Date: 5/19/15	Printed Name: Mullen — Date: 5-19-15	Printed Name — Date
Company: TA	Company: TA	Company

Rev.10/2012

Login Sample Receipt Checklist

Client: URS Corporation

Job Number: 720-64901-1

Login Number: 64901
List Number: 1
Creator: Mullen, Joan

List Source: TestAmerica Pleasanton

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: URS Corporation

Job Number: 720-64901-1

Login Number: 64901
List Number: 2
Creator: Rivers, Zachary V

List Source: TestAmerica Seattle
List Creation: 05/21/15 11:52 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	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?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYSIS OF BROWNFIELD CLEANUP ALTERNATIVES

Shipwrights Cottage
900 Innes Avenue Site
Hunters Point, San Francisco, California

Prepared for:

Contract No. 4061-12/13
San Francisco Department of the Environment
1455 Market Street, Suite 1200
San Francisco, California 94103

Prepared by:

Post Montgomery Center
One Montgomery Street, Suite 900

URS

San Francisco, California 94104

December 2015

IDENTIFICATION FORM

Document Title: **Analysis of Brownfield Cleanup Alternatives**
Shipwrights Cottage
900 Innes Avenue Site
City and County of San Francisco, California

Organization Title: URS Corporation
Address: Post Montgomery Center
One Montgomery Street, Suite 900
San Francisco, California 94104

Project Manager: Kali Futnani
Telephone: (415) 243-3878

Project Geologist: Erik Skov, PG, CHG
Telephone: (415) 243-3845

Plan Coverage: This Assessment of Brownfield Cleanup Alternatives constitutes the deliverable for technical support to the San Francisco Department of the Environment to develop cleanup alternatives for the Shipwrights Cottage located at 900 Innes Avenue in San Francisco, CA under Contract No. 4061-12/13.

APPROVAL FORM

Prepared for: San Francisco Department of the Environment
1455 Market Street, Suite 1200
San Francisco, California 94103

Prepared by: URS Corporation
Post Montgomery Center
One Montgomery Street, Suite 900
San Francisco, California 94104

Signature:  Date: 12/2/2015
Name: **For** Kali Futnani
Title: Project Manager
URS Corporation

Signature:  Date: 12/2/2015
Name: Erik Skov, PG, CHG
Title: Senior Geologist
Professional Geologist No. 7470
URS Corporation

This document has been prepared for the San Francisco Department of the Environment under Contract No. 4061-12/13.

TABLE OF CONTENTS

LIST OF FIGURES

1. INTRODUCTION AND BACKGROUND

URS Corporation (URS), under Contract No. 4061-12/13 with the San Francisco Department of the Environment (SFDOE), has prepared this Assessment of Brownfield Cleanup Alternatives (ABCA) for the Shipwright's Cottage located at the 900 Innes Avenue property in Hunters Point, City and County of San Francisco, California (Site) (Figure 1).

In 2014 the City and County of San Francisco, Recreation and Parks Department (RPD) completed their acquisition of the Site from the Tenderloin Housing Clinic. This ABCA was prepared to support the RPD in their application to the United States Environmental Protection Agency (USEPA) for a Brownfields Cleanup Grant.

1.1. Site Location

The Site is located on a portion of the property known as 900 Innes Avenue located in Hunters Point, San Francisco, California (Figure 1). The Shipwright's Cottage is located at the north corner of the intersection of Innes Avenue and Griffith Street. The 900 Innes Avenue property is comprised of seven different City and County of San Francisco Assessor Parcel Numbers (APN). The Site is assigned APN 4646003.

1.2. Ownership and Previous Use

The house was constructed as an early component of an isolated working-class settlement of shipbuilders. The first property owner was John Johnson Dircks, a shipwright who was among the first immigrants to arrive at India Basin. Dircks resided in the house, from 1875 until 1893, after which point the residence was deeded to Carl J. Jorgenson, a ship carpenter. Members of the Jorgenson family, as well as the Siemers family, resided in the cottage at various times during the following few decades (Page & Turnbull, 2015).

In 1923, the Shipwright's Cottage was incorporated into the adjacent Anderson & Cristofani Boatyard. No residents were recorded at this address in the 1930 and 1940 United States census rolls; however, Carl Jorgenson was listed at 900 Innes until around 1960. In 1961, the property was sold to Walter and Alice Anderson; Walter was partner in the adjacent Anderson & Cristofani Boatyard. The building served as an office for the yard (Page & Turnbull, 2015).

