



# **DRAFT Supplemental Remedial Investigation & Feasibility Study**

## **Als Auto Bothell Wexler Property (aka Former Wexler Property Site)**

**A portion of Parcel 945720-0050**

**Bothell, Washington**

**FSID # 63618231**

**CSID # 6418**

Prepared For:

**City of Bothell  
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## **1.0 INTRODUCTION**

This Draft Supplemental Remedial Investigation / Feasibility Study (RI/FS) report was prepared by Kane Environmental, Inc., (Kane Environmental) on behalf of the City of Bothell (the City) for the area of soil and groundwater contamination associated with releases of petroleum at the contaminated site known as the “Als Auto Bothell Wexler Property” located in Bothell, Washington (herein referred to as “Former Wexler Property Site” or Wexler). A vicinity map and the Wexler location are shown on Figure 1. This report was prepared in accordance with Ecology guidance, including the Remedial Investigation Checklist (Ecology Publication No. 16-09-006, Ecology 2016a) and Feasibility Study Checklist (Ecology Publication No. 16-09-007, Ecology 2016b). An initial site characterization was completed by Floyd Snider in August to September of 2010 and completed by Kane Environmental in March 2018 to October 2018. Wexler characterization activities included sampling soil and groundwater from temporary soil borings and groundwater monitoring wells. It should be noted that Wexler is within the Bothell Service Center Simon & Son (BSCSS) Site, defined by the extent of petroleum and BSCSS halogenated volatile organic compounds (HVOC) contaminated groundwater plume, will be incorporated into the BSCSS Consent Decree cleanup.

### **1.1 Purpose**

The objective of this Supplemental RI/FS report is to meet the requirements of the Model Toxics Control Act (MTCA) Cleanup Regulation (Washington Administrative Code [WAC] 173-340) to characterize Wexler and evaluate proposed remedial actions to address the petroleum contamination associated with this Site and based on that evaluation, propose the most appropriate remedial alternative to clean up this petroleum contamination. It should be noted that site characterization for this RI/FS at Wexler has established commingling between the petroleum contamination in soil and groundwater associated with Wexler and a groundwater contamination plume associated with the BSCSS cleanup site, where HVOC contamination has been documented in soil and groundwater. The Former Wexler Property Site petroleum contamination is located entirely within the extent of the BSCSS site HVOC plume.

The purpose of this Supplemental Remedial Investigation (RI) is to investigate and delineate the nature and extent of petroleum impacts to soil and/or groundwater at the Former Wexler Property Site. An additional objective of this RI is to document the existence and establish the extent of commingling of the petroleum contamination in soil and groundwater at the Former Wexler Property Site with HVOC contamination in soil and groundwater that is characterized and undergoing remediation as part of the BSCSS site.

The RI is designed to characterize site conditions, including site physical characteristics, nature and extent of contaminants of concern, media impacted, source areas, contaminant migration pathways, rates, and directions, and potential receptors and develop a site conceptual model. This was accomplished using existing data as well as conducting site-specific investigations. The RI findings were then used to complete

a draft feasibility study (FS), to evaluate remedial alternatives for the Site and select a cleanup action as described in WAC 173-340-360 through 173-340-390.

The primary historical environmental concerns at the Former Wexler Property Site are associated with gasoline released to soil and groundwater from a former gasoline service station, and dry cleaning solvents released to soil and groundwater from the western adjacent BSCSS property, and migration of contaminated groundwater from this property onto the Former Wexler Property Site.

Specific objectives of the Supplemental RI/FS include:

- Determine the lateral and vertical extent of petroleum and HVOCs impacts to soil and groundwater at the Former Wexler Property Site;
- Document the existence and confirm the extent of commingling of petroleum and HVOCs contamination in soil and/or groundwater
- Investigate site geology, hydrogeology, and groundwater flow/transport characteristics;
- Develop a conceptual site model (exposure pathways and receptors);
- Establish cleanup standards and remedial action objectives;
- Identify and screen feasible remedial technologies;
- Assemble and screen remediation alternatives;
- Perform a detailed evaluation of the screened remediation alternatives;
- Propose and describe a preferred cleanup alternative;
- Select a preferred cleanup alternative.

## **1.2 Authorization / Scope of Work**

Kane Environmental work for this project was authorized under an On-Call Hazardous Materials Services Consultant Agreement with the City of Bothell dated June 2016. Kane Environmental's scope of work for this portion of the project included:

- Perform environmental explorations and develop remedial designs for cleanup of the Site;
- Prepare a RI/FS report

### **1.3 Regulatory Framework**

The Former Wexler Property Site is presently listed in Ecology's database as "Als Auto Bothell Wexler Property", with alternate names "ALS AUTO" and "Schuck's Auto Supply". The Former Wexler Property Site is assigned Facility Site ID number 63618231 and Cleanup Site ID number 6418 for "benzene" and "non-halogenated solvent" contamination in soil and "halogenated organics" and "unspecified petroleum products" in groundwater (Ecology, 2018). A more detailed discussion of the contaminants of concern (COCs) for the Site as determined in this RI is provided in Section 3.0.

The BSCSS site includes soil and groundwater contaminated with HVOCs, including tetrachloroethene (PCE) and its breakdown products. PCE is a halogenated solvent that was released at the Simon and Sons dry cleaner operation in the Bothell Service Center building formerly located west of the Wexler former property boundary (Kane Environmental, 2017). The BSCSS site is currently undergoing remediation pursuant to a Consent Decree between the City of Bothell and Ecology. All halogenated solvent contamination in soil and groundwater at the Former Wexler Property Site will be addressed through the BSCSS cleanup action.

Given its collocation and commingling with the BSCSS site, it is the intent of the City of Bothell to integrate the Former Wexler Property Site and the preferred remedial approach for the petroleum contamination identified on this Site into an amended version of the Consent Decree for the BSCSS site.

### **1.4 Site Background**

Per MTCA, a "Site" is "any site or area where a hazardous substance...has been deposited, stored, disposed of, or placed, or otherwise come to be located." The RI provides information about the location of petroleum hydrocarbons COCs within the Former Wexler Property Site. Figure 2 shows the approximate extent of Former Wexler Property Site COCs in soil and groundwater at concentrations greater than Washington's Model Toxics Control Act (MTCA) Method A Cleanup Levels. The Former Wexler Property Site contaminants' extent in relation to the BSCSS site is shown in Figure 3.

#### **1.4.1 Site Information**

The soil and groundwater contamination associated with the former Wexler property is referred to in this report as the "Former Wexler Property Site". The boundary of the former Wexler Property occupies the King County Assessor's portion of parcel 945720-0050, presently owned by the City of Bothell. See Figure 3 for an area Site Plan, showing the Site boundaries with respect to the surrounding properties. The original Wexler property was previously owned by Wexler Bothell LLC. It should be noted that the original parcel boundaries were changed in 2010 as part of the Crossroads realignment on State Route 522. Previous reports describe the original Wexler property parcel lines differently than current conditions depicted in Figure 3.

The project consultant for the Site is Mr. John Kane, Principal/President, Kane Environmental Inc. (P.O. Box 31936, Seattle, Washington 98103; phone 206-691-0476, email [jkane@kane-environmental.com](mailto:jkane@kane-environmental.com)). The representative for the City of Bothell (the property owner) is Ms. Nduta Mbuthia, Senior Capital Project Engineer, City of Bothell (18415 101st Avenue NE, Bothell, Washington 98011, phone 425-806-6829, email [nduta.mbuthia@bothellwa.gov](mailto:nduta.mbuthia@bothellwa.gov)).

The current property address where the Former Wexler Property Site is situated is identified by a portion of parcel 945720-0050. The property is located at 47.760 degrees north, -122.209 degrees west in Section 7 of Township 26 north, Range 5 east. The property is presently vacant of structures. The property is currently occupied by areas of asphalt and gravel paving along with an area of concrete sidewalk and small unpaved planter areas adjacent to former State Route 522. The property is currently used as an equipment and material staging area by a construction contractor that is building a multi-story residential structure on the north adjoining property. The planned future use of the adjacent parcel 237420-0091 to the north is to be converted to an extension of Main Street, which presently terminates at its intersection of Bothell Way Northeast to the east of the property. The portion of parcel 945720-0050 included in the property, which is the area of the property containing the Former Wexler Property Site, is planned for sale to and redevelopment by a private entity as part of the BSCSS site.

Further information regarding the Former Wexler Property Site location and features is provided in Sections 2.1.3 and 2.1.4 below.

#### **1.4.2 Site History**

The original Wexler property was reportedly vacant prior to 1947 (Floyd Snider, 2010a). Structures previously located at the property include a one (1)-story service station building with apparent canopy, constructed in 1947 and demolished at an unknown date between 1970 and 1980 (Floyd & Snider, 2010a) and a commercial building constructed in the mid-1970s and demolished in 2014 (Floyd & Snider, 2010a; HWA, 2014). Another building was reportedly previously located within the footprint of this commercial building from the 1950s to the 1970s (Floyd Snider, 2010a). An espresso stand was also located near the northwest corner of the original property from at least 2006 to 2014. See Figure 4 for locations of previously existing structures at the property.

The original property was owned by Eldon or A.A. Wexler from at least 1974 to 2014. During that period of time, the commercial building on the property was operated as an auto parts retail store as an AI's Auto Supply, Schuck's Auto Parts, or O'Reilly Auto Parts store. Prior to 1974, the property containing the service station was owned from an unknown date to 1974 by Carlton and Patricia Ericksen (Tuohy and Minor, 1989).

Releases of hazardous substances at the original Wexler property have occurred in two areas: in the vicinity of three (3) gasoline USTs located on the southwestern portion of the property (the current Site location), and in the vicinity of in-ground hydraulic lifts located on the eastern portion of the original property (now identified as separate tax parcels 2374200091 and 2374200090).

Three (3) USTs were installed at the property in 1947 in association with the service station that was also constructed during that year, and were reportedly used for storage of gasoline until at least 1970, when operation of the service station was ended (Floyd Snider, 2010a). In 1989, the USTs were removed from the Site and a release of gasoline was discovered to the soil and groundwater surrounding these USTs (AGI, 1990). A report that documented the removal of this UST system identified leaking distribution lines and spills of fuel during refilling of the USTs as probable sources of releases (AGI, 1990). Based on analytical results for soil and groundwater samples collected from the vicinity of the former location of these USTs, the released product has been identified as gasoline (diesel and heavy oil hydrocarbons are largely absent from these samples, see Table 1). A limited excavation of contaminated soil was conducted at the time of UST removal (see Figure 4 for approximate extent of this excavation) and a groundwater treatment system was installed, however, contaminated soil and groundwater presently remain in this area. Subsequent environmental reports describing interim remedial actions and characterization of the Site are provided in Section 1.5 below.

The areas adjoining the Former Wexler Property Site are largely vacant. Vacant properties located to the east, south, and west of the Site are owned by the City. A private, multi-unit residential building is in the process of construction on the north adjoining property (known as Boulevard Place). Former uses and features of the original Wexler property are illustrated in Figure 4.

### **1.5 Previous Site Assessments and Remedial Activities**

This section contains summaries of previous environmental investigations conducted at the original Wexler property and Former Wexler Property Site. Tables 1 and 2 respectively list relevant soil and groundwater analytical data collected to date by Kane Environmental and Floyd Snider.

#### **Tank Removal and Hydrocarbon Contamination Assessment, Applied Geotechnology, Inc. (AGI), January 25, 1990.**

On October 30, 1989, AGI oversaw the removal of three (3) 2,000-gallon gasoline USTs from the Site by Davis Industries, an excavation contractor retained by the original property owner at the time, A. A. Wexler. Petroleum contaminated soil was observed surrounding the USTs during removal. The removed USTs were composed of steel construction and observed to be corroded, but no holes were observed in the tank construction. AGI concluded that releases most likely occurred from fuel distribution lines/dispensers or from spills that occurred during UST filling. Approximately 250 cubic yards of petroleum contaminated soil

were removed from the UST excavation and surrounding test pits. The maximum depth of the UST excavation was eleven (11) feet below ground surface (bgs). Groundwater displaying a petroleum sheen was encountered in the excavation at approximately 7.5 feet bgs. No groundwater samples were submitted for laboratory analysis.

Soil samples were collected at the sidewalls and bottom of the UST excavation and from surrounding test pits and submitted for total petroleum hydrocarbons (TPH) analysis by EPA Method 8015 and BTEX by EPA Method 602/8020. Soil containing all BTEX compounds at concentrations exceeding current MTCA Method A Cleanup Levels was documented in the eastern sidewall of the excavation at a depth of approximately 10.5 feet bgs. Soils containing one (1) or more BTEX compounds at concentrations exceeding current MTCA Method A Cleanup Levels were documented in the northern excavation sidewall and in a test pit located approximately ten (10) feet east of the eastern margin of the excavation at depths of 7.5 to 8.5 feet bgs. The maximum TPH concentration determined in all samples was 51 ppm, however, TPH values are not comparable to MTCA Method A Cleanup Levels.

Following completion of excavation activities, AGI directed Davis Industries in the installation of a groundwater treatment system. This system consisted of an approximately seventy (70) foot long groundwater recovery trench located approximately ten (10) feet south of the remedial excavation that channeled groundwater to a sixteen (16)-inch diameter recovery sump. Water pumped from this sump flowed through an activated carbon treatment system, and was then pumped to two (2) re-introduction or re-injection points located in the northwest corner of the excavation and to the east of the excavation. No information regarding the operation of this system was provided in AGI's report. Features related to this groundwater treatment system are located within the area of a proposed remedial excavation (see Section 8 below). This excavation is identified as the preferred remedial alternative for addressing petroleum contamination on the Former Wexler Property Site, therefore, features related to this system will be removed during completion of this excavation.

**Groundwater Sampling Report, HWA Geosciences, Inc. (HWA), January 6, 2006.**

From December 2004 to November 2005, HWA collected groundwater samples from the recovery sump (RS-1) and reinjection points (RP-1, located in the northwest corner of the UST excavation, and RP-2, located east of the UST excavation) installed by AGI and Davis Industries adjacent to the UST excavation on the original Wexler property in 1989. HWA reported that, after installation of the system, approximately 800 gallons of groundwater was extracted, treated, and reinjected by the system over an unspecified time period. Groundwater samples collected on December 16, 2004; February 4, 2005; March 13, 2005; and September 19, 2005 were analyzed for gasoline by method NWTPH-Gx and BTEX by method EPA 8021. Of these samples, three (3) of four (4) samples collected from RP-1 were reported to gasoline at concentrations exceeding the applicable MTCA Method A Groundwater Cleanup Level (1,000 micrograms

per liter [ug/L, or ppb]), and one (1) of three (3) samples collected from RP-2 contained benzene at a concentration exceeding the applicable MTCA Method A Groundwater Cleanup Level (5 ppb).

The samples collected from these locations on November 23, 2018 were analyzed for gasoline by method NWTPH-Gx, diesel and heavy oil by method NWTPH-Dx, and for volatile organic compounds (VOCs) by EPA method 8260. These analyses revealed elevated concentrations of PCE and breakdown products trichloroethene (TCE) and cis-1,2-dichloroethene (cis-DCE) the sample collected from RP-1, all of which exceed their respective MTCA Method A (or, for cis-DCE, Method B [Non-Cancer]) Groundwater Cleanup Levels. Gasoline was not detected in this sample, therefore, HWA argued that exceedances of gasoline documented in samples previously collected from RP-1 were a result of “chlorinated ethenes” (PCE and breakdown products) in these samples, rather than the presence of gasoline. No detections of any petroleum hydrocarbons, BTEX, 1,2-dibromoethane (EDB), 1,2-dichloroethane (EDC), or naphthalene were reported in any of the samples collected during this round of sampling.

**Phase I Environmental Site Assessment (ESA), Floyd Snider, June 30, 2010 (2010a).**

Floyd Snider performed a Phase I ESA of former King County Assessor's parcel 237420-0090 for the City of Bothell. The original Wexler property and Former Wexler Property Site fall within the former extents of this parcel. At the time of the Phase I ESA, this parcel was owned by Wexler Bothell LLC. At the time of this ESA, the original property was occupied by a one (1)-story building operated as a Schuck's Auto Supply and a small drive-thru espresso stand. The description of the history of the original property as documented by this ESA is summarized above in Section 1.4. As part of this ESA, Floyd Snider reviewed previous environmental reports for the Site, including the UST removal and groundwater sampling reports summarized above. Floyd Snider concluded that two recognized environmental conditions were applicable for the original Wexler property: the presence of PCE migrating from the west adjoining property onto the Site, and the presence of “residual levels of gasoline and benzene” in site groundwater greater than MTCA Method A Cleanup Levels.

**Phase II Environmental Site Assessment, Floyd Snider, September 10, 2010 (2010b).**

Floyd Snider conducted a subsurface investigation at the original Wexler property in behalf of the City of Bothell in August 2010. As part of this site assessment, Floyd Snider sampled soil and/or groundwater from a total of sixteen (16) direct push temporary soil borings advanced to depths of fifteen (15) to forty-five (45) feet bgs. Most of these borings were located immediately adjacent to the former UST excavation, however, several borings were also located in the central portion of the property, its northwest corner, and in areas located to the north of the property. Soil and groundwater samples were analyzed for gasoline and VOCs, and in select locations, diesel and heavy oil. Locations of these borings are shown in Figure 5. All soil



results from this investigation (including concentrations of PCE and breakdown products) are included in Table 1, and all groundwater results from this investigation are included in Table 2.

Groundwater was encountered at depths of four (4) to seven (7) feet bgs in temporary soil borings. Gasoline was reported at a concentration exceeding the applicable MTCA Method A Soil Cleanup Level (5,900 milligrams per kilogram [mg/kg, or ppm], Method A Soil Cleanup Level is 100 ppm) in a soil sample collected from boring GP-12 at a depth of approximately six (6) feet bgs in a location near the southeast corner of the former UST excavation. Exceedances of MTCA Method A Soil Cleanup Levels were also documented in this sample for ethylbenzene (9 ppm in the sample, Method A Soil Cleanup Level is 6 ppm), xylenes (51.8 ppm in sample, Method A Soil Cleanup Level is 9 ppm), and naphthalene (6.7 ppm, Method A Soil Cleanup Level is 5 ppm). No other exceedances of MTCA Method A Soil Cleanup Levels were documented for petroleum contaminants or other related VOCs (BTEX, EDC, EDB, naphthalene, etc.) in other soil samples collected on the Site during this investigation. Groundwater samples were collected from select borings near the former UST excavation. No exceedances of MTCA Method A Groundwater Cleanup Levels were documented for petroleum contaminants or related VOCs; the highest concentration of gasoline in groundwater (940 ppb) was reported in sample collected from ten (10) to fifteen (15) feet bgs in GP-12. It should be noted that in most borings advanced as part of this investigation, the top of the temporary screened interval was typically two (2) to three (3) feet below the depth at which groundwater was reported. This sampling practice may have blocked water with elevated concentrations of hydrocarbons located near the top of the saturated zone from entering the groundwater samples. Overall, the results of this investigation suggested that the extent of soil and groundwater contamination with petroleum and related VOCs above MTCA Method A Cleanup Levels was limited the area immediately southeast of the former UST excavation; however, no borings were advanced within the former excavation area and no groundwater monitoring wells were installed or sampled.

PCE was reported at concentrations exceeding the MTCA Method A Soil Cleanup Level in two (2) locations, both of which were near the northern edge of the former UST excavation (GP-9 and GP-10). No other exceedances of MTCA Method A Soil Cleanup Levels were reported for PCE and breakdown products. PCE and breakdown products were reported in groundwater samples collected from borings throughout the western portion of the property at concentrations exceeding MTCA Method A Groundwater Cleanup Levels. Concentrations of PCE and breakdown products were generally highest in groundwater samples collected between ten (10) and fifteen (15) feet bgs, but exceedances in groundwater were documented in samples collected at all explored depths.

**Draft Remedial Investigation and Feasibility Study, Bothell Service Center Site, October 4, 2017.**

Kane Environmental was retained by the City of Bothell to characterize HVOCs contamination in soil and groundwater related to releases of dry cleaning solvent that occurred on the former Bothell Service Center property, west adjacent to the Wexler . In this investigation, Kane Environmental determined that contamination related to these sources extended to the east and south of the former Bothell Service Center property, onto the original Wexler property. Concentrations of PCE in exceedance of the MTCA Method A Cleanup Soil Level (0.05 ppm) were documented in soil on the western portion of the original Wexler property, at depths between 5 and 25 feet bgs. Soil contamination with PCE at depths of less than 5 feet bgs (the typical depth of the water table) was found to be limited. PCE was also documented in groundwater samples collected from monitoring wells screened between 5 and 25 feet bgs at concentrations in exceedance of the MTCA Method A Cleanup Level on this portion of the Wexler property, at concentrations between approximately 10 and 340 ppb.

Overall, the findings of this investigation regarding the extent of PCE and other HVOCs contamination in soil and groundwater on the original Wexler property are consistent with the findings of other investigations of HVOCs contamination in this area, including Floyd Snider (2010, see summary above) and Kane Environmental (2018, see summary below). HVOCs soil data collected from locations on the Wexler property during this investigation are included in Table 1, and the extents of HVOCs documented in soil and groundwater determined from HVOCs data collected during these investigations are shown relative to the petroleum contamination that defines the Former Wexler Property Site in Figures 9 and 12, respectively.

**Draft Supplemental Subsurface Investigation, Kane Environmental, July 19, 2018.**

Kane Environmental was retained by the City of Bothell to conduct a supplemental subsurface investigation of petroleum contamination at the newly re-parceled property. Kane Environmental's investigation had two goals relevant to the Former Wexler Property Site: to further characterize the extent of soil and groundwater contamination associated with the former gasoline USTs located on the western portion of the Property, and to gather additional information regarding the extent of halogenated VOCs contamination on the Property originating from the west adjoining BSCSS site. All soil results from this investigation (including concentrations of PCE and breakdown products) are included in Table 1, and all groundwater results from this investigation are included in Table 2.

In April 2018, Kane Environmental directed an environmental drilling subcontractor to utilize a vactor truck to remove soils at boring locations on the Former Wexler Property Site to five (5) feet bgs. Kane Environmental monitored vactor clearances and utilized a hand auger to collect unsaturated soil samples from vactor holes, as groundwater was encountered at four (4) to five (5) feet bgs in most locations. Following vactor clearance, Kane Environmental worked with an environmental drilling subcontractor to

temporary soil borings to at least fifteen (15) feet bgs and collect groundwater samples from these borings. In May 2018, Kane Environmental cleared monitoring well installation locations to five feet (5) bgs using a vactor truck, and collected shallow unsaturated soil samples from vactor holes using a hand auger. Following vactor clearance, Kane Environmental directed the environmental drilling contractor to install five (5) groundwater monitoring wells (S-MW-7 through S-MW-11).

Results obtained from shallow soil samples indicate the presence of petroleum contaminants at concentrations below MTCA Method A Soil Cleanup Levels in the area to the east of the gasoline UST excavation. Results obtained from groundwater samples collected from temporary soil borings and groundwater monitoring wells indicate shallow groundwater contamination with gasoline (TPH-G) at concentrations exceeding the MTCA Method A Groundwater Cleanup Level extends approximately 25-30 feet east-southeast of the eastern boundary of the former gasoline UST excavation, but does not extend beyond the Property boundary. BTEX and other petroleum-related VOCs were not detected at concentrations exceeding MTCA Method A Soil and Groundwater Cleanup Levels. In groundwater samples collected from temporary borings within the UST excavation (S-KSB-1:W and S-KSB-2:W), total lead was documented at concentrations exceeding the MTCA Method A Cleanup Level. However, these samples were reported to be turbid, and the concentrations of dissolved lead in field-filtered fractions of these samples were well below the MTCA Method A Cleanup Level, therefore, lead detections in these samples are attributed to the presence of fine soil and silt particles in the total metals fraction. Total lead was not reported at concentrations exceeding the MTCA Method A Cleanup Level in any other groundwater samples collected as part of this investigation.

Results obtained from groundwater samples collected from borings located adjacent to the former hydraulic lift excavation (S-KSB-7 and S-KSB-8) indicated that no hydraulic oil related contaminants previously documented in soil by HWA (HWA, 2014) in the hydraulic oil excavation on the eastern portion of the Property were present in groundwater. Groundwater samples collected from borings advanced in or near the former hydraulic lift excavation (S-KSB-7 and S-KSB-8) did not contain gasoline, diesel, heavy oil, or any non-halogenated VOCs at concentrations exceeding laboratory reporting limits, except at S-KSB-8, attributed to a highly turbid sample collected, which was resampled resulting in non-detectable concentrations of HVOCs. The groundwater sample collected from S-KSB-7 did not contain detectable concentrations of PCBs or carcinogenic PAHs. Low concentrations of two other PAHs, pyrene and benzo (g,h,i) perylene, were reported in this sample, at concentrations below the applicable MTCA Method B Cleanup Levels.

Results obtained from shallow soil samples collected from borings on the western portion of the Property indicate that PCE and breakdown products are present in shallow soil on the western portion of the Property, however, exceedances of MTCA Method A Cleanup Levels for PCE and breakdown products in soil were documented only to the northeast and north of the former UST excavation. TCE and/or cis-DCE

were present in groundwater at concentrations exceeding the applicable MTCA Method A or Method B Non-Cancer Cleanup Levels (respectively) in a small number of locations located on the western portion of the Property. These analytical results confirm that a co-mingled petroleum and HVOC contaminant plume is present in groundwater on the Former Wexler Property Site.

### **Summary of Previous Investigations**

In summary and prior to July 2018, the results of prior subsurface investigations conducted indicated the following:

- A release of an unknown quantity of gasoline occurred from one (1) or more USTs and/or underground product distribution lines at the Property between 1947, when the UST and product line system was installed, and 1989, when the last components of the system were removed. This UST system was associated with a gasoline service station that operated on the Property from 1947 to approximately 1970.
- Soil contaminated with gasoline, ethylbenzene, xylenes, and naphthalene at concentrations exceeding MTCA Method A Soil Cleanup Levels remains in place at a depth near the water table, immediately to the southeast of a UST removal excavation conducted on the Property in 1989. Soil containing gasoline and naphthalene below MTCA Method A Soil Cleanup Levels is present above the water table to the east and southeast of the excavation.
- Groundwater contaminated with gasoline at concentrations exceeding the MTCA Method A Groundwater Cleanup Level is present on the Property within the former UST removal excavation, and extending to the east and southeast of the excavation. No other exceedances of MTCA Method A Groundwater Cleanup Levels for gasoline were documented at the Property.
- Based on analytical results obtained by Floyd Snider (2010b) and Kane Environmental (2017, 2018), PCE and breakdown products are present in soil and groundwater in the western portion of the former Wexler property. This contamination has been identified as a result of releases on the BSCSS site, within which the Former Wexler Property Site is located (Kane Environmental, 2017). Contamination on the Property related to this halogenated solvent release is being addressed as part of an on-going cleanup at the BSCSS site.

## **2.0 ENVIRONMENTAL SETTING**

A discussion of the physical characteristics of the Former Wexler Property Site are discussed in the subsections below.

## **2.1 Physical Characteristics of the Site**

The RI study area is within the Horse Creek valley on the Bothell Upland physiographic subdivision of the Puget Sound Lowland physiographic province. Horse Creek is a southerly flowing tributary to the Sammamish River. The general topography of the RI study area slopes gently down from north to south towards the westerly flowing Sammamish River (Figure 1). Elevations on the Site range between about 40 to 45 feet above mean sea level (amsl).

### **2.1.1 Geology**

The Former Wexler Property Site is located within the Puget Sound Lowland, a north-south trending structural and topographic depression bordered on the west by the Olympic Mountains and on the east by the Cascade Mountains. The area is characterized by gently rolling glacial drift plains covered with small ridges, hills, and depressions formed by the continental ice sheet that covered the area during the Pleistocene Epoch and retreated approximately 12,500 years ago. Most of northwestern King County is mantled by glacial deposits (including gravel, sand, silt, clay, boulders), which are commonly up to and over 150 feet thick (Liesch and others, 1963).

The vacated portion of SR522 immediately south of the Former Wexler Property Site is located at the mapped contact between alluvial soils associated with the Sammamish River to the south, and glacial soils to the north (HWA, 2012).

Past subsurface assessment work at the Former Wexler Property Site and the surrounding area identified sand and gravel fill with minor silt to a depth of one to ten feet bgs, with native soil consisting primarily of silt and sands of low to moderate density below the fill. These native soils are classified as glaciofluvial (glacial outwash) deposits (Kane Environmental, 2017; Floyd Snider, 2010b).

Figure 5 presents a plan view of the Wexler Settlement Area with two cross-section lines, A to A', and B to B'. Figure 6 shows a cross-section from A to A', running northwest to southeast across the majority of the Wexler Settlement Area. Figure 7 shows a cross-section from B to B', running north to south across the majority of the Wexler Settlement Area. Notable in all cross sections is the discontinuous nature of several stratigraphic horizons across the property. Native soils at the Former Wexler Property Site are typically non-cohesive silty sands or sandy silts, however, cohesive clayey silt or silt soils are also encountered. Generally, the geology can be described as glacio-fluvial deposits overlain by varying depths of fill material. The thickness of fill material at the Former Wexler Property Site is at its maximum in the UST excavation, where it is up to ten (10) feet in thickness. Only one (1) to two (2) feet of fill is present in other areas of the Former Wexler Property Site, particularly the southern and eastern portions. While the maximum depth investigated in temporary soil borings advanced at the Former Wexler Property Site by Kane Environmental during this study was thirty (30) feet bgs, investigations of the surrounding BSCSS site identified a glacial

till unit to be present throughout this site at depths ranging from forty-six (46) to fifty-five (55) feet bgs. The maximum thickness of the till unit was not determined, but is at least fifty (50) feet thick (Kane Environmental, 2017).

Soil boring and well construction logs are included as Attachment A.

### **2.1.2 Hydrogeology and Groundwater Flow**

The RI for the BSCSS site utilizes a hydrogeological conceptual model that separates groundwater at this site into three (3) zones: Shallow (5-25 feet bgs), Intermediate (25-35 feet bgs), and Deep (35-55 feet bgs). As discussed in the previous subsection, the glaciofluvial deposit layers containing these zones are discontinuous over short distances and are not separated by confining units, thus on the scale of the BSCSS site and the Former Wexler Property Site that it encompasses, groundwater occurs as a single aquifer flowing southeasterly to discharge points along the Sammamish River (Kane Environmental, 2017).

To assess groundwater gradients and collect non-turbid groundwater samples representative of Former Wexler Property Site conditions, Kane Environmental utilized existing groundwater monitoring wells installed during characterization of the BSCSS site (S-MW-1 through S-MW-5 and HZ-MW-16) and newly installed groundwater monitoring wells (S-MW-7 through S-MW-11). Of these wells, all are screened in the uppermost portion of the Shallow groundwater zone (4-14, 5-15, or 5.5-15.5 feet bgs), with exception of the following:

- S-MW-5 and HZ-MW-16, which are screened in the lower Shallow zone, 15-25 feet bgs,
- S-MW-3, which is screened in the Intermediate zone, 25-35 feet bgs, and,
- S-MW-4, which is screened in the Deep zone, 40-50 feet bgs.

Groundwater monitoring well locations are presented in Figure 5, and monitoring well information (depths to groundwater, screened intervals, and surveyed well elevations) is included in Table 2.

**Horizontal groundwater gradient:** Figure 8 shows groundwater depth measurements and contours for all upper Shallow zone wells at the Former Wexler Property Site collected in May 2018. Horizontal groundwater flow in this area is to the east-southeast, at a gradient of approximately 0.012 feet/foot (based on the May 2018 data displayed in Figure 8). This groundwater flow direction is generally consistent with the findings for the BSCSS site (Kane Environmental, 2017).

**Vertical groundwater gradient:** Groundwater wells S-MW-2 (screened in the Shallow groundwater zone) and S-MW-4 (screened in the Deep groundwater zone) are located within five (5) feet of each other. Due to this proximity, these wells were used to evaluate vertical groundwater gradient at the Former Wexler

Property Site. The vertical gradient was calculated by dividing the difference in May 2018 water level elevations (Table 2) by the vertical elevation difference of the well screens (assumed to be the midpoint of each screen). The vertical gradient between S-MW-2 and S-MW-4 was determined to be 0.00486 feet/foot in the downward direction. This is a near-neutral vertical gradient, compared with gradients determined elsewhere on the BSCSS site in 2015, which were also typically in the downward direction, but an order of magnitude greater (see Table 4 in Kane Environmental, 2017).

**Other Hydrogeologic Characteristics:** As part of the characterization of the BSCSS site, Kane Environmental conducted pump tests to determine hydrogeologic characteristics of the different subsurface zones present at this site. In particular, pump tests were conducted on several Shallow zone monitoring wells in the area west adjoining the Former Wexler Property Site. Of the three (3) Shallow zone wells submitted to pumping tests (MW-19, MW-25, and MW-27), the well with the highest quality test data was MW-27; this well is screened 6-16 feet bgs and is the nearest to the Former Wexler Property Site of the three (3) tested wells. Therefore, its results are considered the most applicable to the Former Wexler Property Site. The pump test for this well displayed a hydraulic conductivity of 0.4 ft/day and a transmissivity of 4.3 ft<sup>2</sup>/day (see Table 8 in Kane Environmental, 2017).

### **2.1.3 Surface Water and Sediments**

No sediments or surface water bodies are present at the Former Wexler Property Site. Horse Creek is the historic drainage in the Site vicinity. This creek is currently artificially channelized and located approximately 300 feet to the west of the Site. It flows in a southerly direction and discharges to the Sammamish River, located approximately 700 feet to the south of the Site.

### **2.1.4 Surface Features, Drainage, and other Subsurface Utilities**

With the exception of small landscaped areas, the Former Wexler Property Site is mostly covered by gravel surfacing, concrete, or asphalt pavement. No permanent structures are present at the Former Wexler Property Site.

Drainage of the Former Wexler Property Site surface is achieved by surface flow to storm drains located in paved areas or in the adjacent vacated SR 522 roadway. These drains connect to a main storm sewer line running beneath the sidewalk on the southern margin of the Property.

Several other subsurface utilities are present at the site. An abandoned sanitary sewer line runs from the southwestern corner of the Property north to a manhole located near the northwest corner of the former UST excavation. An operational sanitary sewer line runs east-west approximately six feet bgs, and upgradient from the PCE and petroleum hydrocarbon contaminated plume, from a manhole located approximately sixty (60) feet northeast of the northeast corner of the UST excavation on the Property. An

operational water main parallels the storm sewer line 3 feet bgs located beneath the sidewalk along the southern Property boundary. South of the UST excavation, a water service line tees from this main line and runs north-northwest through the UST excavation, to a junction north of the UST excavation, where it splits and runs east and north. However, this line is abandoned and the portion of the line within the petroleum-contaminated soil excavation will be removed during excavation activities. Abandoned irrigation lines and electrical control wiring are present in the planter areas on the Property, approximately 2 feet bgs.

## **2.2 Current Ecological Conditions**

Potential ecological receptors are defined as terrestrial biota (e.g., birds, mammals, and plants) that inhabit or use, or have the potential to inhabit or use, the terrestrial habitats of the Site. Site use by ecological receptors is very limited due to current Former Wexler Property Site conditions (mostly paved and undeveloped) and lack of nearby green space.

### **2.2.1 Terrestrial Ecological Evaluation**

A Terrestrial Ecological Evaluation (TEE) is required under MTCA for sites with releases of hazardous substances to soil, unless the site meets one or more exclusions to be exempt from the TEE. The Former Wexler Property Site qualifies for a TEE exclusion under MTCA because:

- Presently, the Site is covered entirely by asphalt paving that prevents exposure of plants and wildlife to contaminated soil (WAC 173-340-7491(1)(b)).
- The intention of the preferred remedial alternative for the Site (see Section 8) is full removal of all petroleum hydrocarbon contaminated soil. Therefore, following the completion of remedial activities, all soil contamination will be removed. A TEE Exclusion form for the Site is included as Attachment B.



### **3.0 REMEDIAL INVESTIGATION (RI)**

Based on the results of this Site characterization and interim remedial activities, the chemicals of concern (COCs) in soil and groundwater are divided into two groups:

- Petroleum COCs, including:
  - Gasoline (also referred to as Total Petroleum Hydrocarbons-Gasoline Range [TPH-G])
  - Benzene
  - Ethylbenzene
  - Total Xylenes (also referred to as Xylenes), and
  - Naphthalene
- HVOC COCs, including:
  - Tetrachloroethene (PCE),
  - Trichloroethene (TCE),
  - Cis-1,2 Dichloroethene (DCE), and
  - Vinyl Chloride (VC).

Original Wexler property characterization was completed by Floyd Snider in August 2010 to September of 2010 and by Kane Environmental in March 2018 to October 2018. Site characterization activities included sampling soil and groundwater from temporary soil borings and groundwater monitoring wells.

#### **3.1 Kane Environmental Site Assessment Activities**

Former Wexler Property Site assessment activities by Kane Environmental were conducted between March of 2018 and October 2018. Included in this description of site assessment activities are those undertaken in March to May 2018 as part of the scope of work for the Supplemental Subsurface Investigation (Kane Environmental, 2018).

##### **3.1.1 Site Assessment Related Activities**

Former Wexler Property Site assessment activities by Kane Environmental were supported by the activities detailed in the subsections below.

### **3.1.1.1 Utility Locate**

Kane Environmental contacted the Washington Utilities Underground Location Center prior to starting the fieldwork to conduct a general locating survey for telephone, gas, water, sewer, communication, and electric service for study areas at the existing property. Areas identified as utility corridors by Washington Utilities Underground Location Center were marked.

Private utility locator Mountain View Locating of Bonney Lake, Washington, was retained to perform on-property utility surveys, including ground penetrating radar (GPR) to determine if underground utilities and structures were located in areas of the drilling activity throughout the Former Wexler Property Site.

### **3.1.1.2 Site Survey**

In order to identify the horizontal coordinates and vertical elevation of the groundwater monitoring wells, Kane Environmental retained DOWL of Redmond, Washington to conduct a survey of the groundwater monitoring wells installed by Kane Environmental in May 2018. The vertical datum utilized was NAVD88. Monitoring well top of casing (TOC) elevations are listed with other monitoring well information in Table 2.

### **3.1.1.3 Health and Safety Briefing**

A health and safety briefing was conducted prior to all field activities. Potential contaminants, hazardous activities, and preventative measures were discussed. All field personnel from Kane Environmental and Cascade Drilling, L.P. (Cascade) were properly trained and licensed to perform the work.

## **3.1.2 Kane Environmental Field Activities**

Field activities performed and overseen by Kane Environmental for this RI included:

- In mid April 2018, Kane Environmental collected groundwater samples and groundwater elevation data from six (6) pre-existing groundwater monitoring wells (S-MW-1 to S-MW-5, HZ-MW-16) located on or within proximity to the Former Wexler Property Site. These samples were collected to obtain information on the extent of petroleum contamination in groundwater at the Site prior to further assessment activities.
- In late April 2018, Cascade utilized a vactor truck to clear eleven (11) soil boring locations to five (5) feet bgs (S-KSB-1 through S-KSB-11) at the Former Wexler Property Site and in other areas of the existing property. Following these clearance activities, Cascade utilized a direct push drill rig to advance soil borings in nine (9) of these locations. Borings were advanced in the vicinity of the former Wexler property to attempt to further define the extent of groundwater contamination associated with the Former Wexler Property Site. Borings were also advanced in the vicinity of the

former hydraulic oil excavation on the eastern portion of the Property, to confirm the absence of hydraulic oil impacts to groundwater in this area.

- In early May 2018, Cascade utilized a vactor truck to clear five (5) monitoring well locations to five (5) feet bgs at the Former Wexler Property Site. Following these clearance activities, Cascade utilized a hollow-stem auger (HSA) drill rig to install five (5) shallow monitoring wells at the Site (S-MW-7 to S-MW-11).
- In mid to late May 2018, Kane Environmental developed and sampled newly installed groundwater monitoring wells, to determine the extent of petroleum contamination in groundwater at the Former Wexler Property Site.
- In October 2018, Cascade utilized a direct push drill rig to advance soil borings in twenty-seven (27) locations at the Wexler Property and vicinity. These borings were advanced to collect samples delineating the extent of petroleum contamination in soil at the Site, particularly in the saturated zone.

These activities are described in greater detail below.

#### **3.1.2.1 Soil Sample Collection Methodology**

During the April 2018 and May 2018 soil sampling activities, a vactor truck was used to clear a six (6)-inch diameter hole in each soil boring or monitoring well location to a depth of approximately five (5) feet bgs, in order to ensure that no subsurface utilities were present in the proposed boring or well location. In these vac holes, groundwater was typically encountered at approximately four (4) to five (5) feet bgs. To ensure collection of an unsaturated (vadose zone) soil sample, during vactor truck clearance of each temporary soil boring and monitoring well location, Kane Environmental field staff carefully monitored soils in the base of the hole. Kane Environmental field staff collected samples of undisturbed, unsaturated soil directly from the vactor truck hole by hand (protected by a new, disposable nitrile glove) or using a decontaminated steel hand auger. Following retrieval of the soil sample from the vactor truck hole, the retrieved material was sampled for laboratory analysis.

Soil samples collected using the direct push drilling rig (utilized in April 2018 and October 2018) were collected continuously in five (5)-foot intervals, using five (5)-foot long by two (2)-inch inner diameter vinyl sampling liners that were placed inside the direct push sampling rod. Soil samples collected using the HSA drill rig (utilized in May 2018) were collected at approximately five (5)-foot intervals using a 2.25-inch outer diameter split-spoon sampler driven with a 300-pound hammer on a wireline, to retrieve 1.5-foot long soil samples. All sampling tooling (including hand augers, direct push tooling, and split spoon samplers) was

decontaminated with an Alconox scrub and clean water rinse between after completion of sampling in each boring or well location.

Soil sample material recovered from the soil borings was logged by a Kane Environmental geologist for physical properties such as grain size, color, and moisture. A photo-ionization detector (PID) was used to screen soils from select depths for volatile organic compounds (VOCs). Soil samples were collected for laboratory analysis following the field methodology described in EPA Method 5035A for sampling and analysis of volatile organics. The depth of soil sample collection was determined by field indicators such as petroleum odor, PID readings, and the depth to groundwater. Soil samples were collected at depths intended to provide constraints on extent of soil contamination in each boring, and to determine the maximum concentrations of contaminants in each boring.

Each soil sample submitted for laboratory analysis consisted of two (2) methanol-preserved volatile organic analysis vials and one (1) four (4)-ounce glass jar with Teflon-lined lid. Soil samples were placed into ice-filled coolers and transported under standard chain-of-custody procedures to the Fremont Analytical laboratory location (an Ecology-accredited laboratory) in Seattle, Washington.

Soil sampling nomenclature identified each sample with the boring identification number, followed by a number designating the sample depth. For example, sample "S-KSB-1:2ft" was a soil sample collected from a depth of two (2) feet bgs in boring S-KSB-1.

### **3.1.2.2 Monitoring Well Installation Methodology**

Soil borings drilled with a HSA drill rig during the May 2018 soil sampling activities (S-MW-7 through S-MW-11) were converted to shallow two (2)-inch diameter groundwater monitoring wells. The monitoring wells were installed by Cascade in accordance with Washington State monitoring well construction standards and under the direction of a licensed driller (ASTM D 5092 and EPA 600-4-89-034).

The monitoring wells were constructed with ten (10) feet of schedule 40 PVC screen and a slot size of 0.010 inches. The screened interval was four (4) to fourteen (14) feet bgs. Two (2)-inch diameter schedule 40 PVC casing was installed above the slotted screen. A sand pack was placed in the annular space from the well bottom to approximately one (1) foot above the well screen and a bentonite seal from the top of the sand pack to approximately one-and-a-half (1.5) to two (2) feet bgs. The groundwater monitoring wells were completed with flush-mounted monuments surrounded by a concrete surface seal.

Locations of the monitoring wells are shown in Figure 5 and boring logs with well construction diagrams, installation dates, and other information are included as Attachment A.

### **3.1.2.3 Monitoring Well Development and Sample Collection Methodology**

Monitoring wells installed during the May 2018 soil sampling activities were developed to remove sediment that may have accumulated in the casing or sand pack during installation. All well development occurred at least seventy-two (72) hours prior to well sampling activities. Development was performed by Kane Environmental using a submersible pump. At least nine (9) well volumes of water were pumped from each well during well development. By the end of development pumping, each well produced clear water.

Existing groundwater monitoring wells on or immediately adjacent to the Property (S-MW-1 through S-MW-5 and HZ-MW-16) were sampled on April 13, 2018. Groundwater monitoring wells installed during this investigation (S-MW-7 through S-MW-11) were sampled on May 22, 2018. Prior to collecting groundwater samples from the monitoring wells, depth to groundwater in each well was measured with a decontaminated electric water interface probe. The probe was cleaned with Alconox® detergent and rinsed with distilled water between sampling activities.

Prior to collecting groundwater samples, the depth to groundwater in each well on the Property was measured with a decontaminated electric water interface probe. Groundwater collected from the well was sampled using a peristaltic pump with new polyethylene tubing. An exception to this was deep well S-MW-4 (screened 40-50 feet bgs), which was sampled using a decontaminated submersible pump with new PVC tubing. The tubing, or submersible pump, were lowered to approximately one (1) foot above the bottom of the well screen and the well was purged a low flow rate. Field parameters (pH, temperature, conductivity, total dissolved solids, and dissolved oxygen) were recorded in purged groundwater and allowed to stabilize prior to collection of the groundwater sample. Groundwater was placed into appropriate laboratory-supplied, pre-cleaned and preserved containers for analysis. All sampled groundwater was unfiltered, except for the fraction of the sample analyzed for dissolved metals. Groundwater analyzed for dissolved metals was passed through a new, dedicated 0.45-micron filter capsule prior to placement in the sample container. Groundwater samples were placed into ice-filled coolers and transported under standard chain-of-custody procedures to the Fremont Analytical laboratory location in Seattle, Washington, or to the OnSite Environmental laboratory location in Redmond, Washington.

Groundwater monitoring well sampling nomenclature identified each sample with the well identification number, followed by a "W", followed by the sampling date in MMDDYY format. For example, sample "S-MW-1:W-041318" was a groundwater sample collected from monitoring well S-MW-1 on April 13, 2018.

### **3.1.3 Field Screening Methods**

Following collection, soil columns were inspected visually for any indication of contamination (discoloration and/or odor). Kane Environmental also used a photoionization detector (PID) to screen all soil columns for

volatile organic compounds prior to sample collection practices. PID readings are included in the Kane Environmental boring logs (Attachment A).

#### **3.1.4 Analytical Methods**

Based on the possible petroleum-related contaminants suspected to be present at the Former Wexler Property Site, and in accordance with the analytical guidance established in Ecology Publication 10-09-057, *Guidance for Remediation of Petroleum Contaminated Sites*, Table 7.2, select soil and groundwater samples were submitted to the analytical laboratories and analyzed for the following:

- TPH-Gasoline, by Method NWTPH-Gx
- TPH-Diesel and TPH-Heavy Oil, by Method NWTPH-Dx/Dx Ext.
- BTEX, Naphthalene, EDC, EDB (in soil), and MTBE by EPA Method 8260
- EDB by EPA Method 8011 (in groundwater)
- Lead by EPA Methods 6020 (in soil) and 200.8 (in groundwater)
- PAHs by EPA Method 8270-SIM
- PCBs by EPA Method 8082
- For soil and groundwater samples collected and analyzed during the Kane Supplemental Subsurface Investigation (collected March to May 2018), PCE and breakdown products were also analyzed by EPA Method 8260

Copies of original laboratory reports are included in Attachment C.

#### **3.2 Kane Environmental Site Assessment Results**

The following subsections describe the results of Kane Environmental Site Assessment activities at the Former Wexler Property Site, which were undertaken from March 2018 to October 2018. Analytical results for soil and groundwater samples collected during Kane Environmental site assessment activities for this RI are summarized in Tables 1 and 2, respectively, along with analytical results from previous investigations.

### **3.2.1 Site Assessment Results**

#### **3.2.1.1 Quality Assurance/Quality Control**

Internal test methods run by the laboratory to ensure data accuracy and reproducibility include method blanks (MB), laboratory control standards (LCS), sample duplicates, matrix spikes (MS), and matrix spike duplicates (MSD). All analyses were performed in accordance with Fremont Analytical and OnSite Environmental's in-house Quality Assurance (QA)/Quality Control (QC) Plans. Sample analyses were performed in compliance with EPA analytical methods and Ecology guidelines. All analyses were completed within method-specified holding times, and adhered to accepted QA/QC guidelines. No data qualifiers or data quality issues in the analytical data gathered as part of this Site Assessment have a potential to impact the findings of the Kane Environmental site assessment activities.

Data included in Tables 1 and 2 from Floyd Snider (2010b) were subjected to an internal data quality review and validation included with this previous report. All data were found to be acceptable for use. Kane Environmental reviewed this report and concurs with this assessment.

#### **3.2.1.2 Soil Results**

The findings of Kane Environmental soil sampling undertaken in April 2018 to May 2018 as part of the Kane Environmental Supplemental Subsurface Investigation are summarized in Section 1.5 above. Soil analytical results obtained from shallow vadose zone soil samples collected as part of this previous investigation indicate the presence of petroleum contaminants at concentrations below MTCA Method A Soil Cleanup Levels in the area to the east of the gasoline UST excavation (borings S-KSB-10, S-KSB-11, and S-MW-7). No saturated zone soil samples were analyzed.

Results from soil samples collected by Kane Environmental in October 2018 as part of site assessment activities for this RI provide additional information regarding concentrations and extents of petroleum COCs in saturated and unsaturated zone soils. Contaminants detected in these soil samples were consistent with those identified in previous investigations of the Site: benzene, toluene, EDB, EDC, and MTBE were all not detected in any of the analyzed soil samples. Lead was present at low concentrations; the maximum detected concentration of lead was in sample S-KSB-30:6.5ft, at 7.63 ppm (below the MTCA Method A Cleanup Level, 250 ppm).

Gasoline was present above the MTCA Method A Cleanup Level in soil samples collected from borings located within the former gasoline UST excavation and to the southeast of the former excavation (Figure 9). The maximum concentration of gasoline reported in these soil samples was 8,750 ppm (MTCA Method A Cleanup Level is 100 ppm). Ethylbenzene, xylenes, and naphthalene were also detected above MTCA Method A Cleanup Levels in one of these soil samples, S-KSB-16:5.5ft. The minimum depth at which an exceedance of MTCA Method A Cleanup Levels was encountered in soil samples is 1.5 feet bgs, in sample

S-KSB-16:1.5ft, which contained gasoline at a concentration of 170 ppm. The maximum depth at which an exceedance of MTCA Method A Cleanup Levels was encountered is seventeen (17) feet bgs, in sample S-KSB-32:17ft, which contained gasoline at a concentration of 127 ppm.

In select soil samples with concentrations of gasoline exceeding 1,000 ppm, low concentrations of diesel range organics were also reported to be present. The laboratory indicated that the chromatographic pattern for these detections indicated a continuation of the gasoline peak into the diesel range. Therefore, these detections are considered to be a part of the gasoline range hydrocarbons.

### **3.2.1.3 Groundwater Results**

The findings of Kane Environmental groundwater sampling undertaken in April 2018 to May 2018 as part of the Kane Environmental Supplemental Subsurface Investigation are summarized in Section 1.5 above. Results obtained from groundwater samples collected from temporary soil borings and groundwater monitoring wells indicate shallow groundwater contamination with gasoline (TPH-G) at concentrations exceeding the MTCA Method A Groundwater Cleanup Level extends approximately 25-30 feet east-southeast of the eastern boundary of the former gasoline UST excavation, but does not extend beyond the Property boundary. BTEX and other petroleum-related VOCs were not detected at concentrations exceeding MTCA Method A Cleanup Levels. In groundwater samples collected from temporary borings within the UST excavation (S-KSB-1:W and S-KSB-2:W), total lead was documented at concentrations exceeding the MTCA Method A Cleanup Level. However, these samples were reported to be turbid, and the concentrations of dissolved lead in field filtered fractions of these samples were well below the MTCA Method A Cleanup Level, therefore, lead detections in these samples are attributed to the presence of soil particles in the total metals fraction. Total lead was not reported at concentrations exceeding the MTCA Method A Cleanup Level in any other groundwater samples collected as part of this investigation.

Based on analytical results obtained by Floyd Snider (2010b) and Kane Environmental (2017, 2018), PCE and breakdown products are present in soil and groundwater in the western portion of the Former Wexler Property Site. This contamination has been identified as a result of releases on the BSCSS site, within which the Former Wexler Property Site is located (Kane Environmental, 2017). Contamination on the Property related to this halogenated solvent release is being addressed as part of an on-going cleanup at the BSCSS site.





#### **4.0 NATURE AND EXTENT OF CONTAMINATION**

Based on the results of the site assessment activities completed by Kane Environmental (results described in Section 3.2.1 above), the nature and extent of all contamination at the Former Wexler Property Site has been fully characterized. The results of this characterization are discussed in greater detail in the subsections below.

##### **4.1 Chemicals of Concern**

As stated in Section 3.0, the chemicals of concern (COCs) in Former Wexler Property Site soil and groundwater are:

- Gasoline (also referred to as Total Petroleum Hydrocarbons-Gasoline Range [TPH-G])
- Benzene
- Ethylbenzene
- Total Xylenes (also referred to as Xylenes)
- Naphthalene
- Tetrachloroethene (PCE),
- Trichloroethene (TCE),
- Cis-1,2 Dichloroethene (DCE), and
- Vinyl Chloride (VC).

##### **4.2 Impacts to Soil**

In order to assess impacts to the Site and determine their extents requiring remedial action, sample analytical results were evaluated with respect to the following cleanup criteria

- MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses (MTCA Table 740-1);

Petroleum COCs (which include gasoline, ethylbenzene, xylenes, and/or naphthalene) in concentrations exceeding MTCA Method A Cleanup Levels occur in soil beneath the lower extent of the former gasoline UST excavation (as determined by the transition from excavation backfill soils to native soils) on the Site, and to the southeast of this former excavation. Table 1 lists COC concentration data in soil. Figure 9 shows the lateral extent of soil contamination with petroleum COCs exceeding MTCA Method A Cleanup Levels. Cross-section diagrams (Figures 10 and 11) illustrate the vertical extent of petroleum COCs exceeding

MTCA Method A Cleanup Levels. Within the former excavation area, soil contaminated with petroleum COCs at concentrations exceeding MTCA Method A Cleanup Levels (“with exceedances”) is present in saturated zone soils at depths below the base of the former excavation. In the area to southeast of the excavation, soil with exceedances is present both above and below the water table, with concentrations highest near the water table depth (3.5 to 5.5 feet bgs, water table is typically at four (4) to five (5) feet bgs). Most exceedances are located within ten (10) feet of the approximate boundary of the former excavation, however, a significant exceedance was documented in shallow soil at 3.5 feet bgs in boring S-KSB-13, which is located approximately twenty-five (25) feet east-southeast of the former excavation. The deepest extent of soil with exceedances is located near the southeast corner of the former UST excavation, at seventeen (17) feet bgs in soil boring S-KSB-32. In most other locations, the vertical extent of soil with exceedances is limited to no more than approximately ten (10) feet bgs.

HVOC COCs (which include PCE, TCE, cis-1,2-DCE, and/or VC) are present in soil throughout the Former Wexler Property Site. Based on results obtained by Floyd Snider (2010b) and Kane Environmental (2017, 2018), PCE is present in shallow soils (5-10 feet bgs) at concentrations exceeding the MTCA Method A Cleanup Level located in the northern half of the former gasoline UST excavation on the Former Wexler Property Site. Below approximately 10 feet bgs, soil contamination with PCE extends to encompass the entirety of the original Wexler property area. The extent of soil contamination with PCE at concentrations exceeding the MTCA Method A Cleanup Level is shown along with the extent of petroleum COCs contamination in soil at the Former Wexler Property Site in Figure 9. The overlapping extents of petroleum and HVOCs contamination in this figure demonstrates that petroleum and HVOCs contamination is commingled in soil on the Former Wexler Property Site.