The property changed hands several times during the 1960s, 1970s, and 1980s. The house was ultimately donated to the Tenderloin Housing Clinic in 2007. The Shipwright's Cottage was designated a San Francisco Article 10 landmark in 2008, and the Tenderloin Housing Clinic sold the building (along with the remainder of the 900 Innes Avenue property) to the City and County of San Francisco in 2014. The property was previously owned by the Tenderloin Housing Clinic prior to its acquisition by the City and County of San Francisco RPD (Page & Turnbull, 2015).

1.3. Site Assessment Findings

In 2013 Weston Solutions conducted a Phase I Environmental Site Assessment (ESA) as part of a Targeted Brownfields Assessment (TBA) being conducted at the property (Weston, 2013). Based on the information presented in this report and the historical information presented in the Page & Turnbull Feasibility Study for the Shipwright's Cottage conducted in 2015 (Page & Turnbull, 2015), the building likely contains asbestos containing building materials and lead-based paint given the age of construction of the building and subsequent modifications/additions made to the structure. Additionally, the Page & Turnbull report indicated the presence of mold on building materials inside the structure. A hazardous materials building survey or building drip line investigation has not yet been conducted but is proposed to be undertaken prior to any building redevelopment/renovation activities.

1.4. Project Goal

The goal of the project is to abate hazardous building materials and lead-based paint from the structure as well as lead-impacted soil from the dripline of the building in order to prepare the building for its eventual restoration and reuse. This project is part of a larger vision for the Blue Greenway, an open space system covering 13 miles of trails, and the segment of the regional San Francisco Bay Trail in the city. The expected reuse of the 900 Innes property as a park would allow for this strategy. Reuse in this case would prioritize maintaining the overall character of the Shipwright's Cottage, sensitively refitting for modern use within their historic layouts, and repairing failed details and features.

2. APPLICABLE REGULATIONS AND CLEANUP STANDARDS

The section identifies the cleanup oversight responsibility and cleanup standards for contaminants at the Site.

2.1. Cleanup Oversight Responsibility

Asbestos cleanup oversight will be overseen by the Bay Area Air Quality Management District (BAAQMD) who will issue a permit (Job Number or J#) for the abatement of asbestos associated with building renovation.

The California Environmental Protection Agency (Cal EPA) Department of Toxic Substances Control (DTSC) will be the regulatory oversight agency for the excavation and disposal of lead-contaminated soil from the drip line of the structure. It is assumed that the removal of lead-impacted soil from the drip line of the Shipwright's Cottage will be conducted in conjunction with other soil remedial activities at the 900 Innes Avenue property for which the DTSC will be the lead oversight agency.

2.2. Cleanup Standards for Major Contaminants

In addition to visual clearance by a qualified California Certified Asbestos Consultant (CAC), clearance air monitoring will be conducted to ensure levels are safe for building reentry to conduct other hazardous material abatement activities including lead-based paint removal and mold removal and eventually, building renovation. In accordance with the Asbestos Hazard Emergency Response Act (AHERA) (40 Code of Federal Regulations [CFR] §763.90[i]), removal of asbestos containing building materials are considered complete when representative air samples from the affected space, analyzed by transmission electron microscopy (TEM) method, are not statistically significantly different than outside concentrations or do not exceed the filter background level of 70 asbestos fiber structures per square millimeter.

The cleanup standard for lead-impacted soil in the drip line of the building will be established as part of the Feasibility Study/Remedial Action Plan preparation process for contaminated soil remediation on other portions of the 900 Innes Avenue property.

2.3. Laws and Regulations Applicable to the Cleanup

Asbestos abatement activities will be conducted in accordance with the following appropriate and applicable regulations:

- The asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations specify work practices for asbestos to be followed during demolitions and renovations of all structures, installations, and buildings (40 CFR Part 61, Subpart M).

- Asbestos Hazard Emergency Response Act (40 CFR Part 763) as it relates to final air monitoring clearance standards.

- OSHA oversees the working conditions for workers by implementing and managing occupational safety and health standards. The following regulations pertain to handling asbestos in the workplace:

    1. Asbestos General Standard—Specification of permissible exposure limits, engineering controls, worker training, labeling, respiratory protection, and disposal of asbestos waste (29 CFR §1910.1001) as well as the California Code of Regulations (CCR) Title 8.

    2. Asbestos Construction Standard—Covers construction work involving asbestos, including work practices during demolition and renovation, worker training, disposal of asbestos waste, and specification of permissible exposure limits (29 CFR §1926.1101)

Additionally, California Occupational Health and Safety Administration's (Cal-OSHA's) lead in construction standard (8 CCR I532.1) requires a contractor whose work involves disturbing lead-containing materials to develop and implement a lead compliance plan, conduct employee exposure assessment to determine appropriate protective measures, including medical surveillance and personal hygiene facilities, and to provide employee training on the hazards of lead-related work.

The DTSC has adopted regulations (SB 20 Electronic Waste Recycling Act) for the handling of universal waste or E-Waste. This category is a subset under all hazardous wastes (CCR Title 26). Universal wastes encompass a variety of electronic devices (including fluorescent lamps, light ballasts, mercury thermostats, cathode ray tubes, batteries, etc.) that usually contain mercury, lead, cadmium, chromium and copper. These materials are considered toxic and are banned from landfill disposal. These materials must be collected and recycled prior to building renovation.

Bay Area Air Quality Management District (BAAQMD) Regulation 11 (Hazardous Pollutants), Rule 2 (Asbestos Demolition, Renovation and Manufacturing) was promulgated to control emissions of asbestos to the atmosphere during demolition and/or renovation. The rule requires that for every demolition or renovation involving the removal of 100 square feet/lineal feet or greater of Regulated Asbestos Containing Material (RACM), a notification must be made to the BAAQMD at least 10 working days prior to commencement of demolition/renovation. The District provides a form to use for notification of the two types of jobs. Information obtained from the notification form is stored and a job number (J#) is assigned to each demolition or renovation job that is notified. The J# is proof that the notification requirements of District Regulation 11-2 have been met. This information then allows BAAQMD staff to conduct an inspection to determine compliance with all other requirements of Regulation 11-2.

Lead-impacted soil from the drip line of the Shipwright's Cottage will be conducted by contractors operating in accordance to the U.S. Department of Labor OSHA Hazardous Waste Operations and Emergency Response Standard (HAZWOPER), 29 CFR §1910.120. The requirements of 29 CFR §1910.120 apply to clean-up operations at sites recognized by federal, state, local, or other governmental body as uncontrolled hazardous waste sites.

The National Historic Preservation Act, Code of Federal Regulations 36 (36 CFR) pertains to cultural resources and historic sites. A cultural resources study and archeological report have not been prepared for the Site. The proposed abatement and cleanup activities will comply with the National Historic Preservation Act and will be undertaken in a manner such that any cultural resources or historic structures will not be degraded.

Other laws and regulations applicable to this cleanup may include the Federal Small Business Liability Relief and Brownfields Revitalization Act, the Federal Davis-Bacon Act, and local city and county laws regarding procurement of contractors to conduct the abatement and cleanup activities. In addition, excavation and grading permits, if required, and underground service alert notifications will be obtained prior to the work commencing.

3. EVALUATION OF BROWNFIELD CLEANUP ALTERNATIVES

The following section discusses the proposed cleanup alternatives and provides an evaluation to determine the preferred alternative.

3.1. Cleanup Action Objectives

The objective of the Shipwright's Cottage Brownfields Cleanup Project is to eliminate the potential exposure to asbestos, lead, mold, and other miscellaneous hazardous substances (universal wastes) for individuals entering and working around the building, and to facilitate the renovation of the building, as it is planned to be an integral part of the larger site redevelopment of the 900 Innes Avenue property. The following sections describe the three alternatives considered in terms of their effectiveness, feasibility of implementation, and costs with regard to achieving the project objectives.

3.2. Identification and Evaluation of Cleanup Alternatives

Three potentially feasible cleanup alternatives were identified based on URS' previous experience with similar sites. These alternatives include:

1. No Action.

2. Removal of High Risk Asbestos/Lead-Based Paint/Mold/Universal Waste/Operation and Maintenance of Remaining Materials/Excavation and Disposal of Lead-Impacted Soil From the Drip Line of the Shipwright's Cottage.

3. Removal of all Asbestos/Lead-Based Paint/Universal Waste and Excavation and Disposal of Lead-Impacted Soil from the Drip Line of the Shipwright's Cottage.