### **4.3 Impacts to Groundwater**

To assess impacts to the Site and determine the extent of impacts requiring remedial action, groundwater sample analytical results were evaluated with respect to the following criteria:

- MTCA Method A Cleanup Levels for Groundwater (MTCA Table 720-1);

Of the petroleum COCs listed in Section 4.1 above, only gasoline is present at concentrations exceeding MTCA Method A Cleanup Levels in groundwater at the Site (see Table 2 for groundwater data). Gasoline is present at concentrations exceeding the MTCA Method A Cleanup Level (800 ppb) in groundwater samples collected within the former UST excavation and approximately twenty (20) to twenty-five (25) feet in the east-southeasterly (down-gradient, see Figure 12) direction. The lateral extent of groundwater contamination with petroleum COCs above Method A Cleanup Levels as defined by groundwater sampling completed during the Kane Environmental site assessment activities (Figure 12) is similar in lateral extent to that observed for petroleum COCs in soil (Figure 9). The vertical extent of petroleum COCs at concentrations exceeding MTCA Method A Cleanup Levels in groundwater is limited—these COCs were

not detected in Site monitoring wells screened below fifteen (15) feet bgs (S-MW-3 and S-MW-4). This limited vertical extent is consistent with the nature of petroleum contaminants, which in non-aqueous phase liquid form are typically present at the surface of the water table.

Of the HVOC COCs identified in Section 4.1 above, PCE is present in groundwater throughout the Former Wexler Property Site and surrounding area. PCE was documented at concentrations exceeding the MTCA Method A Cleanup Level in shallow groundwater (<15 feet bgs). TCE and cis-1,2-DCE are also present in shallow groundwater in select locations on the Former Wexler Property Site. The extent of groundwater contamination with HVOC COCs at concentrations exceeding MTCA Method A Cleanup Levels (as documented by the 2017 Kane RIFS for the BSCSS site) is shown along with the extent of petroleum COCs contamination in groundwater at the Former Wexler Property Site in Figure 12. The overlapping extents of petroleum and HVOCs contamination in this figure demonstrates that petroleum and HVOCs contamination is commingled in groundwater on the Former Wexler Property Site.

#### **4.4 Potential Impacts to Soil Vapor and Indoor Air Quality**

Per MTCA, RIs must include evaluation of vapor intrusion (VI) impacts to indoor air quality when volatile hazardous substances are present in the subsurface. The Ecology *Guidance for Evaluating Soil Vapor Intrusion in Washington State* (Ecology, 2009, revised 2018) provides a process for evaluating the VI pathway during an RI/FS (WAC 173-340-350) and subsurface media cleanup levels protective of indoor air quality. This process applies to buildings currently on a site, or future buildings, i.e., cleanup standards and actions must be protective of current and potential future site uses.

The guidance employs a tiered approach, starting with a preliminary assessment, and moving to Tier I and II assessments, if warranted. Initial screening steps in the preliminary assessment include the consideration of the following questions:

- Are chemicals of sufficient volatility and toxicity known or reasonably suspected to be present?
- Are occupied buildings present (or could they be constructed in the future) above or near site contamination?

For the Former Wexler Property Site, both criteria are presently met. All petroleum COCs are sufficiently volatile and toxic, and Ecology has established Indoor Air Cleanup Levels for these contaminants. Because the Former Wexler Property Site and surrounding area is vacant, no assessments of impacts to soil vapor have been completed to date.

The preferred remedial alternative for addressing the Former Wexler Property Site petroleum contamination as identified by the FS (Section 8.0) involves excavation of all soils containing petroleum COCs at

concentrations exceeding MTCA Method A Soil Cleanup Levels, followed by compliance groundwater monitoring to ensure that soil excavation has been successful in the removal of petroleum contaminant sources such that petroleum COCs concentrations in Former Wexler Property Site groundwater are reduced to levels compliant with MTCA Method A Groundwater Cleanup Levels. In this case, petroleum COCs impacts to soil vapor and indoor air will be mitigated. Because remediation of HVOC COCs at the BSCSS site area (including the entirety of the Former Wexler Property Site) is expected to be ongoing and to continue beyond the timeframe of the remediation of petroleum COCs and redevelopment at the Former Wexler Property Site, it is possible that HVOCs impacts to soil vapor will remain on the Former Wexler Property Site following remediation of petroleum COCs in soil and groundwater, and completion of groundwater compliance monitoring for these COCs. In such case, future buildings in impacted areas will be required by environmental covenant to include vapor mitigation measures (e.g., vapor barriers and passive venting systems, or other vapor mitigation measures). Direct mitigation through vapor barriers and passive venting systems will address vapor intrusion risks for future buildings on the site.

Additional discussion of vapor intrusion is provided in Section 5.3.2 below.

## **5.0 PRELIMINARY CONCEPTUAL SITE MODEL**

### **5.1 Conceptual Site Model**

The Conceptual Site Model (CSM) for the Site identifies the primary contaminant sources, release mechanisms, transport mechanisms, secondary contaminant sources, potential pathways, and exposure routes. Existing chemical data, site characterization data, and identification of potential human and ecological receptors were used to develop the model, presented in Figure 13. The CSM is discussed further below.

#### **5.1.1 Primary Sources of Contamination and Release Mechanisms**

The primary source of petroleum contamination on the Former Wexler Property Site is releases of petroleum products from a previously existing gasoline service station on the original Wexler Property. Based on previous reports (see Section 1.5 above), a release of gasoline occurred from the UST system used to store gasoline at the Wexler property. The most likely points of release were identified as the subsurface fuel distribution lines, subsurface or near-surface components of fuel dispensers, or spills/overflowing that occurred during UST filling (AGI, 1990). The petroleum COCs in soil and groundwater are gasoline, benzene, ethylbenzene, xylenes, and naphthalene.

The primary source of HVOCs contamination on the Former Wexler Property Site is releases of dry cleaning solvent from a previously existing dry cleaner on the west adjacent BSCSS property. This release likely occurred via spills, leaks, and/or improper disposal of solvent, which impacted soil and groundwater on this property. This contamination, which was previously characterized as part of the BSCSS site (Kane Environmental, 2017), migrated in groundwater from the area of the release onto the Former Wexler Property Site. The HVOC COCs on the Former Wexler Property Site include PCE, TCE, cis-1,2-DCE, and vinyl chloride.

#### **5.1.2 Secondary Sources and Release Mechanisms**

When a released contaminant is retained in an environmental medium, such as soil or groundwater, the medium functions as a secondary source for further chemical release and distribution. Secondary release mechanisms for COCs present at the Site include leaching from near-surface contaminated soils to deep soils and to groundwater. Following leaching, further spread of COCs at the Site occurred by mobilization of contaminated groundwater, as well as volatilization from contaminated soil and groundwater to soil vapor.

The degree of leaching and degree of mobilization is controlled by the physical properties of the aquifer (including the groundwater gradient and hydraulic conductivity), chemical properties of the groundwater, properties of the soil, and the geochemical interactions (such as solubility) between the groundwater and

the various contaminants. Volatilization is controlled by the concentration and chemical properties of the contaminant and the physical properties of the soil and groundwater.

### 5.1.3 Pathways and Potential Receptors

An exposure pathway is a mechanism by which receptors are assumed to contact Contaminants of Potential Concern (COPCs). The U.S. Environmental Protection Agency describes a complete exposure pathway in terms of four components:

- A source and mechanism of chemical release (e.g., a release of COPCs to the subsurface)
- A retention or transport medium (e.g., groundwater)
- A receptor at a point of potential exposure to a contaminated medium (e.g., commercial worker in an on-site building located above the groundwater plume)
- An exposure route at the exposure point (e.g., inhalation of vapors)

If any of these components is not present, then a potential exposure pathway is considered incomplete and is not evaluated further in a risk assessment. If all four (4) components are present, a pathway is considered complete.

Potential exposure routes for human and ecological receptors may include the following:

- **Dermal Absorption and Ingestion:** Exposure to chemicals in near-surface soil and groundwater may occur through direct contact with these media. For human receptors, this type of exposure may lead to dermal absorption of chemicals and ingestion via incidental ingestion of small amounts of contaminated media. Ingestion of contaminated groundwater may also occur if groundwater is used as a drinking water supply. Dermal absorption and ingestion are potential exposure routes for construction and utility workers that complete groundbreaking activities that put them in contact with soil and groundwater. Residents, children, commercial workers, visitors, and surface-dwelling ecological receptors (plants and animals) at the Site may be susceptible to these exposure pathways where areas of unpaved or uncovered soil or shallow groundwater exist. Burrowing or in-ground-dwelling mammals and invertebrates (soil biota) may be exposed directly to the soil and groundwater contaminants by dermal absorption and ingestion.
- **Inhalation:** In areas where unpaved or uncovered surficial soil exists, particulates from soil can be transported by air and inhaled by all surface dwelling human and ecological receptors. Volatile chemicals may move from contaminated soil and groundwater into soil vapor, which utility and construction workers may be exposed to during groundbreaking activities. Chemicals in soil vapor may intrude into the air within overlying buildings. These chemicals may then be inhaled by visitors,

commercial workers, and residents within the building. Soil biota may also be exposed to particulates and soil vapor in underground stagnant air.

When considering potential exposure pathways at the Site, we consider both its current state (vacant, paved with concrete, asphalt, and gravel) and its planned future state. Kane Environmental currently understands that the most likely future redevelopment scenario is one or more commercial structures of unknown location/extent, with most surrounding surface area paved for walkways or parking. However, a multi-unit residential structure/s is also possible and is therefore considered in future scenarios. In its current state, the only likely human receptors are construction or utility workers that break the pavement cover at the Site. The paved nature of the Site eliminates risks for inhalation of soil particulates and vapors for other receptors. The absence of structures eliminates risks for exposure to soil vapor via indoor air. Groundwater at the Site and vicinity is not used for drinking water.

Potentially complete exposure pathways for current and future receptors established for the Site include the following (shown in a schematic diagram in Figure 13):

- **Current/future Construction/Utility Worker:**
  - Incidental soil and groundwater ingestion;
  - Dermal contact with soil and/or groundwater, including in a trench or excavation;
  - Inhalation of particulates and/or vapors from the groundwater and subsurface soil, such as may occur in a trench or excavation.
- **Future Commercial Worker, Resident, or Visitor at the Site (adult and child):**
  - Incidental soil ingestion;
  - Dermal contact with soil;
  - Inhalation of particulates and/or vapors from the groundwater and/or soil (including indoor air).
  - Ingestion of groundwater (if used as a drinking water source)
- **Current/Future Soil Biota:**
  - Incidental soil and groundwater ingestion;
  - Inhalation of particulates and/or vapor from the soil in a burrow;
  - Dermal contact with soil and groundwater in a burrow.
- **Current/Future Plants and Animals:**
  - Incidental soil ingestion;



- Dermal contact with soil;
- Inhalation of particulates and/or vapors from the groundwater and/or soil.

## **5.2 Assessment of Risk**

### **5.2.1 Human Health Baseline Risk Assessment**

Exposure to identified COCs could occur via exposure pathways previously discussed. Based on the nature and the extent of contamination, the likely greatest potential risk to human receptors is dermal contact of soil and/or groundwater to construction workers during soil-disturbing activities. The second most likely exposure risk is inhalation of vapors during soil-disturbing activities or by commercial workers in buildings constructed on or near the Former Wexler Property Site.

These risks can be mitigated under a cleanup action that either removes the contaminants to levels that are protective to receptors or that places institutional or engineering controls to prevent exposure. Risk mitigation is a primary factor used in evaluating cleanup action alternatives under the Feasibility Study.

#### **5.2.1.1 Exposure Pathways**

Soil remediation and source control are expected to decrease the potential exposure to contaminated soil and groundwater. Personnel performing remediation activities are at an increased risk of contaminated soil and groundwater exposure. All appropriate regulations and guidelines should be followed during cleanup to minimize the risks associated with these exposures.

Reported concentrations in groundwater collected on the Former Wexler Property Site exceeded various MTCA Method A Cleanup Levels. A review of Ecology's online database of well logs indicated no drinking water wells located potentially cross-gradient or down-gradient within approximately one-half mile of the Site, therefore, the ingestion of contaminated groundwater as drinking water is not currently considered a complete pathway. Groundwater cleanup statutes outlined in MTCA require that groundwater cleanup standards be protective of the potential future use of groundwater as a drinking water source, therefore, the drinking water pathway is considered a potentially complete future exposure pathway (WAC 173-3470-720(1)(a)).

Given the volatile nature of the COCs at the Former Wexler Property Site, there is a potential for vapor intrusion in future buildings constructed at the site and surrounding area. The Cleanup Action Plan will include a total of two rounds of indoor air sampling. The first round of indoor air sampling will occur post-construction and pre-occupation of the buildings. The sampling procedures, and the analyses for both HVOCs and petroleum COCs, will follow sampling protocol provided in *Ecology's Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action (Review Draft Revised*

*February 2016*) or the current guidance at the time of sampling. If indoor air HVOC and petroleum hydrocarbon COCs concentrations are above their respective screening levels in the first indoor air sampling round, a confirmational sampling round will be conducted within two weeks of the first round, to confirm the findings. If the confirmational sampling confirms the presence of HVOC and/or petroleum COCs in the indoor air, additional indoor air mitigation will be implemented. The details of the indoor air mitigation will be included in the EDR report.

The second round of indoor air compliance sampling will occur prior to the completion of the draft Groundwater Closure Report. The indoor air sampling methodology and indoor air sampling results for the first and second rounds of indoor air sampling will be documented in the Groundwater Closure Report.

## **5.2.2 Ecological Baseline Risk Assessment**

Based on the nature and extent of contamination, the likely greatest potential risk to ecological receptors include incidental soil ingestion and dermal contact, as well as ingestion and direct contact with groundwater. Based on the exposure pathways analysis, the land use on the Site and the surrounding area make wildlife exposure unlikely.

### **5.2.2.1 Ecological Risk**

Since a release of a hazardous substance was discovered in soil, the MTCA Cleanup Regulations under WAC 173-340-7490 require that the Former Wexler Property Site be screened to determine if a Terrestrial Ecological Evaluation (TEE) needs to be completed, since a release of hazardous substances to soil may pose a threat to the terrestrial environment. The regulation requires that one of the following actions be taken:

- Document an exclusion (WAC 173-340-7491);
- Conduct a Simplified TEE (WAC 173-340-7492); or
- Conduct a Site-Specific TEE (WAC 173-340-7493).

This site qualifies for exclusion from a TEE by WAC 173-340-7491(1)(a) and (b), therefore the TEE process may be ended. A TEE exclusion form is included as Attachment B. No further consideration of ecological impacts is required under MTCA.

### 5.3 Applicable or Relevant and Appropriate Requirements

Cleanup actions under MTCA (WAC 173-340-710) require the identification of all Applicable or Relevant and Appropriate Requirements (ARARs). These requirements are defined as:

“Applicable” requirements are those cleanup standards, standards of control, and other substantive environmental protection requirements, criteria, or limitations promulgated under federal or state law that specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance at a site.

“Relevant and appropriate” requirements means those cleanup standards, standards of control, and other substantive requirements, criteria, or limitations promulgated under federal environmental or state environmental or facility siting laws that, while not “applicable” to a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance at a site, address problems or situations sufficiently similar to those encountered at the site that their use is well suited to the particular site.

Potential ARARs were identified for each medium of potential concern. The primary ARARs relating to the cleanup action include:

- MTCA, Chapter 70.105D of the Revised Code of Washington (RCW);
- Cleanup Regulations, WAC 173-340; and
- Dangerous Waste Regulations, WAC 173-303; and
- State Environmental Policy Act (SEPA) Checklist [RCW 43.21C.030(2)(a) and (2)(b)].

These primary ARARs are anticipated to be the most applicable to the cleanup action because they provide the framework for the cleanup action, including applicable and relevant regulatory guidelines, cleanup standards, waste disposal criteria, references for additional ARARs, and standards for documentation of the cleanup action.

Other applicable ARARs and guidance documents for cleanup of the Site may include:

- *Guidance for Remediation of Petroleum Contaminated Sites*, State of Washington Department of Ecology, September 2011;
- Washington Clean Air Act and Implementing Regulations, WAC 173-400; WAC 173-460; WAC 173-490;
- Occupational Safety and Health Act, Part 1910 of Title 29 of the Code of Federal Regulations;
- Safety Standards for Construction Work, WAC 296-155;

- Minimum Functional Standards for Solid Waste Handling, WAC 173-304;
- Solid Waste Handling Standards, WAC 173-350
- Accreditation of Environmental Laboratories, WAC 173-50.
- Water Well Construction Act Regulations, WAC 173-160

### 5.3.1 Cleanup Criteria

Based on the findings detailed in the Remedial Investigation (Section 2.0), the selected cleanup levels for impacted media are Method A Soil and Groundwater Cleanup Levels. The specific cleanup levels for each COC are discussed below.

#### 5.3.1.1 Soil Cleanup Levels

The selected cleanup levels for the identified Contaminants of Concern in soil are described below. Cleanup levels for HVOC COCs (PCE, TCE, cis-1,2-DCE, and VC) are those selected in the BSCSS RI/FS (Kane Environmental, 2017).

- MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses (WAC 173-340-900, Table 740-1) and Protective of Groundwater Saturated:
  - Gasoline 30 mg/kg
  - Benzene 0.03 mg/kg
  - Ethylbenzene 6 mg/kg
  - Xylenes 9 mg/kg
  - Naphthalene 5 mg/kg
  - PCE 0.05 mg/kg
  - TCE 0.03 mg/kg
  - Cis-1,2 DCE 0.00515 mg/kg (Protective of Groundwater Saturated)
  - VC 0.0000885 mg/kg (Protective of Groundwater Saturated)

#### 5.3.1.2 Groundwater Cleanup Levels

- MTCA Method A Groundwater Cleanup Levels for Unrestricted Land Uses (WAC 173-340-900, Table 720-1)
  - Gasoline 800 ug/L

- Benzene 5 ug/L
- Ethylbenzene 700 ug/L
- Xylenes 1,000 ug/L
- Naphthalene 160 ug/L
- PCE 5 ug/L
- TCE 5 ug/L
- Cis-1,2 DCE 16 ug/L (MTCA Method B)
- VC 0.2 ug/L

### 5.3.2 Groundwater Screening Levels for Vapor Intrusion

Ecology has developed groundwater screening levels for assessing the potential for volatilization of COCs from groundwater to soil vapor to pose a threat of vapor intrusion into existing or future structures on a Site. Screening levels are provided in the *Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action*, Review Draft, Revised February 2016 and April 2018.

Groundwater screening levels in Ecology's vapor intrusion guidance (Method B Groundwater Screening Levels) were reviewed to compare the screening levels to the selected groundwater cleanup levels (Method A and B Groundwater Cleanup Levels).

- Gasoline: No groundwater vapor intrusion screening level has been established. Contaminants that drive vapor intrusion risk at gasoline-contaminated sites are typically individual constituents of the gasoline mixture.
- Benzene: Vapor Intrusion Screening Level = 2.4 ug/L,  
MTCA Method A Groundwater Cleanup Level = 5 ug/L
- Ethylbenzene: Vapor Intrusion Screening Level = 2783 ug/L,  
MTCA Method A Groundwater Cleanup Level = 700 ug/L
- Xylenes: Vapor Intrusion Screening Level = 310 ug/L  
MTCA Method A Groundwater Cleanup Level = 1,000 ug/L
- Naphthalene: Vapor Intrusion Screening Level = 8.93 ug/L  
MTCA Method A Groundwater Cleanup Level = 160 ug/L

- Tetrachloroethene: Vapor Intrusion Screening Level = 22.9 ug/L  
MTCA Method A Groundwater Cleanup Level = 5 ug/L
- Trichloroethene: Vapor Intrusion Screening Level = 1.55 ug/L  
MTCA Method A Groundwater Cleanup Level = 5 ug/L
- Cis-1,2 Dichloroethene: Vapor Intrusion Screening Level = no value  
MTCA Method B Groundwater Cleanup Level = 160 ug/L
- Vinyl chloride: Vapor Intrusion Screening Level = 0.347 ug/L  
MTCA Method A Groundwater Cleanup Level = 0.20 ug/L

Of the petroleum COCs, vapor intrusion screening levels are lower than the selected groundwater cleanup levels for benzene, xylenes and naphthalene. No groundwater samples collected at the site contain xylenes and benzene at concentrations exceeding the vapor intrusion screening level, however, exceedances of the naphthalene vapor intrusion screening level are documented for several groundwater samples (see Table 2). Kane Environmental anticipates significant reductions in the concentrations of naphthalene in groundwater following completion of remedial activities at the Former Wexler Property Site.

Of the HVOC COCs for the Former Wexler Property Site, vapor intrusion screening levels are lower than the selected groundwater cleanup levels for TCE. TCE is present on the Former Wexler Property Site and surrounding BSCSS site area at concentrations exceeding the selected groundwater cleanup level. Kane Environmental anticipates significant reductions in the concentrations of TCE in groundwater following completion of remedial activities at the Former Wexler Property Site.

Potential vapor intrusion, associated with future development, will be mitigated by the installation of vapor barriers and passive venting systems, or other vapor intrusion mitigation methods and documented in the Cleanup Action Plan. The Cleanup Action Plan will include a total of two rounds of indoor air sampling. The first round of indoor air sampling will occur post-construction and pre-occupation of the buildings. The sampling procedures, and the analyses for both HVOCs and petroleum COCs, will follow sampling protocol provided in *Ecology's Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action (Review Draft Revised February 2016)* or the current guidance at the time of sampling. If indoor air HVOC and petroleum hydrocarbon COCs concentrations are above their respective screening levels in the first indoor air sampling round, a confirmational sampling round will be conducted within two weeks of the first round, to confirm the findings. If the confirmational sampling confirms the presence of HVOC and/or petroleum COCs in the indoor air, additional indoor air mitigation will be implemented. The details of the indoor air mitigation will be presented in a corrective action report.

The second round of indoor air compliance sampling will occur prior to the completion of the draft Groundwater Closure Report. The indoor air sampling methodology, indoor air sampling results, and corrective actions for any additional indoor air mitigation (if any) for the first and second rounds of indoor air sampling will be documented in the Groundwater Closure Report.

### **5.3.3 Point of Compliance**

The points of compliance are the locations at which cleanup levels for the Contaminants of Concern (COCs) must be attained to meet the requirements of MTCA and support issuance of an NFA determination for the Site. In accordance with WAC 173-340-740(6), the point of compliance for soil is all soil to 15 feet bgs within the boundaries of the Site. In accordance with WAC 173-340-720(8), the point of compliance for groundwater is all groundwater within the boundaries of the Site.

## **6.0 FEASIBILITY STUDY (FS)**

### **6.1 Screening of Remedial Technologies and Alternatives**

This Feasibility Study (FS) is completed following the MTCA regulation WAC 173-340-350(8). The purpose of a Feasibility Study is to develop and evaluate cleanup action alternatives to enable a cleanup action to be selected for a site.

Under MTCA, the development of a cleanup plan requires that technologies capable of meeting cleanup objectives are screened and then assembled into a list of remedial alternatives. These alternatives are then evaluated, compared, and preferred alternatives identified.

Commingled petroleum and HVOC contamination has been identified on the Former Wexler Property Site. The cleanup action alternatives assessed in this FS focus on fully addressing the petroleum COCs that define the site. HVOC COCs on the Former Wexler Property Site were identified and characterized as part of the BSCSS RI, and have been undergoing remediation by electrical resistance heating and bioremediation/recirculation, the preferred remedial alternative identified in the BSCSS RIFS (Kane Environmental, 2017). While the remedial actions undertaken to address the petroleum contamination may also partially or fully address the HVOCs contamination at the Former Wexler Property Site, the extent to which HVOC remediation occurs as a result of this remedial action is not considered a critical criteria in remedial alternative selection for the Former Wexler Property Site. A more important consideration when evaluating potential treatment technologies for the Former Wexler Property Site is whether the technology will interfere with the heating, bioremediation, and recirculation processes currently in use to remove HVOC COCs from the Former Wexler Property Site and surrounding BSCSS site.

This section includes review of available cleanup technologies, initial screening of the technologies, and selection of technologies to be further evaluated. The initial screening of preliminary remedial alternatives is based on technical feasibility, i.e., available site data and knowledge of design parameters for potential treatment technologies. The selected cleanup technologies are then screened for overall effectiveness, implementability, and relative cost to identify a short-list of potentially applicable technologies, that are then assembled into cleanup alternatives.

The initial technologies screened for the Site include:

- Excavation and Off-site Disposal of Contaminated Soil and Pump and Treat of Contaminated Groundwater in Excavation
- In-Situ Chemical/Biological Remediation
- In-Situ Thermal Remediation



- Air Sparging/Soil Vapor Extraction
- Monitored Natural Attenuation (MNA)

Section 6.2 describes each of the technologies evaluated in-depth during screening, including information on the technology effectiveness, implementability, and cost. Technologies retained to be carried forward in development of remedial alternatives are summarized in Section 7.

MTCA regulations place a preference on the use of permanent cleanup methods such as removal, disposal, or treatment relative to those that manage contaminants in place using institutional controls, natural attenuation and/or containment. The discussion of the benefits and disadvantages of each candidate technology is described but not weighted in this section. The MTCA preferences for selection of remedy are reflected in regulatory evaluation criteria which will be described and applied in the Draft Cleanup Action Plan.

## **6.2 Remediation Alternatives**

Remediation alternatives are developed from treatment technologies, to meet the goals of the cleanup in accordance with MTCA requirements and guidelines. The process of developing remediation alternatives begins with a broad overview of all types of treatment technologies. A comprehensive list of technologies relevant to the Site was developed using professional knowledge and judgment, experience, and screening information prepared by EPA for use across the United States (USEPA, 2007).

The list of treatment technologies was given a cursory screening to eliminate any technologies that do not apply to the observed contamination and/or Site-specific conditions. The following applicable treatment technologies were considered for use in development of remediation alternatives:

- Excavation and Off-site Disposal of Contaminated Soil and Pump and Treat of Contaminated Groundwater in Excavation
- In-Situ Chemical/Biological Remediation with Vadose Zone Soil Excavation
- Air Sparging and Soil Vapor Extraction

These treatment technologies are considered for evaluation in this FS. Remediation alternatives are presented below.

### **6.2.1 Alternative 1 – Excavation and Off-Site Disposal of Contaminated Soil and Pump and Treat of Contaminated Groundwater in Excavation**

Excavation and off-site disposal of contaminated soils is a common remedial approach for source removal. Excavation would remove the source of contamination and is typically followed by various off-site soil treatment and/or disposal alternatives.

The proposed excavation area for Alternative 1, which is the area of soil contamination with petroleum COCs exceeding MTCA Method A Soil Cleanup Levels, is shown in Figure 14. The excavation will be conducted using a 1:1 sidewall slope. A large excavator with a sufficient reach to conduct the excavation as illustrated in Figure 14 will be used. PID readings and odor screening will be used to screen for the potential presence of Former Wexler Property Site COCs. A water service line runs through the proposed excavation area; this line will either be exposed throughout the proposed excavation area and supported as the excavation proceeds, or, it will be removed and re-routed prior to completion of the excavation. Groundwater monitoring wells within the planned excavation area will need to be decommissioned prior to completion of the excavation, and if needed for compliance groundwater monitoring, will be replaced.

Due to the Former Wexler Property Site's location within and commingled with the BSCSS Site, and based on the findings of previous subsurface investigations at the Site (Floyd Snider, 2010b; Kane Environmental, 2018), PCE and breakdown products are present in soil. PCE and TCE are listed dangerous wastes under the state Dangerous Waste regulations (WAC 173-303). Soils with any detectable concentrations of these listed wastes require special handling and disposal when excavated. If PCE and TCE concentrations are less than RCRA land disposal restrictions, and less than Method B direct contact levels, Ecology may issue a "Contained In" determination, allowing disposal of the soils at a Subtitle D landfill. Soils with higher concentrations will designate as Dangerous Wastes and must be sent to a Subtitle C facility for treatment, stabilization, and/or disposal. Based on the concentrations of PCE and TCE in soils on the Site documented by previous investigations of the Site (<1 ppm), soils classifying as Dangerous Waste are not considered likely to be encountered in the excavation. Additional pre-excavation soil sampling may be conducted in the area of planned excavation to gather additional information regarding the concentrations of PCE and breakdown products in contaminated soils on the Former Wexler Property Site since HVOCs are commingled with petroleum hydrocarbons.

Overburden soils that based on field screening are considered unlikely to contain COCs will be stockpiled on the current property and tested to determine the concentrations of COCs as well as PCE and breakdown products. The number of samples collected from soil stockpiles for testing will follow the guidance in Table 6.9 of *Guidance for Remediation of Petroleum Contaminated Sites* (Ecology Publication 10-09-057, Revised June 2016). Soils that contain PCE or any breakdown products at concentrations that exceed laboratory reporting limits will be transported to an appropriate off-Site disposal location as described

above. Soils that do not contain detectable PCE or breakdown products will be classified according to Table 12.1 of *Guidance for Remediation of Petroleum Contaminated Sites* (Ecology Publication 10-09-057, Revised June 2016). Category 1 and 2 soils will be reused as excavation backfill as appropriate; other soils will be transported to an appropriate off-Site disposal location.

All soils containing concentrations of petroleum COCs exceeding MTCA Method A Soil Cleanup Levels will be removed by excavation, even those located beneath 15 feet bgs (the vertical point of compliance). This will be done to ensure that all source soil that may contribute to groundwater contamination is removed, and because (based on existing data) these contaminated soils extend to approximately seventeen (17) feet bgs, only a few feet beyond the vertical point of compliance. Clearance soil samples will be collected from the bottom and sidewalls of the excavation and submitted for laboratory analysis to confirm that all soils containing concentrations of petroleum hydrocarbon COCs exceeding MTCA Method A Soil Cleanup Levels have been removed. The spacing and distribution of clearance soil samples will follow guidelines established in section 6.8.3 of the Ecology *Guidance for Remediation of Petroleum-Contaminated Sites* (Ecology, 2016), and will be more fully addressed in a Cleanup Action Plan for the Former Wexler Property Site. Compacted overburden soils designated as reusable based on laboratory analytical results or clean imported fill material will replace the excavated contaminated soil. The total mass of soil requiring off-Site disposal in this alternative is estimated to be 1,300 tons.

Due to the shallow depth to groundwater at the Former Wexler Property Site (four (4) to five (5) feet bgs), dewatering of the excavation area will be required to complete the remedial excavation. Dewatering will be achieved by dewatering pumps placed directly in the excavation to remove water that seeps into the excavation. Water pumped from the excavation will be stored temporarily in one or more holding tanks. Water will be tested for site COCs as required by King County Industrial Waste in order to obtain authorization for discharge of water to the King County sanitary sewer system. Water will be passed through a filtration and activated carbon purification system prior to discharge to sanitary sewer.

Removal of groundwater from the remedial excavation will serve as a remedial action to address groundwater petroleum hydrocarbon contamination. Following the completion of the excavation, all soil with concentrations of petroleum COCs at concentrations exceeding MTCA Method A Soil Cleanup Levels will have been removed from the Former Wexler Property Site. The excavation of this soil constitutes the removal of all source material for groundwater contamination with petroleum COCs. The combined effects of pumping of petroleum hydrocarbon contaminated groundwater from the excavation and removal of source soil will bring the concentrations of petroleum COCs in groundwater into compliance with MTCA Method A Groundwater Cleanup Levels. Grab samples collected from the excavation pit water will determine the length of time needed for excavation dewatering. Prior to or after soil excavation, as a contingency, air sparging wells may be used to enhance volatilization of contaminants dissolved in groundwater and sorbed onto saturated soils, and more detail will be provided in the EDR report.

Prior to backfilling of the excavation, approximately 1,000-gallons of the bioremediation product, CarbStrate®, currently being used for the BSCSS HVOC plume, will be placed in the excavation. Following backfilling of the excavation, selected groundwater monitoring wells may be installed in the backfilled excavation, and selected perimeter groundwater monitoring wells that were decommissioned prior to excavation activities may be replaced. Compliance monitoring of groundwater will be conducted in selected groundwater monitoring well locations. Selected decommissioned wells that were previously used for monitoring of the BSCSS site may also be replaced. Quarterly monitoring will be conducted at the Former Wexler Property Site at selected compliance monitoring wells until four consecutive quarters of compliance (or an alternative duration specified by Ecology) with groundwater cleanup levels (MTCA Method A Groundwater Cleanup Levels) is achieved for petroleum hydrocarbons. Selected groundwater monitoring wells will then either be decommissioned or left in-place for continued use in monitoring remediation progress of HVOC COCs for BSCSS compliance monitoring.

The estimated timeframe to petroleum COCs compliance in soil at the Former Wexler Property Site is estimated at 2 weeks since soil clearance samples will be collected while the excavation pit is open and accessible. Groundwater compliance for petroleum hydrocarbons at the Former Wexler Property Site for Alternative 1 is 1 year following completion of the remedial excavation. Remnant petroleum COCs contamination in groundwater is not expected to exceed selected groundwater cleanup levels, therefore, an extended period of compliance monitoring is not anticipated to be necessary. The estimated cost for implementation of Alternative 1 is \$1,200,000.

The advantages of Alternative 1 – Excavation and Off-Site Disposal of Contaminated Soil and Pump and Treat of Contaminated Groundwater in Excavation include:

- All petroleum contaminated soil is removed through excavation and petroleum contaminated groundwater through pumping, resulting in complete source control that can be confidently expected to result in successful achievement of groundwater compliance and protection of potential receptors
- The timeframe of this alternative is shorter than other alternatives, allowing for a quicker remediation of the Site to a state where it can be redeveloped
- No remediation system equipment or on-going operations and maintenance activities required (see Alternative 3)
- No or minimal interference with the ongoing BSCSS bioremediation and recirculation remedial action that is addressing HVOC COCs on the Former Wexler Property Site and surrounding area.
- Removal of HVOC COCs will occur during soil excavation and groundwater pumping, contributing to remediation of these contaminants, along with the placement of approximately 1,000 gallons of the remediation product, Carbstrate®, into the open excavation

The disadvantages of Alternative 1 include:

- Excavation of contaminated soil will involve short-term risks associated with exposure of on-Property workers to these soils during the excavation process
- Requires off-site transport for treatment or disposal of contaminated soils
- Requires importing and compacting clean import backfill to replace removed soils
- Disruptive activity with significant noise and potential dust
- Pumped groundwater generated during dewatering of the excavation will require treatment prior to disposal
- Removal and replacement or difficult preservation of a fire hydrant water supply line that runs through the planned excavation area is required
- Decommissioning and replacement of existing groundwater wells within the excavation that are currently planned for use in monitoring the remediation of the BSCSS site is required

#### **6.2.2 Alternative 2 - In-Situ Chemical/Biological Remediation with Vadose Zone Soil Excavation**

This option focuses on *in-situ* remediation of petroleum contaminated soil and groundwater on the Former Wexler Property Site using chemical oxidants to degrade petroleum constituents and increase bio-availability, and enhancement of biological activity using an oxygen releasing remediation product. In-situ remediation techniques address only the contaminated soil in the saturated zone. Due to the presence of small areas of contaminated soil above the saturated zone, a limited remedial excavation to the depth to groundwater will also be required. See Figure 15 for a depiction of this remedial alternative

The following tasks would be included for *in-situ* chemical/biological remediation of petroleum constituents:

**Vadose Zone Soil Excavation:** In soil borings S-KSB-13 and S-KSB-16, soil contamination was identified above the highest level that groundwater reaches on the Former Wexler Property Site (approximately 4.5 feet bgs). In these locations, a remedial excavation will be conducted to the depth of groundwater (no deeper than five (5) feet bgs) to remove soils containing COCs at concentrations exceeding the MTCA Method A Soil Cleanup Levels. Sidewall samples and submitted for laboratory analysis for petroleum COCs to ensure that all petroleum COC-contaminated soils situated in the vadose zone are removed. Excavated soils would be transported for off-Site disposal at an appropriate location, following procedures described

in Alternative 1 above. The estimated total mass of soil requiring off-Site disposal for this alternative is 250 tons.

**Physical/Chemical Treatment:** Injection of *PersulfOx* (Regenesis, Inc, San Clemente, CA) on the Property, for the remediation of petroleum contaminated soil and groundwater. *PersulfOx* includes chemical oxidizing agents which are capable of breaking down petroleum hydrocarbons as well as releasing them from bound sediments, thereby increasing their solubility for extraction and their bio-availability for microbial degradation.

**Biological Treatment:** Injection of *ORC-Advanced* (Regenesis, Inc, San Clemente, CA) for the remediation of petroleum contaminated soil and groundwater. *ORC-Advanced* is designed to release oxygen into the contaminated saturated zone, thereby increasing aerobic microbial degradation of the remaining hydrocarbons. *ORC-Advanced* will be injected into the Site subsurface following the *PersulfOx* injection. No groundwater extraction will occur to allow the *ORC-Advanced* to remain in the formation to boost dissolved oxygen levels.

Two two-part rounds of injection will be conducted as follows:

- Up to forty (40) injection borings using a direct push drill rig for *PersulfOx*.
- Approximately four to six weeks following *PersulfOx* injection, *ORC-Advanced* will be injected at the site at an estimated forty (40) direct push injection borings.
- The second round of *PersulfOx and ORC Advanced* injection will follow approximately two months after the first round, using approximately the same number of borings for each product.

Approximately three (3) months following the second injection, quarterly groundwater compliance monitoring will be initiated. Groundwater compliance monitoring will be conducted quarterly by sampling groundwater from the existing groundwater monitoring wells located onsite and analyzing groundwater for petroleum COCs. Six to ten direct push soil borings will be advanced within the Site area to allow for collection of soil confirmation samples after four consecutive quarters of groundwater compliance (or an alternative duration specified by Ecology) has been achieved.

The estimated timeframe to petroleum COCs compliance in soil and groundwater at the Former Wexler Property Site for Alternative 2 is five (5) to seven (7) years or more. The estimated cost for Alternative 2 is \$1,400,000

The advantages of Alternative 2 - In-Situ Chemical/Biological Remediation with Vadose Zone Soil Excavation include:

- Less site disruption than excavation of all contaminated soil on-Site (Alternative 1), resulting in lower short-term risks related to exposure of workers to contaminants in excavated soil
- No on-site remediation system equipment or on-going operations and maintenance required
- Contaminants break down into harmless by-products
- Contaminants are removed from the source area, including the unsaturated zone (with excavation).
- Treatment extends to areas of contaminated groundwater beyond the source zone as remedial compounds are transported in groundwater
- Maintains ground water balance and pre-existing gradient
- Eliminates need for discharge of pumped groundwater (e.g., storm drain, sanitary sewer)

The disadvantages of Alternative 2 - In-Situ Chemical/Biological Remediation with Vadose Zone Soil Excavation include:

- Longer restoration timeframe relative to excavation of all petroleum COC-contaminated soil on the Former Wexler Property Site (Alternative 1)
- Success of product injection using direct push injection system may be variable
- Residence time of remedial compounds in the hydrogeologic environment on the Former Wexler Property Site is uncertain, but may be shorter than desired given the relatively high hydraulic conductivity/transmissivity observed at the nearby BSCSS site.
- Injected compounds may interfere with remedial processes associated with HVOCs and the active bioremediation system operating at the BSCSS site
- Extraction and recirculation of groundwater at or near the Former Wexler Property Site as part of the BSCSS site remedial action may remove or dilute remedial compounds injected at the Former Wexler Property Site.
- Higher cost associated with proprietary remedial compounds (Regenesis products)
- If unknown areas of vadose zone treatment exist, these will not be treated by this alternative
- Impact of treatment may be affected by variations in aquifer lithology

### **6.2.3 Alternative 3 - Air Sparging and Soil Vapor Extraction (AS/SVE)**

Air sparging involves introducing compressed air into the groundwater. This is achieved by injecting compressed air into wells that are screened in the saturated zone immediately below the depth of contaminated soil and groundwater. The introduction of air below the groundwater table enhances volatilization of contaminants dissolved in groundwater and sorbed onto saturated soils. Volatilized contaminants are then recovered via soil vapor extraction of the overlying vadose zone. Low molecular weight, volatile compounds such as gasoline range petroleum hydrocarbons and BTEX are generally amenable to air sparging and soil vapor extraction; higher molecular weight, semivolatile contaminants (including naphthalene) may be less amenable. Soil vapor extraction is the process of removing contaminants from the soil in the vapor phase, usually by applying a vacuum to the subsurface. This is done through the use of a series of wells which are placed throughout the area of contamination and screened above the groundwater table. The wells are connected to an air blower, which draws a vacuum. This action is enhanced when the surface is covered by a cap of asphalt and/or concrete, minimizing the amount of ambient surface air drawn into the system. With the reduced pressure, air begins to move through the subsurface drawing out the contaminant vapors. The withdrawn air will likely require treatment, depending on contaminant concentrations. Common processes for remediating this air include vapor phase carbon adsorption, catalytic converters, or thermal converters (oxidizers). The extracted vapors are run through this remediation system, and then discharged into the atmosphere under state and local permit requirements. Due to the presence of PCE and breakdown products in soil and groundwater at the Former Wexler Property Site, the air treatment system will need to be designed to remove both the petroleum COCs, and PCE and breakdown products.

The spacing of air sparging and soil vapor extraction wells are typically fifteen (15) feet for the subsurface conditions found at the Former Wexler Property Site. Proper spacing of air sparging and soil vapor extraction wells does not require preliminary pilot testing to determine the soil air permeability and the radius of influence for each type of well since an SVE system is currently operation at BSCSS. Increased soil permeability facilitates vapor extraction. As the average permeability of the contaminated soil decreases the cost of vapor extraction system increases due to the need for more wells and larger blowers. Generally, the silt and sand-rich soils at the Former Wexler Property Site should have a level of permeability that make them amenable to AS/SVE treatment. However, heterogeneity observed in the grain size of subsurface soils within the saturated zone of the Former Wexler Property Site may cause spatial variations in the level of effectiveness of the air sparging treatment, and may leave zones where the system does not achieve the selected cleanup standards in soil and/or groundwater. For the purposes of evaluating this remedial alternative, the fifteen (15) foot AS and SVE well spacing is assumed. Figure 16 depicts the preliminary design of Alternative 3. Approximately twenty (20) SVE wells and ten (10) AS wells are anticipated to be required and could be connected to the operating BSCSS SVE system.



An Operations and Maintenance (O&M) manual will be developed to provide guidance for consistent AS/SVE system operations and testing, included detailed monitoring and sampling procedures for the remedial system. Performance monitoring will be implemented to confirm that soil and groundwater remedial actions are effective and that Cleanup Levels are being achieved. Cleanup actions will be completed following compliance monitoring defined in MTCA (WAC 173-340-410). Quarterly monitoring will be conducted until four quarters of compliance (or an alternative duration specified by Ecology) with selected groundwater cleanup levels (MTCA Method A Groundwater Cleanup Levels) is achieved for all petroleum COCs.

The estimated timeframe to regulatory closure (compliance in soil and groundwater at the Site) for Alternative 3 is five (5) to seven (7) years or more. The estimated cost for implementation of Alternative 3 is \$1,590,000.

Advantages of Alternative 3 - Air Sparging and Soil Vapor Extraction include:

- No excavation of soils, resulting in low short-term risks related to exposure of workers to contaminants in excavated soil, and the absence of soil disposal costs
- Because the process involves the continuous flow of air through the soil, it often promotes in situ biodegradation of low volatility organic compounds
- Eliminates the need for disposal of pumped groundwater
- Treats both the saturated and unsaturated zone contamination (unlike in-situ chemical/biological remediation), and use the operating BSCSS SVE system
- Will concurrently address both petroleum and HVOC COCs in soil and groundwater

Disadvantages of Alternative 3 - Air Sparging and Soil Vapor Extraction include:

- Requires electricity and some land area for the wells and treatment system components.
- Requires state and/or local agency permit for discharge of extracted soil vapor to surrounding air
- Requires significant pilot testing to establish design parameters (i.e., pressure, well spacings, SVE vacuum, discharge gas concentrations)
- Potential low air sparging radius of influence both horizontally and vertically, resulting in higher costs
- Potential lower effectiveness on semivolatile contaminants, including naphthalene (one of the Former Wexler Property Site petroleum COCs)

- Potential inability for remediation mechanism to access contaminant mass in lower permeability zones of the Site subsurface, i.e., air may preferentially flow through more permeable channels in Site soils
- Potential upwelling of ground water and modification of existing gradients
- Performance monitoring may be biased, as air may preferentially flow into the monitoring well filter packs, potentially biasing the results
- Long restoration timeframe
- Site would need to be capped to maintain subsurface negative pressures
- Contaminants in extracted soil vapor may require treatment to comply with state and/or local permit conditions
- Operation and maintenance requirements, long-term on-site equipment required
- Treatment times may be slower than other more aggressive remediation methods

## **7.0 DETAILED EVALUATION AND SELECTION OF REMEDIATION ALTERNATIVES**

This section evaluates the cleanup alternatives selected in the previous section in accordance with the selection of remedy requirements under MTCA (WAC 173-340 through 370). The proposed alternatives for the Site are:

- Alternative 1 – Excavation and Off-Site Disposal of Contaminated Soil and Pump and Treat of Contaminated Groundwater in Excavation
- Alternative 2 - In-Situ Chemical/Biological Remediation with Vadose Zone Soil Excavation
- Alternative 3 - Air Sparging/Soil Vapor Extraction

### **7.1 MTCA Threshold Requirements**

The FS considered the requirements under WAC 173-340-350 and the criteria defined in WAC 173-340-360 for the screening of potentially feasible cleanup alternatives for petroleum COCs at the Former Wexler Property Site. A cleanup alternative must satisfy the following threshold criteria as specified in WAC 173-340-360(2)(a):

- Protect human health and the environment
- Comply with cleanup standards
- Comply with applicable state and federal laws
- Provide for compliance monitoring
- Reasonable Restoration Time Frame

In addition to meeting the threshold criteria, cleanup actions under MTCA must meet the following additional requirements specified in WAC 173-340-360(2)(b):

- Use permanent solutions to the maximum extent practicable based on the criteria defined in WAC 173-340-360(3)(f); and
- Consider public concerns raised during public comment on the Cleanup Action Plan (WAC 173-340-600).

The factors used to evaluate the reasonableness of the restoration time frame per WAC 173-340-360(4)(b) include:

- Potential risks to human health and the environment posed by the Former Wexler Property Site;
- Practicability of achieving a shorter restoration time frame;

- Current use of the Former Wexler Property Site, surrounding areas, and associated resources that are or may be affected by releases from the Former Wexler Property Site;
- Potential future use of the Former Wexler Property Site, surrounding areas, and associated resources that are, or may be, affected by releases from the site;
- Availability of alternative water supplies;
- Likely effectiveness and reliability of institutional controls;
- Ability to control and monitor migration of hazardous substances from the Former Wexler Property Site;
- Toxicity of the hazardous substances at the Former Wexler Property Site; and
- Natural processes that reduce concentrations of hazardous substances and have been documented to occur at the site or under similar site conditions.

The criteria used to evaluate the degree of permanence to the maximum extent practicable per WAC 173-340-360(3)(f) include:

**Protectiveness:** This criterion considers overall protectiveness of human health and the environment, including the degree to which existing risks are reduced, the time required to reduce risk at the facility and attain cleanup standards, risks at the Site resulting from implementing the alternative, and improvement of overall environmental quality.

**Permanence:** Permanence addresses the degree to which the alternative permanently reduces the toxicity, mobility, or volume of hazardous substances, including the adequacy of the alternative in destroying the hazardous substances, the reduction or elimination of hazardous substance releases and sources of releases, the degree of irreversibility of the waste-treatment process, and the characteristics and quantity of treatment residuals generated.

**Effectiveness over the long term:** Long-term effectiveness includes the degree of certainty that the alternative will be successful, the reliability of the alternative during the period of time that hazardous substances are expected to remain on the Site at concentrations that exceed cleanup levels, and the magnitude of residual risk with the alternative in place. The following types of cleanup action components may be used as a guide, in descending order, when assessing the relative degree of long-term effectiveness: reuse or recycling; destruction or detoxification; immobilization or solidification; disposal on or off the Site in an engineered, lined, and monitored facility; isolation or containment with attendant engineering controls on the Site; and institutional controls and monitoring.

Management of short-term risks: This criterion pertains to the risk to human health and the environment associated with the alternative during construction and implementation, and the effectiveness of measures that will be taken to manage such risks. This criterion also includes risks to workers resulting from implementation of the cleanup alternative.

Technical and administrative implementability: Implementability includes consideration of whether the alternative is technically feasible, administrative and regulatory requirements, permitting, scheduling, size, complexity, monitoring requirements, access for construction operations and monitoring, and integration with business operations in nearby buildings.

Cost: This criterion addresses the cost to implement the alternative, including the cost of construction and anticipated long-term costs. Long-term costs include operation and maintenance, monitoring, and reporting costs.

Consideration of public concerns: This criterion considers whether the community has concerns regarding the alternative and, if so, the extent to which the alternative addresses those concerns. This process includes concerns from individuals, community groups, local governments, federal and state agencies, or any other organization that may have an interest in or knowledge of the Former Wexler Property Site.

The following sections evaluate the alternatives against the threshold criteria. Attachment D summarizes the cleanup alternatives evaluation, including the costs of the remediation alternatives.

### **7.1.1 Protect Human Health and the Environment**

The two types of exposure risk associated with the presence of COCs are terrestrial ecological risk and human health risk. Because the Former Wexler Property Site qualifies for a TEE exclusion based on WAC 173-340-7491 (see Attachment B for documentation of the TEE exclusion), mitigating the potential human health risk associated with exposure to petroleum COCs in indoor air, soil, and groundwater will be the primary objective of the cleanup action.

Alternative 1 fully mitigates human and ecological health risks associated by the site by directly removing all petroleum-contaminated soil and groundwater on the Former Wexler Property Site. By removing this soil, which is the source of groundwater and potential soil vapor contamination with petroleum COCs, petroleum-contaminated groundwater will also be removed from the Former Wexler Property Site. However, this alternative presents risks of exposure for workers that conduct the excavation and related activities. Alternatives 2 and 3 will also remove contaminated soil and groundwater, but over a longer time period. Alternative 2 provides for excavation of all shallow petroleum-contaminated soil that human and ecological receptors (with exception of future construction or utility workers conducting excavations greater than five (5) feet bgs while the Former Wexler Property Site is still undergoing remediation) might be exposed to

during work at or occupation of the Former Wexler Property Site. Alternative 3 prevents human exposure to shallow contaminated soil due to the requirement that the Former Wexler Property Site be paved or otherwise covered during operation of the AS/SVE system.

Any potential future human health risk due to exposure to residual COCs by the vapor intrusion pathway will be addressed by vapor barriers or other soil vapor mitigation during redevelopment at the Site.

### **7.1.2 Comply with Cleanup Standards**

According to WAC 173-340-700(3), “cleanup standards” consist of the following:

- Cleanup levels for hazardous substances present at the Site;
- The location where these cleanup levels must be met (the “point of compliance”);
- Other regulatory requirements that apply to the Site because of the type of action and/or location of the Site (“applicable state and federal laws”, as defined in WAC 173-340-710).

In the RI, the nature and extent of contamination at the Former Wexler Property Site was characterized (see Section 4 above), a conceptual Site model (CSM) for potential human and ecological exposures to contamination at the Site was developed (Section 5), and cleanup levels and points of compliance for each media (soil and groundwater) were selected based on the nature and extent of contamination and the CSM (Section 5.3.1). All remedial alternatives assessed in this FS are considered “routine” cleanup actions as defined in WAC 173-340-200, therefore, the selected cleanup levels (MTCA Method A Soil and Groundwater Cleanup Levels) are applicable to the Former Wexler Property Site (WAC 173-340-704(1)).

All remedial alternatives are expected to bring the site into compliance with these cleanup standards with respect to petroleum COCs, though this compliance will be achieved over varying timeframes. Alternative 1 is expected to have the shortest time to compliance, and its effectiveness will not be impacted by subsurface conditions. Effectiveness of Alternatives 2 and 3 throughout the Site may be impacted by heterogeneities in subsurface soil that cause variations in the success of the treatment technologies at addressing contamination at the Site.

### **7.1.3 Comply with Applicable State and Federal Laws**

Compliance with State and Federal Laws includes legally applicable, relevant and appropriate requirements (ARARs). ARARs for this site are summarized in Table 3. All alternative remedies meet ARARs for this Site.

#### 7.1.4 Provide for Compliance Monitoring

Compliance monitoring requirements (specified in WAC 173-340-410) include the following elements:

- Protection monitoring to confirm that human health and the environment are adequately protected during implementation of an alternative.
- Performance monitoring to confirm that cleanup standards or other performance standards are met.
- Compliance monitoring to monitor the short and long-term effectiveness of the remedy after completion of the alternative and if protection is being achieved in accordance with cleanup objectives.

A Compliance Monitoring Plan (CMP) describing standard operating procedures and laboratory analytical methods will be provided with the Cleanup Action Plan for the selected alternative. Assessment of each of the remedial alternatives includes consideration of comprehensive compliance monitoring programs for fulfillment of this requirement.

#### 7.1.5 Reasonable Restoration Time Frame

A reasonable restoration time frame is another requirement for evaluating alternatives. MTCA prefers alternatives that can be implemented in a shorter period of time while equivalent in other respects (e.g., permanence, implementation risks to the community, environment, cost). Restoration time frame is the time required to meet cleanup standards (i.e., to meet cleanup levels in all media at all points of compliance). Under MTCA, nine factors are used to determine whether a cleanup action provides for a reasonable restoration time frame. The shortest restoration timeframe for petroleum COCs will be achieved by Alternative 1, due to the removal of all petroleum-contaminated soils and groundwater at the Former Wexler Property Site. Alternatives 2 and 3 will take longer due to the time needed for the processes of in-situ chemical and biological remediation and air sparging and soil vapor extraction to remove petroleum contaminants from Former Wexler Property Site soil and groundwater by physical and biological processes.

#### 7.2 MTCA Other Requirements

Other requirements specified in MTCA include:

- **Use permanent solutions to the maximum extent practicable** – The requirement to use permanent solutions to the maximum extent practicable includes a preference approach to evaluate alternatives and cost. Cleanup technologies in order of decreasing preference include reuse / recycling, destruction, detoxification, and separation / volume reduction. Under MTCA these preferences may be weighed using a “disproportionate cost analysis” (WAC 173-340-360(3)(e)) that evaluates disproportionate costs compared to benefits of the remedial action.

- **Consider public concerns** – MTCA specifies public notice and participation requirements for cleanups conducted by Ecology, conducted under an order or decree, where site-specific risk assessment is used to establish cleanup levels, or where cleanup would restrict future site use.

### **7.3 Evaluation of Alternatives**

The alternatives carried forward for evaluation include:

- Excavation and Off-site Disposal of Contaminated Soil
- In-Situ Chemical/Biological Remediation with Vadose Zone Soil Excavation
- Air Sparging and Soil Vapor Extraction

Attachment D compares each of the remedial alternatives to the minimum requirements for remedial actions listed in WAC 173-340-360(2). The alternatives are evaluated under all of the requirements, including determining whether the action uses permanent solutions to the maximum extent practicable.



## 8.0 PREFERRED REMEDIAL ALTERNATIVE

This section presents proposed remedial actions to be conducted at the Site.

### 8.1 Description of Recommended Primary Remedial Alternative

Based on the results of the remedial investigation and feasibility study conducted under MTCA and the application of the selection of remedy criteria, the Preferred Alternative is Alternative 1, developed in accordance with WAC 173-340-350 through 173-340-390. Alternative 1 will consist of an excavation of contaminated soils to depths up to seventeen (17) feet bgs (the anticipated vertical extent of soil contamination). This excavation will result in removal of all petroleum-contaminated soils and groundwater at the Former Wexler Property Site. Soil confirmation samples will be collected to ensure removal of petroleum-contaminated soil. Dewatering of the excavation will be conducted by pumps placed within the excavation base. Excavated soils containing any detections of PCE or TCE and/or petroleum contaminants at concentrations exceeding re-use standards established by Ecology (Ecology, 2015) will be disposed at an appropriate off-site location.

Potential vapor intrusion, associated with future development, will be mitigated by the installation of vapor barriers and passive venting systems, or other vapor intrusion mitigation methods and documented in the cleanup action plan. The Cleanup Action Plan will include a total of two rounds of indoor air sampling. The first round of indoor air sampling will occur post-construction and pre-occupation of the buildings. The sampling procedures, and the analyses for both HVOCs and petroleum COCs, will follow sampling protocol provided in *Ecology's Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action (Review Draft Revised February 2016)* or the current guidance at the time of sampling. If indoor air HVOC and petroleum hydrocarbon COCs concentrations are above their respective screening levels in the first indoor air sampling round, a confirmational sampling round will be conducted within two weeks of the first round, to confirm the findings. If the confirmational sampling confirms the presence of HVOC and/or petroleum COCs in the indoor air, additional indoor air mitigation will be implemented. The details of the indoor air mitigation will be included in a corrective action report.