Alternative 1: No-Action

A no-action alternative would leave the Shipwright's Cottage building in its present condition, making it unusable for use. The only advantages to no action are those related to immediate avoidance of expenses that would be incurred by taking action. However, in the long term, expenses associated with no action may exceed those related to taking action at the present time due to the continued deterioration of the condition of the building, maintaining security (fencing, boarding of windows and doors, and signage) of the building to avoid trespassing, and potential exposures to and liability associated with unauthorized entrants.

Alternative 2: Removal of High Risk Asbestos/Lead-Based Paint/Universal Waste/Mold/ Operation and Maintenance of Remaining Materials/Excavation and Disposal of Lead-Impacted Soil From the Drip Line of the Shipwright's Cottage

This alternative would address deteriorated and friable asbestos-containing materials and deteriorated lead-based paint in the interior and exterior of the building including asbestos ceiling tiles, asbestos floor tiles and mastic, lead-based paint chips, and pealing lead-based paint. This alternative will also remove readily visible mold from interior building surfaces and miscellaneous universal waste contained in the building as well as excavation and disposal of lead-impacted soil from the drip line of the Shipwright's Cottage.

Alternative 3: Removal of all Asbestos/Lead-Based Paint/Universal Waste and Excavation and Disposal of Lead-Impacted Soil From the Drip Line of the Shipwright's Cottage.

This alternative would address all asbestos-containing materials and lead-based paint in the interior and exterior of the building including asbestos ceiling tiles, asbestos floor tiles and mastic, lead-based paint chips, pealing lead-based paint, and other identified lead-based paint on interior and exterior surfaces of the building. This alternative will also remove mold from all interior surfaces of the structure and miscellaneous universal waste contained in the building as well as excavation and disposal of lead-impacted soil from the drip line of the Shipwright's Cottage.

3.2.1. Alternative 1 Analysis – No Action

Effectiveness: The effectiveness of the No-Action alternative in achieving project goals would be negligible. The continued presence of asbestos containing building materials, lead-based paint, and universal waste(s) in the structure, as would be the case under the no-action alternative, would pose a potential long-term health risk to anyone entering the building. Additionally, lead-impacted soil that may be present in the drip line of the structure would also remain, posing potential health risks. The no-action alternative would be highly non-effective in achieving the goals of reduction of health risks for facilitating the renovation of the structure as part of the overall 900 Innes site redevelopment.

Implementation: Implementation of the No-Action alternative would be fairly straightforward. The building would be left in the current unused state in which it currently exists. The identified ACM, lead-based paint, and universal waste(s) would still pose a hazard to anyone entering the building. The building would not be demolished and the excavation and disposal of lead-impacted material from the drip line of the building would not occur. Controls would be necessary to manage exposure to those entering the building.

Under the No-action Alternative, the building will remain unused for an extended period of time and will likely continue to deteriorate increasing the risk to those entering the building. The

building, if it were to remain in this state, would detract from the redevelopment of the remainder of the 900 Innes Avenue site.

Cost: Direct costs associated with the No-Action Alternative would consist of providing building security and upkeep of measures to mitigate trespassers. Indirect costs could include potential liability associated with unauthorized entrants into the buildings. No Action alternative costs are estimated at $5,000 annually.

3.2.2. Alternative 2 Analysis – Abatement of High Risk Asbestos/Lead-Based Paint/ Universal Waste/Mold/Operation and Maintenance of Remaining Materials/ Excavation and Disposal of Lead-Impacted Soil from the Drip Line of the Shipwright's Cottage

Effectiveness: Alternative 2 would be effective at removing high risk asbestos containing building materials, lead-based paint, universal waste(s), and mold thus reducing potential hazards to individuals entering or working inside the building. However, Alternative 2 would be limited in that all asbestos containing building materials, lead-based paint, universal waste(s), and mold would not be removed from the building, and some degree of operations and maintenance would be required in order to ensure remaining materials do not become high risk from further degradation of the building or from any work being conducted inside the building that may disturb these materials. Lead-impacted soil would be removed from the drip line of the building to mitigate potential risks associated with exposure to lead in soil around the outside of the building.