The second round of indoor air compliance sampling will occur prior to the completion of the draft Groundwater Closure Report. The indoor air sampling methodology, indoor air sampling results, and corrective actions for any additional indoor air mitigation (if any) for the first and second rounds of indoor air sampling will be documented in the Groundwater Closure Report.

The estimated cost of the Preferred Alternative is \$1,200,000.

See Figure 14 for a depiction of the preferred remedial alternative.

## **8.2 Rationale for Selecting Proposed Alternative**

The proposed alternative was selected in accordance with remedy selection requirements under MTCA, and meet all threshold and other requirements specified in WAC 173-340-360.

## **8.3 Cleanup Standards**

Determination of cleanup standards is detailed in Section 5.2, and included the following process, per MTCA:

- Evaluate beneficial use of land, ground water, and surface water
- Develop conceptual site model (i.e., contaminant source, affected media, exposure pathways, and receptors)
- Select COCs
- Select ARARs
- Choose cleanup levels
- Identify points of compliance

The cleanup standards are then based on the calculated cleanup levels measured at the points of compliance. Cleanup levels selected for the Former Wexler Property Site are MTCA Method A Soil and Groundwater Cleanup Levels. Points of compliance are as follows:

### **Soil**

- Standard point of compliance (throughout the Former Wexler Property Site) based on protection of ground water.
- From the ground surface to fifteen (15) feet below ground surface based on direct contact exposure on the Former Wexler Property Site.

### **Groundwater**

- For the Former Wexler Property Site, the standard groundwater point of compliance is proposed, i.e., groundwater throughout the Site.

## **8.4 Schedule for Implementation**

Schedule for implementation will be detailed in the Cleanup Action Plan, and is anticipated to be begun in 2019, in conjunction with the ongoing cleanup at the BSCSS site. The relative order of cleanup elements is as follows:

- Excavation and off-Site disposal of contaminated soil, with concurrent excavation dewatering

- Quarterly groundwater compliance monitoring
- Engineering controls – depends on building construction schedule
- Institutional controls, if necessary.

#### **8.5 Applicable State and Federal Laws**

All applicable state and federal laws, if any, for the proposed cleanup action will be followed. Regulatory compliance will be addressed during the permitting phase of the project, and may include grading, storm water, and other permitting issues.

#### **8.6 Compliance with Threshold and Other MTCA Requirements**

As stated in Section 8.1, the Preferred Alternative complies with threshold and other MTCA requirements specified in WAC 173-340-360.

## 9.0 SUMMARY & CONCLUSIONS

The Former Wexler Property Site includes a portion of King County Assessor's tax parcel 945720-0050, situated in Bothell, Washington. The original Wexler property is owned by the City of Bothell. The original Wexler property was previously occupied by a gasoline service station from 1947 to an unknown date between 1970 and 1980. Three underground storage tanks located at the property were previously used to contain gasoline product for sale at the service station. During UST system removal activities conducted in 1989, a release of gasoline to soil and groundwater at the former Wexler property was identified, which occurred at an unknown time between 1947 and 1989. Additional investigation and interim remedial activities were conducted in 1989 and in the subsequent years, but petroleum contamination at the property was not fully characterized or addressed. This Supplemental RI/FS provides a full characterization of petroleum contamination in soil and groundwater at the Former Wexler Property Site.

The Former Wexler Property Site is located within the Bothell Service Center Simon and Sons site. The BSCSS site consists of an area of soil and groundwater contamination with HVOCs, which resulted from releases of dry cleaning solvents that occurred at a former commercial dry cleaner on the BSCSS property, located west adjacent to the original Wexler property. HVOC contamination on the BSCSS site, which includes the Former Wexler Property Site, is currently being remediated under a Consent Decree negotiated between the City of Bothell and Ecology. The RI section of this report demonstrates that HVOC-contaminated groundwater migrating onto the Former Wexler Property Site from the up-gradient source area on the BSCSS property has resulted in commingling of the BSCSS site HVOC groundwater plume and the petroleum groundwater plume on the Former Wexler Property Site.

Remedial investigation activities included in this report have defined the nature and extent of soil and ground water impacts with petroleum COCs. The COCs at the Former Wexler Property Site are Gasoline, Benzene, Ethylbenzene, Xylenes, Naphthalene, Tetrachloroethene, Trichloroethene, Cis-1,2 Dichloroethene (DCE), and Vinyl Chloride (VC).

The Feasibility Study conducted as part of this Supplemental RI/FS report focuses on identification of a remedial alternative to remediate petroleum COCs (Gasoline, Benzene, Ethylbenzene, Xylenes, and Naphthalene) to concentrations in soil and groundwater that are in compliance with the cleanup levels identified as part of the Feasibility Study. A remedial alternative for HVOC COCs at the Former Wexler Property Site was identified as part of the BSCSS site RIFS (Kane Environmental, 2017), and is presently being implemented. Former Wexler Property Site cleanup levels for petroleum COCs in soil and ground water are MTCA Method A Soil and Groundwater Cleanup Levels. Points of compliance for petroleum COCs at the Former Wexler Property Site are as follows:

- Soil
  - Standard point of compliance (throughout the Former Wexler Property Site) based on protection of ground water
  - From the ground surface to fifteen (15) feet below ground surface based on direct contact exposure
- Groundwater
  - The standard ground water point of compliance is proposed, i.e., ground water throughout the Site

Based on the results of this Supplemental Remedial Investigation and Feasibility Study conducted under MTCA and the application of the selection of remedy criteria, the preferred alternative, Alternative 1 (developed in accordance with WAC 173-340-350 through 173-340-390), has been selected to remediate contamination of soil and groundwater with Former Wexler Property Site petroleum COCs listed above. Alternative 1 includes the following activities:

- Excavation and off-Site disposal of petroleum-contaminated soil, with concurrent excavation dewatering of petroleum-contaminated groundwater, and soil sampling at the excavation bottom and sidewalls to demonstrate soil compliance
- Quarterly groundwater monitoring to demonstrate groundwater compliance
- Engineering controls
- Institutional controls, if necessary.

A Cleanup Action Plan describing in detail the activities related to implementation of the preferred remedial alternative to address petroleum COCs in soil and groundwater at the Former Wexler Property Site will be written and implemented under a consent decree amendment for the Bothell Service Center Simon & Son site. The Former Wexler Property Site will become part of the BSCSS site, making the Wexler petroleum COCs cleanup a component of the currently ongoing BSCSS cleanup which focuses on cleanup of dry cleaning solvents in soil and groundwater.

## 10.0 REFERENCES

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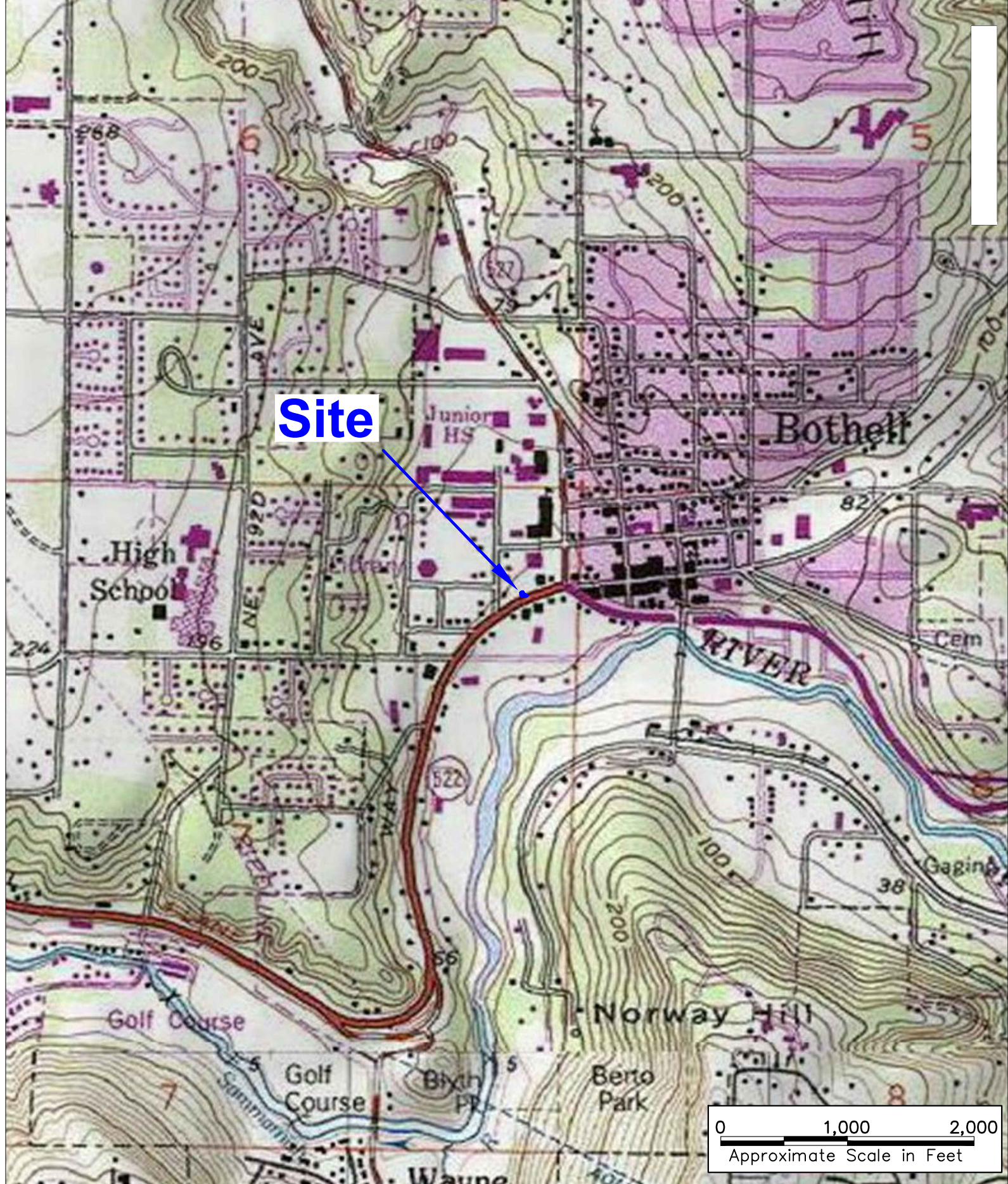
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Washington Department of Ecology, 2009, revised 2016, 2018. *Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action*, Washington State Department of Ecology, Toxics Cleanup Program, Publication no. 09-09-047. Dated April 2018.

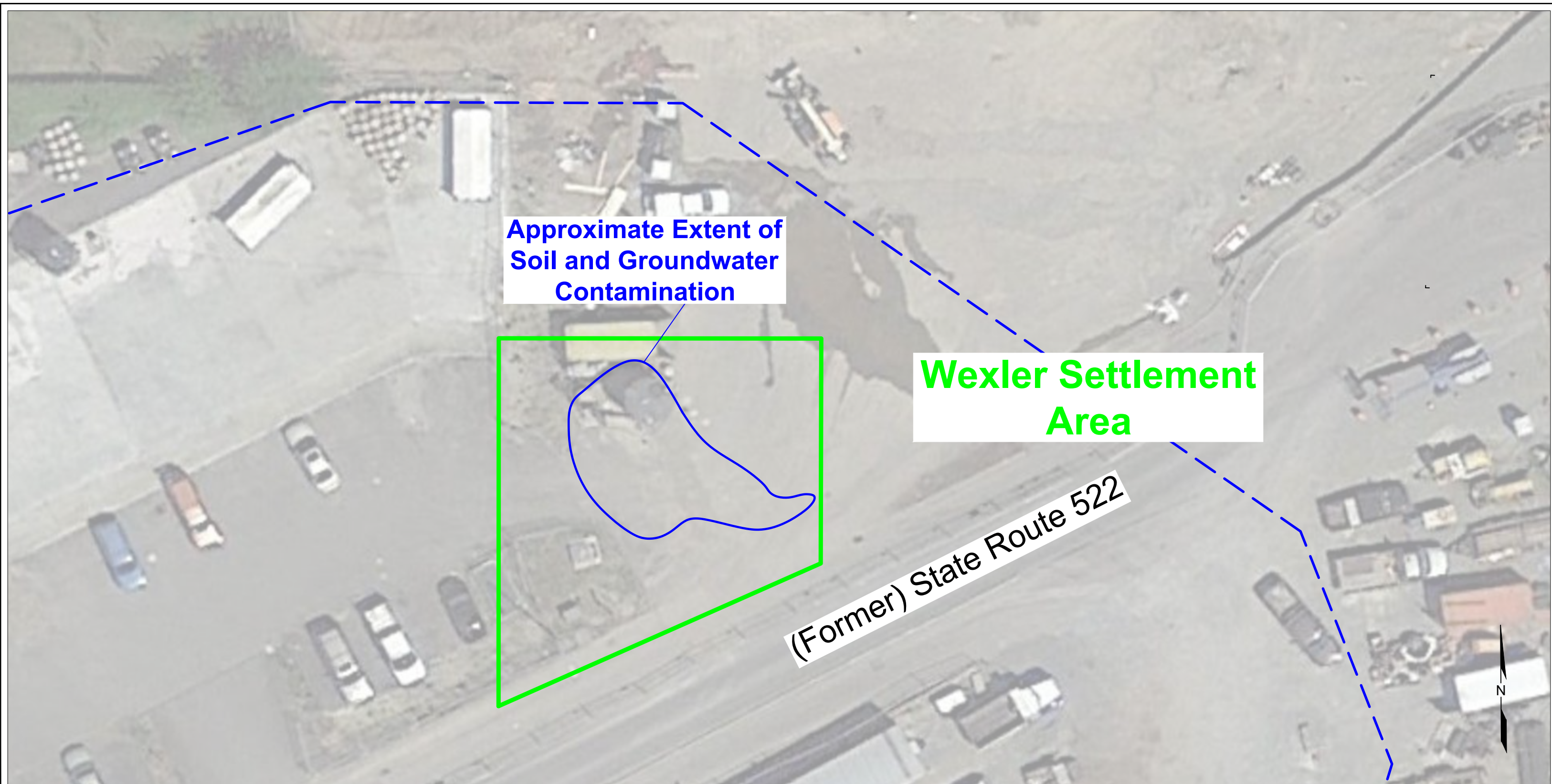
Washington Department of Ecology, 2018, *Cleanup Site Details* for Als Auto Bothell Wexler Property (Cleanup Site ID 6418). Accessed November 14, 2018 at <https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=6418>.

## Figures





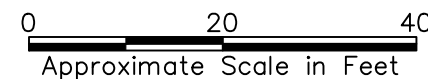




Aerial Photo Source: Google Earth  
 Aerial Photo Date: May 22, 2017

**LEGEND**

- Approximate location of Wexler Site Boundary
- - - Approximate location of BSCSS Site Boundary
- Wexler Settlement Area

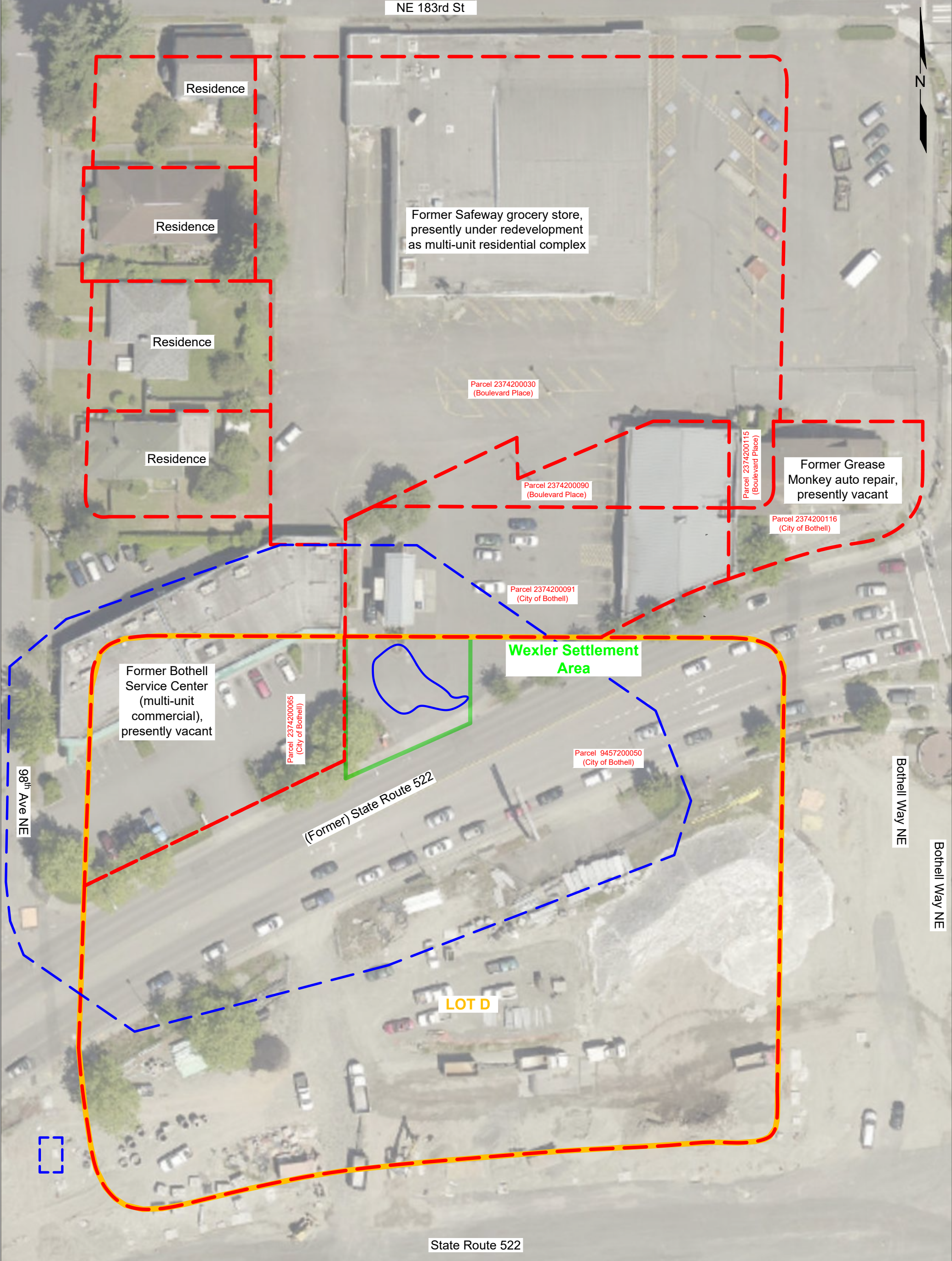


**Project No. 82305**

**Supplemental Remedial Investigation / Feasibility Study**  
 Former Wexler Property Site  
 Bothell, Washington 98011

**Figure 2**  
 Site Plan





NE 183rd St

Residence

Residence

Residence

Residence

Former Safeway grocery store,  
presently under redevelopment  
as multi-unit residential complex

Parcel 2374200030  
(Boulevard Place)

Parcel 2374200090  
(Boulevard Place)

Parcel 2374200115  
(Boulevard Place)

Former Grease  
Monkey auto repair,  
presently vacant

Parcel 2374200116  
(City of Bothell)

Parcel 2374200091  
(City of Bothell)

Wexler Settlement  
Area

Former Bothell  
Service Center  
(multi-unit  
commercial),  
presently vacant

Parcel 2374200065  
(City of Bothell)

Parcel 9457200050  
(City of Bothell)

98th Ave NE

(Former) State Route 522

Bothell Way NE

Bothell Way NE

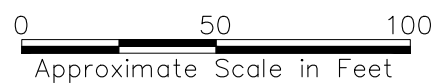
LOT D

State Route 522

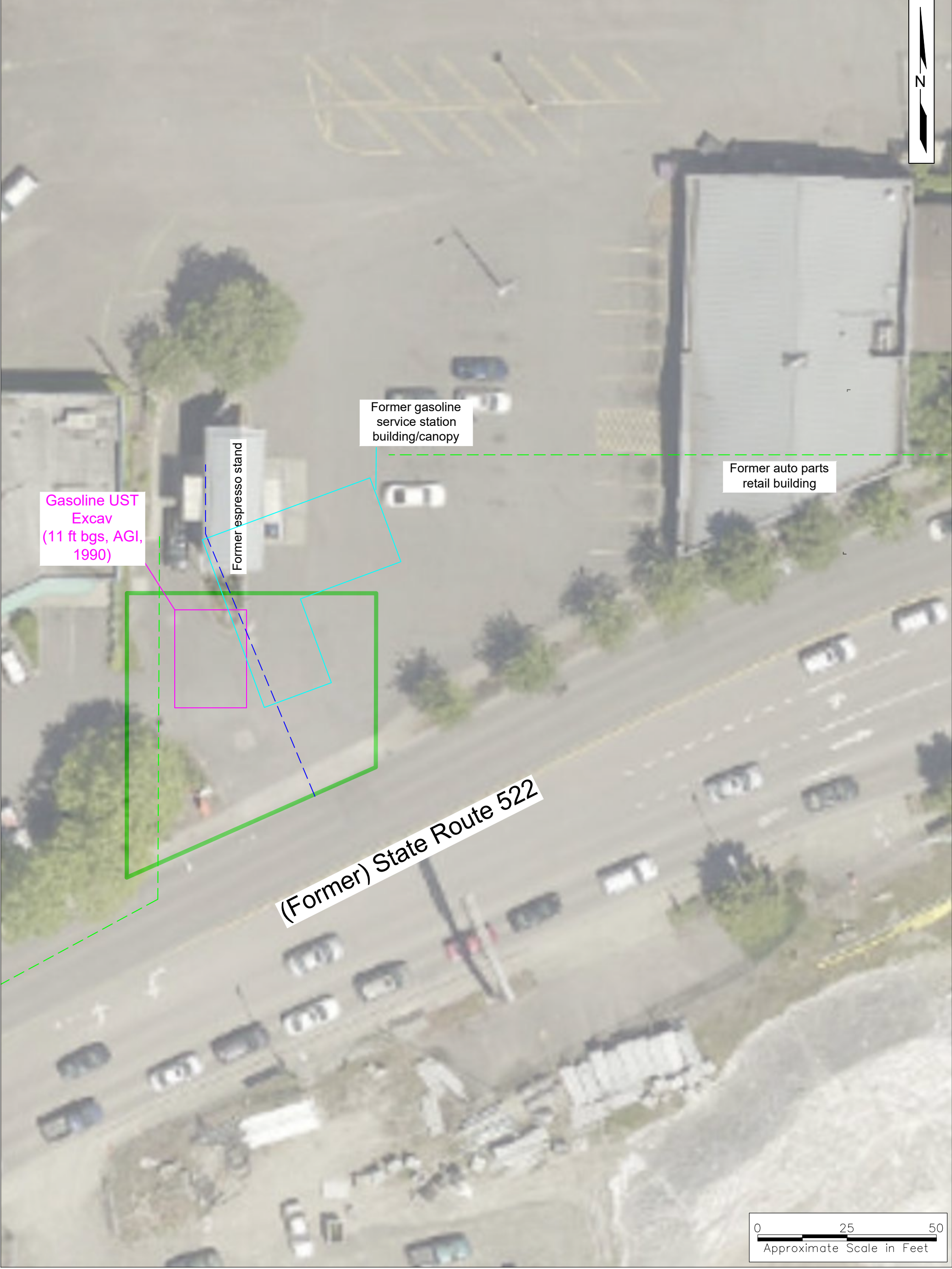
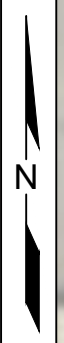
Aerial Photo Date: 2013

**LEGEND**

- Wexler Settlement Area
- - - Approximate location of parcel boundary, with label indicating parcel number and ownership
- - - Approximate location of Wexler Petroleum Contamination boundary
- - - Approximate location of BSCSS Site boundary
- - - Approximate location of Lot D







Former gasoline service station building/canopy

Former auto parts retail building

Gasoline UST Excav (11 ft bgs, AGI, 1990)

Former espresso stand

(Former) State Route 522

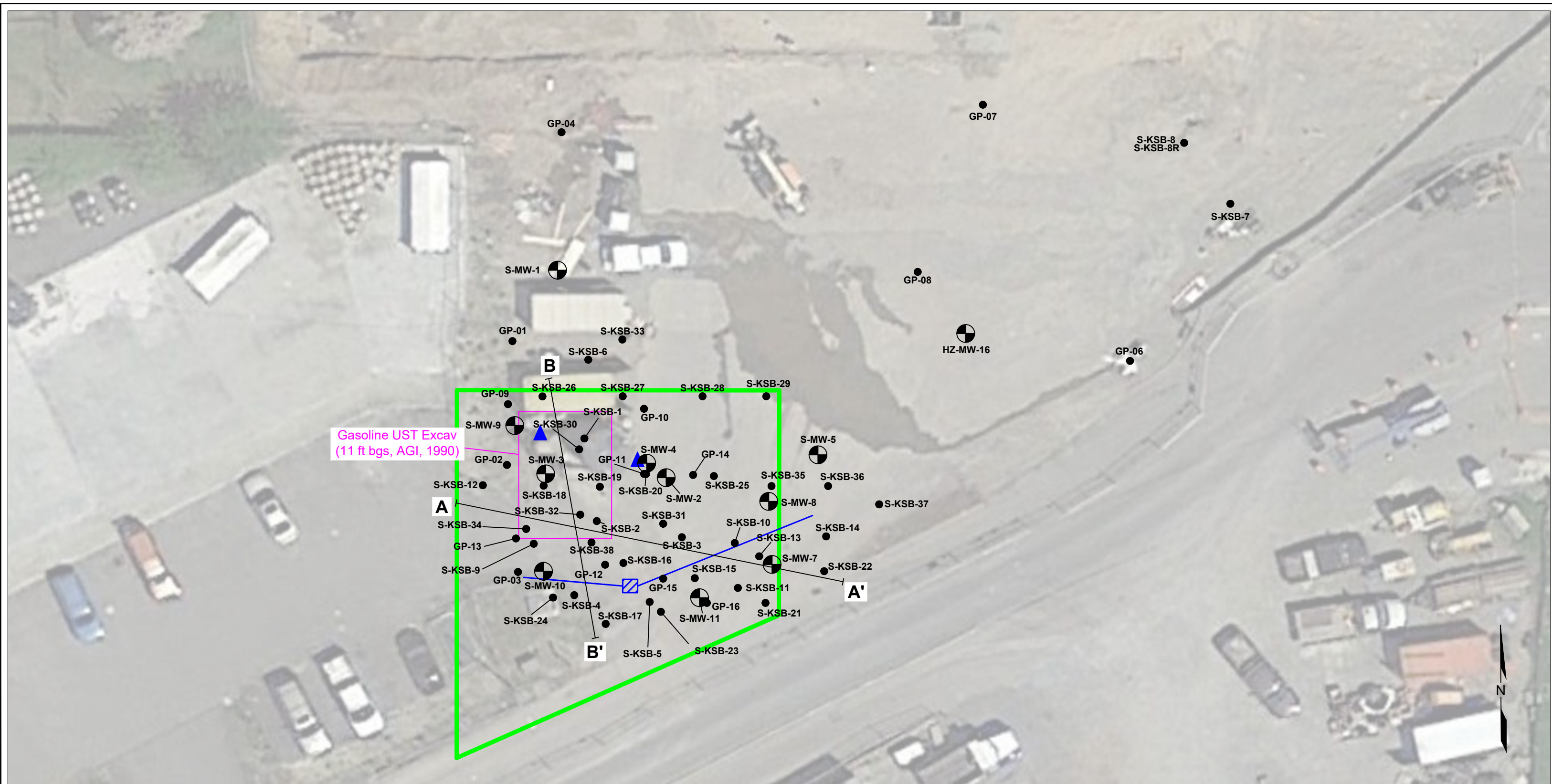
0 25 50  
Approximate Scale in Feet

LEGEND

Aerial Photo Date: 2013

- Wexler Settlement Area
- Approximate location of former structure
- Approximate location of previous excavation
- - - Approximate location of underground fire hydrant water supply line
- - - Approximate location of underground sewer utility line

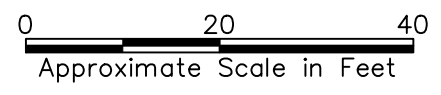


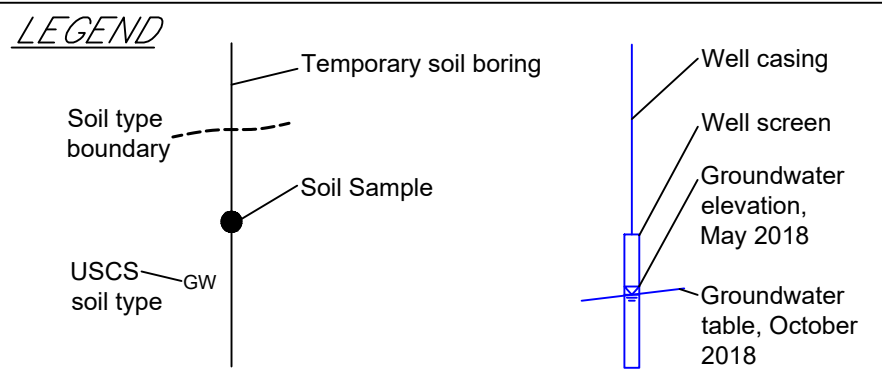
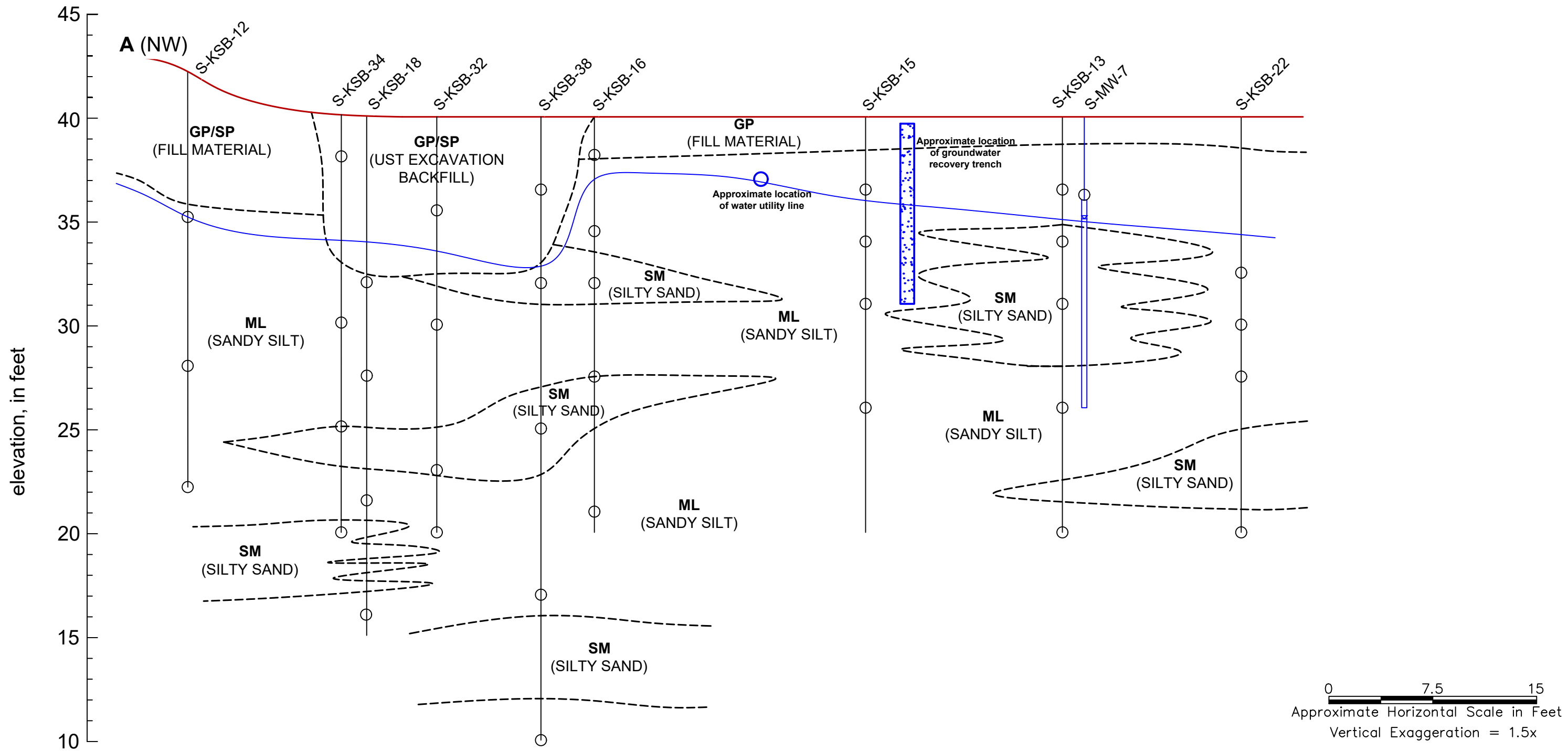


Aerial Photo Source: Google Earth  
Aerial Photo Date: May 22, 2017

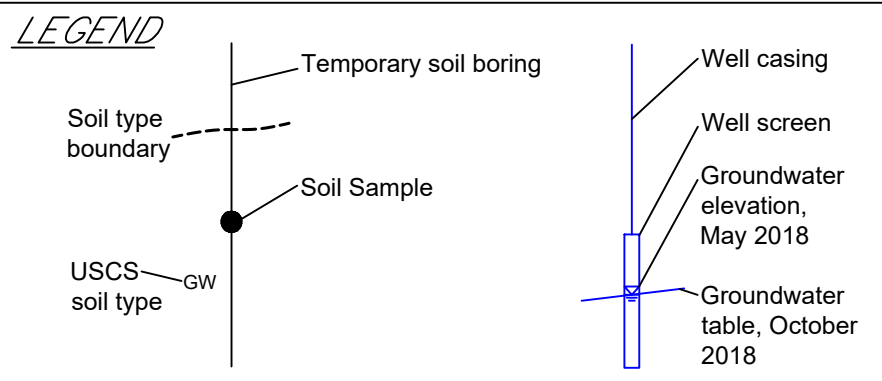
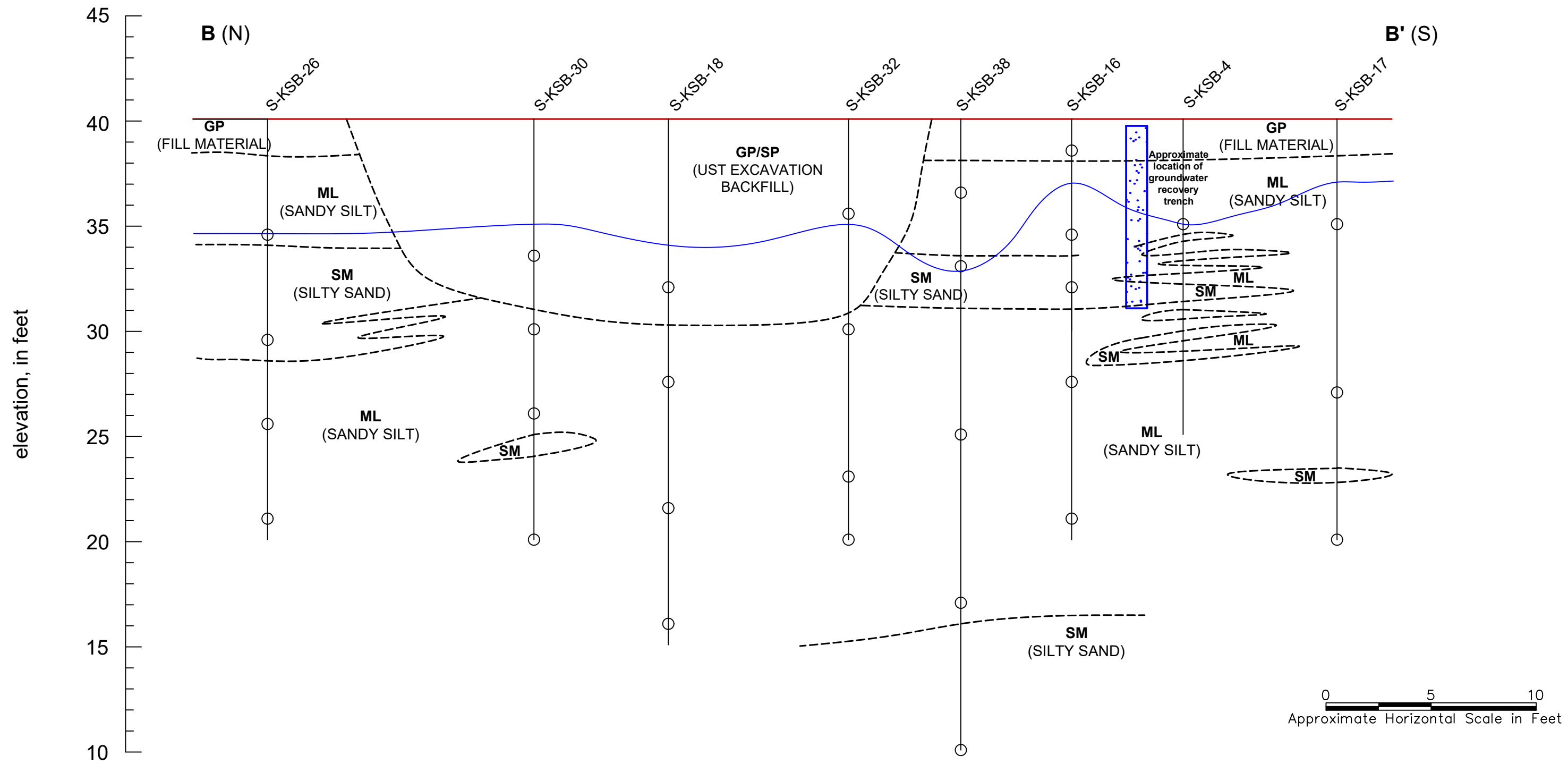
**LEGEND**

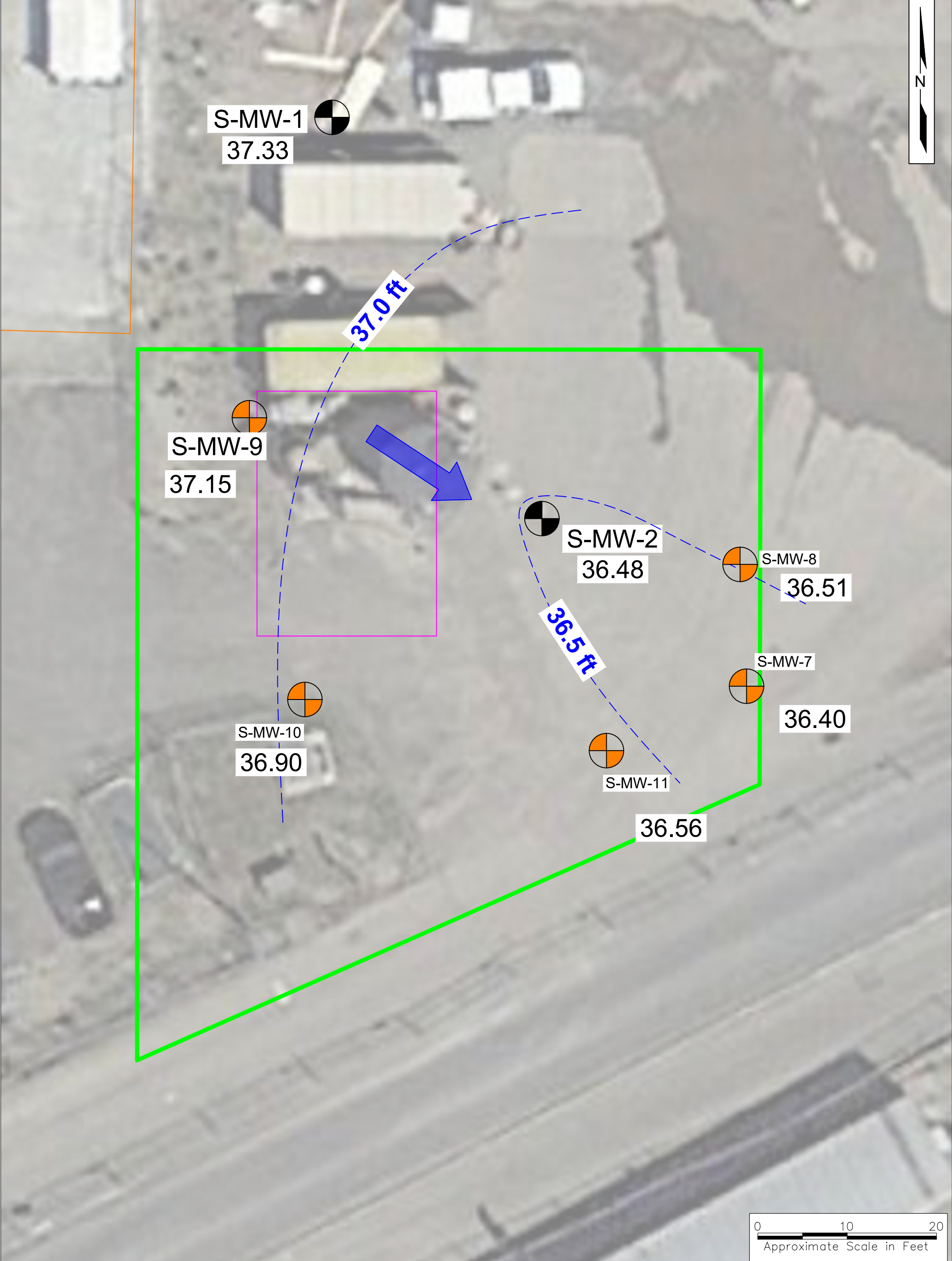
- ▬ Wexler Settlement Area
- ▭ Approximate location of previous excavation
- ▭ Approximate location of historical groundwater recovery sump and trench
- ▲ Approximate location of historical groundwater re-injection well
- Location of soil boring
- ⊗ Location of groundwater monitoring well











S-MW-1  
37.33

S-MW-9  
37.15

S-MW-10  
36.90

S-MW-2  
36.48

S-MW-11

S-MW-8  
36.51

S-MW-7  
36.40

36.56

37.0 ft

36.5 ft

**LEGEND**

Wexler Settlement Area

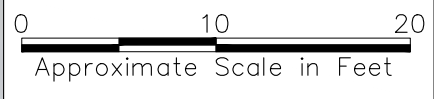
Approximate location of existing groundwater monitoring well, screened in shallow aquifer (<15.5 ft bgs), with groundwater elevation

Approximate location of groundwater elevation contour, with elevation (feet above sea level)

Approximate location of new Kane groundwater monitoring well, screened in shallow aquifer (<15 ft bgs), with groundwater elevation

Approximate direction of shallow groundwater flow

Aerial Photo Date: May 22, 2017

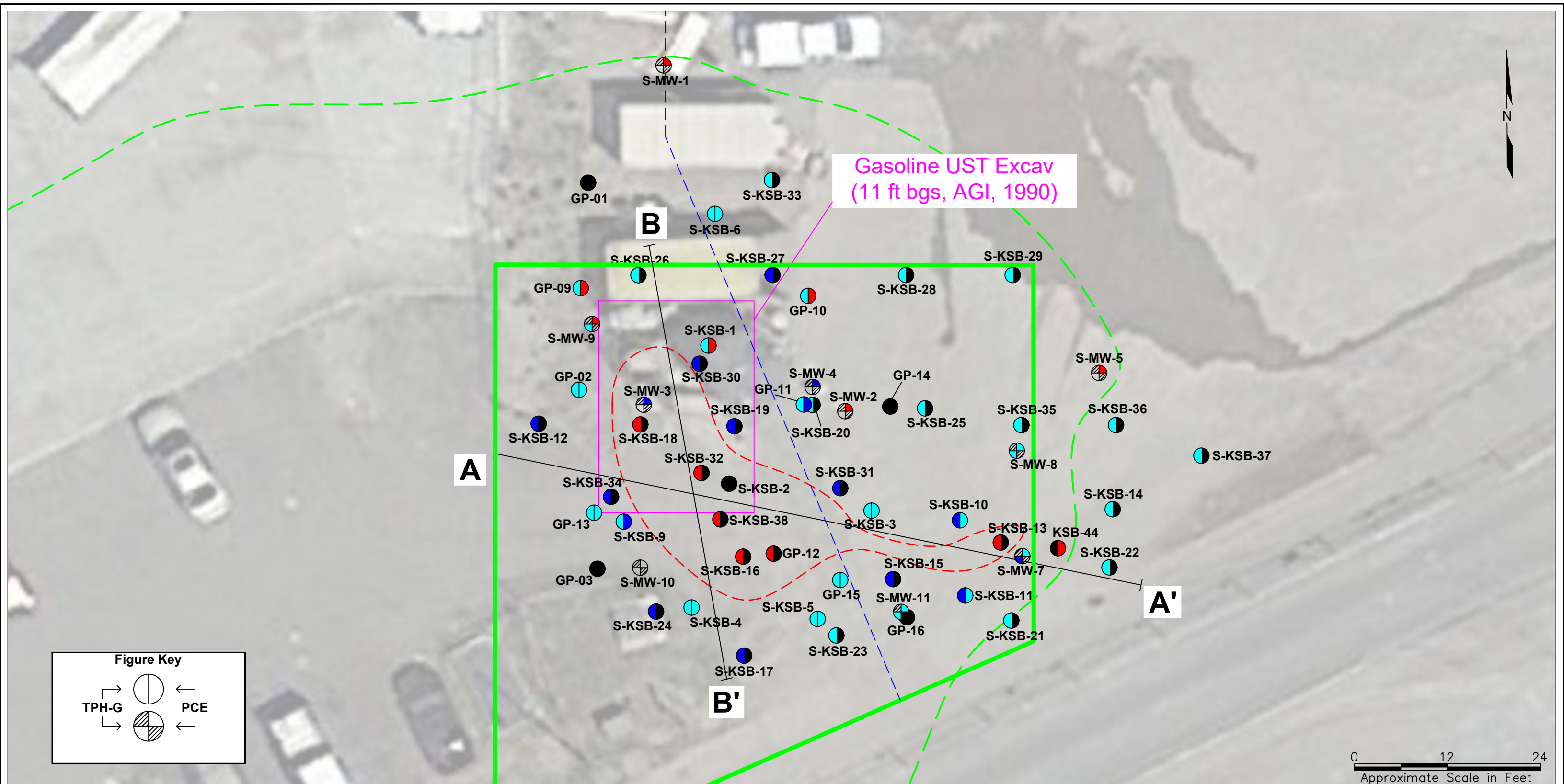


Project No. 82305

**Supplemental Remedial Investigation / Feasibility Study**  
Former Wexler Property Site  
Bothell, Washington 98011

**Figure 8**  
Shallow Groundwater  
Elevation and  
Flow Direction





**Figure Key**

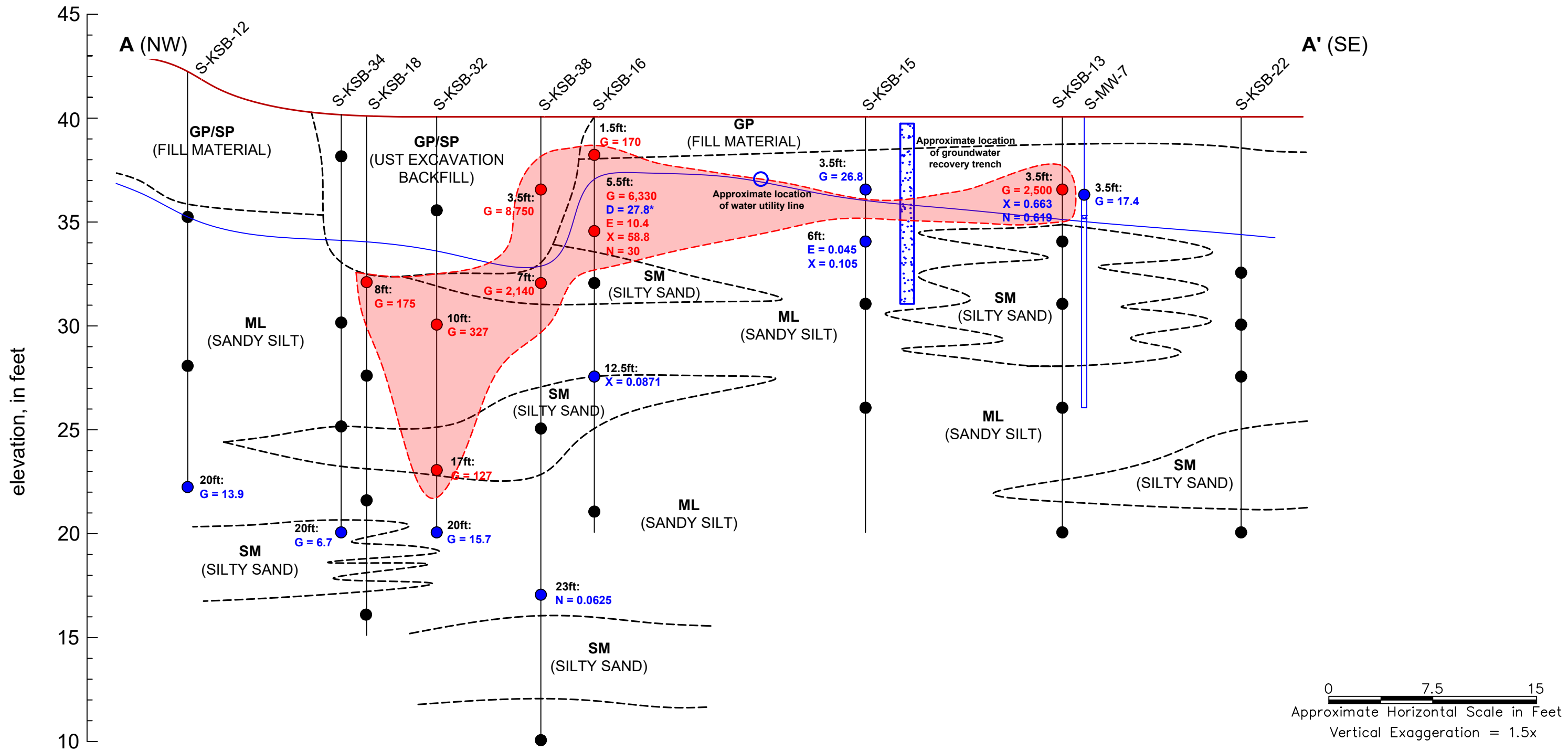
TPH-G		PCE

0 12 24  
Approximate Scale in Feet

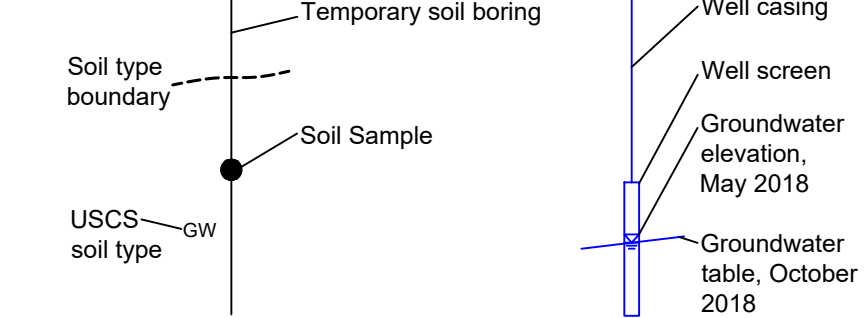
*Aerial Photo Source: Google Earth Pro  
Aerial Photo Date: May 22, 2017*

**LEGEND**

- Wexler Settlement Area
- Approximate location of underground fire hydrant water supply line
- Soil sample location with no soil data
- Soil sample location with petroleum or PCE contaminant concentration above MTCA Method A cleanup level
- Soil sample location with petroleum or PCE contaminant concentration below MTCA Method A cleanup level
- Soil sample location with nondetectable petroleum or PCE contaminant concentration
- Approximate extent of soil containing petroleum contaminants at concentrations exceeding the the MTCA Method A cleanup level
- Approximate extent of soil containing PCE at concentrations exceeding the the MTCA Method A cleanup level



**LEGEND**

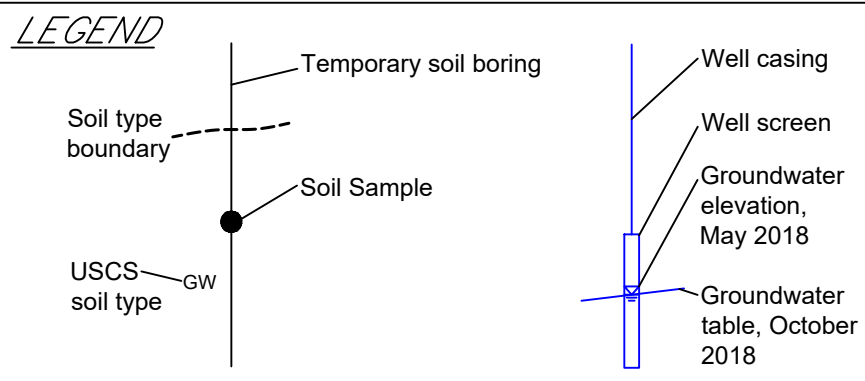
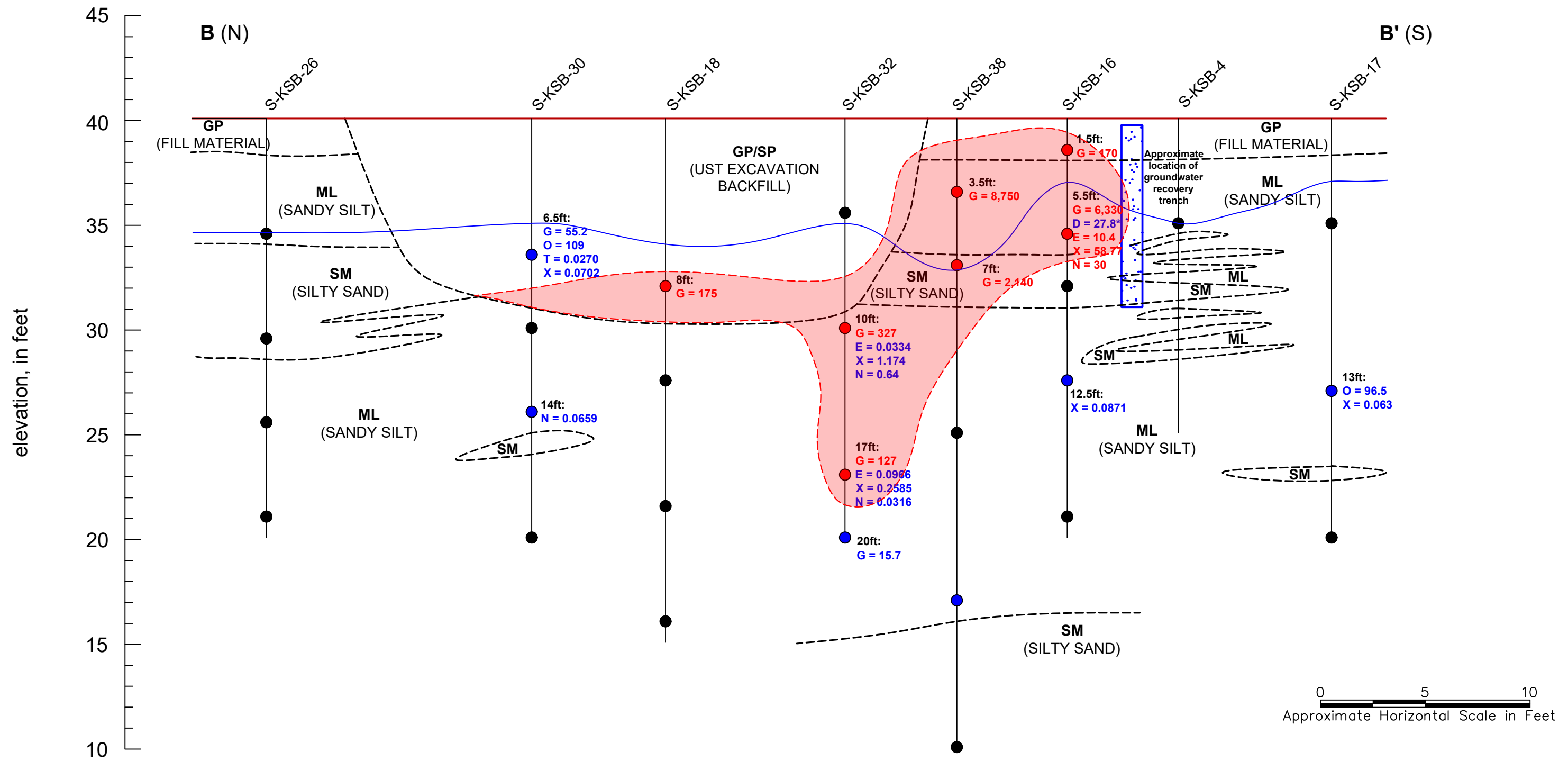


Soil analytical results listed in milligrams per kilogram (mg/kg).