Implementation: Implementation of Alternative 2 would be performed by certified asbestos, lead, and mold abatement contractors. All friable asbestos, asbestos tile debris, floor tile and mastic, and ceiling tile would be removed. In addition, interior and exterior lead-based paint chips and loose lead-based paint would be removed. An Operations and Maintenance (O&M) Plan would be prepared for the remaining asbestos containing material and lead-based paint left in place on/in the structure. Miscellaneous universal waste(s), mainly materials that are considered universal waste that would not be reused in the building renovation, would also be removed by the abatement contractor performing asbestos and lead-based paint removal. Removal of readily visible and accessible mold on the outside of walls and other interior surfaces would also be conducted by certified abatement contractors. In addition to the abatement of hazardous building materials and mold, lead-impacted soil from the drip line of the building would also be excavated and disposed of offsite. Implementation of these activities is considered routine for properly trained and licensed contractors.

Cost: Costs associated with Alternative 2 would consist of costs to abate high-risk asbestos containing building materials, lead-based paint and mold, and removal and disposal of miscellaneous universal waste(s). Alternative 2 would also involve the development of an O&M Plan for asbestos, lead-based paint, and any universal waste(s) left inplace in the structure. Additionally, the cost for Alternative 2 would include the excavation and disposal of lead-

impacted soil from the drip line of the Shipwright's Cottage. The estimated cost for Alternative 2 is $85,000 plus $1,500 annually for O&M inspections and reporting.

3.2.3. Alternative 3 Analysis – Abatement of All Asbestos/Lead-Based Paint/Universal Waste/Mold and Excavation and Disposal of Lead-Impacted Soil from the Drip Line of the Shipwright's Cottage

Effectiveness: Alternative 3 would be highly effective in achieving the cleanup action objective of eliminating the potential for exposure to asbestos, lead, mold, and other miscellaneous hazardous substances for individuals entering the building, and to facilitate the renovation of the building.

Implementation: Implementation of Alternative 3 would be performed by certified asbestos, lead, and mold abatement contractors. In addition to the asbestos-containing materials and lead-based paint to be removed in Alternative 2, removal of all identified asbestos containing material, including any non-friable material (e.g., transite pipes or sheeting, roofing penetration tar, caulking, etc.), and removal of all lead-based paint including paint in good condition would be conducted. Under Alternative 3 all identified mold, including mold that may not be readily accessible behind walls or other enclosed areas, will be abated. Additionally, all identified universal wastes will be removed and disposed, and lead-impacted soil in the drip line of the structure will be excavated and disposed of offsite. Implementation of these activities is considered routine for properly trained and licensed contractors.

Cost: Costs associated with Alternative 3 would consist of abatement costs for asbestos containing building materials, lead-based paint and mold, and removal and disposal of universal waste(s). Additionally, the cost for Alternative 3 would include the excavation and disposal of lead-impacted soil from the drip line of the Shipwright's Cottage. The estimated cost for Alternative 3 is $**114,320.**

3.3. Comparison of Alternatives

Alternative 1 – No Action: This alternative would leave the hazardous building materials in place and manage access to the sight by potential trespassers. This alternative does not meet the project goal of the planned renovation and reuse of the Shipwright's Cottage as part of the overall redevelopment of the 900 Innes Avenue site as a part of the Blue Greenway project. This alternative is not given any additional consideration under this analysis as it will not allow the overall project to be completed.

Alternative 2 – Abatement of High Risk Asbestos/Lead-Based Paint/Universal Waste/Mold/ Operation and Maintenance of Remaining Materials/Excavation and Disposal of Lead-Impacted Soil from the Drip Line of the Shipwright's Cottage: This alternative would meet the project objectives. However, it would only remove the high-risk hazardous building materials and would leave some asbestos and lead-based paint in place to be managed under an asbestos and

lead-based paint O&M plan. Additionally, this alternative would remove the visible mold from the structure and the lead-impacted soil from the drip line of the Shipwright's Cottage. This alternative was not selected because it leaves some asbestos and lead-based paint within the structure, which would inhibit the proposed renovation and would require annual inspections of the components containing asbestos and lead-based paint until such time as these are removed or abated from the structure.