**Red text/fill** indicates petroleum contaminant detected above MTCA Method A Cleanup Level (see table to right) in soil sample  
**Blue text/fill** indicates petroleum contaminant detected below MTCA Method A Cleanup Level (see table to right) in soil sample  
**Black text** indicates petroleum contaminants not detected above reporting limits in groundwater sample.

**Red dashed line** indicates approximate extent of soil containing petroleum contaminants at concentrations exceeding the the MTCA Method A cleanup level

MTCA Method A Soil Cleanup Levels	
"G" = Gasoline-Range Hydrocarbons (100 mg/kg)	"B" = Benzene (0.03 mg/kg)
"D" = Diesel-Range Hydrocarbons (2,000 mg/kg)	"T" = Toluene (7 mg/kg)
"O" = Heavy Oil-Range Hydrocarbons (2,000 mg/kg)	"E" = Ethylbenzene (6 mg/kg)
	"X" = Total Xylenes (9 mg/kg)
	"N" = Naphthalene (5 mg/kg)

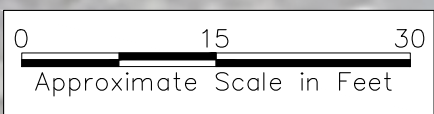
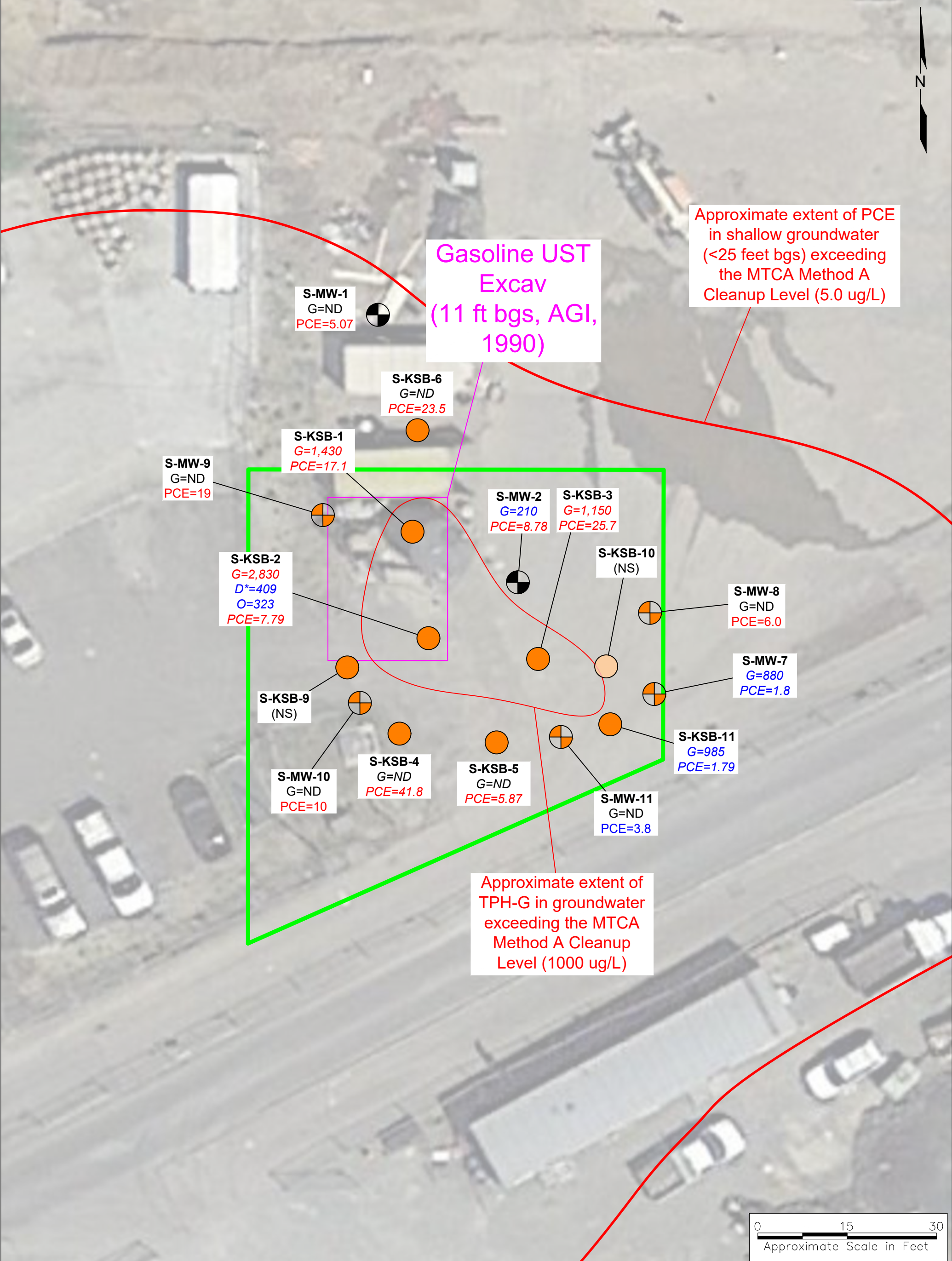
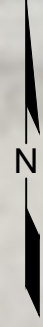


Soil analytical results listed in milligrams per kilogram (mg/kg).  
**Red text/fill** indicates petroleum contaminant detected above MTCA Method A Cleanup Level (see table to right) in soil sample  
**Blue text/fill** indicates petroleum contaminant detected below MTCA Method A Cleanup Level (see table to right) in soil sample  
**Black text** indicates petroleum contaminants not detected above reporting limits in groundwater sample.

Approximate extent of soil containing petroleum contaminants at concentrations exceeding the the MTCA Method A cleanup level

MTCA Method A Soil Cleanup Levels	
"G" = Gasoline-Range Hydrocarbons (100 mg/kg)	"B" = Benzene (0.03 mg/kg)
"D" = Diesel-Range Hydrocarbons (2,000 mg/kg)	"T" = Toluene (7 mg/kg)
"O" = Heavy Oil-Range Hydrocarbons (2,000 mg/kg)	"E" = Ethylbenzene (6 mg/kg)
	"X" = Total Xylenes (9 mg/kg)
	"N" = Naphthalene (5 mg/kg)





**LEGEND**

- Wexler Settlement Area
- Approximate location of existing shallow (screened to <15.5 ft bgs) groundwater monitoring well, with groundwater result

- Approximate location of Kane soil boring, with groundwater analytical result
- Approximate location of new shallow (screened to 14 ft bgs) Kane groundwater monitoring well, with groundwater analytical result

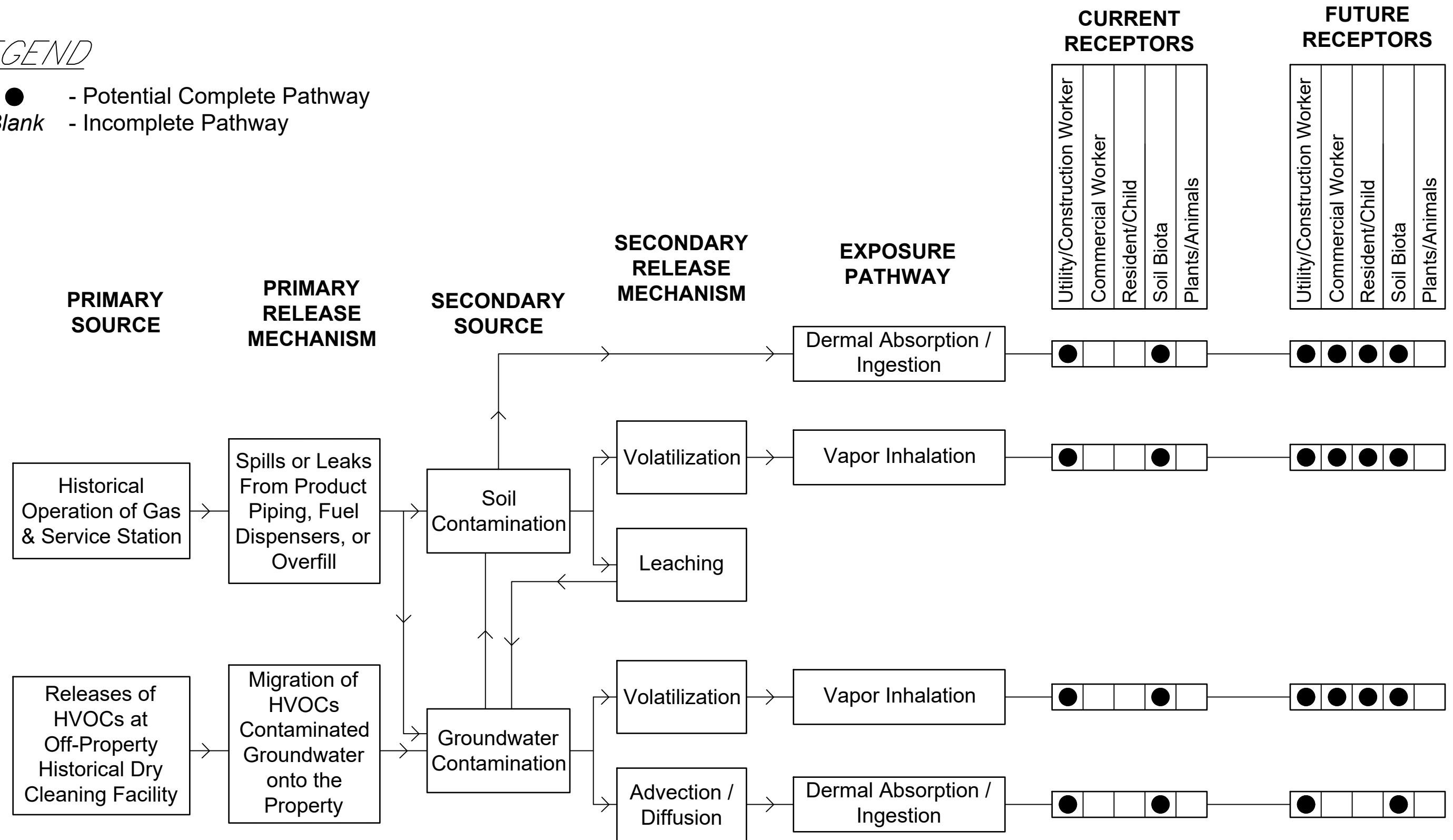
**Abbreviation Key:**  
 G = TPH-G  
 D = TPH-D  
 O = TPH-O  
 PCE = Tetrachloroethene

**Aerial Photo Date:** May 22, 2017

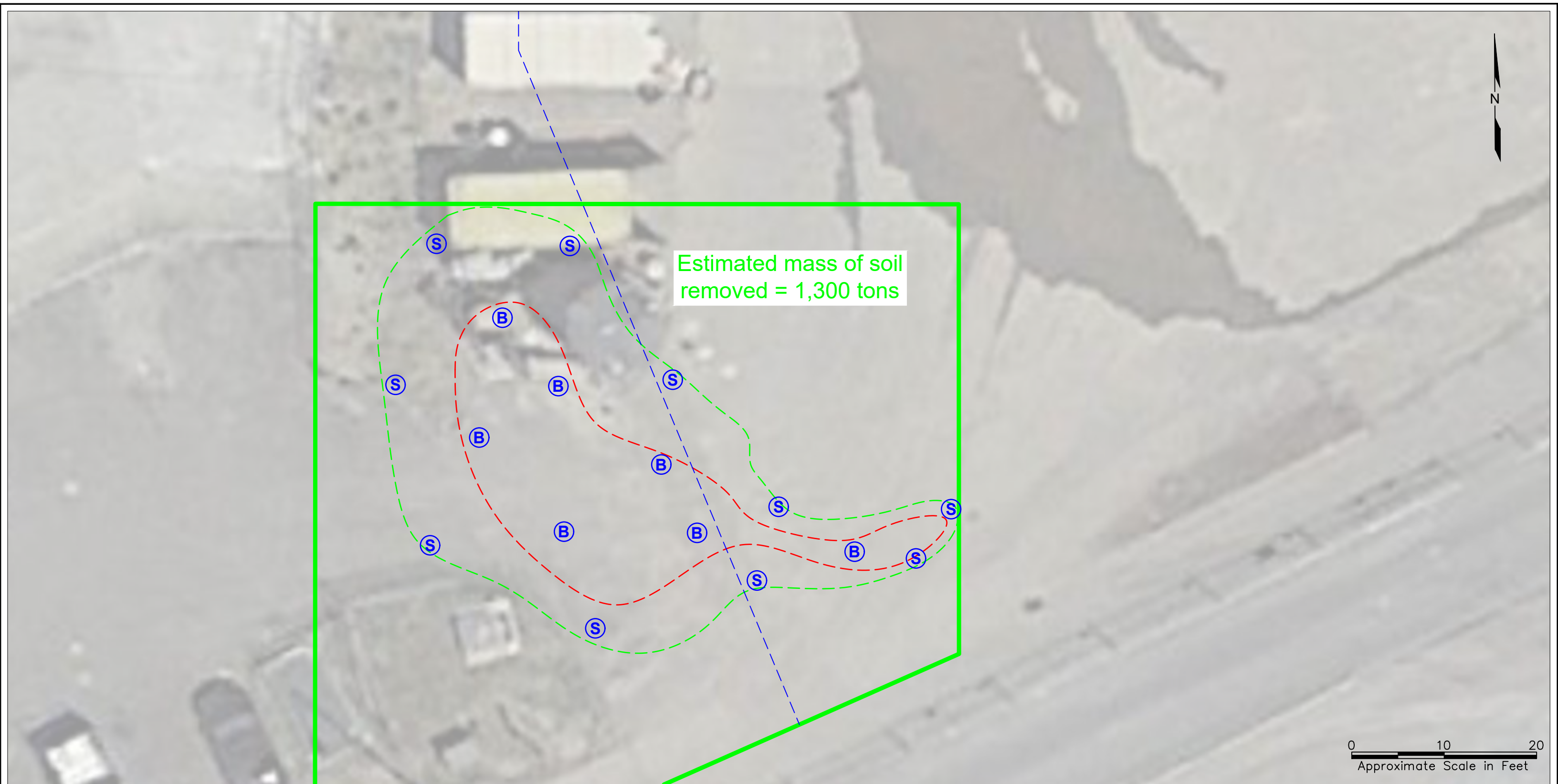
Red = Reported Above MTCA Method A CUL  
 Blue = Reported Above Laboratory RL  
 If not listed, analyte is not detected (ND)  
 All results listed in micrograms per liter (ug/L)  
 D\* = TPH-D in this sample interpreted by analytical laboratory as "a continuation of gasoline"

*LEGEND*

- - Potential Complete Pathway
- Blank - Incomplete Pathway







**LEGEND**

Wexler Settlement Area

Approximate location of underground fire hydrant water supply line

Approximate extent of soil containing petroleum contaminants at concentrations exceeding the MTCA Method A cleanup level

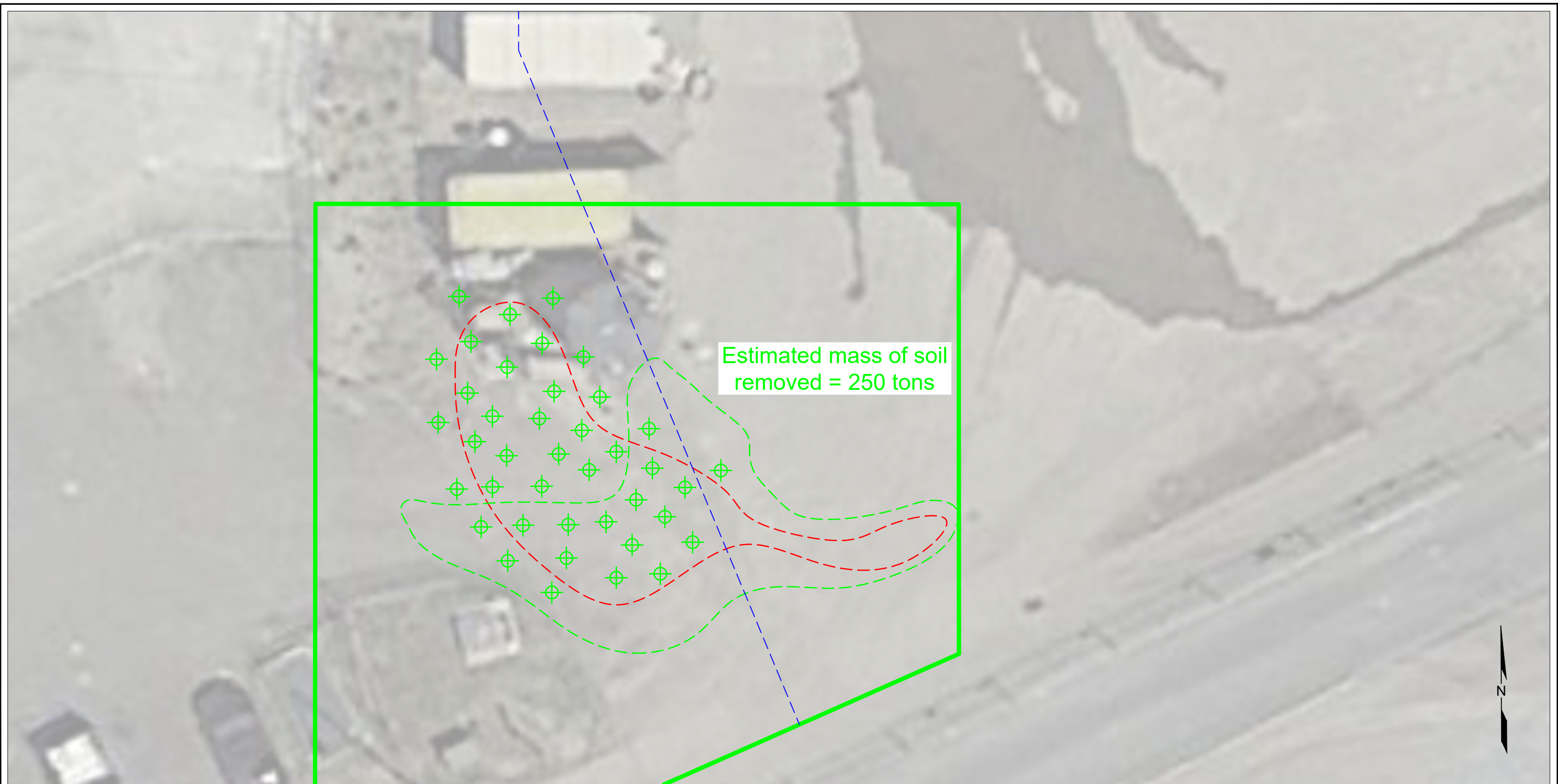
Approximate extent of proposed soil excavation

Approximate location of proposed soil confirmation sidewall sample

Approximate location of proposed soil confirmation bottom sample

0 10 20  
Approximate Scale in Feet

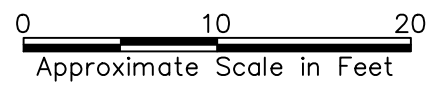
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Aerial Photo Date: May 22, 2017*



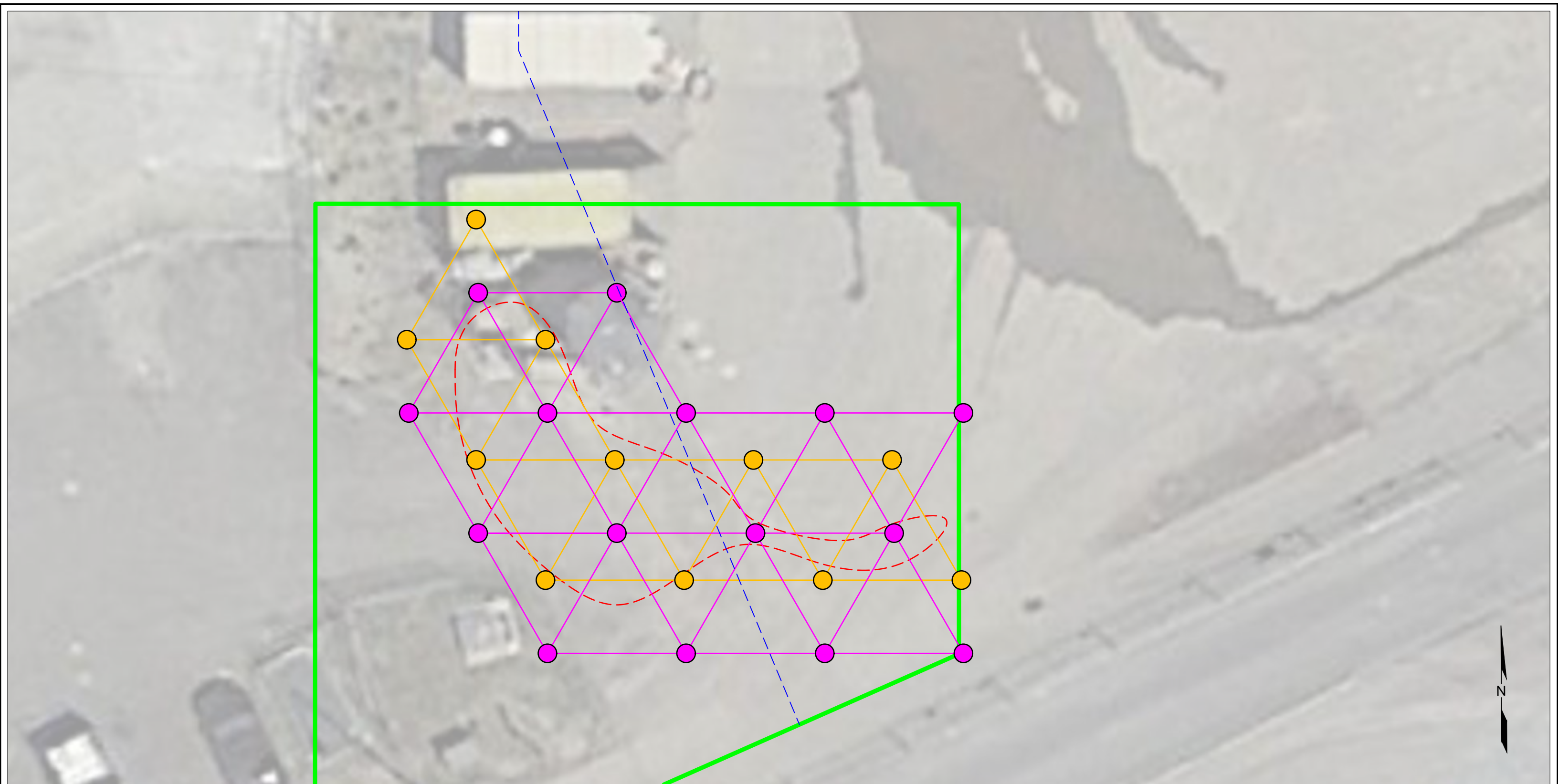
Aerial Photo Source: Google Earth Pro  
 Aerial Photo Date: May 22, 2017

**LEGEND**

- █ Wexler Settlement Area
- - - Approximate location of underground fire hydrant water supply line
- - - Approximate extent of soil containing petroleum contaminants at concentrations exceeding the MTCA Method A cleanup level
- - - Approximate extent of proposed vadose zone soil excavation
- ⊕ Approximate location of direct-push injection boring



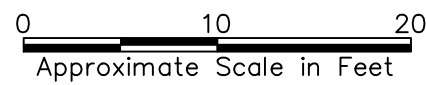




Aerial Photo Source: Google Earth Pro  
 Aerial Photo Date: May 22, 2017

**LEGEND**

- ▬ Wexler Settlement Area
- - - Approximate location of underground fire hydrant water supply line
- - - Approximate extent of soil containing petroleum contaminants at concentrations exceeding the MTCA Method A cleanup level
- Approximate location of soil vapor extraction well
- Approximate location air sparge well





## **Tables**

**Table 1**  
**Summary of Petroleum Hydrocarbons, VOCs and Lead in Soil**  
**Former Wexler Property Site**  
**Bothell, Washington**  
**Project No. 82305**

Sample ID	Boring ID	Sample Depth	Sample Date	Gasoline	Diesel	Heavy Oil	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene	1,2-Dibromethane (EDB)	1,2-Dichloroethane (EDC)	Methyl Tert-Butyl Ether (MTBE)	Tetrachloroethene (PCE)	Trichloroethene (TCE)	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Total Lead						
		(ft bgs)		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg						
<b>Floyd Snider, Phase II Environmental Site Assessment (Floyd Snider, 2010)</b>																											
GP-02 (10')	GP-02	10	8/5/2010	<4.5	---	---	<0.00068	<0.0034	<0.00068	<0.00208	<0.00068	<0.00068	<0.00068	<0.00068	<0.00068	<0.00068	<0.00068	<0.00068	<0.00068	<0.00068	---						
GP-06 (8')	GP-06	8	8/9/2010	<5	---	---	<0.00085	<0.0042	<0.00085	<0.00255	<0.00085	<0.00085	<0.00085	<0.00085	<0.00085	<0.00085	<b>0.012</b>	<b>0.0015</b>	<b>0.0023</b>	<0.00085	<0.00085						
GP-07 (6'-7')	GP-07	6-7	8/9/2010	<6.6	---	---	<0.00079	<0.0040	<0.00079	<0.00239	<0.00079	<0.00079	<0.00079	<0.00079	<0.00079	<0.00079	<0.00079	<0.00079	<0.00079	<0.00079	---						
GP-08 (7')	GP-08	7	8/9/2010	<5.7	---	---	<0.00084	<0.0042	<0.00084	<0.00254	<0.00084	<0.00084	<0.00084	<0.00084	<0.00084	<0.00084	<0.00084	<0.00084	<0.00084	<0.00084	---						
GP-09 (9')	GP-09	9	8/6/2010	<5.7	<34	<68	<0.00083	<0.0041	<0.00083	<0.00253	<0.00083	<0.00083	<0.00083	<0.00083	<0.00083	<0.00083	<b>0.85</b>	<b>0.0015</b>	<0.00083	<0.00083	<0.00083						
GP-10 (8')	GP-10	8	8/6/2010	<5.5	---	---	<0.00081	<0.0041	<0.00081	<0.00241	<0.00081	<0.00081	<0.00081	<0.00081	<0.00081	<0.00081	<b>0.12</b>	<0.00081	<0.00081	<0.00081	---						
GP-11 (8')	GP-11	8	8/6/2010	<4.5	---	---	0.00066	<0.0033	<0.00066	<0.00196	<0.00066	<0.00066	<0.00066	<0.00066	<0.00066	<0.00066	<b>0.0066</b>	<b>0.0035</b>	<b>0.039</b>	<0.00066	<0.00066						
GP-12 (6')	GP-12	6	8/6/2010	<b>5,900</b>	<680	<60	<1.5	<7.5	<b>9</b>	<b>51.8</b>	<b>6.7</b>	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	---						
GP-13 (10')	GP-13	10	8/6/2010	<5.1	---	---	<0.00076	<0.0038	<0.00076	<0.00226	<0.00076	<0.00076	<0.00076	<0.00076	<0.00076	<0.00076	<0.00076	<0.00076	<0.00076	<0.00076	---						
GP-15 (10')	GP-15	10	8/6/2010	<5.1	<32	<65	<0.00075	<0.0037	<0.00075	<0.00225	<0.00075	<0.00075	<0.00075	<0.00075	<0.00075	<b>0.00084</b>	<b>0.006</b>	<b>0.024</b>	<b>0.0011</b>	<0.00075	<0.00075						
<b>Kane Environmental, Bothell Service Center Simon and Sons Remedial Investigation and Feasibility Study (2017)</b>																											
S-MW-1:6.5ft	S-MW-1	6.5	8/22/2016																		<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	
S-MW-1:10-10.75ft	S-MW-1	10-10.75	8/22/2016																			<b>0.027</b>	<0.001	<0.001	<0.001	<0.001	<0.001
S-MW-1:15-16	S-MW-1	15-16	8/22/2016																			<b>0.096</b>	<0.00093	<0.00093	<0.00093	<0.00093	<0.00093
S-MW-1:20-21	S-MW-1	20-21	8/22/2016																			<b>0.0098</b>	<0.00098	<0.00098	<0.00098	<0.00098	<0.00098
S-MW-2:5.25-5.6	S-MW-2	5.25-5.6	8/24/2016																			<b>0.0018</b>	<0.0011	<b>0.0011</b>	<0.0011	<0.0011	<0.0011
S-MW-2:6.5-7	S-MW-2	6.5-7	8/24/2016																			<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013
S-MW-2:10.5-11	S-MW-2	10.5-11	8/24/2016																			<b>0.081</b>	<b>0.025</b>	<b>0.06</b>	<0.0010	<0.0010	<b>0.0095</b>
S-MW-2:15-15.5	S-MW-2	15-15.5	8/24/2016																			<b>1.3</b>	<b>0.0048</b>	<b>0.0013</b>	<0.001	<0.001	<0.001
S-MW-2:20.5-21	S-MW-2	20.5-21	8/24/2016																			<b>0.81</b>	<b>0.0015</b>	<0.00089	<0.00089	<0.00089	<0.00089
S-MW-2:25-25.5	S-MW-2	25-25.5	8/24/2016																			<b>0.0028</b>	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014
S-MW-3:5-5.25	S-MW-3	5-5.25	8/25/2016																			<b>0.0071</b>	<b>0.0023</b>	<0.0012	<0.0012	<0.0012	<0.0012
S-MW-4:2.5	S-MW-4	2.5	8/30/2016																			<b>0.001</b>	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009
S-MW-4:6	S-MW-4	6	8/30/2016																			<b>0.0022</b>	<b>0.002</b>	<b>0.0036</b>	<0.00098	<0.00098	<0.00098
S-MW-5:5	S-MW-5	5	10/21/2016																			<b>0.0025</b>	<0.0012	<b>0.0012</b>	<0.0012	<0.0012	<0.0012
S-MW-5:10	S-MW-5	10	10/21/2016																			<b>0.1</b>	<b>0.0076</b>	<b>0.014</b>	<0.0012	<0.0012	<0.0012
S-MW-5:20	S-MW-5	20	10/21/2016																			<b>0.99</b>	<0.055	<0.055	<0.055	<0.055	<0.055
KSB-44:5	KSB-44	5	6/8/2017																			<0.069	<0.069	<0.069	<0.069	<0.069	<0.069
KSB-44:10	KSB-44	10	6/8/2017																			<b>0.024</b>	<b>0.017</b>	<b>0.05</b>	<0.0014	<0.0014	<0.0014
KSB-44:15	KSB-44	15	6/8/2017																			<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011
KSB-44:20	KSB-44	20	6/8/2017																			<b>0.096</b>	<0.001	<0.001	<0.001	<0.001	<0.001
KSB-44:25	KSB-44	25	6/8/2017																			<b>0.74</b>	<b>0.0013</b>	<0.00095	<0.00095	<0.00095	<0.00095
<b>Kane Environmental, Supplemental Subsurface Investigation (2018)</b>																											
S-KSB-1:2ft	S-KSB-1	2	4/23/2018	<5.74	<18.4	<46.0	<0.0230	<0.0230	<0.0288	<0.0864	<0.0576	<0.00576	<0.0230	<0.0576	<b>0.145</b>	<b>0.0292</b>	<0.0230	<0.0230	<0.0230	<0.0230	<0.0288	<b>1.82</b>					
S-KSB-3:3ft	S-KSB-3	3	4/23/2018	<3.61	<18.8	<47.0	<0.0144	<0.0144	<0.0180	<0.0541	<0.00361	<0.00361	<0.0144	<0.0361	<0.0180	<0.0144	<0.0144	<0.0144	<0.0144	<0.0144	<0.0180	<b>1.97</b>					
S-KSB-4:5ft	S-KSB-4	5	4/23/2018	<7.18	<23.7	<59.2	<0.0287	<0.0287	<0.0359	<0.1077	<0.0177	<0.00178	<0.0287	<0.0178	<0.0359	<0.0287	<0.0287	<0.0287	<0.0287	<0.0287	<0.0359	<b>2.31</b>					
S-KSB-5:2.5ft	S-KSB-5	2.5	4/23/2018	<6.21	<22.9	<57.2	<0.0249	<0.0249	<0.0311	<0.0932	<0.0621	<0.00621	<0.0249	<0.0621	<0.0311	<0.0249	<0.0249	<0.0249	<0.0249	<0.0249	<0.0311	<b>3.06</b>					
S-KSB-6:2.5ft	S-KSB-6	2.5	4/23/2018	<6.01	<20.8	<52.0	<0.0240	<0.0240	<0.0301	<0.0902	<0.0601	<0.00601	<0.0240	<0.0601	<0.0301	<0.0240	<0.0240	<0.0240	<0.0240	<0.0240	<0.0301	<b>5.69</b>					
S-KSB-9:3ft	S-KSB-9	3	4/23/2018	<3.82	<19.8	<49.6	<0.0153	<0.0153	<0.0191	<0.0573	<0.0382	<0.00382	<0.0153	<0.0382	<b>0.0450</b>	<b>0.0153</b>	<0.0153	<0.0153	<0.0153	<0.0153	<0.0191	<b>2.18</b>					
S-KSB-10:3.75ft	S-KSB-10	3.75	4/25/2018	<b>9.23</b>	<23.8	<59.6	<0.0288	<0.0288	<0.0360	<0.1081	<b>0.0941</b>	<0.00721	<0.0288	<0.0721	<0.0360	<0.0288	<0.0288	<0.0288	<0.0288	<0.0288	<0.0360	<b>2.80</b>					
S-KSB-11:3.75ft	S-KSB-11	3.75	4/25/2018	<b>7.13</b>	<24.7	<61.6	<0.0280	<0.0280	<0.0350	<0.1051	<0.0701	<0.00701	<0.0280	<0.0701	<0.0350	<0.0280	<0.0280	<0.0280	<0.0280	<0.0280	<0.0350	<b>2.39</b>					
S-MW-7:3.75ft	S-MW-7	3.75	5/8/2018	<b>17.4*</b>	<24.1	<60.2	<0.0266	<0.0266	<0.0333	<0.0999	<0.0666	<0.00666	<0.0266	<0.0666	<0.0333	<0.0266	<0.0266	<0.0266	<0.0266	<0.0266	<0.0333	<b>3.19</b>					
S-MW-8:4.5ft	S-MW-8	4.5	5/8/2018	<5.24	<24.8	<62.0	<0.0210	<0.0210	<0.0262	<0.0786	<0.0524	<0.00524	<0.0210	<0.0524	<0.0262	<0.0210	<0.0210	<0.0210	<0.0210	<0.0210	<0.0262	<b>2.64</b>					
S-MW-9:3.5ft	S-MW-9	3.5	5/8/2018	<5.48	<20.2	<50.6	<0.0219	<0.0219	<0.0274	<0.0822	<0.0548	<0.00548	<0.0219	<0.0548	<b>0.171</b>	<b>0.0391</b>	<0.0219	<0.0219	<0.0219	<0.0219	<0.0274	<b>1.82</b>					
S-MW-11:3.75ft	S-MW-11	3.8	5/8/2018	<6.54	<21.5	<53.8	<0.0262	<0.0262	<0.0327	<0.0981	<0.0654	<0.00654	<0.0262	<0.0654	<0.0327	<0.0262	<0.0262	<0.0262	<0.0262	<0.0262	<0.0327	<b>2.66</b>					
<b>Kane Environmental, Site Assessment Activities for Remedial Investigation</b>																											
S-KSB-12:7ft	S-KSB-12	7	10/22/2																								



**Table 1**  
**Summary of Petroleum Hydrocarbons, VOCs and Lead in Soil**  
**Former Wexler Property Site**  
**Bothell, Washington**  
**Project No. 82305**

Sample ID	Boring ID	Sample Depth	Sample Date	Gasoline	Diesel	Heavy Oil	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene	1,2-Dichloroethane (EDB)	1,2-Dichloroethane (EDC)	Methyl Tert-Butyl Ether (MTBE)	Tetrachloroethene (PCE)	Trichloroethene (TCE)	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Total Lead	
		(ft bgs)		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
S-KSB-28:15ft	S-KSB-28	15	10/24/2018	<5.50	<21.5	<53.7	<0.0220	<0.0220	<0.0275	<0.0825	<0.0550	<0.00550	<0.0220	<0.0550	---	---	---	---	---	---	---	1.87
S-KSB-28:20ft	S-KSB-28	20	10/24/2018	<5.43	<22.0	<54.9	<0.0217	<0.0217	<0.0271	<0.0814	<0.0543	<0.00543	<0.0217	<0.0543	---	---	---	---	---	---	---	1.65
S-KSB-29:5ft	S-KSB-29	5	10/24/2018	<5.55	<24.2	<60.5	<0.0222	<0.0222	<0.0278	<0.0833	<0.0555	<0.00555	<0.0222	<0.0555	---	---	---	---	---	---	---	2.08
S-KSB-29:10ft	S-KSB-29	10	10/24/2018	<5.98	<23.2	<57.9	<0.0239	<0.0239	<0.0299	<0.0897	<0.0598	<0.00598	<0.0239	<0.0598	---	---	---	---	---	---	---	2.09
S-KSB-29:15ft	S-KSB-29	15	10/24/2018	<5.07	<20.5	<51.3	<0.0203	<0.0203	<0.0253	<0.0760	<0.0507	<0.00507	<0.0203	<0.0507	---	---	---	---	---	---	---	1.88
S-KSB-29:20ft	S-KSB-29	20	10/24/2018	<6.19	<23.3	<58.2	<0.0248	<0.0248	<0.0310	<0.0929	<0.0619	<0.00619	<0.0248	<0.0619	---	---	---	---	---	---	---	3.58
S-KSB-30:6.5ft	S-KSB-30	6.5	10/24/2018	<b>55.2</b>	<21.2	<b>109</b>	<0.0242	<b>0.0270</b>	<0.0303	<b>0.0702</b>	<0.0605	<0.00605	<0.0242	<0.0605	---	---	---	---	---	---	---	7.63
S-KSB-30:10ft	S-KSB-30	10	10/24/2018	<5.95	<23.0	<57.4	<0.0238	<0.0238	<0.0298	<0.0893	<0.0595	<0.00595	<0.0238	<0.0595	---	---	---	---	---	---	---	2.22
S-KSB-30:14ft	S-KSB-30	14	10/24/2018	<6.23	<22.4	<56.0	<0.0249	<0.0249	<0.0312	<0.0935	<b>0.0659</b>	<0.00623	<0.0249	<0.0623	---	---	---	---	---	---	---	1.9
S-KSB-30:20ft	S-KSB-30	20	10/24/2018	<6.76	<21.9	<54.7	<0.0270	<0.0270	<0.0338	<0.1014	<0.0676	<0.00676	<0.0270	<0.0676	---	---	---	---	---	---	---	1.47
S-KSB-31:2.5ft	S-KSB-31	5	10/24/2018	<b>29.6</b>	<22.1	<55.2	<0.0249	<0.0249	<b>0.0361</b>	<0.0934	<0.0623	<0.00623	<0.0249	<0.0623	---	---	---	---	---	---	---	3.35
S-KSB-31:7ft	S-KSB-31	7	10/24/2018	<6.38	<22.8	<57.0	<0.0255	<0.0255	<0.0319	<0.0957	<0.0638	<0.00638	<0.0255	<0.0638	---	---	---	---	---	---	---	1.85
S-KSB-31:13ft	S-KSB-31	13	10/24/2018	<6.93	<23.7	<59.1	<0.0277	<0.0277	<0.0347	<0.1040	<0.0693	<0.00693	<0.0277	<0.0693	---	---	---	---	---	---	---	1.64
S-KSB-31:20ft	S-KSB-31	20	10/24/2018	<7.67	<24.8	<62.1	<0.0307	<0.0307	<0.0384	<0.1151	<0.0767	<0.00767	<0.0307	<0.0767	---	---	---	---	---	---	---	3.22
S-KSB-32:4.5ft	S-KSB-32	4.5	10/24/2018	<7.10	<18.5	<46.3	<0.0284	<0.0284	<0.0355	<0.1065	<0.0710	<0.00710	<0.0284	<0.0710	---	---	---	---	---	---	---	1.64
S-KSB-32:10ft	S-KSB-32	10	10/24/2018	<b>327</b>	<22.4	<56.0	<0.0310	<0.0310	<b>0.0334</b>	<b>1.174</b>	<b>0.640</b>	<0.00774	<0.0310	<0.0774	---	---	---	---	---	---	---	1.9
S-KSB-32:17ft	S-KSB-32	17	10/24/2018	<b>127</b>	<20.9	<52.2	<0.0277	<0.0277	<b>0.0966</b>	<b>0.2585</b>	<b>0.0316</b>	<0.00692	<0.0277	<0.0692	---	---	---	---	---	---	---	1.51
S-KSB-32:20ft	S-KSB-32	20	10/24/2018	<b>15.7</b>	<22.9	<57.2	<0.0278	<0.0278	<0.0347	<0.1042	<0.0695	<0.00695	<0.0278	<0.0695	---	---	---	---	---	---	---	1.6
S-KSB-33:5ft	S-KSB-33	5	10/24/2018	<6.96	<23.4	<58.5	<0.0279	<0.0279	<0.0348	<0.1044	<0.0696	<0.00696	<0.0279	<0.0696	---	---	---	---	---	---	---	2.66
S-KSB-33:10ft	S-KSB-33	10	10/24/2018	<5.74	<23.2	<57.9	<0.0230	<0.0230	<0.0287	<0.0861	<0.0574	<0.00574	<0.0230	<0.0574	---	---	---	---	---	---	---	1.6
S-KSB-33:15ft	S-KSB-33	15	10/24/2018	<7.44	<23.6	<59.1	<0.0297	<0.0297	<0.0372	<0.1116	<0.0744	<0.00744	<0.0297	<0.0744	---	---	---	---	---	---	---	1.99
S-KSB-33:20ft	S-KSB-33	20	10/24/2018	<7.15	<22.4	<56.1	<0.0286	<0.0286	<0.0357	<0.1072	<0.0715	<0.00715	<0.0286	<0.0715	---	---	---	---	---	---	---	1.36
S-KSB-34:2ft	S-KSB-34	2	10/24/2018	<5.16	<20.0	<50.0	<0.0206	<0.0206	<0.0274	<0.0774	<0.0516	<0.00516	<0.0206	<0.0516	---	---	---	---	---	---	---	6.15
S-KSB-34:10ft	S-KSB-34	10	10/24/2018	<4.96	<21.1	<52.7	<0.0198	<0.0198	<0.0248	<0.0744	<0.0496	<0.00496	<0.0198	<0.0496	---	---	---	---	---	---	---	1.83
S-KSB-34:15ft	S-KSB-34	15	10/24/2018	<5.10	<23.5	<58.8	<0.0204	<0.0204	<0.0255	<0.0765	<0.0510	<0.00510	<0.0204	<0.0510	---	---	---	---	---	---	---	1.86
S-KSB-34:20ft	S-KSB-34	20	10/24/2018	<b>6.70</b>	<22.2	<55.4	<0.0212	<0.0212	<0.0265	<0.0794	<0.0529	<0.00529	<0.0212	<0.0529	---	---	---	---	---	---	---	1.57
S-KSB-35:5ft	S-KSB-35	5	10/24/2018	<5.65	<23.0	<57.4	<0.0226	<0.0226	<0.0282	<0.0847	<0.0565	<0.00565	<0.0226	<0.0565	---	---	---	---	---	---	---	1.83
S-KSB-35:7ft	S-KSB-35	7	10/24/2018	<6.09	<20.7	<51.7	<0.0244	<0.0244	<0.0305	<0.0914	<0.0609	<0.00609	<0.0244	<0.0609	---	---	---	---	---	---	---	1.48
S-KSB-35:20ft	S-KSB-35	20	10/24/2018	<6.61	<24.5	<61.2	<0.0264	<0.0264	<0.0331	<0.0992	<0.0661	<0.00661	<0.0264	<0.0661	---	---	---	---	---	---	---	3.37
S-KSB-36:5ft	S-KSB-36	5	10/24/2018	<6.26	<21.9	<54.7	<0.0250	<0.0250	<0.0313	<0.0939	<0.0626	<0.00626	<0.0250	<0.0626	---	---	---	---	---	---	---	1.75
S-KSB-36:12.5ft	S-KSB-36	12.5	10/24/2018	<6.00	<24.9	<62.4	<0.0240	<0.0240	<0.0300	<0.0900	<0.0600	<0.00600	<0.0240	<0.0600	---	---	---	---	---	---	---	2.65
S-KSB-36:20ft	S-KSB-36	20	10/24/2018	<5.76	<24.2	<60.5	<0.0231	<0.0231	<0.0288	<0.0864	<0.0576	<0.00576	<0.0231	<0.0576	---	---	---	---	---	---	---	3
S-KSB-37:6ft	S-KSB-37	6	10/24/2018	<5.55	<22.4	<56.0	<0.0222	<0.0222	<0.0278	<0.0833	<0.0555	<0.00555	<0.0222	<0.0555	---	---	---	---	---	---	---	1.9
S-KSB-37:12.5ft	S-KSB-37	12.5	10/24/2018	<6.03	<26.3	<65.7	<0.0241	<0.0241	<0.0302	<0.0905	<0.0603	<0.00603	<0.0241	<0.0603	---	---	---	---	---	---	---	3.24
S-KSB-37:20ft	S-KSB-37	20	10/24/2018	<5.79	<22.4	<56.0	<0.0232	<0.0232	<0.0289	<0.0868	<0.0579	<0.00579	<0.0232	<0.0579	---	---	---	---	---	---	---	1.52
S-KSB-38:3.5ft	S-KSB-38	3.5	10/24/2018	<b>8,750</b>	<22.4	<56.0	<0.0244	<0.0244	<0.0306	<0.0917	<0.0611	<0.00611	<0.0244	<0.0611	---	---	---	---	---	---	---	4.22
S-KSB-38:7ft	S-KSB-38	7	10/24/2018	<b>2,140</b>	<b>51.6*</b>	<56.3	<0.0264	<0.0264	<0.0330	<0.0989	<0.0659	<0.00659	<0.0264	<0.0659	---	---	---	---	---	---	---	6.75
S-KSB-38:15ft	S-KSB-38	15	10/24/2018	<5.79	<22.8	<57.1	<0.0232	<0.0232	<0.0289	<0.0868	<0.0579	<0.00579	<0.0232	<0.0579	---	---	---	---	---	---	---	1.4
S-KSB-38:23ft	S-KSB-38	23	10/24/2018	<5.91	<20.6	<51.4	<0.0236	<0.0236	<0.0296	<0.0887	<b>0.0625</b>	<0.00591	<0.0236	<0.0591	---	---	---	---	---	---	---	1.92
S-KSB-38:30ft	S-KSB-38	30	10/24/2018	<4.82	<23.3	<58.3	<0.0193	<0.0193	<0.0241	<0.0723	<0.0482	<0.00482	<0.0193	<0.0482	---	---	---	---	---	---	---	1.64
MTCA Method A or Method B Soil Cleanup Level <sup>h</sup>				30/100 <sup>a</sup>	2,000	0.03	7	6	9	5	0.005	(10.99) C	0.1	0.05	0.03	0.00515 <sup>a</sup>	(1600) NC	(4000) NC	0.0000885 <sup>a</sup>	250		

**Notes:**

mg/kg = milligrams per kilogram [equivalent to parts per million (ppm)].

-- = not analyzed.

**Bold** concentrations are detectable concentrations, below their Cleanup Level (if available).

**Shaded and Bold** concentrations are detectable concentrations, exceeding their Cleanup Level.

*Italicized* Reporting limit greater than cleanup level

<sup>a</sup> = 30 ppm is MTCA Method A Cleanup Level for gasoline range organics when benzene is present or the total of toluene, ethylbenzene, and xylenes is greater than 1% of the total gasoline concentration; 100 ppm is used in all other situations.

<sup>h</sup> = Method A Cleanup Levels used where available. Method B Direct Contact Cleanup Levels (shown in parentheses) used if Method A Levels are not available. Cancer cleanup levels used when available.

<sup>h</sup> "NC" = non-cancer, "C" = cancer.

+ = Soil, Protective of Groundwater, Saturated

x = Laboratory identified this detection as "gasoline-range organics", "unresolved compounds eluting from toluene to dodecane (~C6-C12)

y = Laboratory identified this detection as "diesel range organics", and indicated that "chromatographic pattern indicates a continuation of gasoline." Therefore, this concentration is considered as a part of gasoline range hydrocarbons,

**Table 2**  
**Summary of Petroleum Hydrocarbons, VOCs, and Lead in Groundwater**  
**Former Wexler Property Site**  
**Bothell, Washington**  
**Project No. 82305**

Sample ID	Well or Soil Boring	Depth to Groundwater (ft bgs) (May, 2018)	Surveyed Well Casing Rim Elevation (ft amsl)	Groundwater Elevation (ft) (May, 2018)	Screened Interval (ft bgs)	Sample Date	Gasoline (ug/L)	Diesel (ug/L)	Heavy Oil (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Naphthalene (ug/L)	1,2-Dibromethane (EDB) (ug/L)	1,2-Dichloroethane (EDC) (ug/L)	Methyl Tert-Butyl Ether (MTBE) (ug/L)	Tetrachloroethene (PCE) (ug/L)	Trichloroethene (TCE) (ug/L)	cis-1,2-Dichloroethene (ug/L)	trans-1,2-Dichloroethene (ug/L)	1,1-Dichloroethene (ug/L)	Vinyl Chloride (ug/L)	Polychlorinated Biphenyls (PCBs) (ug/L)	Pyrene (ug/L)	Benzo(g,h,i)perylene (ug/L)	Total Lead (ug/L)	Dissolved Lead (ug/L)			
Floyd Snider, Phase II Environmental Site Assessment (Floyd Snider, 2010)																															
GP-01 (10'-15')	GP-01	---	---	---	10-15 ft	8/5/2010	<100	---	---	<10	<50	<10	<30	<50	<10	<10	<10	1900	<10	<10	<10	<10	<10	---	---	---	---	---			
GP-01 (25'-30')	GP-01	---	---	---	25-30 ft	8/5/2010	---	---	---	<1.0	<5.0	<1.0	<3.0	<5.0	<1.0	<1.0	<1.0	31	<1.0	<1.0	<1.0	<1.0	<1.0	---	---	---	---	---			
GP-01 (40'-42')	GP-01	---	---	---	40-42 ft	8/5/2010	---	---	---	<0.20	<1.0	<0.20	<0.60	<1.0	<0.20	<0.20	<0.20	2.2	<0.20	<0.20	<0.20	<0.20	<0.20	---	---	---	---	---			
GP-02 (10'-15')	GP-02	---	---	---	10-15 ft	8/5/2010	<100	<260	<410	<0.40	<2.0	<0.40	<1.2	<2.0	<0.40	<0.40	<0.40	17	26	50	<0.40	<0.40	<0.40	---	---	---	---	---			
GP-02 (25'-30')	GP-02	---	---	---	25-30 ft	8/5/2010	---	---	---	<1.0	<5.0	<1.0	<3.0	<5.0	<1.0	<1.0	<1.0	91	4.1	6.7	<1.0	<1.0	<1.0	---	---	---	---	---			
GP-02 (40'-45')	GP-02	---	---	---	40-45 ft	8/5/2010	---	---	---	<0.20	<1.0	<0.20	<0.60	<1.0	<0.20	<0.20	<0.20	7	0.56	0.92	<0.20	<0.20	<0.20	---	---	---	---	---			
GP-03 (5'-9')	GP-03	---	---	---	5-9 ft	8/5/2010	<100	---	---	<0.20	<1.0	<0.20	<0.60	<1.0	<0.20	<0.20	<0.20	0.38	2.4	20	0.25	<0.20	<0.20	---	---	---	---	---			
GP-03 (25'-30')	GP-03	---	---	---	25-30 ft	8/5/2010	---	---	---	<2.0	<10	<2.0	<6.0	<10	<2.0	<2.0	<2.0	290	6.4	9.8	<2.0	<2.0	<2.0	---	---	---	---	---			
GP-03 (40'-43')	GP-03	---	---	---	40-43 ft	8/5/2010	---	---	---	<0.20	<1.0	<0.20	<0.60	<1.0	<0.20	<0.20	<0.20	15	0.44	0.32	<0.20	<0.20	<0.20	---	---	---	---	---			
GP-04 (10'-15')	GP-04	---	---	---	10-15 ft	8/6/2010	<100	---	---	<0.20	<1.0	<0.20	<0.60	<1.0	<0.20	<0.20	<0.20	22	<0.20	<0.20	<0.20	<0.20	<0.20	---	---	---	---	---			
GP-12 (10'-15')	GP-12	---	---	---	10-15 ft	8/6/2010	940	<330	<420	<0.20	<1.0	14	68	5.8	<0.20	<0.20	<0.20	0.43	0.27	6.8	<0.20	<0.20	<0.20	---	---	---	---	---			
GP-13 (10'-15')	GP-13	---	---	---	10-15 ft	8/6/2010	<100	---	---	<10	<50	<10	<30	<50	<10	<10	<10	850	19	230	<10	<10	<10	---	---	---	---	---			
GP-14 (10'-14')	GP-14	---	---	---	10-14 ft	8/9/2010	<100	---	---	<20	<100	<20	<60	<100	<20	<20	<20	2100	26	160	<20	<20	<20	---	---	---	---	---			
GP-16 (7'-12')	GP-17	---	---	---	7-12 ft	8/6/2010	160	<260	<420	<1.0	<5.0	<1.0	<3.0	<5.0	<1.0	<1.0	<1.0	8.5	22	140	2.6	<1.0	1.5	---	---	---	---	---			
Kane Environmental, Supplemental Subsurface Investigation (2018)																															
S-MW-1:W-041318	S-MW-1	5.74	43.07	37.33	5.5-15.5 ft	4/13/2018	<50.0	<50.0	<100	<1.00	<1.00	<1.00	<2.00	<1.00	<0.00974	<1.00	<1.00	5.07	<0.500	<1.00	<1.00	<1.00	<0.200	---	---	---	<0.500	---			
S-MW-2:W-041318	S-MW-2	5.02	41.50	36.48	5-15 ft	4/13/2018	210	<49.8	<99.6	<1.00	<1.00	<1.00	<2.00	<1.00	<0.00997	<1.00	<1.00	8.78	5.73	5.73	<1.00	<1.00	<0.200	---	---	---	<0.500	---			
S-MW-3:W-041318	S-MW-3	5.64	42.42	36.78	25-35 ft	4/13/2018	<50.0	<50.0	<99.9	<1.00	<1.00	<1.00	<2.00	<1.00	<0.0101	<1.00	<1.00	1.94	<0.500	<1.00	<1.00	<1.00	<0.200	---	---	---	<0.500	---			
S-MW-4:W-041318	S-MW-4	5.49	41.80	36.31	40-50 ft	4/13/2018	<50.0	<49.9	<99.9	<1.00	<1.00	<1.00	<2.00	<1.00	<0.00984	<1.00	<1.00	3.76	<0.500	<1.00	<1.00	<1.00	<0.200	---	---	---	<0.500	---			
S-MW-5:W-041318	S-MW-5	5.18	41.54	36.36	15-25 ft	4/13/2018	<50.0	<49.9	<99.9	<1.00	<1.00	<1.00	<2.00	<1.00	<0.0100	<1.00	<1.00	702	1.64	9.18	<1.00	<1.00	<0.200	---	---	---	<0.500	---			
HZ-MW-16:W-041318	HZ-MW-16	5.58	---	---	15-25 ft	4/13/2018	<50.0	<49.9	<99.8	<1.00	<1.00	<1.00	<2.00	<1.00	<0.00991	<1.00	<1.00	<1.00	<1.00	<0.500	<1.00	<1.00	<0.200	---	---	---	<1.1 <sup>x</sup>	---			
S-KSB-1:W	S-KSB-1	---	---	---	5-15 ft	4/24/2018	1,430	96.5 <sup>y</sup>	<99.9	<1.00	<1.00	3.87	<2.00	8.00	<0.00978	<1.00	<1.00	17.1	2.30	2.52	<1.00	<1.00	<0.200	---	---	---	63.0	1.76			
S-KSB-2:W	S-KSB-2	---	---	---	5-15 ft	4/24/2018	2,830	409 <sup>y</sup>	323	<1.00	<1.00	2.42	1.83	10.2	<0.0101	<1.00	<1.00	7.79	2.67	2.01	<1.00	<1.00	<0.200	---	---	---	49.5	<0.500			
S-KSB-3:W	S-KSB-3	---	---	---	5-15 ft	4/24/2018	1,150	<49.8	<99.5	<1.00	<1.00	3.50	2.13	<1.00	<0.00988	<1.00	<1.00	25.7	2.81	22.6	<1.00	<1.00	<0.200	---	---	---	4.57	<0.500			
S-KSB-4:W	S-KSB-4	---	---	---	5-15 ft	4/24/2018	<50.0	60.7 <sup>y</sup>	<100	<1.00	<1.00	<1.00	<2.00	<1.00	<0.0100	<1.00	<1.00	41.8	3.07	5.23	<1.00	<1.00	<0.200	---	---	---	3.14	<0.500			
S-KSB-5:W	S-KSB-5	---	---	---	5-15 ft	4/24/2018	<50.0	<49.9	<99.8	<1.00	<1.00	<1.00	<2.00	<1.00	<0.00996	<1.00	<1.00	5.87	5.97	10.1	<1.00	<1.00	<0.200	---	---	---	1.72	0.919			
S-KSB-6:W	S-KSB-6	---	---	---	5-15 ft	4/24/2018	<50.0	74.5 <sup>y</sup>	<99.6	<1.00	<1.00	<1.00	<2.00	<1.00	<0.00988	<1.00	<1.00	23.5	<0.500	<1.00	<1.00	<1.00	<0.200	---	---	---	2.71	<0.500			
S-KSB-7:W	S-KSB-7	---	---	---	5-15 ft	4/24/2018	<50.0	<50.0	<99.9	<1.00	<1.00	<1.00	<2.00	<1.00	---	<1.00	<1.00	4.26	<0.500	2.41	<1.00	<1.00	<0.200	<0.0999	0.177	0.154	---	---			
S-KSB-8:W / S-KSB-8R <sup>§</sup>	S-KSB-8 / S-KSB-8R	---	---	---	5-15 ft	4/24/2018 <sup>§</sup>	<50.0	<49.7	<99.5	<1.00	<1.00	<1.00	<2.00	<1.00	---	<1.00	<1.00	12.1 / <1.00 <sup>§</sup>	<0.500	<1.00	<1.00	<1.00	<0.200	---	---	---	---	---			
S-KSB-11:W	S-KSB-11	---	---	---	5-15 ft	4/25/2018	985	<49.8	<99.7	<1.00	<1.00	1.21	<2.00	<1.00	<0.00978	<1.00	<1.00	1.79	4.58	<1.00	<1.00	<1.00	<0.200	---	---	---	<0.500	<0.500			
S-MW-7:W-052218	S-MW-7	4.91	41.31	36.40	4-14 ft	5/22/2018	880	<310	<410	<0.20	<1.0	10	37.4	11	<0.0097	<0.20	<0.20	1.8	3.4	2.4	<0.20	<0.20	<0.20	---	---	---	<1.1	---			
S-MW-8:W-052218	S-MW-8	4.98	41.49	36.51	4-14 ft	5/22/2018	<100	<260	<420	<0.20	<1.0	<0.20	<0.60	<1.0	<0.0096	<0.20	<0.20	6.0	2.9	1.4	<0.20	<0.20	<0.20	---	---	---	<1.1	---			
S-MW-9:W-052218	S-MW-9	5.49	42.64	37.15	4-14 ft	5/22/2018	<100	<250	<400	<0.20	<1.0	<0.20	<0.60	<1.0	<0.0097	<0.20	<0.20	19	1.8	1.1	<0.20	<0.20	<0.20	---	---	---	<1.1	---			
S-MW-10:W-052218	S-MW-10	4.99	41.89	36.90	4-14 ft	5/22/2018	<100	<260	<410	<0.20	<1.0	<0.20	<0.60	<1.0	<0.0096	<0.20	<0.20	10	4.4	2.4	<0.20	<0.20	<0.20	---	---	---	<1.1	---			
S-MW-11:W-052218	S-MW-11	4.88	41.44	36.56	4-14 ft	5/22/2018	<100	<260	<410	<0.20	<1.0	<0.20	<0.60	<1.0	<0.0096	<0.20	<0.20	3.8	2.2	1.4	<0.20	<0.20	<0.20	---	---	---	<1.1	---			
MTCA Method A or Method B Groundwater Cleanup Level <sup>^</sup>							800/1,000 <sup>*</sup>	500	5	1,000	700	1,000	160	0.01	5	20	5	5	(16) NC	(160) NC	(7.68) C	0.2	0.1	(480) NC	No CUL	15	15				

**Notes:**

ug/L = micrograms per liter [equivalent to parts per billion (ppb)].