Alternative 3 – Abatement of All Asbestos/Lead-Based-Paint/Universal Waste/Mold and Excavation and Disposal of Lead-Impacted Soil from the Drip Line of the Shipwright's Cottage: This alternative would meet the project objective and would not have any ongoing O&M requirements associated with management of asbestos and lead-based paint left in the structure as it would remove all of the asbestos and lead-based paint from the Shipwright's Cottage. Additionally, this alternative would remove the mold from the structure and the lead-impacted soil from the drip line of the building. This alternative would allow for the uninhibited renovation of the structure as all of the hazardous building materials would be abated. No annual inspections of components containing asbestos and lead-based paint would be required as these will have been abated from the structure.

Table 1 – Cost Comparison for Cleanup Alternatives

	Cleanup Alternative 1	**Cleanup Alternative 2**	**Cleanup Alternative 3**
Description	No Action	Abatement of High Risk Asbestos/Lead-Based Paint/Universal Waste/ Mold/Operation and Maintenance of Remaining Materials/ Excavation and Disposal of Lead-Impacted Soil from the Drip Line of the Shipwright's Cottage	Abatement of All Asbestos/Lead-Based Paint/Universal Waste/ Mold/Operation and Maintenance of Remaining Materials/ Excavation and Disposal of Lead-Impacted Soil from the Drip Line of the Shipwright's Cottage
Cost	$5,000 Annually	$85,000 plus $1,500 annually for O&M Inspection and Reporting.	$114,320

Selected Alternative

Alternative 3 – Abatement of All Asbestos/Lead-Based Paint/Universal Waste/Mold/Operation and Maintenance of Remaining Materials/Excavation and Disposal of Lead-Impacted Soil from the Drip Line of the Shipwright's Cottage: This alternative was selected because it allows the

planned renovation and redevelopment of the Shipwright's Cottage to take place uninhibited by the presence of remaining asbestos and lead-based paint and without continuing O&M obligations.

3.4. Consideration of Climate Impacts

Data demonstrates that the climate is changing at an increasingly rapid rate. The U.S. EPA must adapt to climate change if it is to continue fulfilling its statutory, regulatory, and programmatic requirements. The U.S. EPA is therefore planning for future changes in the climate to ensure it continues to fulfill its mission of protecting the human health and the environment. As part of the EPA's Climate Change Adaptation Plan in Region 9's Implementation Plan (EPA, 2013), the ABCA must take into consideration the effects of potential climate impacts upon the effectiveness of the proposed cleanup alternatives.

Potential climate impacts for the San Francisco Bay Area will likely include lack of rainfall, future droughts, and temperature increase. Along with temperature increases comes the likelihood of sea level rise which is anticipated to have the most impact along the bay margin of the San Francisco Bay. The effects of these changes are not likely to have any impact on the evaluated alternatives as the elevation of the Shipwright's Cottage is not likely to be directly affected by sea-level rise effects in the San Francisco Bay.

4. LIMITATIONS AND ADDITIONAL ASSESSMENT NEEDS

URS' services were performed in a manner consistent with that level of care and skill ordinarily exercised by members of the same profession currently practicing in the same locality under similar conditions. No expressed or implied representation or warranty is included or intended in our reports, except that our services were performed, within the limits prescribed by our client, with the customary thoroughness and competence of our profession.

Recommendations provided are not necessarily inclusive of all possible conditions. No other warranty, expressed or implied, is made regarding the professional opinions presented in this report. This document is intended to be used in its entirety. No portion of this document, by itself, is designed to completely represent any aspect of the project described herein. URS should be contacted if the reader requires any additional information or has questions regarding the content, interpretations presented, or completeness of this document.

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A hazardous building materials survey and lead in building drip line soil investigation will be required in order to prepare a Hazardous Building Materials Abatement and Clearance Monitoring Plan and a contaminated soil Removal Action Work Plan.

5. REFERENCES

Environmental Protection Agency (EPA). (2013, November 19). Climate Change. http://www.epa.gov/climatechange/impacts-adaptation/fed-programs/EPA-impl-plans.html.