- = not analyzed.

bgs = below ground surface

amsl = above mean sea level

**Bold** concentrations are detectable concentrations, below their Cleanup Level (if available).

**Shaded and Bold** concentrations are detectable concentrations, exceeding their Cleanup Level.

<sup>\*</sup> = 800 ppb is MTCA Method A Cleanup Level for gasoline range organics when benzene is present or the total of benzene, toluene and total xylenes is greater than 1%; 1000 ppb otherwise.

<sup>^</sup> = Method A Cleanup Levels used where available. Method B Direct Contact Cleanup Levels (shown in parentheses) used if Method A Levels are not available. Cancer cleanup levels used when available. "NC" = non-cancer, "C" = cancer.

<sup>+</sup> = Laboratory identified this detection as "diesel-range organics", "unresolved compounds eluting from dodecane to tetraacosane (~C12-C24)".

<sup>x</sup> = A clear groundwater sample was not obtained from this well during sampling on 4/13/18, therefore, lead was not analyzed. This well was resampled on 5/22/18 and analyzed for total lead.

<sup>§</sup> = Location S-KSB-8 was re-sampled on 2/7/2019 as KSB-8R. In S-KSB-8R, PCE was not detected above the laboratory reporting limit.

<sup>y</sup> = Laboratory identified this detection as "diesel range organics", and indicated that "chromatography demonstrates a continuation of gasoline." Therefore, this concentration is considered as a part of gasoline range hydrocarbons, and the heavy oil concentration is compared alone to the 500 ug/L cleanup level for diesel and heavy oil.

**Table 3**  
**Applicable or Relevant and Appropriate Requirements**  
**Former Wexler Property Site**  
**Bothell, Washington**  
**Project No. 82305**

ARAR	Applicability
Soil	
Model Toxics Control Act (WA 173-340-740, -747)	MTCA cleanup levels are applicable to Site soil.
Groundwater	
Model Toxics Control Act (WAC 173-340-720)	MTCA cleanup levels are applicable to Site groundwater.
Surface Water	
Model Toxics Control Act (WAC 173-340-730)	MTCA cleanup levels are applicable to the Site if remedial activities cause a release to surface water.
Air	
Washington Clean Air Act and Implementing Regulations (WAC 173-400; WAC 173-460; WAC 173-490)	Applicable for excavation activities
Model Toxics Control Act (WAC 173-340-750)	MTCA cleanup levels are applicable to the Site if remedial activities cause a release to air.
Miscellaneous	
State Environmental Policy Act (SEPA) (RCW 43.21C.030(2)(a) and 2(b))	This act may be applicable to the Site if determined that a SEPA Checklist is required to obtain permitting for remedial activities to be conducted at the Site.
Protection of Wetlands, Executive Order 11990 (40 CFR Part 6, Appendix A)	This Act is unlikely to be applicable to remedial activities at the Site, as no wetlands are present.
Occupational Safety and Health Act (CFR Part 1910)	Applicable to construction work and remedial activities occurring on the Site
Safety Standards for Construction Work (WAC 296-155)	Applicable to construction work and remedial activities occurring on the Site
Minimum Functional Standards for Solid Waste Handling (WAC 173-304)	Applicable to handling of solid wastes, such as excavated soil or other materials, generated during construction work or remedial activities occurring on the Site
Washington Solid Waste Handling Standards (WAC 173-350)	These regulations are applicable to solid nonhazardous wastes and are relevant and appropriate to on-site remedial actions governing contaminated media management.
Washington Water Well Construction Act Regulations (WAC 173-160)	These regulations are applicable to the installation, operation, or closure of monitoring and treatment wells at the Site.
Native American Graves Protection and Repatriation Act (43 CFR Part 10)	This act is applicable to remedial actions at the Site because it is possible that the disturbance of Native American materials could occur as a result of work in subsurface excavations at the Site. Such materials are not known to be present at the Site.
Nation Historic Preservation Act (36 CFR Parts 60, 63, and 800)	This Act is applicable to subsurface work at the Site. No such Sites are known to be present in the area.
Washington Hazardous Waste Management Act (WAC 173-303)	This regulation is applicable to handling of contaminated media at the Site. The contamination policy allows contaminated media to be consolidated within the same area of a site without triggering Resource Conservation and Recovery Act or Washington dangerous waste regulations
Washington Accreditation of Environmental Laboratories (WAC 173-50)	Applicable to analytical laboratories selected to provide services in support of remedial activities at the Site.
Department of Transportation of Hazardous Wastes (49 CFR 105-180)	Applicable to remedial activities that involve the off-site transportation of hazardous waste.

**Attachment A**  
**Soil Boring and Groundwater Monitoring Well Logs**

**Drill Date:** 8/5/2010

**Logged By:** Erin Murray

**Drilled By:** Kasey Goble / Cascade Drilling

**Drill Type:** Geoprobe 6600

**Sample Method:** Direct Push 2"x5' Core

**Boring Diameter:** 2 inches

**Boring Depth (ft bgs):** 42 feet bgs

**Groundwater ATD (ft bgs):** 6 feet bgs

**Client:** City of Bothell

**Project:** COB-Oncall

**Address:** 18125 Bothell Way NE

Bothell, WA

**Coordinate System:** NAD 83/98

**Ground Surface Elevation:** NA

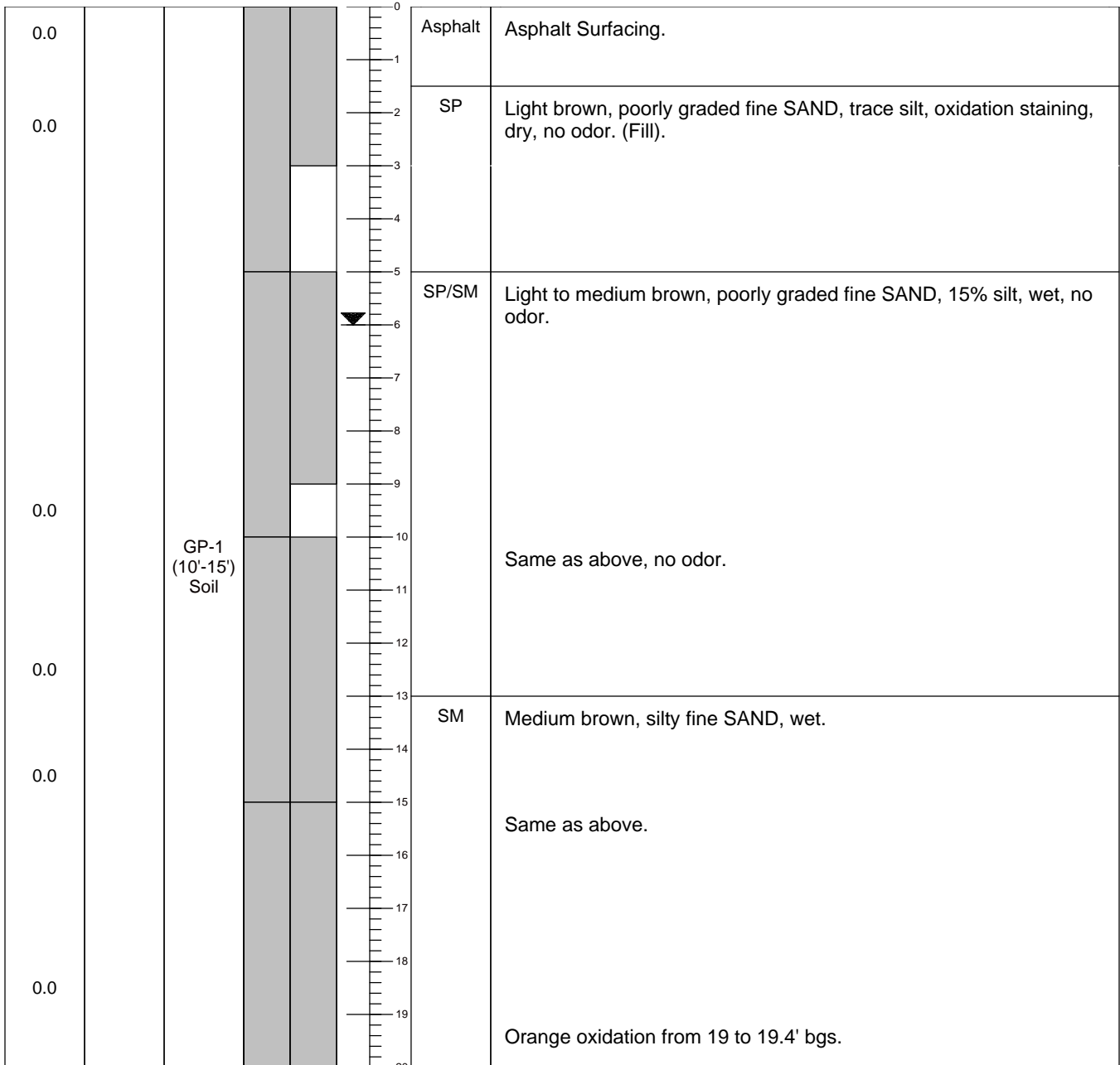
**Latitude/Northing:** 280221\*

**Longitude/Easting:** 1302103\*

**Remarks:** Boring location is just west of the southwest corner of Big Foot Java.

\*Coordinates are approximate.

PID (ppm)	SHEEN	SAMPLE ID	DRIVEN / RECOVERED	DEPTH FT BGS	USCS SYMBOL	SOIL DESCRIPTION AND OBSERVATIONS (color, texture, moisture, MAJOR CONSITUIENT, odor, staining, sheen, debris, etc.)
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**Notes:**

FT BGS = feet below ground surface  
ppm = parts per million

--- Dashed contact line in soil description indicates a gradational contact  
USCS = Unified Soil Classification System  
▼ = denotes groundwater table



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-----------	-------	-----------	--------------------	--------------	-------------	---

0.0					SM	Light brown, silty fine SAND, wet, no odor.
		GP-1 (25'-30') Soil				Same as above.
						Refusal at 30' bgs. Drive to 45' bgs with samping rods to collect water sample.

**Notes:**

FT BGS = feet below ground surface  
ppm = parts per million

--- Dashed contact line in soil description indicates a gradational contact  
USCS = Unified Soil Classification System  
▼ = denotes groundwater table

**Coordinate System:** NAD 83/98

**Ground Surface Elevation:** NA

**Latitude/Northing:** 280221\*

**Longitude/Easting:** 1302103\*

**Drill Date:** 8/5/2010

**Logged By:** Erin Murray

**Drilled By:** Kasey Goble / Cascade Drilling

**Drill Type:** Geoprobe 6600

**Sample Method:** Direct Push 2"x5' Core

**Boring Diameter:** 2 inches

**Boring Depth (ft bgs):** 42 feet bgs

**Groundwater ATD (ft bgs):** 6 feet bgs

**Client:** City of Bothell

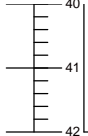
**Project:** COB-Oncall

**Address:** 18125 Bothell Way NE  
Bothell, WA

**Remarks:** Boring location is just west of the southwest corner of Big Foot Java.

\*Coordinates are approximate.

PID (ppm)	SHEEN	SAMPLE ID	DRIVEN / RECOVERED	DEPTH FT BGS	USCS SYMBOL	SOIL DESCRIPTION AND OBSERVATIONS (color, texture, moisture, MAJOR CONSITIUENT, odor, staining, sheen, debris, etc.)
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		GP-1 (40'-42') Water				Refusal at 42' bgs.
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**Notes:**

FT BGS = feet below ground surface  
ppm = parts per million

--- Dashed contact line in soil description indicates a gradational contact  
USCS = Unified Soil Classification System  
▼ = denotes groundwater table

**Drill Date:** 8/5/2010

**Logged By:** Erin Murray

**Drilled By:** Kasey Goble / Cascade Drilling

**Drill Type:** Geoprobe 6600

**Sample Method:** Direct Push 2"x5' Core

**Boring Diameter:** 2 inches

**Boring Depth (ft bgs):** 45 feet bgs

**Groundwater ATD (ft bgs):** 7 feet bgs

**Client:** City of Bothell

**Project:** COB-Oncall

**Address:** 18125 Bothell Way NE

Bothell, WA

**Coordinate System:** NAD 83/98

**Ground Surface Elevation:** NA

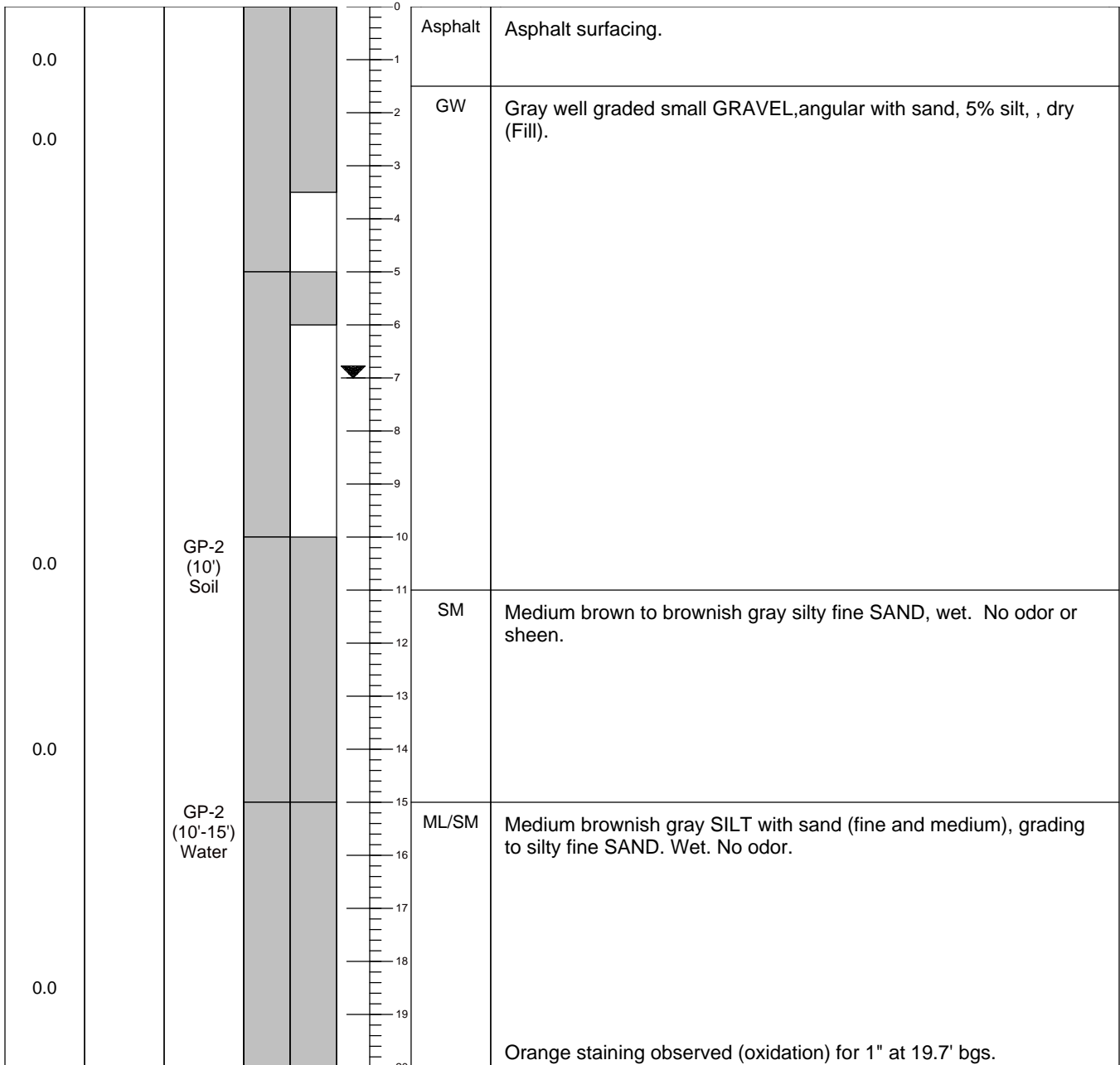
**Latitude/Northing:** 280193\*

**Longitude/Easting:** 1302103\*

**Remarks:** Boring is located approximately 20' south of the Big Foot Java.

\*Coordinates are approximate.

PID (ppm)	SHEEN	SAMPLE ID	DRIVEN / RECOVERED	DEPTH FT BGS	USCS SYMBOL	SOIL DESCRIPTION AND OBSERVATIONS (color, texture, moisture, MAJOR CONSITUENT, odor, staining, sheen, debris, etc.)
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**Notes:**

FT BGS = feet below ground surface  
ppm = parts per million

--- Dashed contact line in soil description indicates a gradational contact  
USCS = Unified Soil Classification System  
▼ = denotes groundwater table

**Drill Date:** 8/5/2010

**Logged By:** Erin Murray

**Drilled By:** Kasey Goble / Cascade Drilling

**Drill Type:** Geoprobe 6600

**Sample Method:** Direct Push 2"x5' Core

**Boring Diameter:** 2 inches

**Boring Depth (ft bgs):** 45 feet bgs

**Groundwater ATD (ft bgs):** 7 feet bgs

**Client:** City of Bothell

**Project:** COB-Oncall

**Address:** 18125 Bothell Way NE

Bothell, WA

**Coordinate System:** NAD 83/98

**Ground Surface Elevation:** NA

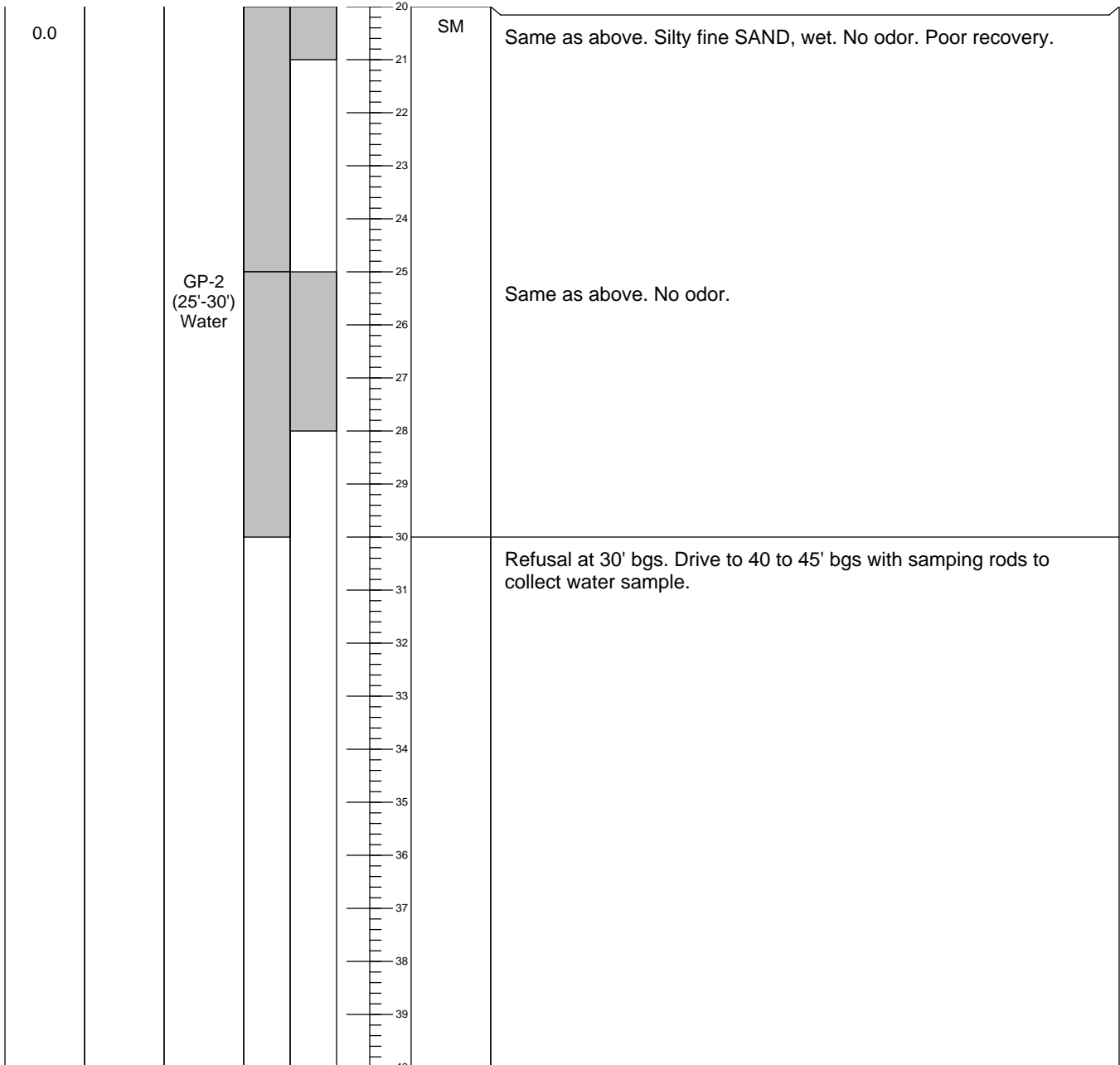
**Latitude/Northing:** 280193\*

**Longitude/Easting:** 1302103\*

**Remarks:** Boring is located approximately 20' south of the Big Foot Java.

\*Coordinates are approximate.

PID (ppm)	SHEEN	SAMPLE ID	DRIVEN / RECOVERED	DEPTH FT BGS	USCS SYMBOL	SOIL DESCRIPTION AND OBSERVATIONS (color, texture, moisture, MAJOR CONSITUIENT, odor, staining, sheen, debris, etc.)
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**Notes:**

FT BGS = feet below ground surface  
ppm = parts per million

--- Dashed contact line in soil description indicates a gradational contact  
USCS = Unified Soil Classification System  
▼ = denotes groundwater table

**Coordinate System:** NAD 83/98

**Ground Surface Elevation:** NA

**Latitude/Northing:** 280193\*

**Longitude/Easting:** 1302103\*

**Drill Date:** 8/5/2010

**Logged By:** Erin Murray

**Drilled By:** Kasey Goble / Cascade Drilling

**Drill Type:** Geoprobe 6600

**Sample Method:** Direct Push 2"x5' Core

**Boring Diameter:** 2 inches

**Boring Depth (ft bgs):** 45 feet bgs

**Groundwater ATD (ft bgs):** 7 feet bgs

**Client:** City of Bothell

**Project:** COB-Oncall

**Address:** 18125 Bothell Way NE  
Bothell, WA

**Remarks:** Boring is located approximately 20' south of the Big Foot Java.

\*Coordinates are approximate.

PID (ppm)	SHEEN	SAMPLE ID	DRIVEN / RECOVERED	DEPTH FT BGS	USCS SYMBOL	SOIL DESCRIPTION AND OBSERVATIONS (color, texture, moisture, MAJOR CONSITIUEENT, odor, staining, sheen, debris, etc.)
--------------	-------	--------------	-----------------------	-----------------	----------------	--

		GP-2 (40'-45') Water		40 41 42 43 44 45		Refusal at 45' bgs.
--	--	----------------------------	--	----------------------------------	--	---------------------

**Notes:**

FT BGS = feet below ground surface  
ppm = parts per million

--- Dashed contact line in soil description indicates a gradational contact  
USCS = Unified Soil Classification System  
▼ = denotes groundwater table

**Coordinate System:** NAD 83/98

**Ground Surface Elevation:** NA

**Latitude/Northing:** 280170\*

**Longitude/Easting:** 1302104\*

**Drill Date:** 8/5/2010

**Logged By:** Erin Murray

**Drilled By:** Kasey Goble / Cascade Drilling

**Drill Type:** Geoprobe 6600

**Sample Method:** Direct Push 2"x5' Core

**Boring Diameter:** 2 inches

**Boring Depth (ft bgs):** 43 feet bgs

**Groundwater ATD (ft bgs):** 6 feet bgs

**Client:** City of Bothell

**Project:** COB-Oncall

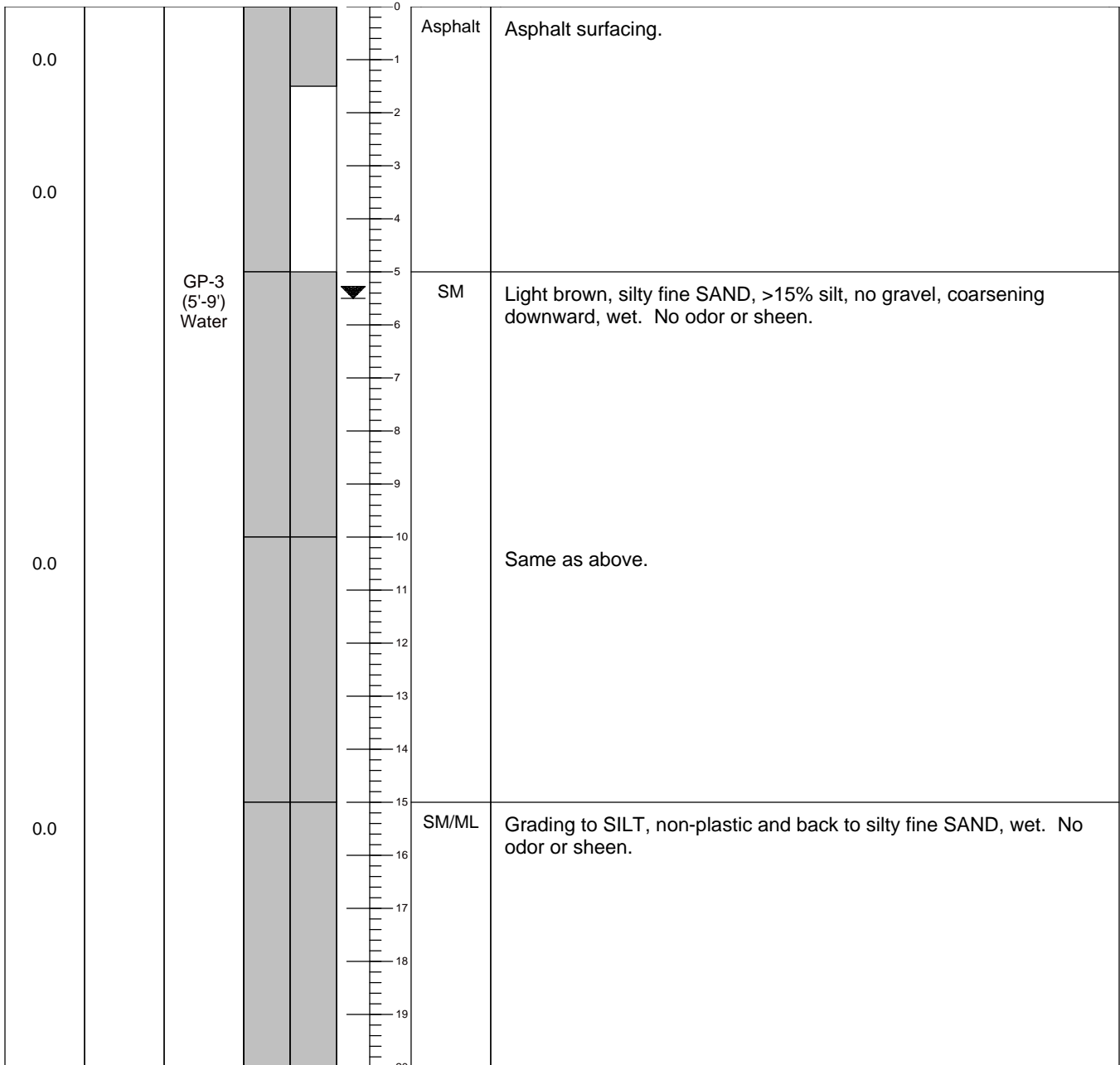
**Address:** 18125 Bothell Way NE

Bothell, WA

**Remarks:** Boring location in the southwest corner of the former excavation, south of the Big Foot Java.

\*Coordinates are approximate.

PID (ppm)	SHEEN	SAMPLE ID	DRIVEN / RECOVERED	DEPTH FT BGS	USCS SYMBOL	SOIL DESCRIPTION AND OBSERVATIONS (color, texture, moisture, MAJOR CONSITUIENT, odor, staining, sheen, debris, etc.)
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**Notes:**

FT BGS = feet below ground surface  
ppm = parts per million

--- Dashed contact line in soil description indicates a gradational contact  
USCS = Unified Soil Classification System  
▼ = denotes groundwater table

**Drill Date:** 8/5/2010

**Logged By:** Erin Murray

**Drilled By:** Kasey Goble / Cascade Drilling

**Drill Type:** Geoprobe 6600

**Sample Method:** Direct Push 2"x5' Core

**Boring Diameter:** 2 inches

**Boring Depth (ft bgs):** 43 feet bgs

**Groundwater ATD (ft bgs):** 6 feet bgs

**Client:** City of Bothell

**Project:** COB-Oncall

**Address:** 18125 Bothell Way NE

Bothell, WA

**Coordinate System:** NAD 83/98

**Ground Surface Elevation:** NA

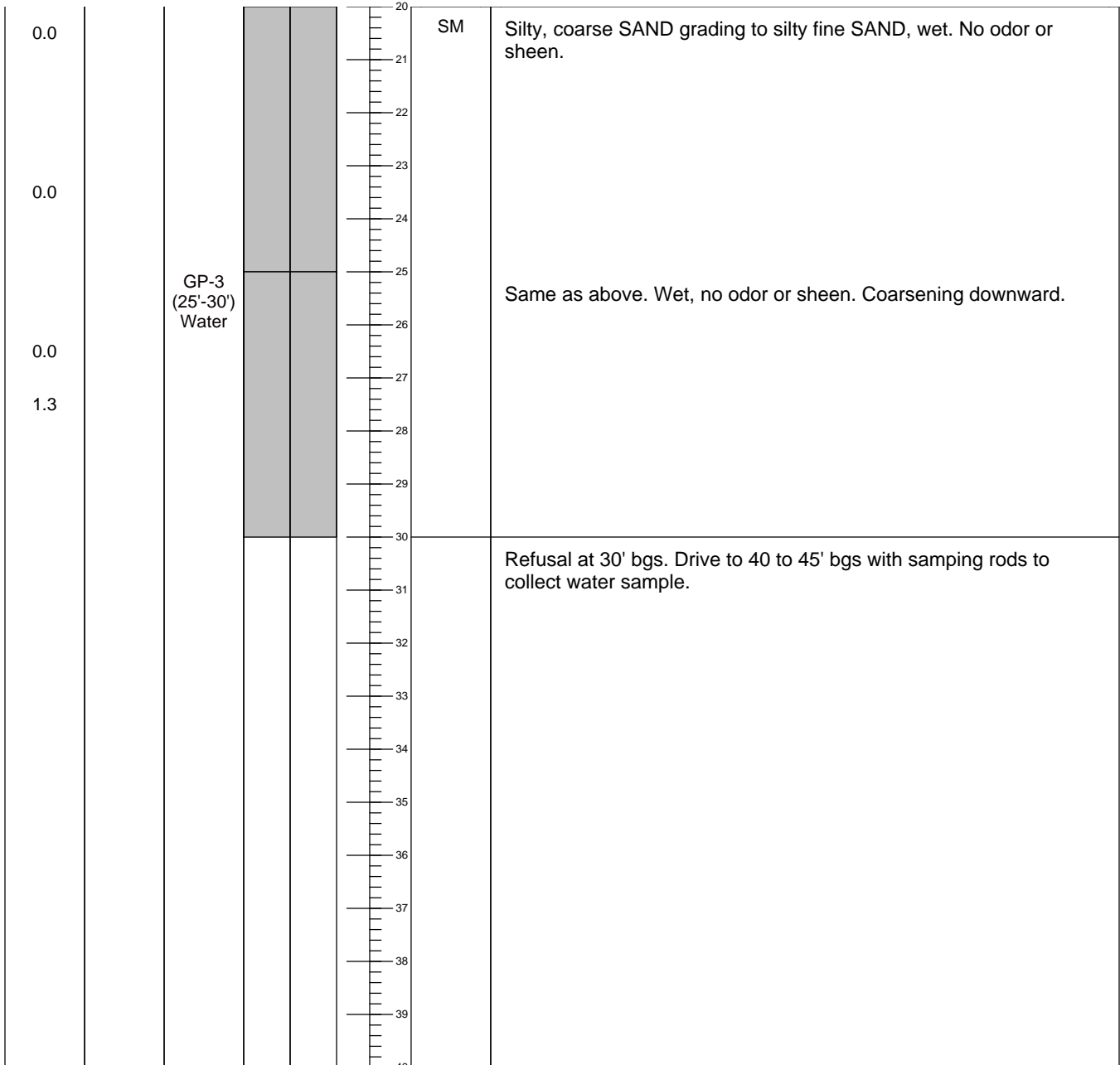
**Latitude/Northing:** 280170\*

**Longitude/Easting:** 1302104\*

**Remarks:** Boring location in the southwest corner of the former excavation, south of the Big Foot Java.

\*Coordinates are approximate.

PID (ppm)	SHEEN	SAMPLE ID	DRIVEN / RECOVERED	DEPTH FT BGS	USCS SYMBOL	SOIL DESCRIPTION AND OBSERVATIONS (color, texture, moisture, MAJOR CONSITUIENT, odor, staining, sheen, debris, etc.)
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**Notes:**

FT BGS = feet below ground surface  
ppm = parts per million

--- Dashed contact line in soil description indicates a gradational contact  
USCS = Unified Soil Classification System  
▼ = denotes groundwater table

**Coordinate System:** NAD 83/98

**Ground Surface Elevation:** NA

**Latitude/Northing:** 280170\*

**Longitude/Easting:** 1302104\*

**Drill Date:** 8/5/2010

**Logged By:** Erin Murray

**Drilled By:** Kasey Goble / Cascade Drilling

**Drill Type:** Geoprobe 6600

**Sample Method:** Direct Push 2"x5' Core

**Boring Diameter:** 2 inches

**Boring Depth (ft bgs):** 43 feet bgs

**Groundwater ATD (ft bgs):** 6 feet bgs

**Client:** City of Bothell

**Project:** COB-Oncall

**Address:** 18125 Bothell Way NE

Bothell, WA

**Remarks:** Boring location in the southwest corner of the former excavation, south of the Big Foot Java.

\*Coordinates are approximate.

PID (ppm)	SHEEN	SAMPLE ID	DRIVEN / RECOVERED	DEPTH FT BGS	USCS SYMBOL	SOIL DESCRIPTION AND OBSERVATIONS (color, texture, moisture, MAJOR CONSITIUENT, odor, staining, sheen, debris, etc.)
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		GP-3 & GP-3A (40'-43') Water				Refusal at 43' bgs.
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**Notes:**

FT BGS = feet below ground surface  
ppm = parts per million

--- Dashed contact line in soil description indicates a gradational contact  
USCS = Unified Soil Classification System  
▼ = denotes groundwater table



**Coordinate System:** NAD 83/98

**Ground Surface Elevation:** NA

**Latitude/Northing:** 280267\*

**Longitude/Easting:** 1302112\*

**Drill Date:** 8/6/2010

**Logged By:** Lisa Meoli

**Drilled By:** Lynn Goble / Cascade Drilling

**Drill Type:** Geoprobe 6600

**Sample Method:** Direct Push 2"x5' Core

**Boring Diameter:** 2 inches

**Boring Depth (ft bgs):** 15 feet bgs

**Groundwater ATD (ft bgs):** 7 feet bgs

**Client:** City of Bothell

**Project:** COB-Oncall

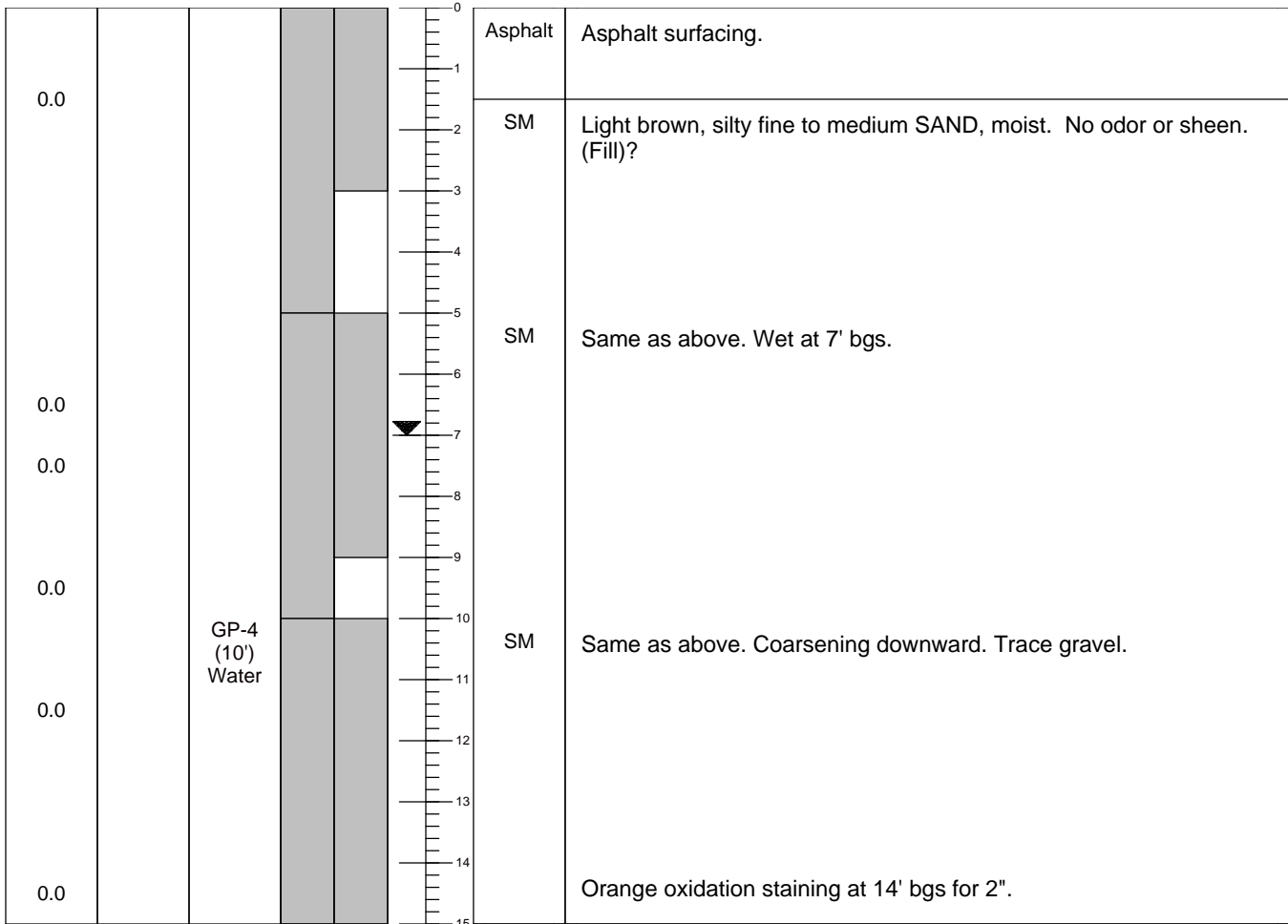
**Address:** 18125 Bothell Way

Bothell, WA

**Remarks:** Boring located approximately 10 feet north of the Big Foot Java.

\*Coordinates are approximate.

PID (ppm)	SHEEN	SAMPLE ID	DRIVEN / RECOVERED	DEPTH FT BGS	USCS SYMBOL	SOIL DESCRIPTION AND OBSERVATIONS (color, texture, moisture, MAJOR CONSITUIENT, odor, staining, sheen, debris, etc.)
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**Notes:**

FT BGS = feet below ground surface  
ppm = parts per million

--- Dashed contact line in soil description indicates a gradational contact  
USCS = Unified Soil Classification System  
▼ = denotes groundwater table

**Coordinate System:** NAD 83/98

**Ground Surface Elevation:** NA

**Latitude/Northing:** 280214\*

**Longitude/Easting:** 1302235\*

**Drill Date:** 8/9/2010

**Logged By:** Lisa Meoli

**Drilled By:** Frank / Cascade Drilling

**Drill Type:** Geoprobe 6600

**Sample Method:** Direct Push 2"x5' Core

**Boring Diameter:** 2 inches

**Boring Depth (ft bgs):** 15 feet bgs

**Groundwater ATD (ft bgs):** 5.5 feet bgs

**Client:** City of Bothell

**Project:** COB-Oncall

**Address:** 18125 Bothell Way NE

Bothell, WA

**Remarks:** Boring located approximately 10 feet from southwest corner of O'Reillys building adjacent to sidewalk. \*Coordinates are approximate.

PID (ppm)	SHEEN	SAMPLE ID	DRIVEN / RECOVERED	DEPTH FT BGS	USCS SYMBOL	SOIL DESCRIPTION AND OBSERVATIONS (color, texture, moisture, MAJOR CONSITUIENT, odor, staining, sheen, debris, etc.)
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0.0				0	Asphalt	Asphalt surfacing.
				1	SP	Light brown poorly graded medium SAND with silt (10%) with some red oxidation, dry. No odor or sheen. (FILL)
				2		
				3		
				4		
0.0				5		Same as above, wet.
				6		
				7		
				8		
0.0		GP-6 (8') Soil		9		
				10	SM	Light brown silty fine SAND. No odor, no sheen.
				11		
				12		
				13		
				14		Higher silt content at 14' bgs, compact.
0.0				15		

**Notes:**

FT BGS = feet below ground surface  
ppm = parts per million

--- Dashed contact line in soil description indicates a gradational contact  
USCS = Unified Soil Classification System  
▼ = denotes groundwater table

**Coordinate System:** NAD 83/98

**Ground Surface Elevation:** NA

**Latitude/Northing:** 280270\*

**Longitude/Easting:** 1302200\*

**Drill Date:** 8/9/2010

**Logged By:** Lisa Meoli

**Drilled By:** Frank / Cascade Drilling

**Drill Type:** Geoprobe 6600

**Sample Method:** Direct Push 2"x5' Core

**Boring Diameter:** 2 inches

**Boring Depth (ft bgs):** 15 feet bgs

**Groundwater ATD (ft bgs):** 7 feet bgs

**Client:** City of Bothell

**Project:** COB-Oncall

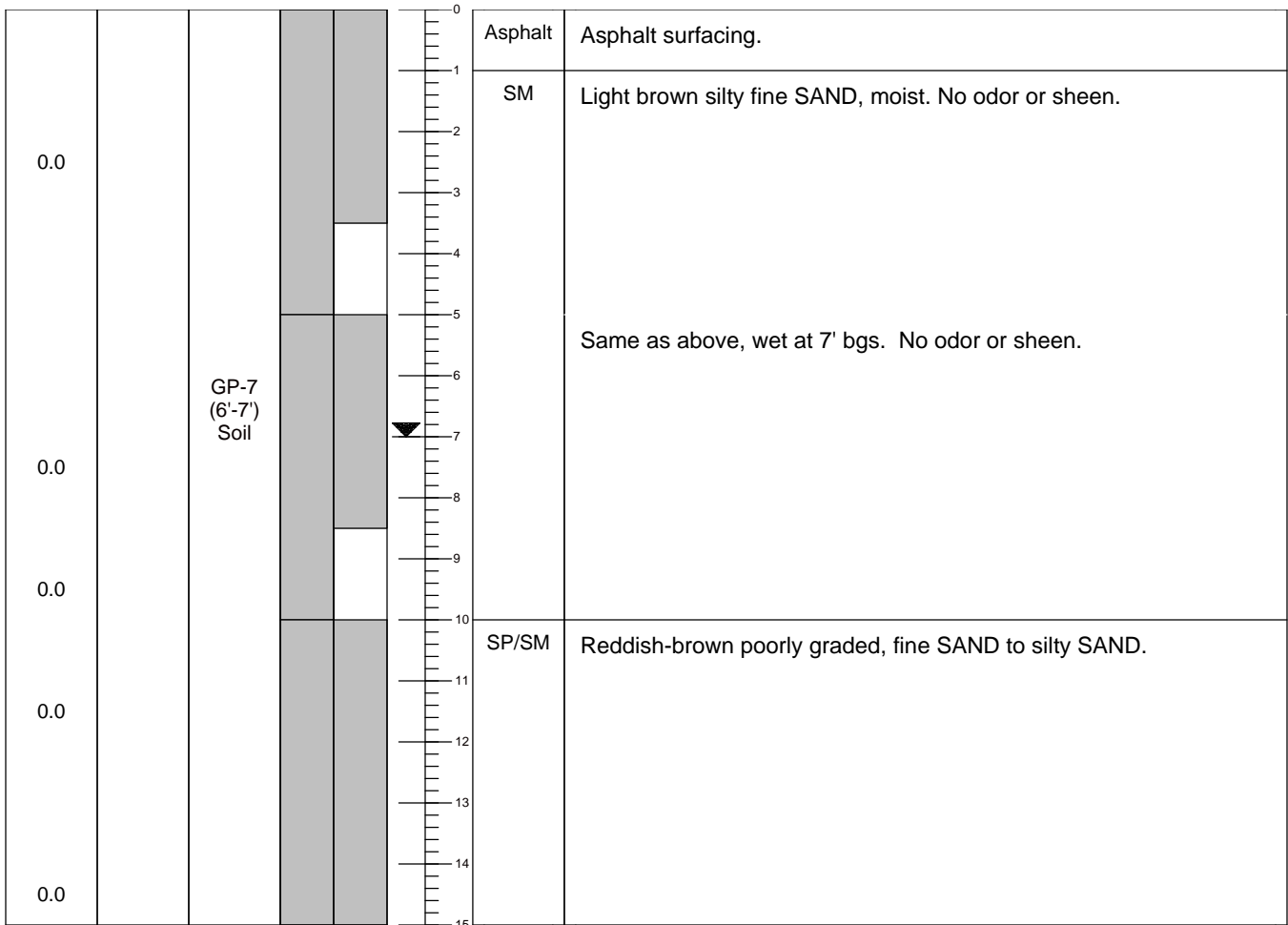
**Address:** 18125 Bothell Way NE

Bothell, WA

**Remarks:** Boring located in central portion of parking lot area between Big Foot Java and O'Reillys.

\*Coordinates are approximate.

PID (ppm)	SHEEN	SAMPLE ID	DRIVEN / RECOVERED	DEPTH FT BGS	USCS SYMBOL	SOIL DESCRIPTION AND OBSERVATIONS (color, texture, moisture, MAJOR CONSITUIENT, odor, staining, sheen, debris, etc.)
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**Notes:**

FT BGS = feet below ground surface  
ppm = parts per million

--- Dashed contact line in soil description indicates a gradational contact  
USCS = Unified Soil Classification System  
▼ = denotes groundwater table

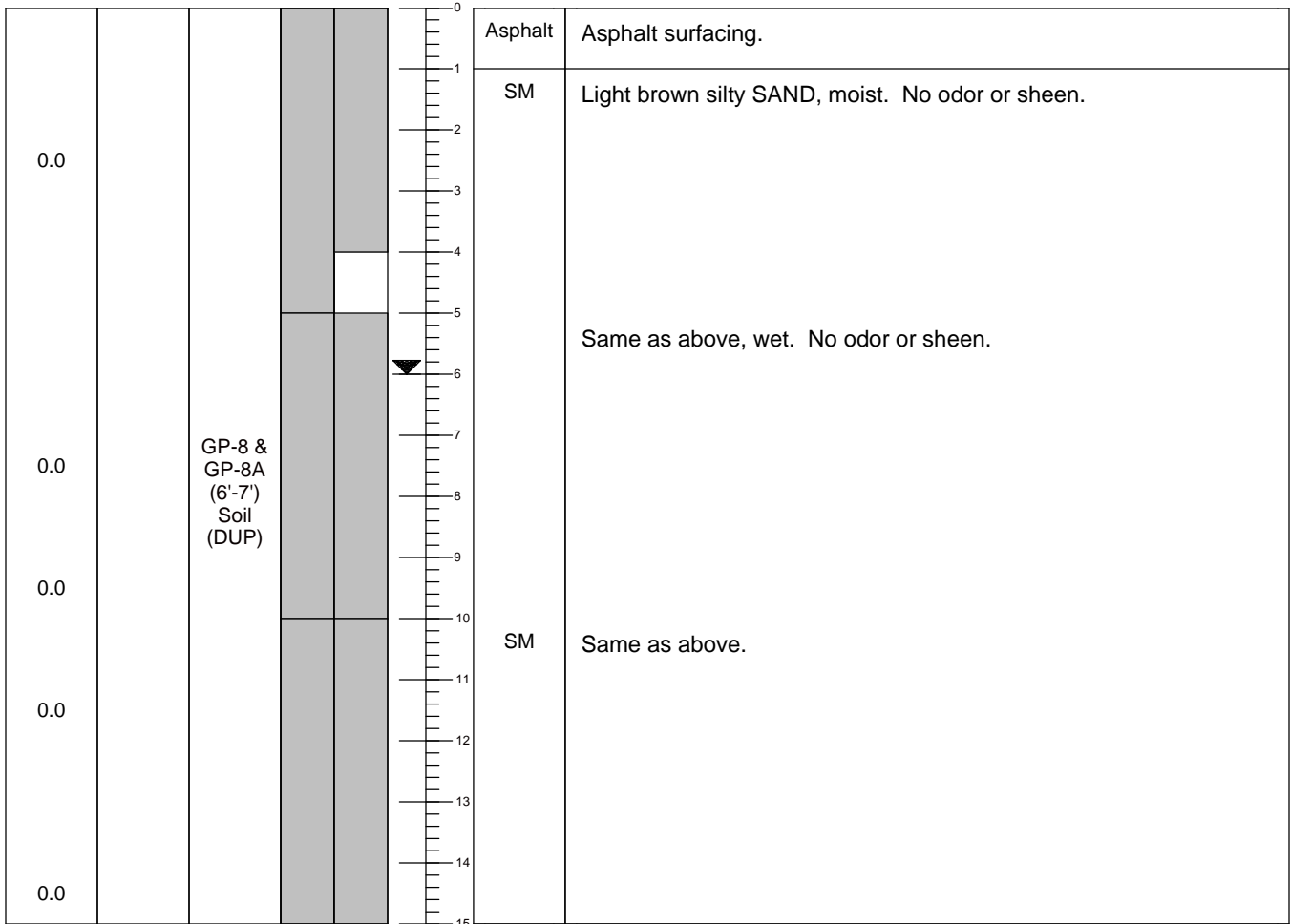
**Drill Date:** 8/9/2010  
**Logged By:** Lisa Meoli  
**Drilled By:** Frank / Cascade Drilling  
**Drill Type:** Geoprobe 6600  
**Sample Method:** Direct Push 5'X2" Core  
**Boring Diameter:** 2 inches  
**Boring Depth (ft bgs):** 15 feet bgs  
**Groundwater ATD (ft bgs):** 6 feet bgs

**Client:** City of Bothell  
**Project:** COB-Oncall  
**Address:** 18125 Bothell Way NE  
 Bothell, WA

**Coordinate System:** NAD 83/98  
**Ground Surface Elevation:** NA  
**Latitude/Northing:** 280226\*  
**Longitude/Easting:** 1302182\*

**Remarks:** Boring located in central portion of parking lot area between Big Foot Java and O'Reillys.  
 \*Coordinates are approximate.