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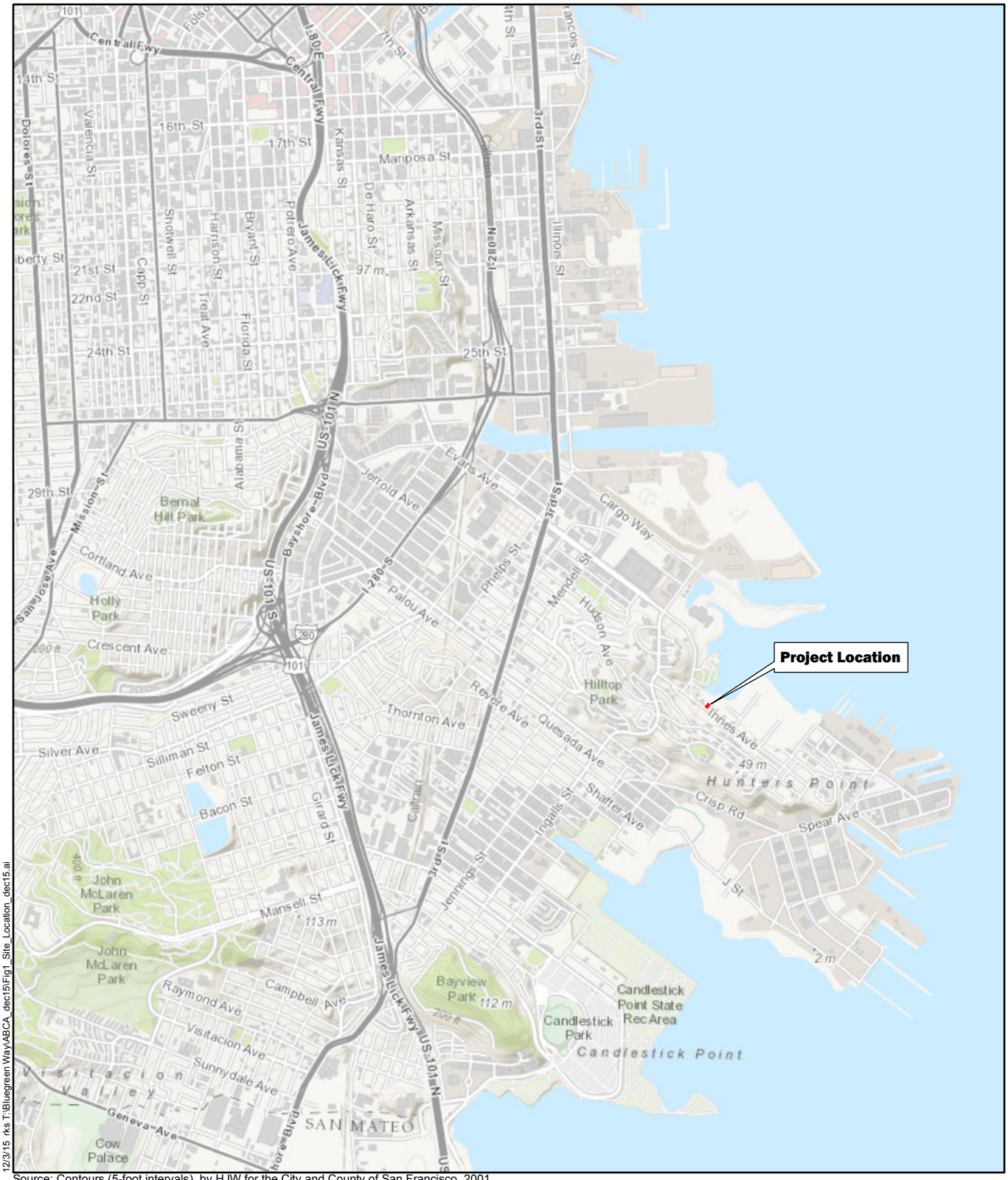
Weston Solutions, Inc., 2013. Phase I/II Investigation, Targeted Brownfields Assessment, Final Report, 900 Innes Avenue Site, San Francisco, San Francisco County, California (November 2013).

FIGURES



12/3/15 rks T:\Bluegreen Way\ABCA_dec15\Fig1_Site_Location_dec15.ai

Source: Contours (5-foot intervals) by HJW for the City and County of San Francisco, 2001.

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900 INNES AVENUE
SITE LOCATION

Assessment of Brownfield Cleanup Alternatives
Shipwrights Cottage
December 2015 — 900 Innes Avenue
60407957 — San Francisco, California

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FIGURE 1

12/3/15 rks T:\Bluegreen Way\ABCA_dec15\Fig2_site_plan.indd

Source: Google Earth Pro., 2015.

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SITE PLAN

Assessment of Brownfield Cleanup Alternatives
Shipwrights Cottage
900 Innes Avenue
San Francisco, California

December 2015
60407957

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FIGURE 2