PID (ppm)	SHEEN	SAMPLE ID	DRIVEN / RECOVERED	DEPTH FT BGS	USCS SYMBOL	SOIL DESCRIPTION AND OBSERVATIONS (color, texture, moisture, MAJOR CONSITUIENT, odor, staining, sheen, debris, etc.)
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**Notes:**  
 FT BGS = feet below ground surface  
 ppm = parts per million

--- Dashed contact line in soil description indicates a gradational contact  
 USCS = Unified Soil Classification System  
 ▼ = denotes groundwater table

**Coordinate System:** NAD 83/98

**Ground Surface Elevation:** NA

**Latitude/Northing:** 280205\*

**Longitude/Easting:** 1302102\*

**Drill Date:** 8/6/2010

**Logged By:** Erin Murray

**Drilled By:** Lynn Goble / Cascade Drilling

**Drill Type:** Geoprobe 6600

**Sample Method:** Direct Push 2"x5' Core

**Boring Diameter:** 2 inches

**Boring Depth (ft bgs):** 15 feet bgs

**Groundwater ATD (ft bgs):** 6 feet bgs

**Client:** City of Bothell

**Project:** COB-Oncall

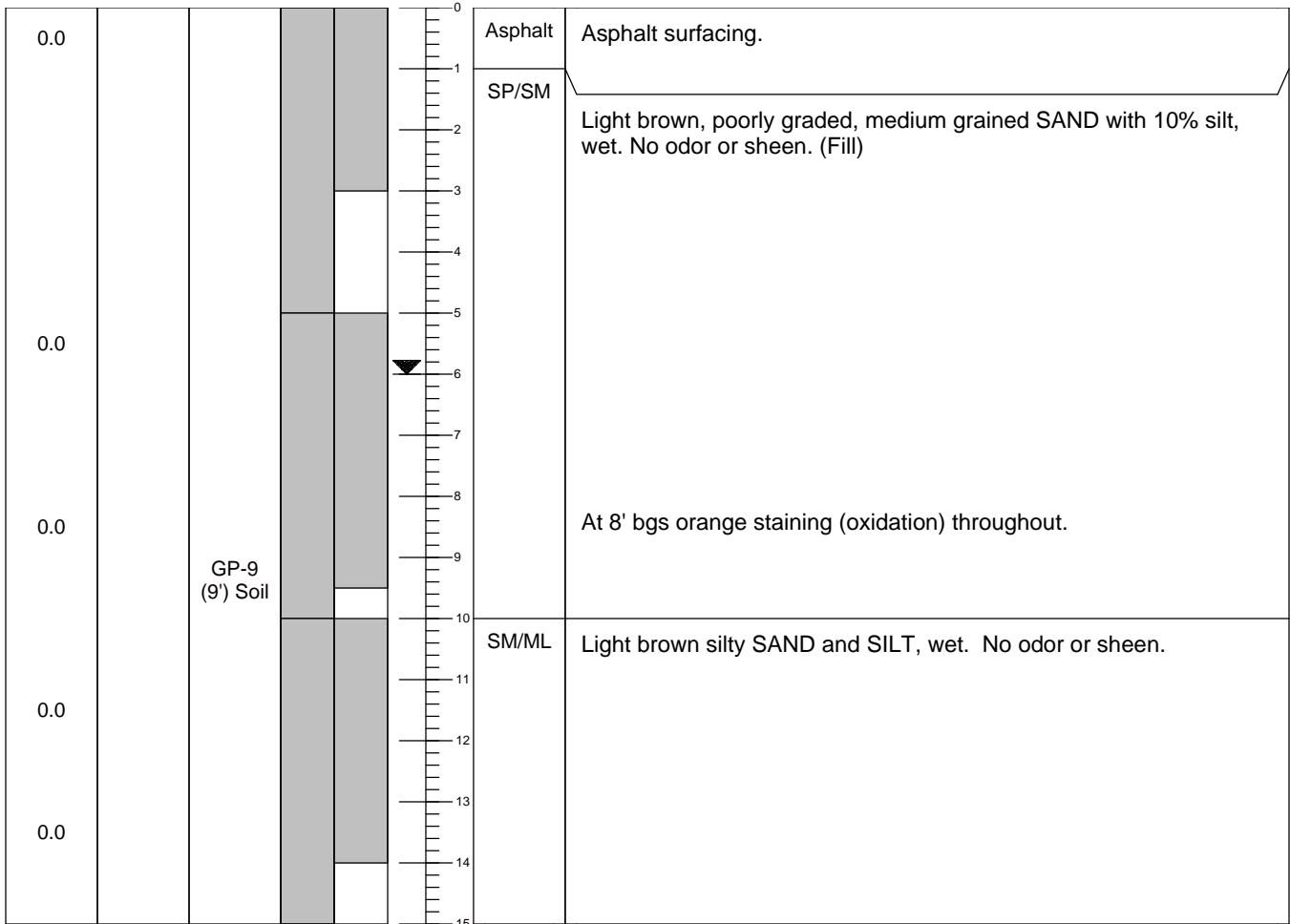
**Address:** 18125 Bothell Way NE

Bothell, WA

**Remarks:** Boring located north of the former excavation area, just south of Big Foot Java.

\*Coordinates are approximate.

PID (ppm)	SHEEN	SAMPLE ID	DRIVEN / RECOVERED	DEPTH FT BGS	USCS SYMBOL	SOIL DESCRIPTION AND OBSERVATIONS (color, texture, moisture, MAJOR CONSITUENT, odor, staining, sheen, debris, etc.)
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**Notes:**

FT BGS = feet below ground surface  
ppm = parts per million

--- Dashed contact line in soil description indicates a gradational contact  
USCS = Unified Soil Classification System  
▼ = denotes groundwater table

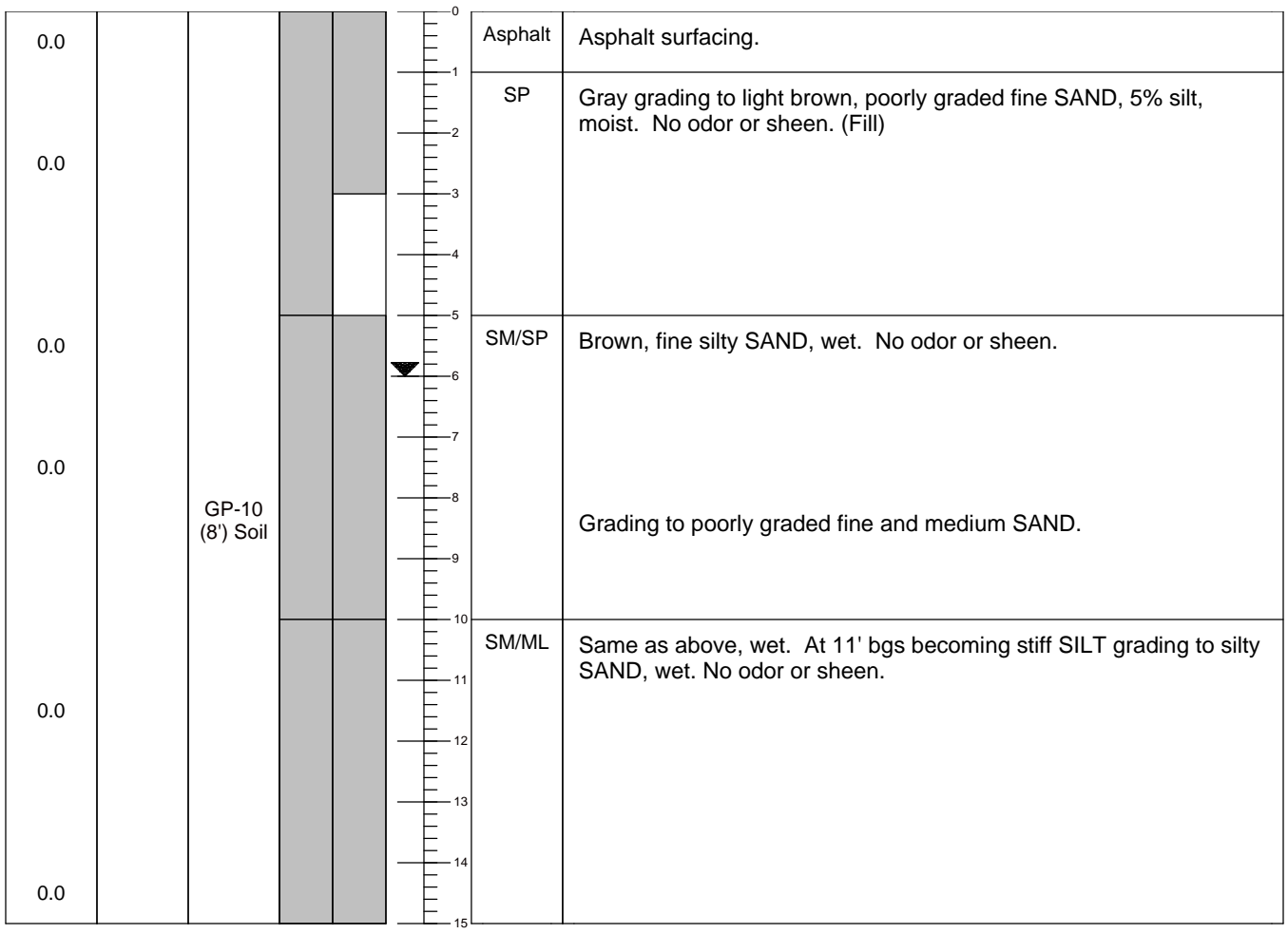
**Coordinate System:** NAD 83/98  
**Ground Surface Elevation:** NA  
**Latitude/Northing:** 280205\*  
**Longitude/Easting:** 1302131\*

**Drill Date:** 8/6/2010  
**Logged By:** Erin Murray  
**Drilled By:** Lynn Goble / Cascade Drilling  
**Drill Type:** Geoprobe 6600  
**Sample Method:** Direct Push 2"x5' Core  
**Boring Diameter:** 2 inches  
**Boring Depth (ft bgs):** 15 feet bgs  
**Groundwater ATD (ft bgs):** 6 feet bgs

**Client:** City of Bothell  
**Project:** COB-Oncall  
**Address:** 18125 Bothell Way NE  
Bothell, WA

**Remarks:** Boring located approximately 15' from the southeast corner of the Big Foot Java.  
\*Coordinates are approximate.

PID (ppm)	SHEEN	SAMPLE ID	DRIVEN / RECOVERED	DEPTH FT BGS	USCS SYMBOL	SOIL DESCRIPTION AND OBSERVATIONS (color, texture, moisture, MAJOR CONSITUIENT, odor, staining, sheen, debris, etc.)
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**Coordinate System:** NAD 83/98

**Ground Surface Elevation:** NA

**Latitude/Northing:** 280190\*

**Longitude/Easting:** 1302129\*

**Drill Date:** 8/6/2010

**Logged By:** Erin Murray

**Drilled By:** Lynn Goble / Cascade Drilling

**Drill Type:** Geoprobe 6600

**Sample Method:** Direct Push 2"x5' Core

**Boring Diameter:** 2 inches

**Boring Depth (ft bgs):** 15 feet bgs

**Groundwater ATD (ft bgs):** 5 feet bgs

**Client:** City of Bothell

**Project:** COB-Oncall

**Address:** 18125 Bothell Way NE

Bothell, WA

**Remarks:** Boring located approximately 20' south of GP-10.

\*Coordinates are approximate.

PID (ppm)	SHEEN	SAMPLE ID	DRIVEN / RECOVERED	DEPTH FT BGS	USCS SYMBOL	SOIL DESCRIPTION AND OBSERVATIONS (color, texture, moisture, MAJOR CONSITUENT, odor, staining, sheen, debris, etc.)
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0.0					Asphalt	Asphalt surfacing.
0.0					SP	Light to medium brown, poorly graded fine SAND, trace silt, dry to moist, oxidation at 3.7' bgs.
0.0		GP-11 (8') Soil			SM/SP	Same as above, grading to light brown silty fine SAND. No odor or sheen.  At 8' bgs, sand coarsening with depth.
					SM/ML	Gray silty SAND and stiff SILT.
					SP	Gray poorly graded fine SAND.

**Notes:**

FT BGS = feet below ground surface  
ppm = parts per million

--- Dashed contact line in soil description indicates a gradational contact  
USCS = Unified Soil Classification System  
▼ = denotes groundwater table

**Drill Date:** 8/6/2010  
**Logged By:** Erin Murray  
**Drilled By:** Lynn Goble / Cascade Drilling  
**Drill Type:** Geoprobe 6600  
**Sample Method:** Direct Push 2"x5' Core  
**Boring Diameter:** 2 inches  
**Boring Depth (ft bgs):** 15 feet bgs  
**Groundwater ATD (ft bgs):** 5 feet bgs

**Client:** City of Bothell  
**Project:** COB-Oncall  
**Address:** 18125 Bothell Way NE  
 Bothell, WA

**Coordinate System:** NAD 83/98  
**Ground Surface Elevation:** NA  
**Latitude/Northing:** 280174\*  
**Longitude/Easting:** 1302125\*

**Remarks:** Boring located immediately north of the recovery sump, RS-1.  
 \*Coordinates are approximate.

PID (ppm)	SHEEN	SAMPLE ID	DRIVEN / RECOVERED	DEPTH FT BGS	USCS SYMBOL	SOIL DESCRIPTION AND OBSERVATIONS (color, texture, moisture, MAJOR CONSITUIENT, odor, staining, sheen, debris, etc.)
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1.4					Asphalt	Asphalt surfacing.
693					SP	Medium brown, well graded SAND. Strong petroleum odor, no sheen. (Fill)
1800						
1724						
	Heavy sheen	GP-12 (6') Soil			SM/SP	Brownish gray silty fine SAND, wet. Heavy sheen and strong petroleum odor.
1130						
1200						
672						
	Heavy sheen	GP-12 (10'-15') Water			SP/SM	Same as above, strong petroleum odor and heavy sheen, wet.
800						
900						
87						
3.4						
0.0						
0.0						At 13.5' bgs grades to silty fine SAND, very dense. No sheen, faint odor.

**Notes:**  
 FT BGS = feet below ground surface  
 ppm = parts per million

--- Dashed contact line in soil description indicates a gradational contact  
 USCS = Unified Soil Classification System  
 ▼ = denotes groundwater table



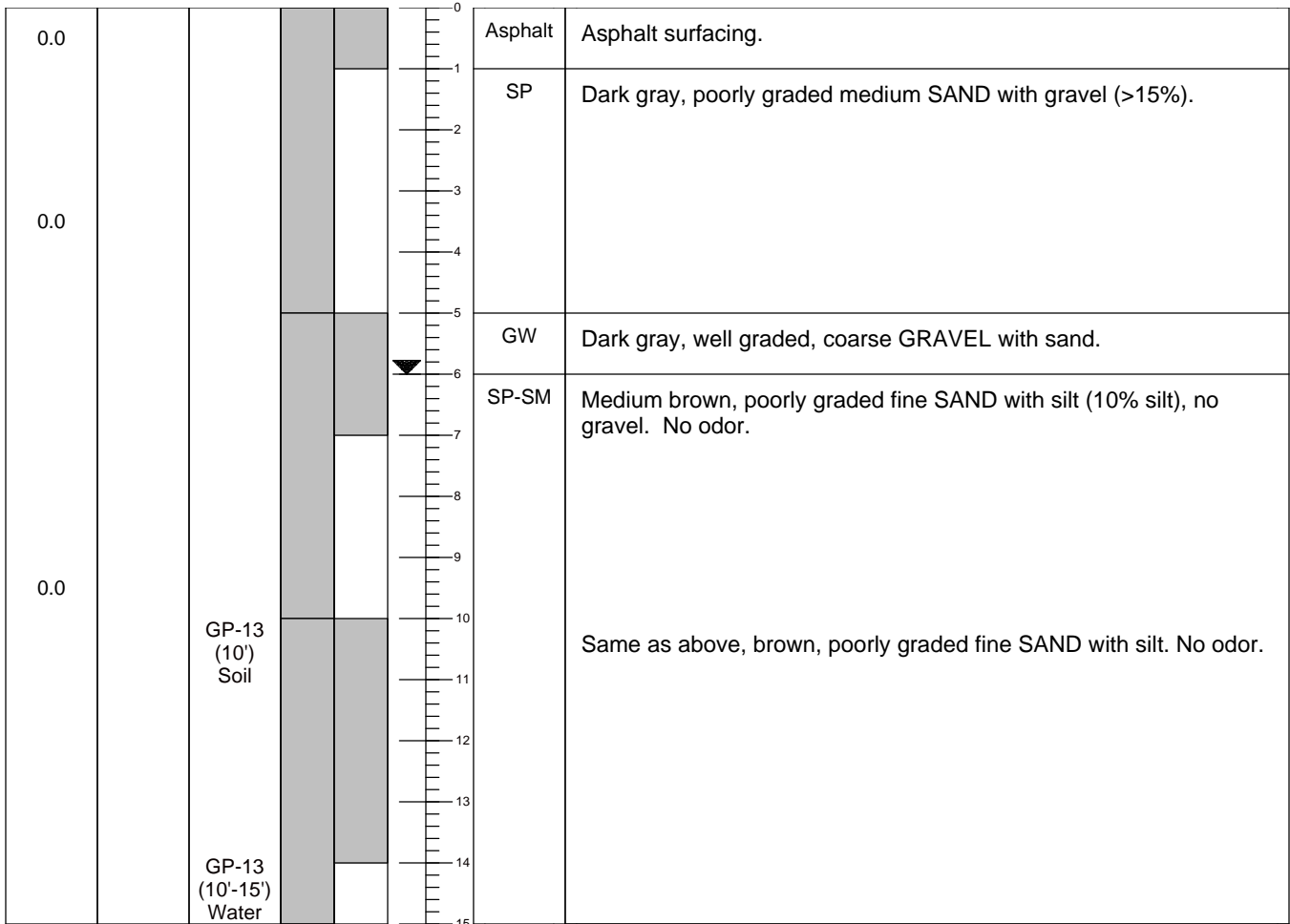
**Drill Date:** 8/6/2010  
**Logged By:** Erin Murray  
**Drilled By:** Lynn Goble / Cascade Drilling  
**Drill Type:** Geoprobe 6600  
**Sample Method:** Direct Push 2"x5' Core  
**Boring Diameter:** 2 inches  
**Boring Depth (ft bgs):** 15 feet bgs  
**Groundwater ATD (ft bgs):** 6 feet bgs

**Client:** City of Bothell  
**Project:** COB-Oncall  
**Address:** 18125 Bothell Way NE  
 Bothell, WA

**Coordinate System:** NAD 83/98  
**Ground Surface Elevation:** NA  
**Latitude/Northing:** 280175\*  
**Longitude/Easting:** 1302103\*

**Remarks:** Boring located approximately 10' north of GP-3.  
 \*Coordinates are approximate.

PID (ppm)	SHEEN	SAMPLE ID	DRIVEN / RECOVERED	DEPTH FT BGS	USCS SYMBOL	SOIL DESCRIPTION AND OBSERVATIONS (color, texture, moisture, MAJOR CONSITUENT, odor, staining, sheen, debris, etc.)
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**Notes:**  
 FT BGS = feet below ground surface  
 ppm = parts per million

--- Dashed contact line in soil description indicates a gradational contact  
 USCS = Unified Soil Classification System  
 ▼ = denotes groundwater table

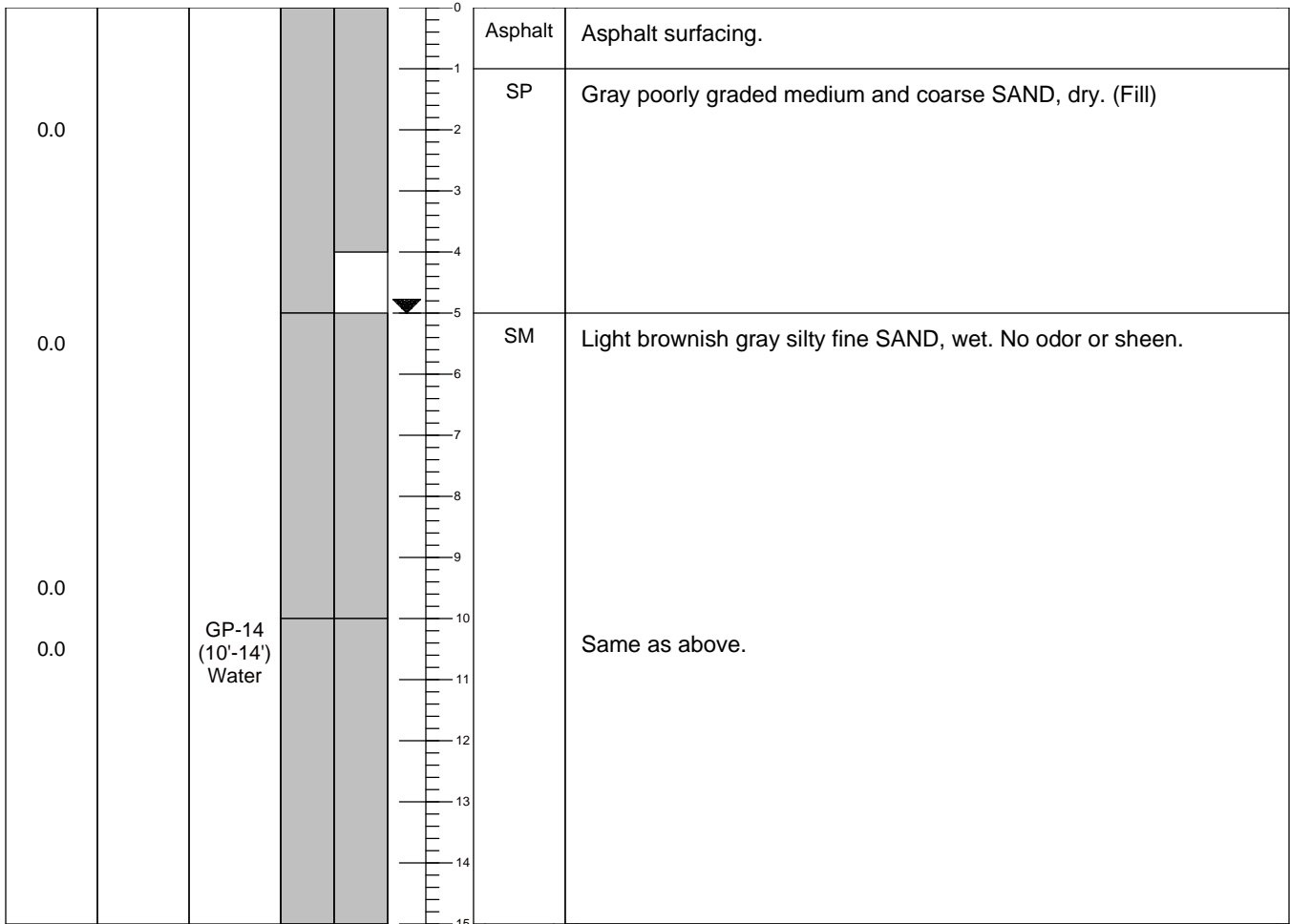
**Drill Date:** 8/9/2010  
**Logged By:** Lisa Meoli  
**Drilled By:** Frank / Cascade Drilling  
**Drill Type:** Geoprobe 6600  
**Sample Method:** Direct Push 2"x5' Core  
**Boring Diameter:** 2 inches  
**Boring Depth (ft bgs):** 15 feet bgs  
**Groundwater ATD (ft bgs):** 5 feet bgs

**Client:** City of Bothell  
**Project:** COB-Oncall  
**Address:** 18125 Bothell Way NE  
 Bothell, WA

**Coordinate System:** NAD 83/98  
**Ground Surface Elevation:** NA  
**Latitude/Northing:** 280190\*  
**Longitude/Easting:** 1302140\*

**Remarks:** Boring located approximately 10' east of GP-11.  
 \*Coordinates are approximate.

PID (ppm)	SHEEN	SAMPLE ID	DRIVEN / RECOVERED	DEPTH FT BGS	USCS SYMBOL	SOIL DESCRIPTION AND OBSERVATIONS (color, texture, moisture, MAJOR CONSITUENT, odor, staining, sheen, debris, etc.)
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**Notes:**

FT BGS = feet below ground surface  
 ppm = parts per million

--- Dashed contact line in soil description indicates a gradational contact  
 USCS = Unified Soil Classification System  
 ▼ = denotes groundwater table

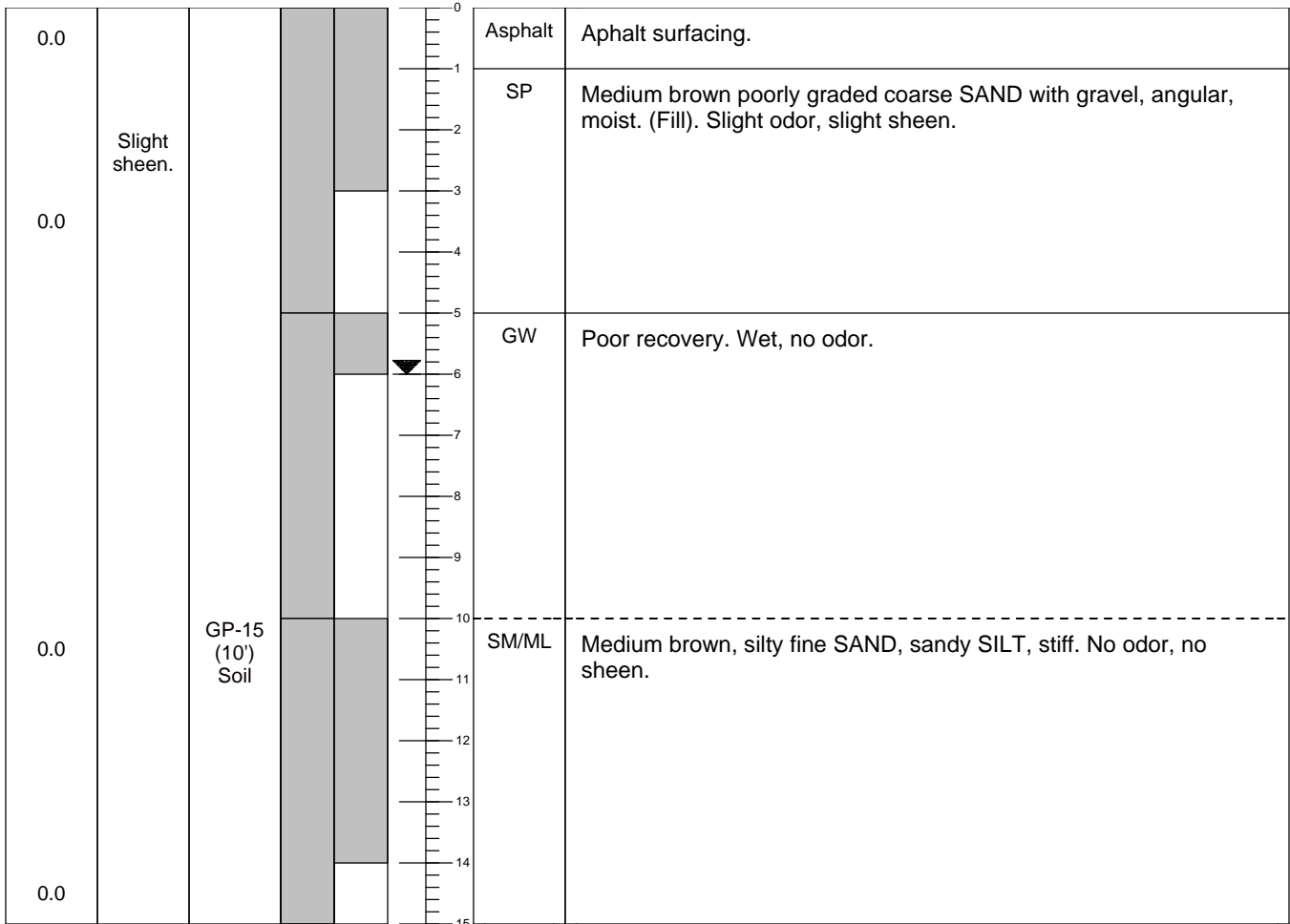
**Drill Date:** 8/6/2010  
**Logged By:** Erin Murray  
**Drilled By:** Lynn Goble / Cascade Drilling  
**Drill Type:** Geoprobe 6600  
**Sample Method:** Direct Push 2"x5' Core  
**Boring Diameter:** 2 inches  
**Boring Depth (ft bgs):** 15 feet bgs  
**Groundwater ATD (ft bgs):** 6 feet bgs

**Client:** City of Bothell  
**Project:** COB-Oncall  
**Address:** 18125 Bothell Way NE  
 Bothell, WA

**Coordinate System:** NAD 83/98  
**Ground Surface Elevation:** NA  
**Latitude/Northing:** 280172\*  
**Longitude/Easting:** 1302133\*

**Remarks:** Boring located approximately 10' southeast of GP-12.  
 \*Coordinates are approximate.

PID (ppm)	SHEEN	SAMPLE ID	DRIVEN / RECOVERED	DEPTH FT BGS	USCS SYMBOL	SOIL DESCRIPTION AND OBSERVATIONS (color, texture, moisture, MAJOR CONSITUENT, odor, staining, sheen, debris, etc.)
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**Notes:**  
 FT BGS = feet below ground surface  
 ppm = parts per million

--- Dashed contact line in soil description indicates a gradational contact  
 USCS = Unified Soil Classification System  
 ▼ = denotes groundwater table

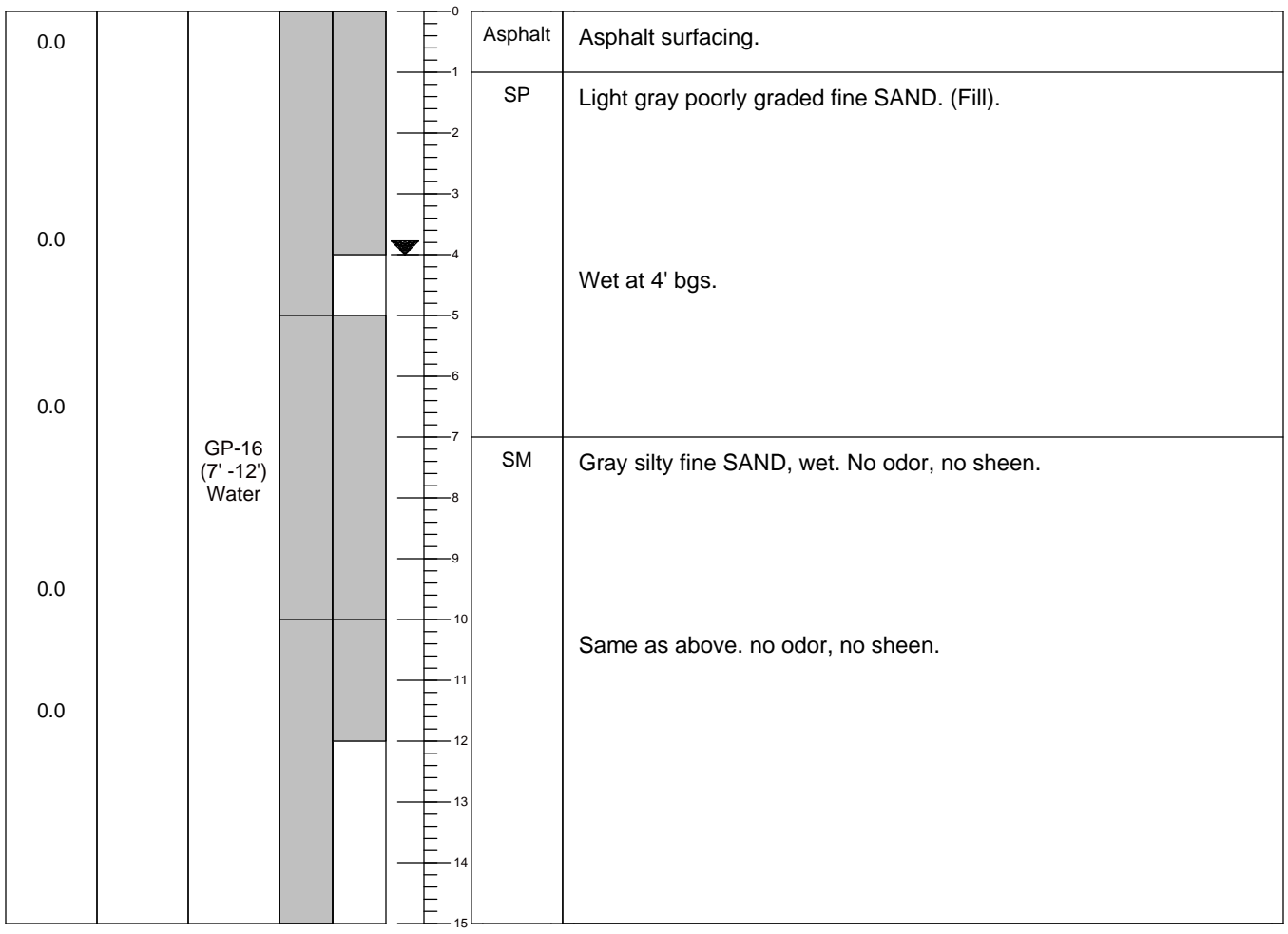
**Coordinate System:** NAD 83/98  
**Ground Surface Elevation:** NA  
**Latitude/Northing:** 280164\*  
**Longitude/Easting:** 1302142\*

**Drill Date:** 8/6/2010  
**Logged By:** Erin Murray  
**Drilled By:** Lynn Goble / Cascade Drilling  
**Drill Type:** Geoprobe 6600  
**Sample Method:** Direct Push 2"x5' Core  
**Boring Diameter:** 2 inches  
**Boring Depth (ft bgs):** 15 feet bgs  
**Groundwater ATD (ft bgs):** 4 feet bgs

**Client:** City of Bothell  
**Project:** COB-Oncall  
**Address:** 18125 Bothell Way NE  
Bothell, WA

**Remarks:** Boring located approximately 20' southeast of GP-15.  
\*Coordinates are approximate.

PID (ppm)	SHEEN	SAMPLE ID	DRIVEN / RECOVERED	DEPTH FT BGS	USCS SYMBOL	SOIL DESCRIPTION AND OBSERVATIONS (color, texture, moisture, MAJOR CONSITUIENT, odor, staining, sheen, debris, etc.)
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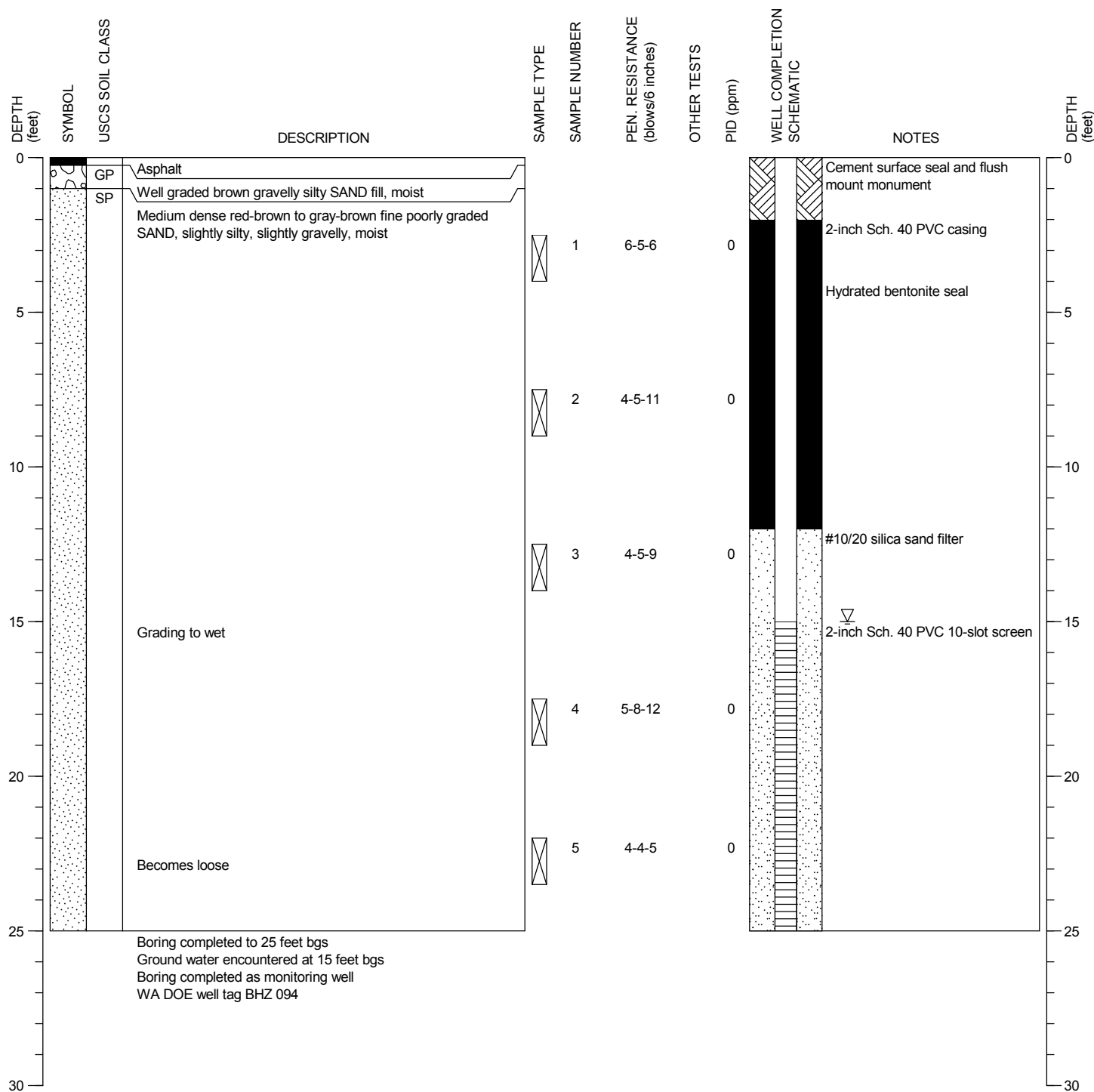
**Notes:**  
FT BGS = feet below ground surface  
ppm = parts per million

--- Dashed contact line in soil description indicates a gradational contact  
USCS = Unified Soil Classification System  
▼ = denotes groundwater table

DRILLING COMPANY: Environmental Drilling Inc.  
 DRILLING METHOD: Hollow Stem Auger  
 SAMPLING METHOD: Stainless steel split spoon  
 LOCATION:

SURFACE ELEVATION: ± feet  
 CASING ELEVATION ± feet

DATE STARTED: 1/8/2014  
 DATE COMPLETED: 1/8/2014  
 LOGGED BY: N.Nielsen



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.



Bothell Former Hertz  
 Bothell, Washington

MONITORING WELL:  
 HZMW-16

PAGE: 1 of 1

PROJECT NO.: 2007-098-998

FIGURE:




A-26


Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Blow Count	Well Construction	Soil Log	Soil Description
								Concrete
								No recovery
S-MW-1: 6.5			0.0	N/A	8/9/10		ML	Light gray silt w/ fine sand & few gravels. Hard.
			5	0.0	17/22/21			
S-MW-1: 10-10.75			50	0.0	5/7/7		ML	10'-10.75': Light brown-gray silt-fine sand, med. dense, saturated. Orange-brown mottling @ 10.5 ft with gravel and sand lense.
S-MW-1: 15-16			89	0.0	6/8/12		ML	15'-16.3': Light brown silt w/ trace fine sand at 16.3, very stiff, saturated.
S-MW-1: 20-21			83	0.0	11/12/14		ML	20'-21.25': Light brown silt, very stiff, saturated.
S-MW-1: 25-26			100	0.0	10/12/17		SW ML	25'-26': Light brown, fine sand w/ trace silt, dense, saturated. 26'-26.5': Light brown silt w/ trace fine sand, very stiff, very moist.
								Boring terminated at 26.5 feet bgs.

Logged by: Jeffrey Jensen  
 Driller: Holt Services, Inc.  
 Drilling Method: Hollow Stem Auger  
 Sampling Method: Split Spoon  
 Casing Type: 2" PVC  
 Annular Pack: Sand  
 Slot Size: 0.010"

Hammer Size: 140 lbs  
 Date Drilled: 8/22/16  
 Hole Diameter: 6 inches  
 Hole Depth: 26.5 feet  
 Well Diameter: 2 inch  
 Well Depth: 15.5 feet  
 Screened Interval: 5.5-15.5 feet

Depth to Water (First Encountered): ~8 feet  
 Depth to Water (Static): 6.96 ft on 9/12/16  
 Well Tag: BJX 033

 Concrete  
 Bentonite  
 Sand

 Well Screen

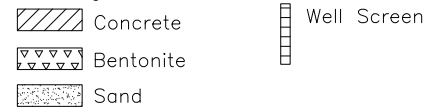
Soils classified visually using the Unified Soils Classification System

Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Blow Count	Well Construction	Soil Log	Soil Description
S-MW-2: 5.25-5.6			44	0.0	6/12/11	SP	5'-5.25':	Brown fine-med. sand, med. dense, dry.
S-MW-2: 6.5-7			100	-	12/11/12	SM	5.25'-5.66:	Grey-brown fine sand-silt, med. dense, slightly moist at base.
						SM	6.5'-7':	Grey-brown fine sand-silt w/ trace gravel, med. dense, slightly moist.
						ML	7'-8':	Med. brown silt w/ fine sand, stiff, saturated-very moist.
S-MW-2: 10.5-11			100	0.0	3/5/8	ML	10'-11.5':	Same as above.
S-MW-2: 15-15.5			44	0.0	5/9/8	ML	15'-15.66':	Same as above, orange mottling @~15 ft in fine sand lense.
S-MW-2: 20.5-21			100	0.0	9/10/10	ML	20'-21.5':	Same as above, very stiff, orange-red mottling @~21 ft in fine sand lense.
S-MW-2: 25-25.5			100	0.0	7/10/12	SP	25'-25.5':	Med. brown-orange fine sand, med. dense, saturated.
						ML	25.5'-26.5':	Med. brown-grey silt w/fine sand, very stiff, saturated.
								Boring terminated at 26.5 feet bgs.

Logged by: Jeffrey Jensen  
 Driller: Holt Services, Inc.  
 Drilling Method: Hollow Stem Auger  
 Sampling Method: Split Spoon  
 Casing Type: 2" PVC  
 Annular Pack: Sand  
 Slot Size: 0.010"

Hammer Size: 140 lbs  
 Date Drilled: 8/24/16  
 Hole Diameter: 6 inches  
 Hole Depth: 26.5 feet  
 Well Diameter: 2 inch  
 Well Depth: 15 feet  
 Screened Interval: 5-15 feet

Depth to Water (First Encountered): ~7 feet  
 Depth to Water (Static): 6.21 ft on 9/12/16  
 Well Tag: BJX 036



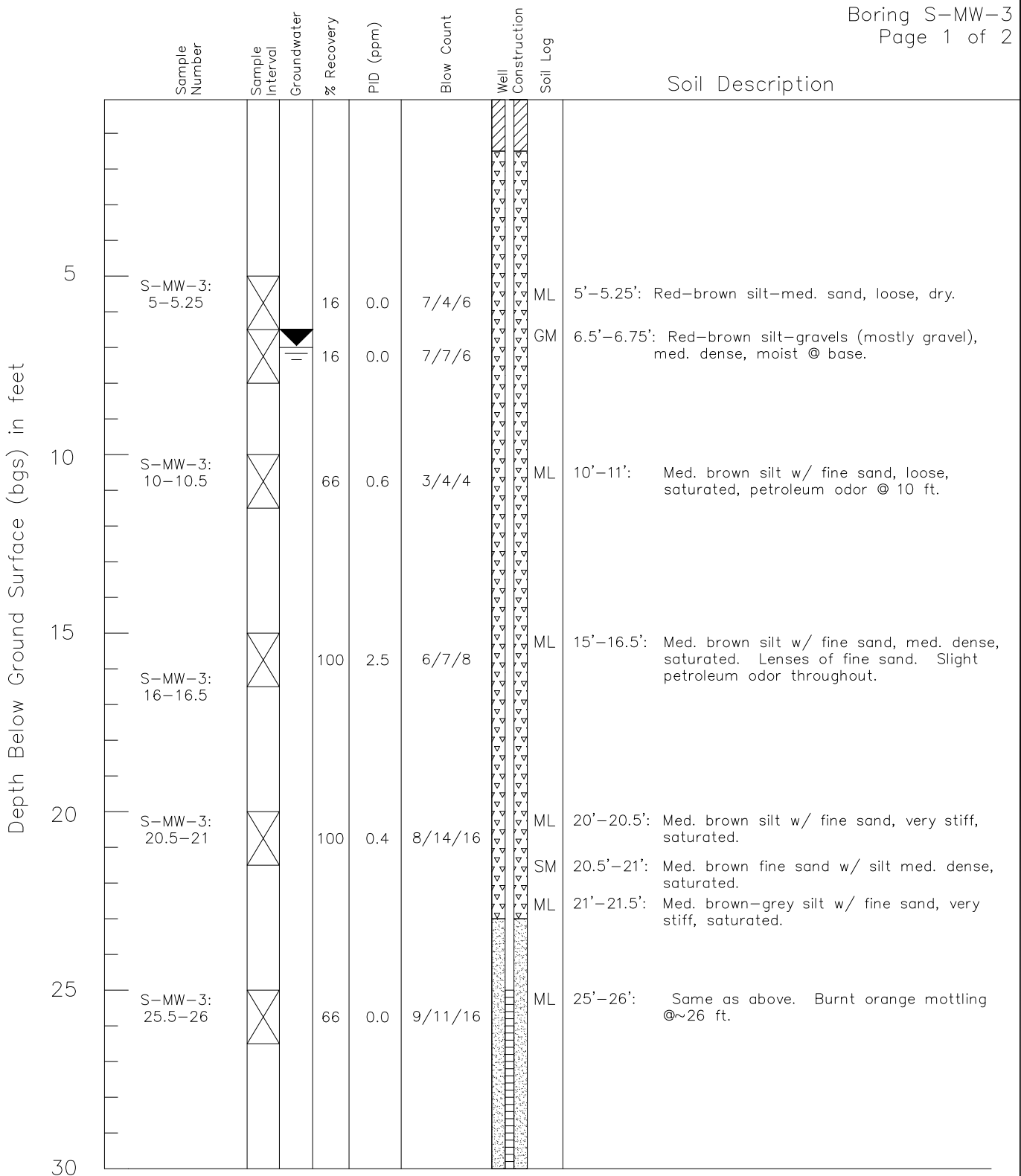
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

Well Construction Log




Logged by: Jeffrey Jensen  
 Driller: Holt Services, Inc.  
 Drilling Method: Hollow Stem Auger  
 Sampling Method: Split Spoon  
 Casing Type: 2" PVC  
 Annular Pack: Sand  
 Slot Size: 0.010"

Hammer Size: 140 lbs  
 Date Drilled: 8/25/16  
 Hole Diameter: 6 inches  
 Hole Depth: 36.5 feet  
 Well Diameter: 2 inch  
 Well Depth: 35 feet  
 Screened Interval: 25-35 feet

Depth to Water (First Encountered): ~7 feet  
 Depth to Water (Static): 6.62 ft on 9/12/16  
 Well Tag: BJX 037

 Concrete  
 Bentonite  
 Sand

 Well Screen

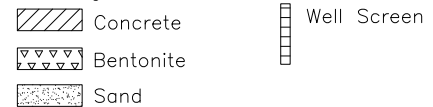
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Depth Below Ground Surface (bgs) in feet	Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Blow Count	Well Construction	Soil Log	Soil Description
	30	S-MW-3: 31	X		100	0.1	5/9/13	ML	ML
35	S-MW-3: 35.5	X		100	0.3	6/11/12	ML	ML	35'-35.5': Same as above. Brunt orange mottling @ 35.5 ft. 35.5'-36.5': Light brown silt, very stiff, saturated.
40									Boring terminated at 36.5 feet bgs.
45									
50									
55									
60									

Logged by: Jeffrey Jensen Driller: Holt Services, Inc. Drilling Method: Hollow Stem Auger Sampling Method: Split Spoon Casing Type: 2" PVC Annular Pack: Sand Slot Size: 0.010"	Hammer Size: 140 lbs Date Drilled: 8/25/16 Hole Diameter: 6 inches Hole Depth: 36.5 feet Well Diameter: 2 inch Well Depth: 35 feet Screened Interval: 25-35 feet	Depth to Water (First Encountered): ~7 feet Depth to Water (Static): 6.62 ft on 9/12/16 Well Tag: BJX 037
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Bothell, Washington




Well Construction Log


Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Blow Count	Well Construction	Soil Log	Soil Description
S-MW-4: 2.5			100	0.0	7/7/9		ML	Yellow-brown silt w/ fine sand seams, very stiff, trace mottling/ oxidation.
S-MW-4: 6			100	0.4	7/2/2		ML	Same as above, soft, moist grading wet, decreasing mottling.
S-MW-4: 7.5			100	0.0	5/6/7		ML	Same as above, stiff, wet.
S-MW-4: 10			100	1.7	5/5/4		ML	Same as above.
S-MW-4: 16			100	0.9	10/15/11		SP	15'-15.75': Med. brown, fine sand, med. dense, saturated.
							SP	15.75'-16': Orange-brown, coarse sand.
							ML	16'-16.5': Med. grey silt w/ coarse sand and few gravels at 16.25.
S-MW-4: 21			100	2.0	11/13/16		ML	Brown silt w/ fine sand, very stiff, wet. Orange mottling seams w/ fine-med. sand seams.
S-MW-4: 26			100	0.9	13/13/12		ML	Gray-brown silt w/ fine sand, trace mottling, stiff, wet.

Logged by: Vance Atkins  
 Driller: Holt Services, Inc.  
 Drilling Method: Hollow Stem Auger  
 Sampling Method: Split Spoon  
 Casing Type: 2" PVC  
 Annular Pack: Sand  
 Slot Size: 0.010"

Hammer Size: 140 lbs  
 Date Drilled: 8/30/16  
 Hole Diameter: 6 inch  
 Hole Depth: 56  
 Well Diameter: 2 inch  
 Well Depth: 50 feet  
 Screened Interval: 40-50 feet

Depth to Water (First Encountered): ~6 feet  
 Depth to Water (Static): 6.32 ft on 9/12/16  
 Well Tag: BJX 044

 Concrete  
 Bentonite  
 Sand

 Well Screen

Soils classified visually using the Unified Soils Classification System



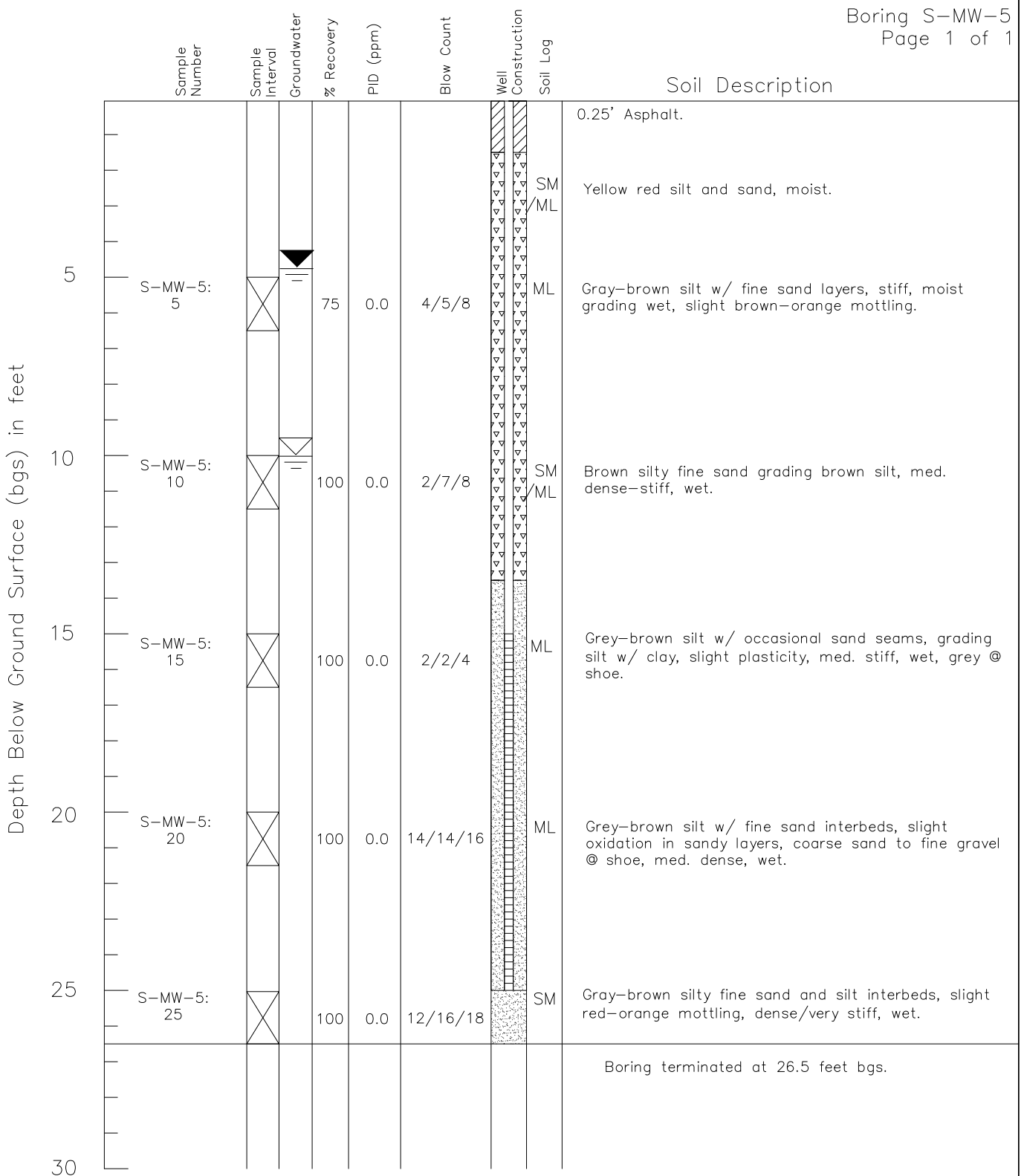
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Well Construction Log

Depth Below Ground Surface (bgs) in feet	Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Blow Count	Well Construction	Soil Log	Soil Description
	30	S-MW-4: 30.5			100	0.0	9/11/12		SM
35	S-MW-4: 36			83	0.0	10/12/15		SM	Grey-brown silty fine sand w/ med. sand seams, med. dense, wet, trace oxidation.
40	S-MW-4: 41			100	0.0	9/15/22		SM	Grey-brown silty fine sand to sandy silt w/ med. sand seams, very dense, wet.
45	S-MW-4: 46			100	0.0	12/29/38		ML	Brown silt w/ silty sand seams, hard, wet, occasional oxidation.  Note: Rig Chatter.
50	S-MW-4: 51			100	0.0	21/41/ 50-4"		ML	Gray silt w/ fine sand w/ med. sand seams, very dense, wet (Till).
55	S-MW-4: 55			100	0.0	46/50-4"		ML	Gray silt & fine sand, very dense, wet, trace gravel (Till).
60	Boring terminated at 56 feet bgs.								

Logged by: Vance Atkins Driller: Holt Services, Inc. Drilling Method: Hollow Stem Auger Sampling Method: Split Spoon Casing Type: 2" PVC Annular Pack: Sand Slot Size: 0.010"	Hammer Size: 140 lbs Date Drilled: 8/30/16 Hole Diameter: 6 inch Hole Depth: 56 Well Diameter: 2 inch Well Depth: 50 feet Screened Interval: 40-50 feet	Depth to Water (First Encountered): ~6 feet Depth to Water (Static): 6.32 ft on 9/12/16 Well Tag: BJX 044
Soils classified visually using the Unified Soils Classification System	Concrete Bentonite Sand	Well Screen



Logged by: Vance Atkins  
 Driller: Holt Services, Inc.  
 Drilling Method: Hollow Stem Auger  
 Sampling Method: Split Spoon  
 Casing Type: 2" PVC  
 Annular Pack: Sand  
 Slot Size: 0.010"

Hammer Size: 140 lbs  
 Date Drilled: 10/21/16  
 Hole Diameter: 8 inch  
 Hole Depth: 26.5 feet  
 Well Diameter: 2 inch  
 Well Depth: 25 feet  
 Screened Interval: 15-25 feet

Depth to Water (First Encountered): ~10 feet  
 Depth to Water (Static): 4.77 ft on 10/28/16  
 Well Tag: BKY 116

Concrete  
 Bentonite  
 Sand

Well Screen

Soils classified visually using the Unified Soils Classification System



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Well Construction Log

Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log
S-KSB-1: 2ft						0-0.5': Asphalt 0.5'-5': Air knife-vac truck clearance. Sample collected by hand from side of air knife hole at 2 ft - gravelly sand, brown, v. moist, no odor.
S-KSB-1: W						
			60	183.5	Backfilled with bentonite chips.	5'-6.5': Brown-gray gravel with coarse sand. Saturated, loose, petroleum odor (fill). 6.5'-7.5': Gray gravelly sandy silt, soft, saturated, strong petroleum odor. 7.5'-8': Gray silt, soft, saturated, strong petroleum odor.
			6.5			10'-14.5': Interlayered brown silty fine sand and fine sandy silt with tr. org.-brown mottling. Med dense/med stiff, slight odor 10'-11', no odor 11'-14.5'.
			90			
			21.4			
			85			15'-17': Brown fine sand with silt, grading to brown silt at 17'. No odor, tr. org. mottling, saturated, dense. 17'-18.5': Brown silt, dense, no odor, v. moist to saturated.
Boring ended at 20 feet bgs.						

Logged by: Nate Evenson  
 Driller: Cascade  
 Drilling Method: Direct Push  
 Sampling Method: Vinyl Liner  
 Casing Type: PVC  
 Annular Pack: N/A  
 Slot Size: N/A  
 Hammer Size: N/A  
 Date Drilled: 4/24/2018  
 Hole Diameter: 2.25 inches (water depths are approximate)  
 Hole Depth: 20 feet  
 Well Diameter: 1 inch, temporary  
 Well Depth: 15 feet, temporary  
 Screened Interval: 5-15 feet, temporary  
 Depth to Water (First Encountered): 4.5 ft bgs  
 Depth to Water (Static): N/A

Soils classified visually using the Unified Soils Classification System



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Remedial Investigation / Feasibility Study  
Former Wexler Property Site  
Bothell, Washington

Soil Boring Log

Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log
						0-0.5': Asphalt 0.5'-5': Air knife-vac truck clearance.
S-KSB-2: 4ft					SP	4'-4.5': Hand auger collected prior to vac clearance. Brown gravelly med.-coarse sand. Loose, v. moist, no odor (fill).
S-KSB-2: W					GP	5'-5.5': Brown-gray gravel with coarse sand. Saturated, loose, petroleum odor (fill).
			5			
				637	ML	10'-10.5': Gray fine sandy silt, saturated, med. dense, strong petroleum odor
			80	13.5	ML	10.5'-11.5': Above, grading to med. brown, fine sandy silt, saturated, slight petroleum odor.
					ML	11.5'-12.5': Med. brown fine sandy silt, saturated, med. dense, no odor.
				12.0	SM	12.5'-14': Med. gray-brown silty fine sand, grading to med. sand at 14'. Saturated, med. dense, slight to no odor.
			80		SM	15'-15.5': Same as 12.5'-14' above.
					ML	15.5'-17' Med. brown silt, med dense, saturated, no odor.
				52.7	ML	17'-19': Gray silt, med. dense, saturated, no odor.
						Boring ended at 20 feet bgs.

Logged by: Nate Evenson Driller: Cascade Drilling Method: Direct Push Sampling Method: Vinyl Liner Casing Type: PVC Annular Pack: N/A Slot Size: N/A	Hammer Size: N/A Date Drilled: 4/24/2018 Hole Diameter: 2.25 inches (water depths are approximate) Hole Depth: 20 feet Well Diameter: 1 inch, temporary Well Depth: 15 feet, temporary Screened Interval: 5-15 feet, temporary	Depth to Water (First Encountered): 5 ft bgs Depth to Water (Static): N/A
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Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log
						0-0.5': Asphalt 0.5'-5': Air knife-vac truck clearance.
S-KSB-3: 3ft					GP	3'-3.5': Hand auger collected prior to vac clearance. Brown sandy gravel. Loose, v. moist, no odor (fill).
S-KSB-3: W						
			80	186	SP	5'-6': Brown sandy gravel, loose, saturated, sl. petroleum odor (fill). 6'-7': Above soil grading to gray silty fine sand, loose, saturated, petroleum odor.
					SP	7'-10': Gray silty fine sand, med dense, loose, petroleum odor at 7', diminishing to slight petroleum odor at 10'
			100	151	SP	10'-15': Same as above, grading to brown silty fine sand, med. dense, saturated, tr. petroleum odor.
					SP	15'-17.5': Brown silty fine sand, with lenses of med.-caarse sand, dense, v. moist, no odor.
			50	13.3		
				7.0		
Boring ended at 20 feet bgs.						

Logged by: Nate Evenson  
 Driller: Cascade  
 Drilling Method: Direct Push  
 Sampling Method: Vinyl Liner  
 Casing Type: PVC  
 Annular Pack: N/A  
 Slot Size: N/A  
 Hammer Size: N/A  
 Date Drilled: 4/24/2018  
 Hole Diameter: 2.25 inches (water depths are approximate)  
 Hole Depth: 20 feet  
 Well Diameter: 1 inch, temporary  
 Well Depth: 15 feet, temporary  
 Screened Interval: 5-15 feet, temporary  
 Depth to Water (First Encountered): 4.25ft bgs  
 Depth to Water (Static): N/A

Soils classified visually using the Unified Soils Classification System

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Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log
						0-0.5': Asphalt 0.5'-5': Air knife-vac truck clearance.
S-KSB-4: 5ft S-KSB-4: W				6.0	Backfilled with bentonite chips.	4.5'-5': Hand auger collected prior to vac clearance. Med. brown silt, moist, med dense, no odor. 5'-10': Interlayered brown fine sandy silt and silty fine sand, med. dense, saturated, no odor.
			80	10.7		10'-12': Same as above.
			100	6.5		12'-13.25': Gray silt, med. dense, saturated, no odor. 13.25'-14.25': Brown fine sand with silt, med. dense, saturated, no odor.
				3.6		14.25'-15': Same as above, but silt.
						Boring ended at 15 feet bgs.

Logged by: Nate Evenson Driller: Cascade Drilling Method: Direct Push Sampling Method: Vinyl Liner Casing Type: PVC Annular Pack: N/A Slot Size: N/A	Hammer Size: N/A Date Drilled: 4/24/2018 Hole Diameter: 2.25 inches (water depths are approximate) Hole Depth: 15 feet Well Diameter: 1 inch, temporary Well Depth: 15 feet, temporary Screened Interval: 5-15 feet, temporary	Depth to Water (First Encountered): 5 ft bgs Depth to Water (Static): N/A
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Remedial Investigation / Feasibility Study  
Former Wexler Property Site  
Bothell, Washington

Soil Boring Log



Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log
						0-0.5': Asphalt 0.5'-5': Air knife-vac truck clearance. Sample collected by hand from side of air knife hole at 2.5 ft - med. brown silt, moist, no odor.
S-KSB-5: 2.5ft						ML
	S-KSB-5: W			0	Backfilled with bentonite chips.	SM
			100	0		SM
				0		ML
			90	0		SM
						10'-12': Brown sandy silt, no odor, med. dense, saturated.
						12'-14.5': Gray silty fine sand, med. dense, no odor, saturated.
						Boring ended at 15 feet bgs.

Logged by: Nate Evenson  
 Driller: Cascade  
 Drilling Method: Direct Push  
 Sampling Method: Vinyl Liner  
 Casing Type: PVC  
 Annular Pack: N/A  
 Slot Size: N/A  
 Hammer Size: N/A  
 Date Drilled: 4/24/2018  
 Hole Diameter: 2.25 inches (water depths are approximate)  
 Hole Depth: 15 feet  
 Well Diameter: 1 inch, temporary  
 Well Depth: 15 feet, temporary  
 Screened Interval: 5-15 feet, temporary  
 Depth to Water (First Encountered): 4.5 ft bgs  
 Depth to Water (Static): N/A

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Remedial Investigation / Feasibility Study  
Former Wexler Property Site  
Bothell, Washington

Soil Boring Log

Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log
						0-0.5': Asphalt
S-KSB-6: 2.5ft					SM	0.5'-5': Air knife-vac truck clearance. Sample collected by hand from side of air knife hole at 2.5 ft - brown silty fine sand, moist, no odor.
						5'-10': No recovery. No samples collected.
S-KSB-6: W			0		Backfilled with bentonite chips.	
				4.2	SM	10'-11': Brown fine-med. sand with silt and tr. gravel. Saturated, med. dense, no odor.
			80		SP/ML	11'-14': Brown fine sand grading to fine sandy silt. No odor, med. dense, saturated.
				3.6		
						Boring ended at 15 feet bgs.

Logged by: Nate Evenson  
 Driller: Cascade  
 Drilling Method: Direct Push  
 Sampling Method: Vinyl Liner  
 Casing Type: PVC  
 Annular Pack: N/A  
 Slot Size: N/A  
 Hammer Size: N/A  
 Date Drilled: 4/24/2018  
 Hole Diameter: 2.25 inches (water depths are approximate)  
 Hole Depth: 15 feet  
 Well Diameter: 1 inch, temporary  
 Well Depth: 15 feet, temporary  
 Screened Interval: 5-15 feet, temporary  
 Depth to Water (First Encountered): 5 ft bgs  
 Depth to Water (Static): N/A

Soils classified visually using the Unified Soils Classification System

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Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log
S-KSB-7: W						0-0.5': Asphalt
					SM	0.5'-5': Air knife-vac truck clearance. Sample collected by hand from side of air knife hole at 2.5 ft - brown silty sand and gravel, moist, no odor (fill).
						5'-10': No recovery. No samples collected.
			0			
					GP	10'-10.5': Brown gravel with coarse sand. Saturated, med. dense, no odor (fill).
			100		ML	10.5'-15': Brown silt, no odor, med. dense, saturated.
Boring ended at 15 feet bgs.						

Logged by: Nate Evenson  
 Driller: Cascade  
 Drilling Method: Direct Push  
 Sampling Method: Vinyl Liner  
 Casing Type: PVC  
 Annular Pack: N/A  
 Slot Size: N/A  
 Hammer Size: N/A  
 Date Drilled: 4/24/2018  
 Hole Diameter: 2.25 inches (water depths are approximate)  
 Hole Depth: 15 feet  
 Well Diameter: 1 inch, temporary  
 Well Depth: 15 feet, temporary  
 Screened Interval: 5-15 feet, temporary  
 Depth to Water (First Encountered): 4 ft bgs  
 Depth to Water (Static): N/A

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Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log
S-KSB-8: W						0-0.5': Asphalt 0.5'-5': Air knife-vac truck clearance.
					SM	2.5'-3.5': Hand auger collected prior to vac clearance. Brown fine sand with silt and gravel, moist, no odor (fill).
			80	0	ML	5'-9': Brown fine sandy silt interlayered with silty sand. Med. dense, saturated, no odor.
			100	0	ML	10'-15': Brown silty to clayey silt, no odor, med stiff, saturated.
						Boring ended at 15 feet bgs.

Logged by: Nate Evenson  
 Driller: Cascade  
 Drilling Method: Direct Push  
 Sampling Method: Vinyl Liner  
 Casing Type: PVC  
 Annular Pack: N/A  
 Slot Size: N/A  
 Hammer Size: N/A  
 Date Drilled: 4/24/2018  
 Hole Diameter: 2.25 inches (water depths are approximate)  
 Hole Depth: 15 feet  
 Well Diameter: 1 inch, temporary  
 Well Depth: 15 feet, temporary  
 Screened Interval: 5-15 feet, temporary  
 Depth to Water (First Encountered): 4 ft bgs  
 Depth to Water (Static): N/A

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Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log
S-KSB-8R: W						0-0.5': Asphalt
			100		SM	0.5'-5': Brown fine sand with silt and gravel, moist, no odor (fill).
			80	0	ML	5'-9': Brown fine sandy silt interlayered with silty sand. Med. dense, saturated, no odor.
			100	0	ML	10'-15': Brown silty to clayey silt, no odor, med stiff, saturated.
						Boring ended at 15 feet bgs.

Logged by: John Kane  
 Driller: Cascade  
 Drilling Method: Direct Push  
 Sampling Method: Vinyl Liner  
 Annular Pack: N/A  
 Slot Size: N/A  
 Soils classified visually using the Unified Soils Classification System

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Hammer Size: N/A  
 Date: 11/19/13  
 Hole Diameter: 2.25 inches (water depths are approximate)  
 Hole Depth: 15 feet  
 Well Diameter: 1 inch, temporary  
 Well Depth: 15 feet, temporary  
 Screened Interval: 5-15 feet, temporary

Depth to Water (First Encountered): 4.5 ft bgs  
 Water (Static): N/A



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Soil Boring Log

Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log
S-KSB-9: 3ft					Bentonite chips. GP	0-0.5': Asphalt 0.5'-5': Air knife-vac truck clearance. 3'-3.5': Hand auger collected prior to vac clearance. Med. brown med.-coarse sandy gravel, moist, no odor (fill).
						Boring ended at 5 feet bgs.

Logged by: Nate Evenson  
 Driller: Cascade  
 Drilling Method: Air Knife-Vac Truck  
 Sampling Method: Hand Auger  
 Casing Type: PVC  
 Annular Pack: N/A  
 Slot Size: N/A  
 Hammer Size: N/A  
 Date Drilled: 4/24/2018  
 Hole Diameter: 4 inches  
 Hole Depth: 5 feet  
 Well Diameter: N/A  
 Well Depth: N/A  
 Screened Interval: N/A  
 Depth to Water (First Encountered): 5 ft bgs  
 Depth to Water (Static): N/A  
 (water depths are approximate)

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Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log
S-KSB-10: 3.75ft				0.5	Bentonite chips.	0-0.5': Asphalt 0.5'-5': Air knife-vac truck clearance.
				66.5	ML ML	2.5'-3': Hand auger collected prior to vac clearance. Brown sandy silt, moist, no odor. 3.5'-4': Hand auger collected prior to vac clearance. Gray sandy silt, moist, petroleum odor.
Boring ended at 5 feet bgs.						

Logged by: Nate Evenson  
 Driller: Cascade  
 Drilling Method: Air Knife-Vac Truck  
 Sampling Method: Hand Auger  
 Casing Type: PVC  
 Annular Pack: N/A  
 Slot Size: N/A  
 Hammer Size: N/A  
 Date Drilled: 4/25/2018  
 Hole Diameter: 4 inches  
 Hole Depth: 5 feet  
 Well Diameter: N/A  
 Well Depth: N/A  
 Screened Interval: N/A  
 Depth to Water (First Encountered): 5 ft bgs  
 Depth to Water (Static): N/A  
 (water depths are approximate)


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Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log
						0-0.5': Asphalt 0.5'-5': Air knife-vac truck clearance.
S-KSB-11: 3.75ft				71.7	ML	3.5'-4': Hand auger collected prior to vac clearance. Gray silt with fine sand, med. dense, moist, petroleum odor.
S-KSB-11:W				3.7	SM	5'-7': Gray silty fine sand, med. dense, saturated, sl. petroleum odor.
			100	2.4	SM	7'-10': Brown-gray silty fine sand, med. dense, v. moist to saturated, no odor.
				3.2	SM	10'-15': Med. brown silty fine sand, saturated, no odor, med. dense to dense.
			100	4.8		
Boring ended at 15 feet bgs.						

Logged by: Nate Evenson Driller: Cascade Drilling Method: Direct Push Sampling Method: Vinyl Liner Casing Type: PVC Annular Pack: N/A Slot Size: N/A	Hammer Size: N/A Date Drilled: 4/25/2018 Hole Diameter: 2.25 inches (water depths are approximate) Hole Depth: 15 feet Well Diameter: 1 inch, temporary Well Depth: 15 feet, temporary Screened Interval: 5-15 feet, temporary	Depth to Water (First Encountered): 5 ft bgs Depth to Water (Static): N/A
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Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log
						SM 0-0.5': Sand & Silt w/ plant material (topsoil), moist, loose, no odor.
			30	0.0		SP 0.5'-1.25': Rock/concrete fragments
						SP 1.25'-1.5': Brown fine to med. sand, loose, moist, no odor (fill)
						SP 5'-6.5': Brown med. to coarse sand w/ gravel, loose to med. dense, moist, no odor (fill)
S-KSB-12: 7ft			70	0.0		ML 6.5'-8.5': Brown Silt w/ tr. org. mottling, med. dense, moist, sat. at 7.25ft (native), no odor.
					Backfilled with bentonite chips.	ML 10'-14.5': Same as above 6.5'-8.5', sat., no odor.
S-KSB-12: 14.5ft				2.9		SM 15'-17.5': Med.-lt. brown silt, sat., med. dense, no odor
			100	4.0		ML 17.5'-20': Same as above 15'-17.5' but clayey silt
S-KSB-12: 20ft				31.6		
Boring ended at 20 feet bgs.						

Logged by: Nate Evenson Driller: Cascade Drilling Method: Direct Push Sampling Method: Vinyl Liner Casing Type: N/A Annular Pack: N/A Slot Size: N/A	Hammer Size: N/A Date Drilled: 10/22/2018 Hole Diameter: 2.25 inches (water depths are approximate) Well Diameter: N/A Well Depth: N/A Screened Interval: N/A	Depth to Water (First Encountered): 7.25 ft bgs Depth to Water (Static): N/A Hole Depth: 20 feet
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Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log
						0-0.25': Asphalt.
			70	2.0		ML 0.25'-2.25': Silt w/ fine-med. sand, brown, tr. org-brn mottling, med dense, moist, no odor.
						ML 2.25'-3.5': Gray silt, tr. sand, med. dense, v. moist, petro odor.
S-KSB-14: 5ft				1.7		ML 5'-7.5': Fine sandy silt, grading to silty fine sand at 7.5', gray, sat, med. dense, petro odor at 5', grading to sl./no odor at 7.5'
S-KSB-14: 8ft			70	1.0		ML 7.5'-8.5': Same as above 5'-7.5' but lt. brown, no odor.
					Backfilled with bentonite chips.	ML 10'-14': Same as above 7.5'-8.5' w/ leases of silt saturated, no odor.
S-KSB-14: 14ft			80	3.2		
						ML 15'-18': Same as above 10'-14', sat., no odor.
S-KSB-14: 19ft			80	1.0		ML 18'-19': Silt, med.-lt. brown w/ tr. fine course sand, dense, saturated, no odor.
						Boring ended at 20 feet bgs.

Logged by: Nate Evenson  
 Driller: Cascade  
 Drilling Method: Direct Push  
 Sampling Method: Vinyl Liner  
 Casing Type: N/A  
 Annular Pack: N/A  
 Slot Size: N/A  
 Soils classified visually using the Unified Soils Classification System

Hammer Size: N/A  
 Date Drilled: 10/22/2018  
 Hole Diameter: 2.25 inches (water depths are approximate)  
 Hole Depth: 20 feet  
 Well Diameter: N/A  
 Well Depth: N/A  
 Screened Interval: N/A

Depth to Water (First Encountered): 6 ft bgs  
 Depth to Water (Static): N/A




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Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log
						0-0.25': Asphalt.
			80		Backfilled with bentonite chips.	ML 0.25'-3': Silt w/ fine sand, med. brown, very moist, sat. 2.5'-2.75', no odor.
S-KSB-15: 3.5ft			40.2			ML 3'-4': Gray silt w/ fine sand, med. dense, very moist to sat, str. petro odor.
S-KSB-15: 6ft			13.8			ML 5'-9': Same as above 3'-4', gray brown color at 9', sat., grading to sl./no petro odor, .
S-KSB-15: 9ft			80	3.9		
S-KSB-15: 14ft			80	0.2		ML 10'-14': Lt. brown silt w/ fine sand to fine sand brown silt, sat., med. dense, no odor.
			100	0.5		ML 15'-18': Same as above 10'-14'.
						ML 18'-20': Gray silty clay/clayey silt, sat., stiff, no odor.
						Boring ended at 20 feet bgs.

Logged by: Nate Evenson Driller: Cascade Drilling Method: Direct Push Sampling Method: Vinyl Liner Casing Type: N/A Annular Pack: N/A Slot Size: N/A Soils classified visually using the Unified Soils Classification System	Hammer Size: N/A Date Drilled: 10/22/2018 Hole Diameter: 2.25 inches (water depths are approximate) Hole Depth: 20 feet Well Diameter: N/A Well Depth: N/A Screened Interval: N/A	Depth to Water (First Encountered): 4 ft bgs Depth to Water (Static): N/A
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Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log
						0-0.25': Asphalt.
S-KSB-16: 1.5ft				461	Backfilled with bentonite chips.	GM 0.25'-0.75': Gray gravel w/ fine-course sand, moist, sl. petro odor.
			60			SM 0.75'-2': Fine-course brown sand w/ gravel, loose (fill), moist (sl. sheen), heavy petro odor.
						ML 2'-3': Silt w/ fine sand, gray, moist to sat., petro odor.
5	S-KSB-16: 5.5ft			951		ML 5'-6.5': Gray silt w/ fine sand, sat., strong petro odor at 5', grading to sl. odor and brown-gray color at 6.8'
	S-KSB-16: 8ft		80			SM 6.5'-9': Light brown fine sand w/ silt, med. dense, sat.
				14.3		
					ML 10'-12.75': Gray silt, sat., slight to moderate petro odor throughout, greatest at 12.5'.	
	S-KSB-16: 12.5ft		80	143	SM 12.5'-14': Brown silty fine sand, med. dense, sat., slight petro odor to trace petro odor.	
					ML 15'-18': Same as above 12.5'-14', but fine sandy silt.	
			80		ML 18'-19': Same as above 15'-18', but gray, trace petro odor.	
	S-KSB-16: 19ft			5.2		
20	Boring ended at 20 feet bgs.					
25						
30						

Logged by: Nate Evenson Driller: Cascade Drilling Method: Direct Push Sampling Method: Vinyl Liner Casing Type: N/A Annular Pack: N/A Slot Size: N/A Soils classified visually using the Unified Soils Classification System	Hammer Size: N/A Date Drilled: 10/22/2018 Hole Diameter: 2.25 inches Hole Depth: 20 feet Well Diameter: N/A Well Depth: N/A Screened Interval: N/A	Depth to Water (First Encountered): 3 ft bgs Depth to Water (Static): N/A (water depths are approximate)
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Soil Boring Log

Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log	
						0-0.25': Asphalt.	
						SP 0.25'-1.25': Brown fine-coarse sand w/ gravel, loose, moist, no odor.	
			70	0.1		ML 1.25'-3.5': Light Brown silt w/ fine sand, med. dense, moist to very moist 1.25'-3', sat. 3'-3.5'.	
S-KSB-17: 5ft					Backfilled with bentonite chips.	ML 5'-9.5': Same as above 1.25'-3.5', sat., med. dense, no odor.	
			90	0.4			
S-KSB-17: 13ft			80	0.3		ML 10'-14': Same as above 5'-9.5'.	
						ML 15'-17.5': Same as above 10'-14', grading to fine sand w/ silt by 17.5', med. dense, sat., no odor.	
			100	0.5			
						ML 17.5'-20': Clayey silt, gray, stiff/dense, sat., no odor.	
S-KSB-17: 20ft				0.3			
Boring ended at 20 feet bgs.							

Logged by: Nate Evenson Driller: Cascade Drilling Method: Direct Push Sampling Method: Vinyl Liner Casing Type: N/A Annular Pack: N/A Slot Size: N/A Soils classified visually using the Unified Soils Classification System	Hammer Size: N/A Date Drilled: 10/22/2018 Hole Diameter: 2.25 inches (water depths are approximate) Well Diameter: N/A Well Depth: N/A Screened Interval: N/A	Depth to Water (First Encountered): 3 ft bgs Depth to Water (Static): N/A Hole Depth: 20 feet
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Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log
						0-0.25': Asphalt.
			50	0.3	Backfilled with bentonite chips.	GM 0.25'-2.5': Brown-gray fine-coarse sand w/ small gravel, loose, moist, no odor (fill).
						GM 5'-6.5': Same as above 0.25'-2.5', sat. at 6'.
			60			GM 6.5'-7.5': Med. gravel, saturated (fill).
S-KSB-18: 8ft				332		ML 7.5'-8': Gray silt w/ fine gravel, loose, sat., petro odor (fill-native mix).
				3.0		ML 10'-10.5': Same as above 7.5'-8', sat., petro odor.
S-KSB-18: 12.5ft			100	0.7		ML 10.5'-11.5': Light brown clayey silt, stiff, sat., no odor/sl. odor (native).
						ML 11.5'-15': Light brown silt w/ clay, varying to silt w/ fine sand, sat., med. dense, no odor.
						ML 15'-18': Same as above 11.5'-15'.
S-KSB-18: 18.5ft			70	8.0		ML 18'-18.5': Light brown silt w/ fine sand, sl. pet odor.
						ML 20'-25': Same as above 18'-18.5' w/ interlayered zones of org.-brown fine sand, sat, no odor.
S-KSB-18: 24ft			100			
						Boring ended at 25 feet bgs.

Logged by: Nate Evenson Driller: Cascade Drilling Method: Direct Push Sampling Method: Vinyl Liner Casing Type: N/A Annular Pack: N/A Slot Size: N/A Soils classified visually using the Unified Soils Classification System	Hammer Size: N/A Date Drilled: 10/23/2018 Hole Diameter: 2.25 inches Hole Depth: 25 feet Well Diameter: N/A Well Depth: N/A Screened Interval: N/A	Depth to Water (First Encountered): 6 ft bgs Depth to Water (Static): N/A (water depths are approximate)
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Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log
						0-0.25': Asphalt.
			70			0.25'-3.5': Fine-coarse sand w/ gravel, loose, moist, sat. 3.25'-3.8-, no odor.
				0.7		
						5'-6': Same as above 0.25'-3.5'.
S-KSB-19: 5.5ft					Backfilled with Bentonite chips.	6'-7.5': Med. gravel, saturated.
			60			7.5'-8': Silt w/ fine sand, med. dense, saturated, petro odor.
S-KSB-19: 8ft				389		10'-11': Same as above 7.5'-8'.
						11'-13': Gray-brown silt, dense, sat., no odor.
S-KSB-19: 12.5ft			90			13'-14.5': Gray silt w/ clay, dense/stiff, sat., no odor.
						15'-16.5': Gray silt w/ fine sand, loose, sat., sl. petro odor.
S-KSB-19: 17ft			60	2.1		16.5'-18': Gray-brown silt w/ tr. fine sand, dense, sat., no odor.
						20'-24': Fine sand w/ silt to silty fine sand, org-brown, med. dense, no odor.
S-KSB-19: 24ft			80			
				0.9		
						Boring ended at 25 feet bgs.

Logged by: Nate Evenson Driller: Cascade Drilling Method: Direct Push Sampling Method: Vinyl Liner Casing Type: N/A Annular Pack: N/A Slot Size: N/A Soils classified visually using the Unified Soils Classification System	Hammer Size: N/A Date Drilled: 10/23/2018 Hole Diameter: 2.25 inches Hole Depth: 25 feet Well Diameter: N/A Well Depth: N/A Screened Interval: N/A	Depth to Water (First Encountered): 4 ft bgs Depth to Water (Static): N/A (water depths are approximate)
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Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log
			70	0.3	Backfilled with Bentonite chips.	0-0.25': Asphalt
						ML 0.25'-2': Gravelly silt light brown, loose, w/ five-cvs sand (fill/disturbed).
						ML 2'-3.5': Light brown silt w/ tr. org. mottling, med. dense.
						ML 5'-6': Gray-brown silt, med. dense, moist, sl. petro odor.
S-KSB-20: 6.5ft			60	1.5		ML 6'-8': Gray silt w/ fine sand grading to lt. brown, sat., sl. petro odor, no odor at 8'.
						ML 8'-9': Same as above 6'-8', grading to brown clayey silt at 9'.
S-KSB-20: 11ft				3.2		ML 10'-13.5': Brown clayey silt, stiff, sat. to v. moist, no odor.
			80			ML 13.5'-14': Brown silt, med. dense, sat., no odor.
						ML 15'-18': Brown silt w/ fine sand grading to clayey silt at 18', med. dense, sat., no odor.
S-KSB-20: 17.5ft			80	8.2		ML 18'-19': Gray clayey silt, stiff, sat., no odor.
					Boring ended at 20 feet bgs.	

Logged by: Nate Evenson Driller: Cascade Drilling Method: Direct Push Sampling Method: Vinyl Liner Casing Type: N/A Annular Pack: N/A Slot Size: N/A Soils classified visually using the Unified Soils Classification System	Hammer Size: N/A Date Drilled: 10/23/2018 Hole Diameter: 2.25 inches Hole Depth: 20 feet Well Diameter: N/A Well Depth: N/A Screened Interval: N/A	Depth to Water (First Encountered): 6 ft bgs Depth to Water (Static): N/A (water depths are approximate)
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Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log
						0-7': Hand auger cleared by vac. operator: 0-6": Concrete. 6"-1.5': Loose gravel fill. 1.5'-5': Brown silt. 5'-7': Gray silt, sl. to moderate petro odor.
					GP ML ML	
					Backfilled with bentonite chips.	
					ML	7'-10': Gray silt grading to light brown silt, med. dense, sat., sl. pet odor, no odor at 10'.
			100	2.5		
					ML	10'-12.5': Same as above 7'-10', sat., no odor.
					ML	15'-16.75': Same as above 10'-12.5', sat.
			50	5.5		
					ML	16.75'-18': Gray clayey silt, med. stiff/ stiff, sat., no odor.
			60	0.8		
						Boring ended at 20 feet bgs.

Logged by: Nate Evenson  
 Driller: Cascade  
 Drilling Method: Direct Push  
 Sampling Method: Vinyl Liner  
 Casing Type: N/A  
 Annular Pack: N/A  
 Slot Size: N/A  
 Soils classified visually using the Unified Soils Classification System

Hammer Size: N/A  
 Date Drilled: 10/23/2018  
 Hole Diameter: 2.25 inches (water depths are approximate)  
 Hole Depth: 20 feet  
 Well Diameter: N/A  
 Well Depth: N/A  
 Screened Interval: N/A

Depth to Water (First Encountered): 6.75 ft bgs  
 Depth to Water (Static): N/A

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Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log
			50	0.2	Backfilled with bentonite chips.	0-0.25': Topsoil. 0.25'-2.5': Light brown silt w/ fine sand, tr. org. mottling, moist, no odor.
S-KSB-24: 5.5ft			60	0.3		ML 5.0'-5.5': Same as above 0.25'-2.5'. ML 5.5'-8': Fine sandy silt, light brown, med. dense, saturated, no odor.
			70	1.2		ML 10'-11': Brown silt, med. stiff, saturated, no odor. ML 11'-11.75': Same as above but gray. ML 11.75'-13.5': Brown fine sandy silt, dense, sat., no odor.
S-KSB-24: 13.5ft			80			ML 15'-18': Same as above 11.75'-13.5'.
				11.7		ML 18'-19': Same as above, but gray.
S-KSB-24: 19ft						
						Boring ended at 20 feet bgs.

Logged by: Nate Evenson  
 Driller: Cascade  
 Drilling Method: Direct Push  
 Sampling Method: Vinyl Liner  
 Casing Type: N/A  
 Annular Pack: N/A  
 Slot Size: N/A  
 Soils classified visually using the Unified Soils Classification System

Hammer Size: N/A  
 Date Drilled: 10/23/2018  
 Hole Diameter: 2.25 inches (water depths are approximate)  
 Hole Depth: 20 feet  
 Well Diameter: N/A  
 Well Depth: N/A  
 Screened Interval: N/A

Depth to Water (First Encountered): 6 ft bgs  
 Depth to Water (Static): N/A




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Soil Boring Log

Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log
						0-0.25': Asphalt
				0.3	Backfilled with bentonite chips.	0.25'-1.25': Gravel w/ sand & silt, brick fragments, loose, moist, no odor.
			50	ML		1.25'-2.5': Light brown silt w/ fine sand, med. dense, sat. at 2', no odor.
S-KSB-25: 6ft				0.4	ML	5'-8.5': Same as above 1.25'-2.5', w/ zone of gray sandy silt at 6', med. dense, sat., no odor.
			70			
					ML	10'-12': Same as above at 10', grading to brown clayey silt at 12'.
			90			
S-KSB-25: 14ft				2.4	ML	12'-12.5': Brown clayey silt, stiff, sat., no odor.
					ML	12.5'-14.5': Same as above at 12.5', grading to fine sandy silt at 14.5'.
			100			
					ML	15'-17.25': Same as above, soft-med. stiff, sat., no odor.
					ML	17.25'-18': Light brown silt w/ clay, med. stiff, sat.
					ML	18'-19.25': Same as above, gray, stiff.
S-KSB-25: 20ft				4.6	ML	19.25'-20': Light brown silt, dense, sat., no odor.
						Boring ended at 20 feet bgs.

Logged by: Nate Evenson Driller: Cascade Drilling Method: Direct Push Sampling Method: Vinyl Liner Casing Type: N/A Annular Pack: N/A Slot Size: N/A Soils classified visually using the Unified Soils Classification System	Hammer Size: N/A Date Drilled: 10/23/2018 Hole Diameter: 2.25 inches Hole Depth: 20 feet Well Diameter: N/A Well Depth: N/A Screened Interval: N/A	Depth to Water (First Encountered): 3 ft bgs Depth to Water (Static): N/A (water depths are approximate)
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Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log
						0-0.25': Asphalt.
				0.2		0.25'-1.5': Fine-med. sand, org. brown, loose, moist, no odor (fill).
			50		Backfilled with bentonite chips.	SM 1.5'-1.75': Same as above 0.25'-1.5', w/ gravel.
						ML 1.75'-2.5': Brown silt w/ trace org. mottling, med. dense, moist, no odor.
						5'-6': Same as above 1.75'-2.5', sat. below 5.5'.
S-KSB-26: 5.5ft				0.3		ML 5'-6': Same as above 1.75'-2.5', sat. below 5.5'.
			70			SM 6'-8.5': Silty fine sand, light brown, med. dense, sat., no odor.
						10'-11.5': Same as above 6'-8.5', med. dense, sat., no odor.
S-KSB-26: 10.5ft				0.7		SM 10'-11.5': Same as above 6'-8.5', med. dense, sat., no odor.
			90			ML 11.5'-12.5': Light to med. brown clayey silt, stiff, sat., no odor.
						ML 12.5'-14.5': Light brown silt w/ fine sand, med. dense, sat., no odor.
S-KSB-26: 14.5ft				1.5		ML 15'-16.5': Same as above 12.5'-14.5'.
			80			ML 16.5'-19': Brown & gray silt, stiff, sat., no odor.
S-KSB-26: 19ft				4.7		
						Boring ended at 20 feet bgs.

Logged by: Nate Evenson  
 Driller: Cascade  
 Drilling Method: Direct Push  
 Sampling Method: Vinyl Liner  
 Casing Type: N/A  
 Annular Pack: N/A  
 Slot Size: N/A  
 Soils classified visually using the Unified Soils Classification System

Hammer Size: N/A  
 Date Drilled: 10/23/2018  
 Hole Diameter: 2.25 inches  
 Hole Depth: 20 feet  
 Well Diameter: N/A  
 Well Depth: N/A  
 Screened Interval: N/A

Depth to Water (First Encountered): 5.5 ft bgs  
 Depth to Water (Static): N/A  
 (water depths are approximate)



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Soil Boring Log

Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log
						0-0.25': Asphalt
						0.25'-2': Gravel w/ fine-coarse sand, silt, dark brown, moist, no odor (fill)
			80			2'-5': Brown silt w/ trace fine sand, org. mottling, dense, moist, no odor.
				0.1		
						5'-5.75': Gray silt w/ fine sand, med. dense, sat., petro odor.
S-KSB-27: 5.5ft			20.5			5.75'-9': Same as above at 5.75', grading to brown, no petro odor at 9'. Petro odor slight/absent by 7.5'.
			80			
				1.5		
S-KSB-27: 9ft						10'-11.5': Same as above 9'.
						11.5'-14': Light brown silt, stiff, sat., no odor.
			100			
				9.5		14'-15': Light brown silty fine sand, dense, sat., no odor.
S-KSB-27: 15ft						15'-17.75': Same as above 14'-15'.
						17.75'-19': Light brown silt, stiff, sat., no odor.
			100			19'-20': Light brown silty fine sand & fine sandy silt w/ zones of dark gray-brown color. Sat., no odor.
S-KSB-27: 20ft				2.3		
						Boring ended at 20 feet bgs.

Logged by: Nate Evenson Driller: Cascade Drilling Method: Direct Push Sampling Method: Vinyl Liner Casing Type: N/A Annular Pack: N/A Slot Size: N/A Soils classified visually using the Unified Soils Classification System	Hammer Size: N/A Date Drilled: 10/23/2018 Hole Diameter: 2.25 inches Hole Depth: 20 feet Well Diameter: N/A Well Depth: N/A Screened Interval: N/A	Depth to Water (First Encountered): 5 ft bgs Depth to Water (Static): N/A (water depths are approximate)
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Soil Boring Log




Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log
			80	0.0	Backfilled with bentonite chips.	0-2": Asphalt 2"-3": Olive gray silt w/ trace fine sand, med. dense, slightly moist, no odor.
S-KSB-28: 5.5ft						ML 5'-6': Olive gray silt, med. stiff, moist, no odor.
			100	0.0		ML 6'-10': Med. brown silt w/ interbedded fine sand, med. stiff, wet, no odor.
S-KSB-28: 10ft						ML 10'-12': Same as above 6'-10'.
			100	0.1		ML 12'-13': Med. brown silt, stiff, very moist, no odor.
				1.8		ML 13'-15': Olive gray fine sandy silt, med. stiff, very moist-wet, no odor.
				6.1		
S-KSB-28: 15ft				1.3		ML 15'-20': Olive brown silt w/ fine sand, med. stiff, wet, no odor.
				3.2		
				0.5		
				1.2		
				0.6		
				0.7		
S-KSB-28: 20ft				0.3		
Boring ended at 20 feet bgs.						

Logged by: Jeff Jensen Driller: Cascade Drilling Method: Direct Push Sampling Method: Vinyl Liner Casing Type: N/A Annular Pack: N/A Slot Size: N/A Soils classified visually using the Unified Soils Classification System	Hammer Size: N/A Date Drilled: 10/24/2018 Hole Diameter: 2.25 inches Hole Depth: 20 feet Well Diameter: N/A Well Depth: N/A Screened Interval: N/A	Depth to Water (First Encountered): 6 ft bgs Depth to Water (Static): N/A (water depths are approximate)
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Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log
						0-2": Asphalt
						2"-0.5': Med. brown gravelly sand & silt, med. dense, no odor.
			60	0.0	Backfilled with bentonite chips.	0.5'-0.75': Asphalt
						0.75'-3': Olive gray silt w/ trace fine sand, med. stiff, moist, no odor.
S-KSB-29: 5ft						5'-8': Med. brown silty fine sand, med. dense, wet, no odor.
			70	0.0		8'-8.5': Med. brown silt, med. stiff, wet, no odor.
S-KSB-29: 10ft				0.0		10'-13': Med. brown silty fine sand, med. dense, wet, no odor.
			100	0.5		13'-15': Med. brown silt w/ trace fine sand, med. stiff, wet, no odor.
				0.8		
				0.5		
S-KSB-29: 15ft				0.1		15'-18': Med. brown sandy silt w/ org. mottling, med. stiff, wet, no odor.
				0.1		
				0.1		
S-KSB-29: 20ft				0.0		18'-20': Olive gray silt w/ trace fine sand & clay, med. stiff-stiff, wet, no odor.
Boring ended at 20 feet bgs.						

Logged by: Jeff Jensen Driller: Cascade Drilling Method: Direct Push Sampling Method: Vinyl Liner Casing Type: N/A Annular Pack: N/A Slot Size: N/A Soils classified visually using the Unified Soils Classification System	Hammer Size: N/A Date Drilled: 10/24/2018 Hole Diameter: 2.25 inches Hole Depth: 20 feet Well Diameter: N/A Well Depth: N/A Screened Interval: N/A	Depth to Water (First Encountered): 5 ft bgs Depth to Water (Static): N/A (water depths are approximate)
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Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log
						0-0.25': Asphalt
						0.25'-1': Olive gray gravelly fine-med. sand, med. dense, slightly moist, no odor.
			60			1'-1'2": Concrete
						1'2"-2': Olive gray gravelly fine-med. sand, med. dense, slightly moist, no odor.
						2'-2'2": Concrete
						2'2"-3': Same as 1'-2'.
						5'-6': Olive gray sandy gravel, loose, wet, faint petro odor.
S-KSB-30: 6.5ft				16.8		6'-6.5': Olive gray silty sand w/ gravel, med. dense, wet, med. petro odor.
			30			
S-KSB-30: 10ft				3.3		10'-11': Olive brown silt, med. stiff, wet, very faint petro odor.
				1.3		
				3.7		11'-14': Same as 10'-11', no odor, trace fine sand 13'-14'.
			80			
				2.5		
S-KSB-30: 14ft				10.8		
				11.2		
				5.8		15'-16': Olive brown silty fine sand, med. dense, wet, no odor.
				3.0		16'-20': Olive brown sandy silt, med. stiff-stiff, wet, no odor. Trace orange mottling at 20'.
			100			
				2.8		
S-KSB-30: 20ft				1.7		
				3.4		
						Boring ended at 20 feet bgs.

Logged by: Jeff Jensen Driller: Cascade Drilling Method: Direct Push Sampling Method: Vinyl Liner Casing Type: N/A Annular Pack: N/A Slot Size: N/A Soils classified visually using the Unified Soils Classification System	Hammer Size: N/A Date Drilled: 10/24/2018 Hole Diameter: 2.25 inches Hole Depth: 20 feet Well Diameter: N/A Well Depth: N/A Screened Interval: N/A	Depth to Water (First Encountered): 5 ft bgs Depth to Water (Static): N/A (water depths are approximate)
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Soil Boring Log

Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log	
						0-0.25': Asphalt	
				0.0		0.25'-1': Olive gray gravelly fine-med. sand, loose, moist, no odor.	
S-KSB-31: 2.5ft			50	184.5	Backfilled with bentonite chips.	1'-2.25': Med. Brown silty fine sand, med. dense, moist, very moist at 2', no odor.	
						2.25'-2.5': Med. gray silty fine sand, med. dense, very moist-wet, strong petro odor.	
				9.6			
				1.5		SM	5'-5.5': Same as 2.25'-2.5', wet, faint petro odor.
				1.3			
S-KSB-31: 7ft			80	10.4		SM	5.5'-6': Olive gray silt, med. stiff, very moist, no odor.
				1.1		SM	6'-7': Med. gray, fine-med. sand w/ trace silt, med. dense, wet, faint petro odor.
				0.8		SM	7'-7.5': Same as 5.5'-6'.
						SM	7.5'-8': Med. gray fine-med. sand w/ trace silt, med. dense, wet, very faint petro odor.
				1.1		ML	8'-9': Med. brown sandy silt, med. stiff, wet, no odor.
				2.4	ML	10'-12': Olive brown silt w/ trace fine sand, med. stiff, wet, no odor.	
S-KSB-31: 13ft			80	6.9	ML	12'-14': Olive brown silt, med. stiff-stiff, very moist, no odor.	
				4.5			
				0.7			
				0.0	ML	15'-16.5': Olive brown silt w/ trace fine sand, med. stiff, wet, no odor.	
					ML	16.5'-20': Med. gray silt w/ interbedded lenses of fine-med. sand, stiff, wet, no odor.	
			100	0.0			
				0.2			
S-KSB-31: 20ft				0.0			
Boring ended at 20 feet bgs.							

Logged by: Jeff Jensen Driller: Cascade Drilling Method: Direct Push Sampling Method: Vinyl Liner Casing Type: N/A Annular Pack: N/A Slot Size: N/A Soils classified visually using the Unified Soils Classification System	Hammer Size: N/A Date Drilled: 10/24/2018 Hole Diameter: 2.25 inches Hole Depth: 20 feet Well Diameter: N/A Well Depth: N/A Screened Interval: N/A	Depth to Water (First Encountered): 2.5 ft bgs Depth to Water (Static): N/A (water depths are approximate)
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Soil Boring Log



Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log
						SM 0-2': Dark gray gravelly sand & silt, med. dense, slightly moist, no odor.
			80	0.0	Backfilled with bentonite chips.	SM 2'-3': Dark brown gravelly sand & silt, dense, slightly moist, no odor.
						SM 3'-4': Med. brown silty fine sand w/ orange mottling, med. dense, slightly moist, no odor.
5	S-KSB-33: 5ft					SM 5'-6': Same as above 3'-4'.
			100	0.0		SM 6'-10': Same as above 3'-4', wet.
10	S-KSB-33: 10ft					ML 10'-15': Med. brown sandy silt, med. stiff, wet, no odor.
			100	0.0		
15	S-KSB-33: 15ft					SM 15'-17': Med. brown silty sand, med. dense, wet, no odor.
			60	0.6		SM 17'-17.5': Olive brown fine-med. sand, med. dense, wet, no odor.
				1.2		ML 17.5'-19': Olive brown silt, stiff, very moist-wet, no odor.
				1.2		SM 19.5'-19.5': Dark orange fine-med. sand, med. dense, wet, no odor.
20	S-KSB-33: 20ft			0.8		SM 19.5'-20': Olive brown silty sand, med. dense, wet, no odor.
						Boring ended at 20 feet bgs.

Logged by: Jeff Jensen Driller: Cascade Drilling Method: Direct Push Sampling Method: Vinyl Liner Casing Type: N/A Annular Pack: N/A Slot Size: N/A Soils classified visually using the Unified Soils Classification System	Hammer Size: N/A Date Drilled: 10/24/2018 Hole Diameter: 2.25 inches Hole Depth: 20 feet Well Diameter: N/A Well Depth: N/A Screened Interval: N/A	Depth to Water (First Encountered): 6 ft bgs Depth to Water (Static): N/A (water depths are approximate)
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Soil Boring Log

Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log
S-KSB-34: 2ft			40	0.0	Backfilled with bentonite chips.	0-0.25': Asphalt.
						0.25'-0.5': Dark gray gravelly silt & sand, loose, slightly moist, no odor.
						0.5'-1': Med./dark brown silty & fine sand, med. dense.
S-KSB-34: 10ft			0.0			1'-1'2": Asphalt.
						1'2"-2': Med. brown gravelly sand & silt, loose-med. dense, slightly moist.
S-KSB-34: 15ft			100	0.0		10'-14': Med. brown silt w/ trace fine sand, med. stiff-stiff, wet, no odor.
						14'-15': Med. brown sandy silt, med. stiff, wet, no odor.
S-KSB-34: 20ft			1.5	0.9		15'-17': Med. brown silty fine sand, med. dense, wet, no odor.
						17'-19.5': Med. brown silt w/ trace fine sand, med. stiff-stiff, wet, no odor.
			4.8	6.0		19.5'-20': Med. brown fine-med. sand, med. dense, wet, no odor.
Boring ended at 20 feet bgs.						

Logged by: Jeff Jensen  
 Driller: Cascade  
 Drilling Method: Direct Push  
 Sampling Method: Vinyl Liner  
 Casing Type: N/A  
 Annular Pack: N/A  
 Slot Size: N/A  
 Soils classified visually using the Unified Soils Classification System

Hammer Size: N/A  
 Date Drilled: 10/24/2018  
 Hole Diameter: 2.25 inches  
 Hole Depth: 20 feet  
 Well Diameter: N/A  
 Well Depth: N/A  
 Screened Interval: N/A

Depth to Water (First Encountered): 2.5 ft bgs  
 Depth to Water (Static): N/A  
 (water depths are approximate)

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Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log
				0.0	Backfilled with bentonite chips.	0-0.25': Asphalt.
				0.0		ML 0.25'-4.75': Brown silt w/ trace org. mottling med. dense, wet below 4', no odor.
			100	0.0		
				7.7		ML 4.75'-5': Same as above 0.25'-4.75' but gray, petro odor.
S-KSB-35: 5ft						ML 5'-6": Med. gray silt w/ trace fine sand, med. stiff wet, faint petro odor.
S-KSB-35: 7ft			80	8.1		ML 6'-9': Med. brown silt w/ trace fine sand & org. mottling, med. stiff, wet, no odor.
				0.2		
				0.1		
				0.1		SM 10'-13': Med. brown silty sand, med. dense, wet, no odor.
			100	0.1		
				0.5	ML 13'-15': Med. brown silt w/ trace sand, med. stiff-stiff, wet, no odor.	
				0.4		
					SM 15'-17': Med. brown silty sand, med. dense, wet, no odor.	
				0.1	ML 17'-18.5': Med. brown silt w/ trace sand, med. stiff, wet, no odor.	
			100	0.3		
				0.0	ML 18.5'-20': Med. gray silt, stiff, wet, no odor.	
S-KSB-35: 20ft						Boring ended at 20 feet bgs.

Logged by: Jeff Jensen Driller: Cascade Drilling Method: Direct Push Sampling Method: Vinyl Liner Casing Type: N/A Annular Pack: N/A Slot Size: N/A Soils classified visually using the Unified Soils Classification System	Hammer Size: N/A Date Drilled: 10/24/2018 Hole Diameter: 2.25 inches Hole Depth: 20 feet Well Diameter: N/A Well Depth: N/A Screened Interval: N/A	Depth to Water (First Encountered): 4 ft bgs Depth to Water (Static): N/A (water depths are approximate)
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Soil Boring Log





Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log
						0-0.25': Asphalt.
						0.25'-1': Dark brown gravelly sand, med. dense, slightly moist, no odor.
			80	0.0	Backfilled with bentonite chips.	ML 1'-4': Med. brown silt w/ fine sand, med. stiff, slightly moist, no odor.
						SM 5'-7': Med. gray silty fine sand, med. dense, very moist-wet, very faint odor.
S-KSB-37: 6ft			100	0.0		SM 7'-10': Same as above 5'-7', med. brown, wet, no odor.
						SM 10'-12': Same as above 7'-10'.
S-KSB-37: 12.5ft			100	0.0		ML 12'-13.5': Med. gray silt w/ trace fine sand, med. stiff-stiff, wet, no odor.
				0.1		ML 13.5'-15': Same as 10'-12'.
						ML 15'-19.5': Same as above 10'-12'.
				0.3		
				0.6		
S-KSB-37: 20ft				0.0		SM 19.5'-20': Olive gray w/ dark orange mottling at top fine-med. sand, med. dense, wet, no odor.
						Boring ended at 20 feet bgs.

Logged by: Jeff Jensen Driller: Cascade Drilling Method: Direct Push Sampling Method: Vinyl Liner Casing Type: N/A Annular Pack: N/A Slot Size: N/A Soils classified visually using the Unified Soils Classification System	Hammer Size: N/A Date Drilled: 10/24/2018 Hole Diameter: 2.25 inches Hole Depth: 20 feet Well Diameter: N/A Well Depth: N/A Screened Interval: N/A	Depth to Water (First Encountered): 5 ft bgs Depth to Water (Static): N/A (water depths are approximate)
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Sample Number	Sample Interval	Groundwater	% Recovery	PID (ppm)	Well Construction	Soil Log
						0-0.25': Asphalt.
						0.25'-2': Dark brown gravelly sand, med. dense, dry, no odor.
			80		Backfilled with bentonite chips.	ML 2'-3.5': Brown/orange silt w/ trace fine sand, med. stiff, slightly moist, no odor.
S-KSB-38: 3.5ft				793		ML 3.5'-4': Med. gray silt w/ trace fine sand, med. stiff, slightly moist, very strong petro odor.
				713		ML 5'-6.5': Same as above 3.5'-4'.
			100	9.4		SM 6.5'-7.25': Med. gray silty sand, med. dense, moist, strong petro odor.
S-KSB-38: 8ft						SM 7.25'-9': Med. gray silty sand, med. dense, wet, faint petro odor.
						ML 9'-10': Med. brown silt w/ trace fine sand, med. stiff, wet no odor.
						ML 10'-12.5': Med. brown silt w/ trace fine sand, med. stiff, wet, strong petro odor.
			100	89.5		ML 12.5'-13': Med. gray silt, stiff, very moist, moderate-faint petro odor.
				4.0		SM 13'-15': Med. brown silty sand, med. dense, wet, no odor.
S-KSB-38: 15ft				33.4		SM 15'-17.5': Med. brown fine sand, med. dense, wet, faint-moderate petro odor.
			100	155 122	ML 17.5'-20': Med. gray w/ interbedded med. brown silt, med. stiff, wet, faint solvent odor.	
				35.4	ML 20'-22': Med. gray & med. brown silt w/ trace sand, soft, wet, faint petro odor.	
S-KSB-38: 23ft			100	280	ML 22'-24': Med. gray silt w/ trace fine sand, med. stiff, wet, faint solvent odor.	
				21.1	SM 24'-25': Med. brown w/ orange mottling, silty sand, med. dense, no odor.	
				6.1	SM 25'-27': Med. brown fine sand, med. dense, wet, no odor.	
				14.5	SM 27'-28': Med. brown silty sand, med. dense, wet, no odor.	
				3.1	ML 28'-30': Med. brown silt w/ trace fine sand, med. stiff, no odor.	
S-KSB-38: 30ft						

Boring ended at 30 feet bgs.

Logged by: Jeff Jensen  
 Driller: Cascade  
 Drilling Method: Direct Push  
 Sampling Method: Vinyl Liner  
 Casing Type: N/A  
 Annular Pack: N/A  
 Slot Size: N/A

Hammer Size: N/A  
 Date Drilled: 10/24/2018  
 Hole Diameter: 2.25 inches  
 Hole Depth: 30 feet  
 Well Diameter: N/A  
 Well Depth: N/A  
 Screened Interval: N/A

Depth to Water (First Encountered): 7.25 ft bgs  
 Depth to Water (Static): N/A  
 (water depths are approximate)

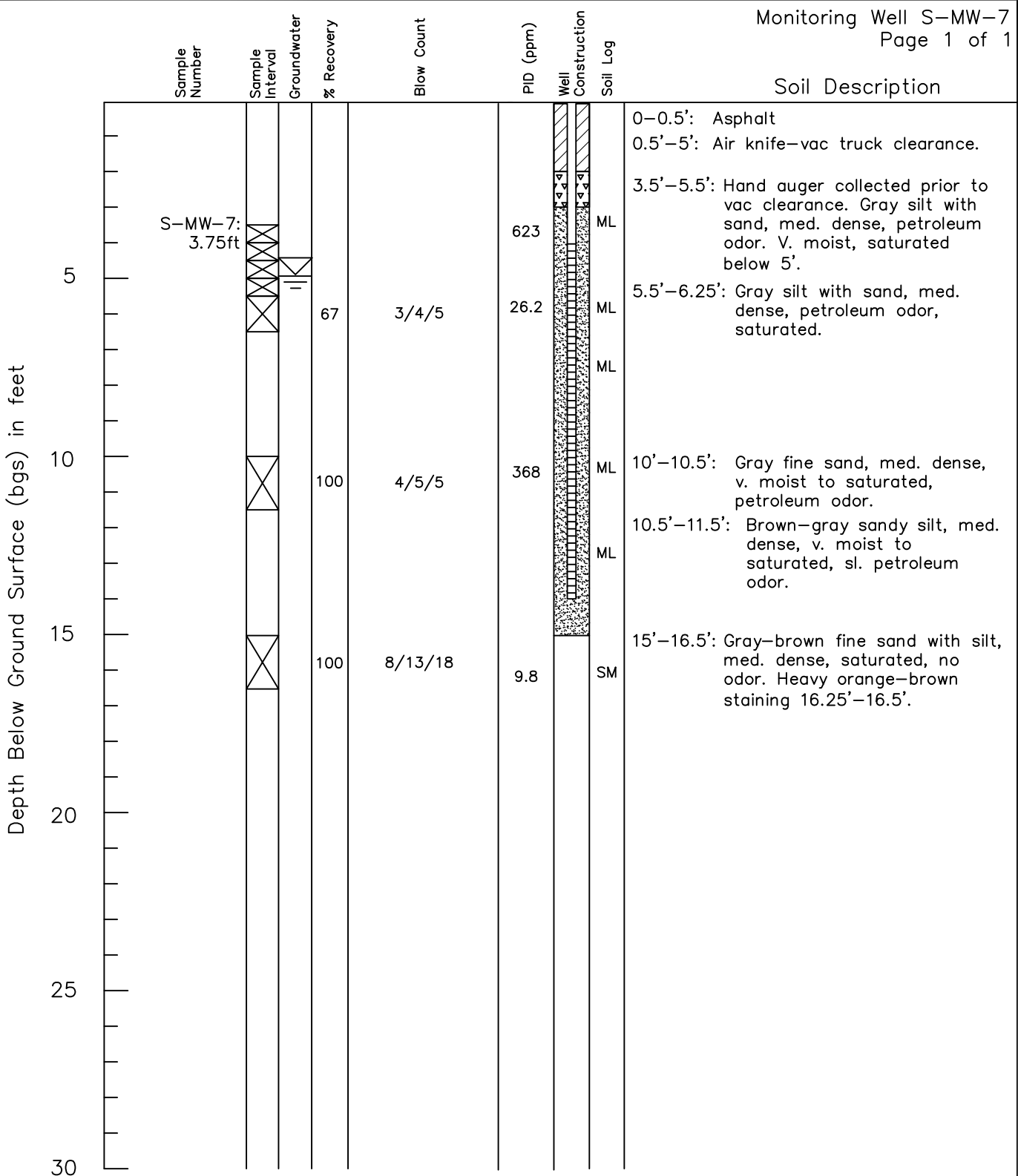
Soils classified visually using the Unified Soils Classification System



4015 13th Ave West  
 Seattle, WA - 206-691-0476  
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



Soil Boring Log



Logged by: Nate Evenson  
 Driller: Cascade  
 Drilling Method: Hollow Stem Auger  
 Sampling Method: 18" long, 2.25" ID S/S  
 Casing Type: PVC  
 Annular Pack: #2/12 Sand  
 Slot Size: 0.010 inch  
 Soils classified visually using the Unified Soils Classification System

Hammer Size: 300 Lbs  
 Date Drilled: 5/7/18  
 Hole Diameter: 8 inches  
 Hole Depth: 15 feet  
 Well Diameter: 2 inch  
 Well Depth: 14 feet  
 Screened Interval: 4-14 feet

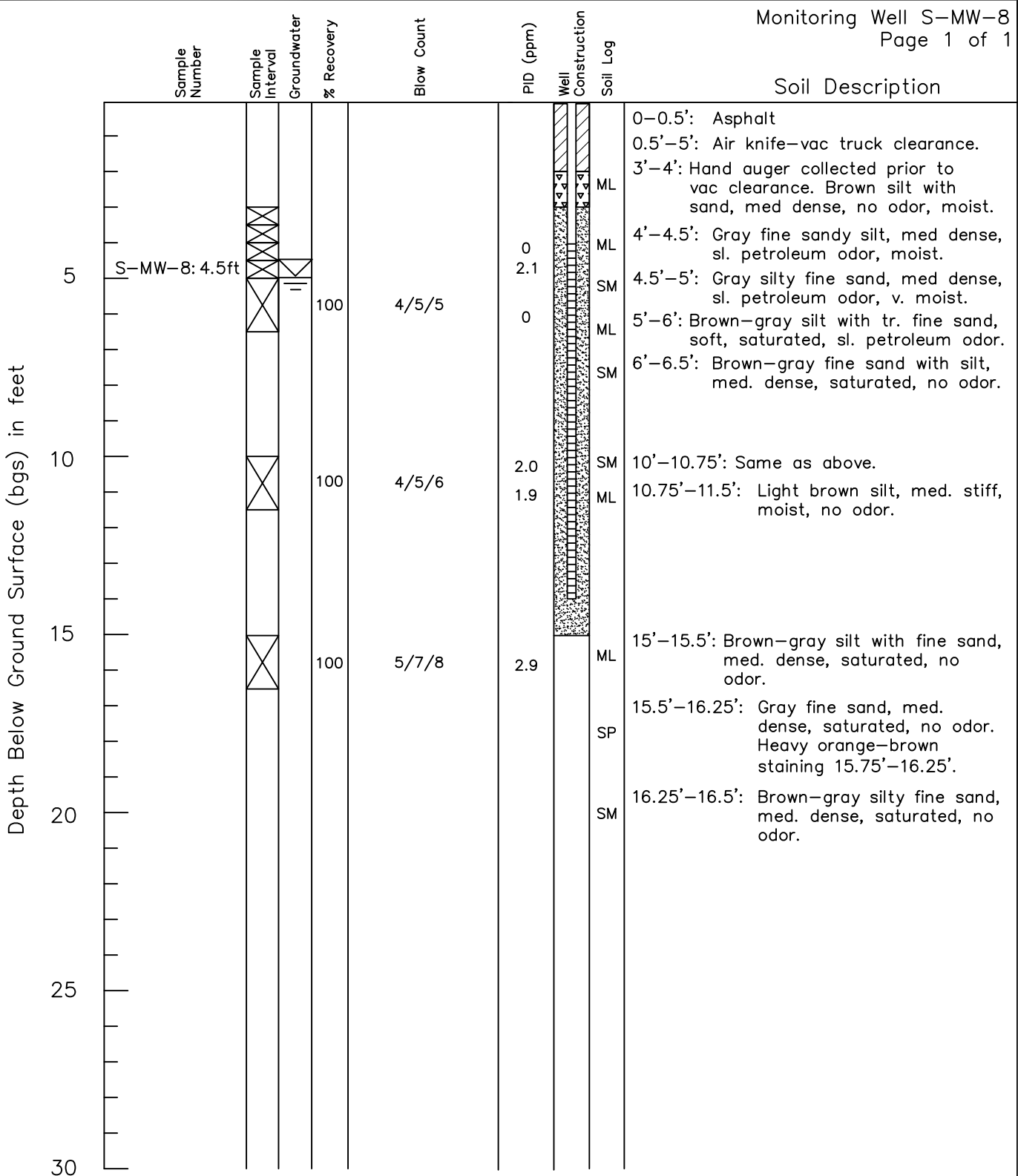
Depth to Water (First Encountered): 5 ft  
 Depth to Water (Static): 4.91 ft  
 Well Tag: BKF 455

 Concrete  
 Bentonite  
 Sand  
 Well Screen



Remedial Investigation / Feasibility Study  
 Former Wexler Property Site  
 Bothell, Washington





Groundwater Monitoring  
 Well Log



Logged by: Nate Evenson  
 Driller: Cascade  
 Sampling Method: Hollow Stem Auger  
 Sampling Method: 18" long, 2.25" ID S/S  
 Casing Type: PVC  
 Annular Pack: #2/12 Sand  
 Slot Size: 0.010 inch  
 Soils classified visually using the Unified Soils Classification System

Hammer Size: 300 Lbs  
 Date Drilled: 5/7/18  
 Hole Diameter: 8 inches  
 Hole Depth: 15 feet  
 Well Diameter: 2 inch  
 Well Depth: 14 feet  
 Screened Interval: 4-14 feet

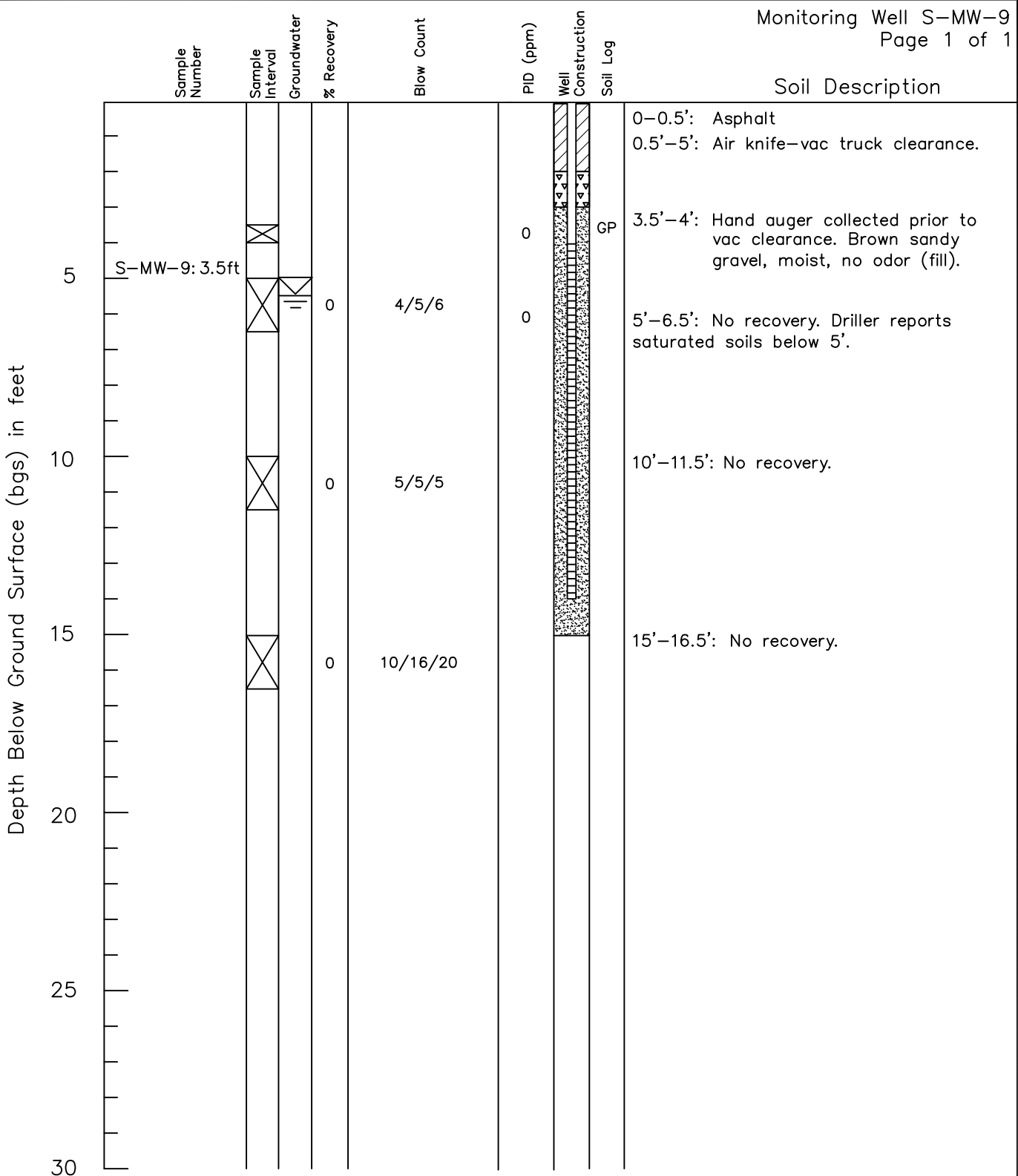
Depth to Water (First Encountered): 5.25 ft  
 Depth to Water (Static): 4.98 ft  
 Well Tag: BKF 456

 Concrete  
 Bentonite  
 Sand  
 Well Screen



Remedial Investigation / Feasibility Study  
 Former Wexler Property Site  
 Bothell, Washington





Groundwater Monitoring  
 Well Log



Logged by: Nate Evenson  
 Driller: Cascade  
 Drilling Method: Hollow Stem Auger  
 Sampling Method: 18" long, 2.25" ID S/S  
 Casing Type: PVC  
 Annular Pack: #2/12 Sand  
 Slot Size: 0.010 inch  
 Soils classified visually using the Unified Soils Classification System

Hammer Size: 300 Lbs  
 Date Drilled: 5/8/18  
 Hole Diameter: 8 inches  
 Hole Depth: 15 feet  
 Well Diameter: 2 inch  
 Well Depth: 14 feet  
 Screened Interval: 4-14 feet

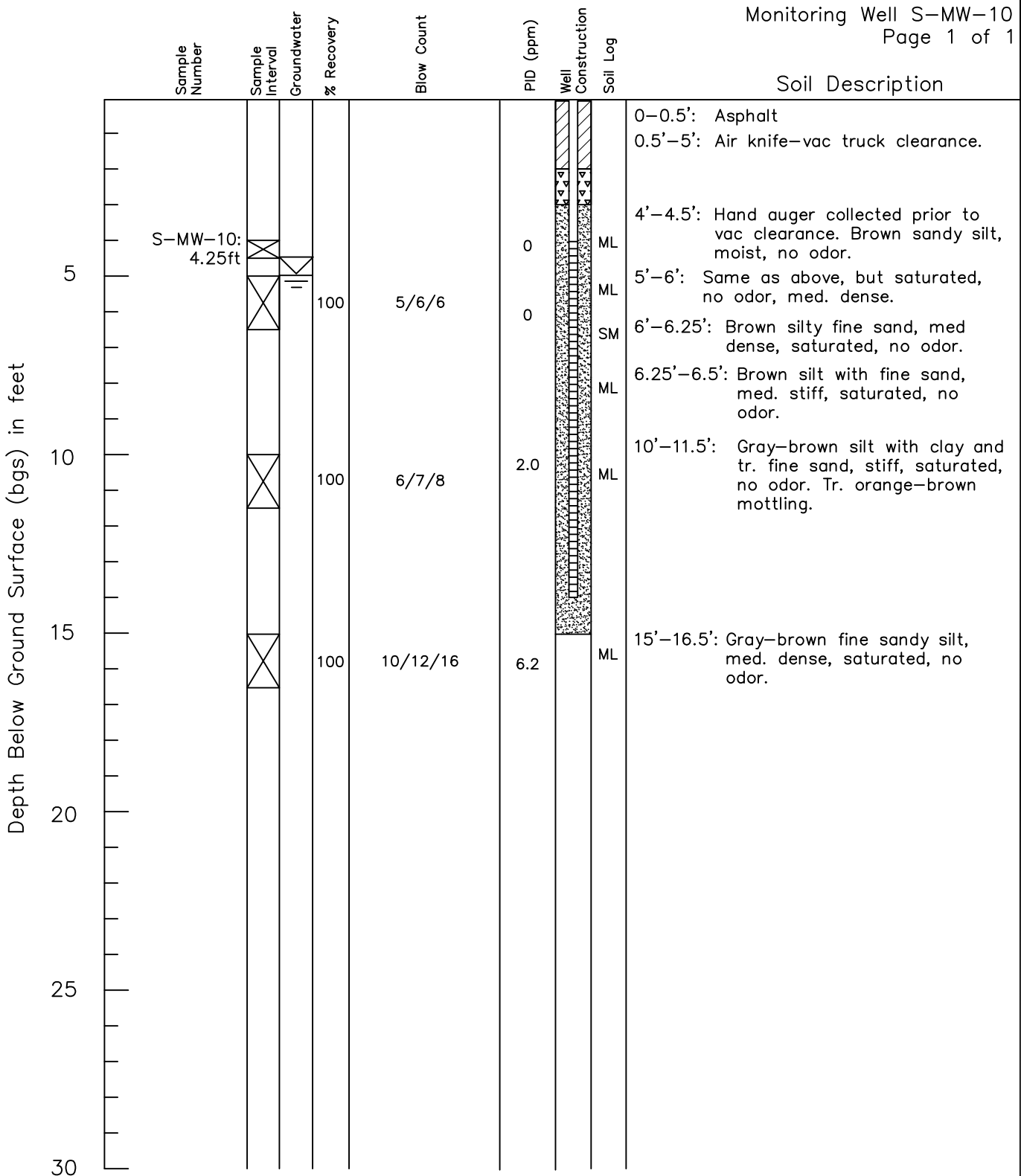
Depth to Water (First Encountered): 5.5 ft  
 Depth to Water (Static): 5.49 ft  
 Well Tag: BKF 458

 Concrete  
 Bentonite  
 Sand  
 Well Screen



Remedial Investigation / Feasibility Study  
Former Wexler Property Site  
Bothell, Washington




Groundwater Monitoring  
Well Log




Logged by: Nate Evenson  
 Driller: Cascade  
 Drilling Method: Hollow Stem Auger  
 Sampling Method: 18" long, 2.25" ID S/S  
 Casing Type: PVC  
 Annular Pack: #2/12 Sand  
 Slot Size: 0.010 inch  
 Soils classified visually using the Unified Soils Classification System

Hammer Size: 300 Lbs  
 Date Drilled: 5/8/18  
 Hole Diameter: 8 inches  
 Hole Depth: 15 feet  
 Well Diameter: 2 inch  
 Well Depth: 14 feet  
 Screened Interval: 4-14 feet

Depth to Water (First Encountered): 5 ft  
 Depth to Water (Static): 4.99 ft  
 Well Tag: BKF 459

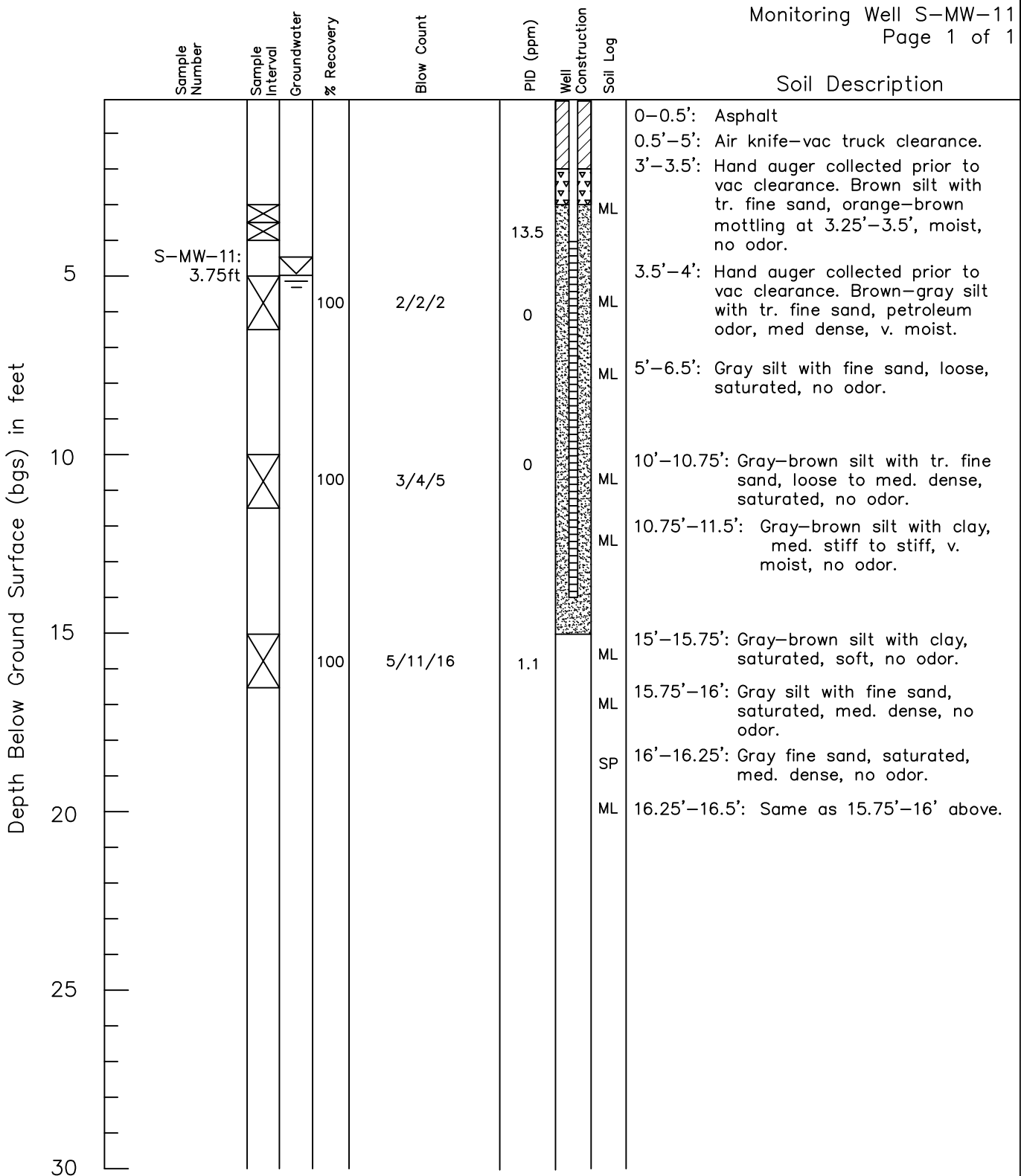
 Concrete  
 Bentonite  
 Sand

 Well Screen



Remedial Investigation / Feasibility Study  
 Former Wexler Property Site  
 Bothell, Washington



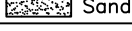

Groundwater Monitoring  
 Well Log



Logged by: Nate Evenson  
 Driller: Cascade  
 Drilling Method: Hollow Stem Auger  
 Sampling Method: 18" long, 2.25" ID S/S  
 Casing Type: PVC  
 Annular Pack: #2/12 Sand  
 Slot Size: 0.010 inch  
 Soils classified visually using the Unified Soils Classification System

Hammer Size: 300 Lbs  
 Date Drilled: 5/8/18  
 Hole Diameter: 8 inches  
 Hole Depth: 15 feet  
 Well Diameter: 2 inch  
 Well Depth: 14 feet  
 Screened Interval: 4-14 feet

Depth to Water (First Encountered): 4.75 ft  
 Depth to Water (Static): 4.88 ft  
 Well Tag: BKF 457

 Concrete  
 Bentonite  
 Sand  
 Well Screen



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 Bothell, Washington

Groundwater Monitoring  
 Well Log



**Attachment B**  
**Terrestrial Ecological Evaluation Form**



# Voluntary Cleanup Program

Washington State Department of Ecology  
Toxics Cleanup Program

## TERRESTRIAL ECOLOGICAL EVALUATION FORM

Under the Model Toxics Control Act (MTCA), a terrestrial ecological evaluation is necessary if hazardous substances are released into the soils at a Site. In the event of such a release, you must take one of the following three actions as part of your investigation and cleanup of the Site:

1. Document an exclusion from further evaluation using the criteria in WAC 173-340-7491.
2. Conduct a simplified evaluation as set forth in WAC 173-340-7492.
3. Conduct a site-specific evaluation as set forth in WAC 173-340-7493.

When requesting a written opinion under the Voluntary Cleanup Program (VCP), you must complete this form and submit it to the Department of Ecology (Ecology). The form documents the type and results of your evaluation.

**Completion of this form is not sufficient to document your evaluation. You still need to document your analysis and the basis for your conclusion in your cleanup plan or report.**

If you have questions about how to conduct a terrestrial ecological evaluation, please contact the Ecology site manager assigned to your Site. For additional guidance, please refer to [www.ecy.wa.gov/programs/tcp/policies/terrestrial/TEEHome.htm](http://www.ecy.wa.gov/programs/tcp/policies/terrestrial/TEEHome.htm).

### Step 1: IDENTIFY HAZARDOUS WASTE SITE

Please identify below the hazardous waste site for which you are documenting an evaluation.

Facility/Site Name: Als Auto Bothell Wexler Property

Facility/Site Address: 18129 Bothell Way NE, Bothell, WA 98011

Facility/Site No: 63618231

VCP Project No.:

### Step 2: IDENTIFY EVALUATOR

Please identify below the person who conducted the evaluation and their contact information.

Name: John Kane

Title: Principal, President

Organization: Kane Environmental, Inc.

Mailing address: PO Box 31936

City: Seattle

State: WA

Zip code: 98103

Phone: (206) 691-0476

Fax: (206) 675-0650

E-mail: [jkane@kane-environmental.com](mailto:jkane@kane-environmental.com)

### Step 3: DOCUMENT EVALUATION TYPE AND RESULTS

#### A. Exclusion from further evaluation.

##### 1. Does the Site qualify for an exclusion from further evaluation?

- Yes *If you answered "YES," then answer **Question 2**.*
- No or Unknown *If you answered "NO" or "UNKNOWN," then skip to **Step 3B** of this form.*

##### 2. What is the basis for the exclusion? Check all that apply. Then skip to **Step 4** of this form.

Point of Compliance: WAC 173-340-7491(1)(a)

- All soil contamination is, or will be,\* at least 15 feet below the surface.
- All soil contamination is, or will be,\* at least 6 feet below the surface (or alternative depth if approved by Ecology), and institutional controls are used to manage remaining contamination.

Barriers to Exposure: WAC 173-340-7491(1)(b)

- All contaminated soil, is or will be,\* covered by physical barriers (such as buildings or paved roads) that prevent exposure to plants and wildlife, and institutional controls are used to manage remaining contamination.

Undeveloped Land: WAC 173-340-7491(1)(c)

- There is less than 0.25 acres of contiguous# undeveloped± land on or within 500 feet of any area of the Site and any of the following chemicals is present: chlorinated dioxins or furans, PCB mixtures, DDT, DDE, DDD, aldrin, chlordane, dieldrin, endosulfan, endrin, heptachlor, heptachlor epoxide, benzene hexachloride, toxaphene, hexachlorobenzene, pentachlorophenol, or pentachlorobenzene.
- For sites not containing any of the chemicals mentioned above, there is less than 1.5 acres of contiguous# undeveloped± land on or within 500 feet of any area of the Site.

Background Concentrations: WAC 173-340-7491(1)(d)

- Concentrations of hazardous substances in soil do not exceed natural background levels as described in WAC 173-340-200 and 173-340-709.

\* An exclusion based on future land use must have a completion date for future development that is acceptable to Ecology.

± "Undeveloped land" is land that is not covered by building, roads, paved areas, or other barriers that would prevent wildlife from feeding on plants, earthworms, insects, or other food in or on the soil.

# "Contiguous" undeveloped land is an area of undeveloped land that is not divided into smaller areas of highways, extensive paving, or similar structures that are likely to reduce the potential use of the overall area by wildlife.

## B. Simplified evaluation.

### 1. Does the Site qualify for a simplified evaluation?

- Yes *If you answered "YES," then answer **Question 2** below.*
- No or Unknown *If you answered "NO" or "UNKNOWN," then skip to **Step 3C** of this form.*

### 2. Did you conduct a simplified evaluation?

- Yes *If you answered "YES," then answer **Question 3** below.*
- No *If you answered "NO," then skip to **Step 3C** of this form.*

### 3. Was further evaluation necessary?

- Yes *If you answered "YES," then answer **Question 4** below.*
- No *If you answered "NO," then answer **Question 5** below.*

### 4. If further evaluation was necessary, what did you do?

- Used the concentrations listed in Table 749-2 as cleanup levels. *If so, then skip to **Step 4** of this form.*
- Conducted a site-specific evaluation. *If so, then skip to **Step 3C** of this form.*

### 5. If no further evaluation was necessary, what was the reason? Check all that apply. Then skip to **Step 4** of this form.

#### Exposure Analysis: WAC 173-340-7492(2)(a)

- Area of soil contamination at the Site is not more than 350 square feet.
- Current or planned land use makes wildlife exposure unlikely. Used Table 749-1.

#### Pathway Analysis: WAC 173-340-7492(2)(b)

- No potential exposure pathways from soil contamination to ecological receptors.

#### Contaminant Analysis: WAC 173-340-7492(2)(c)

- No contaminant listed in Table 749-2 is, or will be, present in the upper 15 feet at concentrations that exceed the values listed in Table 749-2.
- No contaminant listed in Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth if approved by Ecology) at concentrations that exceed the values listed in Table 749-2, and institutional controls are used to manage remaining contamination.
- No contaminant listed in Table 749-2 is, or will be, present in the upper 15 feet at concentrations likely to be toxic or have the potential to bioaccumulate as determined using Ecology-approved bioassays.
- No contaminant listed in Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth if approved by Ecology) at concentrations likely to be toxic or have the potential to bioaccumulate as determined using Ecology-approved bioassays, and institutional controls are used to manage remaining contamination.

**C. Site-specific evaluation.** A site-specific evaluation process consists of two parts: (1) formulating the problem, and (2) selecting the methods for addressing the identified problem. Both steps require consultation with and approval by Ecology. See WAC 173-340-7493(1)(c).

**1. Was there a problem?** See WAC 173-340-7493(2).

- Yes    *If you answered "YES," then answer **Question 2** below.*
- No    *If you answered "NO," then identify the reason here and then skip to **Question 5** below:*
- No issues were identified during the problem formulation step.
  - While issues were identified, those issues were addressed by the cleanup actions for protecting human health.

**2. What did you do to resolve the problem?** See WAC 173-340-7493(3).

- Used the concentrations listed in Table 749-3 as cleanup levels. *If so, then skip to **Question 5** below.*
- Used one or more of the methods listed in WAC 173-340-7493(3) to evaluate and address the identified problem. *If so, then answer **Questions 3 and 4** below.*

**3. If you conducted further site-specific evaluations, what methods did you use?**

*Check all that apply. See WAC 173-340-7493(3).*

- Literature surveys.
- Soil bioassays.
- Wildlife exposure model.
- Biomarkers.
- Site-specific field studies.
- Weight of evidence.
- Other methods approved by Ecology. If so, please specify:

**4. What was the result of those evaluations?**

- Confirmed there was no problem.
- Confirmed there was a problem and established site-specific cleanup levels.

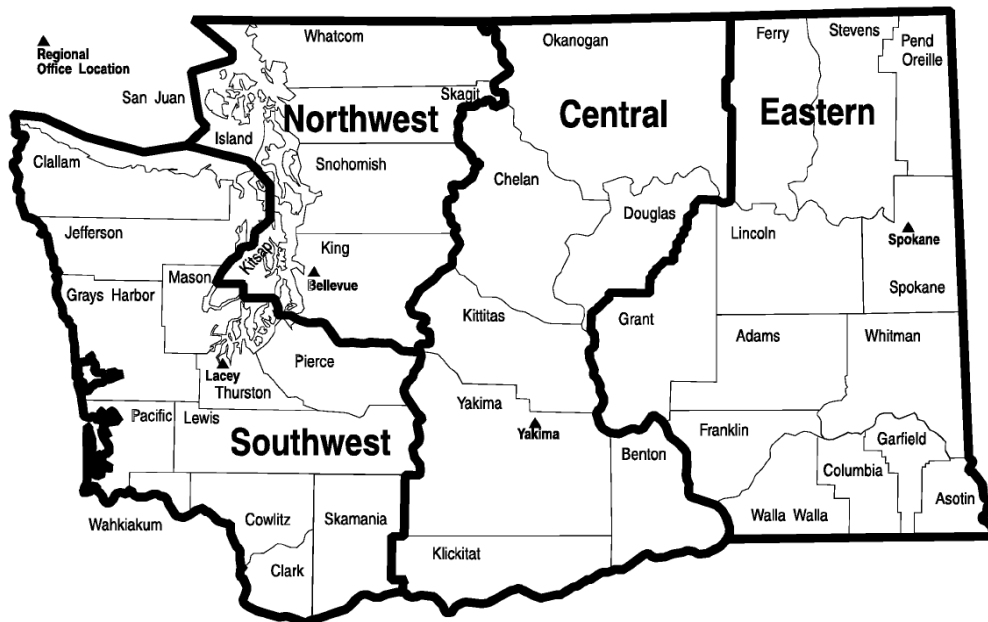
**5. Have you already obtained Ecology's approval of both your problem formulation and problem resolution steps?**

- Yes    If so, please identify the Ecology staff who approved those steps:
- No

## Step 4: SUBMITTAL

Please mail your completed form to the Ecology site manager assigned to your Site. If a site manager has not yet been assigned, please mail your completed form to the Ecology regional office for the County in which your Site is located.

<p><b>Northwest Region:</b>          Attn: VCP Coordinator          3190 160<sup>th</sup> Ave. SE          Bellevue, WA 98008-5452</p>	<p><b>Central Region:</b>          Attn: VCP Coordinator          1250 West Alder St.          Union Gap, WA 98903-0009</p>
<p><b>Southwest Region:</b>          Attn: VCP Coordinator          P.O. Box 47775          Olympia, WA 98504-7775</p>	<p><b>Eastern Region:</b>          Attn: VCP Coordinator          N. 4601 Monroe          Spokane WA 99205-1295</p>



**Attachment C**  
**Analytical Laboratory Reports**



3600 Fremont Ave. N.  
Seattle, WA 98103  
T: (206) 352-3790  
F: (206) 352-7178  
info@fremontanalytical.com

**Kane Environmental, Inc.**  
Nate Evenson  
3815 Woodland Park Ave N, Ste. 102  
Seattle, WA 98103

**RE: City of Bothell - Wexler**  
**Work Order Number: 1804239**

April 19, 2018

**Attention Nate Evenson:**

Fremont Analytical, Inc. received 6 sample(s) on 4/13/2018 for the analyses presented in the following report.

- 1,2-Dibromoethane (EDB) by EPA Method 8011***
- Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.***
- Gasoline by NWTPH-Gx***
- Total Metals by EPA Method 200.8***
- Volatile Organic Compounds by EPA Method 8260C***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Chelsea Ward  
Project Manager

DoD/ELAP Certification #L17-135, ISO/IEC 17025:2005  
ORELAP Certification: WA 100009-007 (NELAP Recognized)





Date: 04/19/2018

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**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler  
**Work Order:** 1804239

## Work Order Sample Summary

---

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1804239-001	S-MW-2:W-041318	04/13/2018 10:50 AM	04/13/2018 5:41 PM
1804239-002	S-MW-3:W-041318	04/13/2018 11:46 AM	04/13/2018 5:41 PM
1804239-003	S-MW-5:W-041318	04/13/2018 12:30 PM	04/13/2018 5:41 PM
1804239-004	S-MW-4:W-041318	04/13/2018 1:40 PM	04/13/2018 5:41 PM
1804239-005	H2-MW-16:W-041318	04/13/2018 2:15 PM	04/13/2018 5:41 PM
1804239-006	S-MW-1:W-041318	04/13/2018 3:09 PM	04/13/2018 5:41 PM

**CLIENT:** Kane Environmental, Inc.

**Project:** City of Bothell - Wexler

---

**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



**Client:** Kane Environmental, Inc.

**Collection Date:** 4/13/2018 10:50:00 AM

**Project:** City of Bothell - Wexler

**Lab ID:** 1804239-001

**Matrix:** Groundwater

**Client Sample ID:** S-MW-2:W-041318

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
----------	--------	----	------	-------	----	---------------

**1,2-Dibromoethane (EDB) by EPA Method 8011**

Batch ID: 20425      Analyst: SB

1,2-Dibromoethane (EDB)	ND	0.00997		µg/L	1	4/18/2018 5:37:51 PM
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 20400      Analyst: SB

Diesel (Fuel Oil)	ND	49.8		µg/L	1	4/18/2018 2:53:21 PM
Heavy Oil	ND	99.6		µg/L	1	4/18/2018 2:53:21 PM
Surr: 2-Fluorobiphenyl	73.7	50 - 150		%Rec	1	4/18/2018 2:53:21 PM
Surr: o-Terphenyl	79.0	50 - 150		%Rec	1	4/18/2018 2:53:21 PM

**Gasoline by NWTPH-Gx**

Batch ID: 20418      Analyst: TN

Gasoline	210	50.0		µg/L	1	4/18/2018 12:00:41 PM
Surr: Toluene-d8	100	65 - 135		%Rec	1	4/18/2018 12:00:41 PM
Surr: 4-Bromofluorobenzene	99.5	65 - 135		%Rec	1	4/18/2018 12:00:41 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 20418      Analyst: TN

Vinyl chloride	ND	0.200		µg/L	1	4/18/2018 12:00:41 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	4/18/2018 12:00:41 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	4/18/2018 12:00:41 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	4/18/2018 12:00:41 PM
cis-1,2-Dichloroethene	5.73	1.00		µg/L	1	4/18/2018 12:00:41 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	4/18/2018 12:00:41 PM
Benzene	ND	1.00		µg/L	1	4/18/2018 12:00:41 PM
Trichloroethene (TCE)	5.73	0.500		µg/L	1	4/18/2018 12:00:41 PM
Toluene	ND	1.00		µg/L	1	4/18/2018 12:00:41 PM
Tetrachloroethene (PCE)	8.78	1.00		µg/L	1	4/18/2018 12:00:41 PM
Ethylbenzene	ND	1.00		µg/L	1	4/18/2018 12:00:41 PM
m,p-Xylene	ND	1.00		µg/L	1	4/18/2018 12:00:41 PM
o-Xylene	ND	1.00		µg/L	1	4/18/2018 12:00:41 PM
Surr: Dibromofluoromethane	102	45.4 - 152		%Rec	1	4/18/2018 12:00:41 PM
Surr: Toluene-d8	97.4	40.1 - 139		%Rec	1	4/18/2018 12:00:41 PM
Surr: 1-Bromo-4-fluorobenzene	98.2	64.2 - 128		%Rec	1	4/18/2018 12:00:41 PM

**Total Metals by EPA Method 200.8**

Batch ID: 20412      Analyst: WC

Lead	ND	0.500		µg/L	1	4/17/2018 1:26:49 PM
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**Client:** Kane Environmental, Inc.

**Collection Date:** 4/13/2018 11:46:00 AM

**Project:** City of Bothell - Wexler

**Lab ID:** 1804239-002

**Matrix:** Groundwater

**Client Sample ID:** S-MW-3:W-041318

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**1,2-Dibromoethane (EDB) by EPA Method 8011**

Batch ID: 20425 Analyst: SB

1,2-Dibromoethane (EDB)	ND	0.0101		µg/L	1	4/18/2018 5:45:52 PM
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 20400 Analyst: SB

Diesel (Fuel Oil)	ND	50.0		µg/L	1	4/18/2018 3:23:28 PM
Heavy Oil	ND	99.9		µg/L	1	4/18/2018 3:23:28 PM
Surr: 2-Fluorobiphenyl	92.8	50 - 150		%Rec	1	4/18/2018 3:23:28 PM
Surr: o-Terphenyl	89.9	50 - 150		%Rec	1	4/18/2018 3:23:28 PM

**Gasoline by NWTPH-Gx**

Batch ID: 20418 Analyst: TN

Gasoline	ND	50.0		µg/L	1	4/18/2018 12:31:47 PM
Surr: Toluene-d8	99.8	65 - 135		%Rec	1	4/18/2018 12:31:47 PM
Surr: 4-Bromofluorobenzene	98.6	65 - 135		%Rec	1	4/18/2018 12:31:47 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 20418 Analyst: TN

Vinyl chloride	ND	0.200		µg/L	1	4/18/2018 12:31:47 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	4/18/2018 12:31:47 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	4/18/2018 12:31:47 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	4/18/2018 12:31:47 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	4/18/2018 12:31:47 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	4/18/2018 12:31:47 PM
Benzene	ND	1.00		µg/L	1	4/18/2018 12:31:47 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	4/18/2018 12:31:47 PM
Toluene	ND	1.00		µg/L	1	4/18/2018 12:31:47 PM
Tetrachloroethene (PCE)	1.94	1.00		µg/L	1	4/18/2018 12:31:47 PM
Ethylbenzene	ND	1.00		µg/L	1	4/18/2018 12:31:47 PM
m,p-Xylene	ND	1.00		µg/L	1	4/18/2018 12:31:47 PM
o-Xylene	ND	1.00		µg/L	1	4/18/2018 12:31:47 PM
Surr: Dibromofluoromethane	105	45.4 - 152		%Rec	1	4/18/2018 12:31:47 PM
Surr: Toluene-d8	99.2	40.1 - 139		%Rec	1	4/18/2018 12:31:47 PM
Surr: 1-Bromo-4-fluorobenzene	97.3	64.2 - 128		%Rec	1	4/18/2018 12:31:47 PM

**Total Metals by EPA Method 200.8**

Batch ID: 20412 Analyst: WC

Lead	ND	0.500		µg/L	1	4/17/2018 1:30:50 PM
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**Client:** Kane Environmental, Inc.

**Collection Date:** 4/13/2018 12:30:00 PM

**Project:** City of Bothell - Wexler

**Lab ID:** 1804239-003

**Matrix:** Groundwater

**Client Sample ID:** S-MW-5:W-041318

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**1,2-Dibromoethane (EDB) by EPA Method 8011**

Batch ID: 20425 Analyst: SB

1,2-Dibromoethane (EDB)	ND	0.0100		µg/L	1	4/18/2018 5:53:49 PM
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 20400 Analyst: SB

Diesel (Fuel Oil)	ND	49.9		µg/L	1	4/18/2018 12:23:36 PM
Heavy Oil	ND	99.9		µg/L	1	4/18/2018 12:23:36 PM
Surr: 2-Fluorobiphenyl	79.5	50 - 150		%Rec	1	4/18/2018 12:23:36 PM
Surr: o-Terphenyl	78.0	50 - 150		%Rec	1	4/18/2018 12:23:36 PM

**Gasoline by NWTPH-Gx**

Batch ID: 20418 Analyst: TN

Gasoline	ND	50.0		µg/L	1	4/18/2018 1:02:54 PM
Surr: Toluene-d8	91.7	65 - 135		%Rec	1	4/18/2018 1:02:54 PM
Surr: 4-Bromofluorobenzene	97.0	65 - 135		%Rec	1	4/18/2018 1:02:54 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 20418 Analyst: TN

Vinyl chloride	ND	0.200		µg/L	1	4/18/2018 1:02:54 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	4/18/2018 1:02:54 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	4/18/2018 1:02:54 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	4/18/2018 1:02:54 PM
cis-1,2-Dichloroethene	9.18	1.00		µg/L	1	4/18/2018 1:02:54 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	4/18/2018 1:02:54 PM
Benzene	ND	1.00		µg/L	1	4/18/2018 1:02:54 PM
Trichloroethene (TCE)	1.64	0.500		µg/L	1	4/18/2018 1:02:54 PM
Toluene	ND	1.00		µg/L	1	4/18/2018 1:02:54 PM
Tetrachloroethene (PCE)	702	100	D	µg/L	100	4/18/2018 6:14:23 PM
Ethylbenzene	ND	1.00		µg/L	1	4/18/2018 1:02:54 PM
m,p-Xylene	ND	1.00		µg/L	1	4/18/2018 1:02:54 PM
o-Xylene	ND	1.00		µg/L	1	4/18/2018 1:02:54 PM
Surr: Dibromofluoromethane	106	45.4 - 152		%Rec	1	4/18/2018 1:02:54 PM
Surr: Toluene-d8	100	40.1 - 139		%Rec	1	4/18/2018 1:02:54 PM
Surr: 1-Bromo-4-fluorobenzene	95.8	64.2 - 128		%Rec	1	4/18/2018 1:02:54 PM

**Total Metals by EPA Method 200.8**

Batch ID: 20412 Analyst: WC

Lead	ND	0.500		µg/L	1	4/17/2018 1:34:52 PM
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**Client:** Kane Environmental, Inc.

**Collection Date:** 4/13/2018 1:40:00 PM

**Project:** City of Bothell - Wexler

**Lab ID:** 1804239-004

**Matrix:** Groundwater

**Client Sample ID:** S-MW-4:W-041318

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**1,2-Dibromoethane (EDB) by EPA Method 8011**

Batch ID: 20425 Analyst: SB

1,2-Dibromoethane (EDB)	ND	0.00984		µg/L	1	4/18/2018 6:01:47 PM
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 20400 Analyst: SB

Diesel (Fuel Oil)	ND	49.9		µg/L	1	4/18/2018 1:23:24 PM
Heavy Oil	ND	99.9		µg/L	1	4/18/2018 1:23:24 PM
Surr: 2-Fluorobiphenyl	65.1	50 - 150		%Rec	1	4/18/2018 1:23:24 PM
Surr: o-Terphenyl	64.1	50 - 150		%Rec	1	4/18/2018 1:23:24 PM

**Gasoline by NWTPH-Gx**

Batch ID: 20418 Analyst: TN

Gasoline	ND	50.0		µg/L	1	4/18/2018 1:34:07 PM
Surr: Toluene-d8	100	65 - 135		%Rec	1	4/18/2018 1:34:07 PM
Surr: 4-Bromofluorobenzene	98.4	65 - 135		%Rec	1	4/18/2018 1:34:07 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 20418 Analyst: TN

Vinyl chloride	ND	0.200		µg/L	1	4/18/2018 1:34:07 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	4/18/2018 1:34:07 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	4/18/2018 1:34:07 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	4/18/2018 1:34:07 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	4/18/2018 1:34:07 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	4/18/2018 1:34:07 PM
Benzene	ND	1.00		µg/L	1	4/18/2018 1:34:07 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	4/18/2018 1:34:07 PM
Toluene	ND	1.00		µg/L	1	4/18/2018 1:34:07 PM
Tetrachloroethene (PCE)	3.76	1.00		µg/L	1	4/18/2018 5:12:19 PM
Ethylbenzene	ND	1.00		µg/L	1	4/18/2018 1:34:07 PM
m,p-Xylene	ND	1.00		µg/L	1	4/18/2018 1:34:07 PM
o-Xylene	ND	1.00		µg/L	1	4/18/2018 1:34:07 PM
Surr: Dibromofluoromethane	105	45.4 - 152		%Rec	1	4/18/2018 1:34:07 PM
Surr: Toluene-d8	98.5	40.1 - 139		%Rec	1	4/18/2018 1:34:07 PM
Surr: 1-Bromo-4-fluorobenzene	97.1	64.2 - 128		%Rec	1	4/18/2018 1:34:07 PM

**Total Metals by EPA Method 200.8**

Batch ID: 20412 Analyst: WC

Lead	ND	0.500		µg/L	1	4/17/2018 1:38:53 PM
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**Client:** Kane Environmental, Inc.

**Collection Date:** 4/13/2018 2:15:00 PM

**Project:** City of Bothell - Wexler

**Lab ID:** 1804239-005

**Matrix:** Groundwater

**Client Sample ID:** H2-MW-16:W-041318

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**1,2-Dibromoethane (EDB) by EPA Method 8011**

Batch ID: 20425 Analyst: SB

1,2-Dibromoethane (EDB)	ND	0.00991		µg/L	1	4/18/2018 6:09:46 PM
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 20400 Analyst: SB

Diesel (Fuel Oil)	ND	49.9		µg/L	1	4/18/2018 3:53:22 PM
Heavy Oil	ND	99.8		µg/L	1	4/18/2018 3:53:22 PM
Surr: 2-Fluorobiphenyl	69.6	50 - 150		%Rec	1	4/18/2018 3:53:22 PM
Surr: o-Terphenyl	69.7	50 - 150		%Rec	1	4/18/2018 3:53:22 PM

**Gasoline by NWTPH-Gx**

Batch ID: 20418 Analyst: TN

Gasoline	ND	50.0		µg/L	1	4/18/2018 2:05:17 PM
Surr: Toluene-d8	100	65 - 135		%Rec	1	4/18/2018 2:05:17 PM
Surr: 4-Bromofluorobenzene	98.5	65 - 135		%Rec	1	4/18/2018 2:05:17 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 20418 Analyst: TN

Vinyl chloride	ND	0.200		µg/L	1	4/18/2018 2:05:17 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	4/18/2018 2:05:17 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	4/18/2018 2:05:17 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	4/18/2018 2:05:17 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	4/18/2018 2:05:17 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	4/18/2018 2:05:17 PM
Benzene	ND	1.00		µg/L	1	4/18/2018 2:05:17 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	4/18/2018 2:05:17 PM
Toluene	ND	1.00		µg/L	1	4/18/2018 2:05:17 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	4/18/2018 5:43:23 PM
Ethylbenzene	ND	1.00		µg/L	1	4/18/2018 2:05:17 PM
m,p-Xylene	ND	1.00		µg/L	1	4/18/2018 2:05:17 PM
o-Xylene	ND	1.00		µg/L	1	4/18/2018 2:05:17 PM
Surr: Dibromofluoromethane	107	45.4 - 152		%Rec	1	4/18/2018 2:05:17 PM
Surr: Toluene-d8	99.3	40.1 - 139		%Rec	1	4/18/2018 2:05:17 PM
Surr: 1-Bromo-4-fluorobenzene	97.1	64.2 - 128		%Rec	1	4/18/2018 2:05:17 PM





**Client:** Kane Environmental, Inc.

**Collection Date:** 4/13/2018 3:09:00 PM

**Project:** City of Bothell - Wexler

**Lab ID:** 1804239-006

**Matrix:** Groundwater

**Client Sample ID:** S-MW-1:W-041318

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**1,2-Dibromoethane (EDB) by EPA Method 8011**

Batch ID: 20425 Analyst: SB

1,2-Dibromoethane (EDB)	ND	0.00974		µg/L	1	4/18/2018 6:17:44 PM
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 20400 Analyst: SB

Diesel (Fuel Oil)	ND	50.0		µg/L	1	4/18/2018 4:23:21 PM
Heavy Oil	ND	100		µg/L	1	4/18/2018 4:23:21 PM
Surr: 2-Fluorobiphenyl	74.7	50 - 150		%Rec	1	4/18/2018 4:23:21 PM
Surr: o-Terphenyl	80.4	50 - 150		%Rec	1	4/18/2018 4:23:21 PM

**Gasoline by NWTPH-Gx**

Batch ID: 20418 Analyst: TN

Gasoline	ND	50.0		µg/L	1	4/18/2018 2:36:30 PM
Surr: Toluene-d8	101	65 - 135		%Rec	1	4/18/2018 2:36:30 PM
Surr: 4-Bromofluorobenzene	98.4	65 - 135		%Rec	1	4/18/2018 2:36:30 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 20418 Analyst: TN

Vinyl chloride	ND	0.200		µg/L	1	4/18/2018 2:36:30 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	4/18/2018 2:36:30 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	4/18/2018 2:36:30 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	4/18/2018 2:36:30 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	4/18/2018 2:36:30 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	4/18/2018 2:36:30 PM
Benzene	ND	1.00		µg/L	1	4/18/2018 2:36:30 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	4/18/2018 2:36:30 PM
Toluene	ND	1.00		µg/L	1	4/18/2018 2:36:30 PM
Tetrachloroethene (PCE)	5.07	1.00		µg/L	1	4/18/2018 2:36:30 PM
Ethylbenzene	ND	1.00		µg/L	1	4/18/2018 2:36:30 PM
m,p-Xylene	ND	1.00		µg/L	1	4/18/2018 2:36:30 PM
o-Xylene	ND	1.00		µg/L	1	4/18/2018 2:36:30 PM
Surr: Dibromofluoromethane	106	45.4 - 152		%Rec	1	4/18/2018 2:36:30 PM
Surr: Toluene-d8	99.3	40.1 - 139		%Rec	1	4/18/2018 2:36:30 PM
Surr: 1-Bromo-4-fluorobenzene	97.1	64.2 - 128		%Rec	1	4/18/2018 2:36:30 PM

**Total Metals by EPA Method 200.8**

Batch ID: 20412 Analyst: WC

Lead	ND	0.500		µg/L	1	4/17/2018 1:42:55 PM
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Work Order: 1804239  
 CLIENT: Kane Environmental, Inc.  
 Project: City of Bothell - Wexler

**QC SUMMARY REPORT**  
**1,2-Dibromoethane (EDB) by EPA Method 8011**

Sample ID <b>MB-20425</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>4/18/2018</b>	RunNo: <b>42974</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>20425</b>		Analysis Date: <b>4/18/2018</b>	SeqNo: <b>830640</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane (EDB)	ND	0.0100									

Sample ID <b>LCS-20425</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>	Prep Date: <b>4/18/2018</b>	RunNo: <b>42974</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>20425</b>		Analysis Date: <b>4/18/2018</b>	SeqNo: <b>830641</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane (EDB)	1.05	0.0100	1.000	0	105	60	140				

Sample ID <b>LCSD-20425</b>	SampType: <b>LCSD</b>	Units: <b>µg/L</b>	Prep Date: <b>4/18/2018</b>	RunNo: <b>42974</b>							
Client ID: <b>LCSW02</b>	Batch ID: <b>20425</b>		Analysis Date: <b>4/18/2018</b>	SeqNo: <b>830642</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane (EDB)	0.975	0.0100	1.000	0	97.5	60	140	1.051	7.52	20	

**Work Order:** 1804239  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID <b>MB-20400</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>				Prep Date: <b>4/16/2018</b>	RunNo: <b>42982</b>				
Client ID: <b>MBLKW</b>	Batch ID: <b>20400</b>					Analysis Date: <b>4/18/2018</b>	SeqNo: <b>830776</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	49.9									
Heavy Oil	ND	99.9									
Surr: 2-Fluorobiphenyl	58.5		79.91		73.2	50	150				
Surr: o-Terphenyl	63.4		79.91		79.4	50	150				

Sample ID <b>LCS-20400</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>				Prep Date: <b>4/16/2018</b>	RunNo: <b>42982</b>				
Client ID: <b>LCSW</b>	Batch ID: <b>20400</b>					Analysis Date: <b>4/18/2018</b>	SeqNo: <b>830777</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	715	49.9	998.6	0	71.6	65	135				
Surr: 2-Fluorobiphenyl	70.0		79.89		87.6	50	150				
Surr: o-Terphenyl	67.2		79.89		84.2	50	150				

Sample ID <b>1804239-003BDUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>				Prep Date: <b>4/16/2018</b>	RunNo: <b>42982</b>				
Client ID: <b>S-MW-5:W-041318</b>	Batch ID: <b>20400</b>					Analysis Date: <b>4/18/2018</b>	SeqNo: <b>830779</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	49.9						0		30	
Heavy Oil	ND	99.8						0		30	
Surr: 2-Fluorobiphenyl	67.0		79.86		83.9	50	150		0		
Surr: o-Terphenyl	65.4		79.86		81.9	50	150		0		

Sample ID <b>1804239-004BMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>				Prep Date: <b>4/16/2018</b>	RunNo: <b>42982</b>				
Client ID: <b>S-MW-4:W-041318</b>	Batch ID: <b>20400</b>					Analysis Date: <b>4/18/2018</b>	SeqNo: <b>830781</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	734	50.0	999.7	0	73.5	65	135				
Surr: 2-Fluorobiphenyl	73.1		79.98		91.4	50	150				
Surr: o-Terphenyl	63.8		79.98		79.8	50	150				

**Work Order:** 1804239  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID <b>1804239-004BMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>	Prep Date: <b>4/16/2018</b>	RunNo: <b>42982</b>							
Client ID: <b>S-MW-4:W-041318</b>	Batch ID: <b>20400</b>		Analysis Date: <b>4/18/2018</b>	SeqNo: <b>830781</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID <b>1804239-004BMSD</b>	SampType: <b>MSD</b>	Units: <b>µg/L</b>	Prep Date: <b>4/16/2018</b>	RunNo: <b>42982</b>							
Client ID: <b>S-MW-4:W-041318</b>	Batch ID: <b>20400</b>		Analysis Date: <b>4/18/2018</b>	SeqNo: <b>830782</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	739	49.9	999.0	0	74.0	65	135	734.4	0.666	30	
Surr: 2-Fluorobiphenyl	68.2		79.92		85.4	50	150		0		
Surr: o-Terphenyl	66.0		79.92		82.6	50	150		0		

Sample ID <b>1804233-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>4/16/2018</b>	RunNo: <b>42982</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20400</b>		Analysis Date: <b>4/18/2018</b>	SeqNo: <b>830793</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	52.7						0		30	
Diesel Range Organics (C12-C24)	88.0	52.7						96.30	8.95	30	
Heavy Oil	223	105						205.7	7.97	30	
Surr: 2-Fluorobiphenyl	70.5		84.27		83.7	50	150		0		
Surr: o-Terphenyl	65.9		84.27		78.2	50	150		0		

**NOTES:**

DRO - Indicates the presence of unresolved compounds eluting from dodecane through tetracosane (~C12-C24).

**Work Order:** 1804239  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID <b>LCS-20418</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>			Prep Date: <b>4/17/2018</b>	RunNo: <b>42950</b>					
Client ID: <b>LCSW</b>	Batch ID: <b>20418</b>				Analysis Date: <b>4/18/2018</b>	SeqNo: <b>830043</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	471	50.0	500.0	0	94.1	65	135				
Surr: Toluene-d8	25.1		25.00		100	65	135				
Surr: 4-Bromofluorobenzene	25.3		25.00		101	65	135				

Sample ID <b>LCS D-20418</b>	SampType: <b>LCS D</b>	Units: <b>µg/L</b>			Prep Date: <b>4/17/2018</b>	RunNo: <b>42950</b>					
Client ID: <b>LCSW02</b>	Batch ID: <b>20418</b>				Analysis Date: <b>4/18/2018</b>	SeqNo: <b>830042</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	429	50.0	500.0	0	85.9	65	135	470.7	9.16	20	
Surr: Toluene-d8	25.3		25.00		101	65	135		0		
Surr: 4-Bromofluorobenzene	25.3		25.00		101	65	135		0		

Sample ID <b>MB-20418</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>			Prep Date: <b>4/17/2018</b>	RunNo: <b>42950</b>					
Client ID: <b>MBLKW</b>	Batch ID: <b>20418</b>				Analysis Date: <b>4/18/2018</b>	SeqNo: <b>830044</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	50.0									
Surr: Toluene-d8	24.8		25.00		99.4	65	135				
Surr: 4-Bromofluorobenzene	24.4		25.00		97.5	65	135				

Sample ID <b>1804241-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>			Prep Date: <b>4/17/2018</b>	RunNo: <b>42950</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>20418</b>				Analysis Date: <b>4/18/2018</b>	SeqNo: <b>830036</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	50.0						0		30	
Surr: Toluene-d8	25.3		25.00		101	65	135		0		
Surr: 4-Bromofluorobenzene	24.2		25.00		96.7	65	135		0		



**Work Order:** 1804239  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID <b>1804240-002ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>4/17/2018</b>	RunNo: <b>42950</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20418</b>		Analysis Date: <b>4/18/2018</b>	SeqNo: <b>830609</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	50.0						0		30	
Surr: Toluene-d8	25.0		25.00		99.9	65	135		0		
Surr: 4-Bromofluorobenzene	24.9		25.00		99.6	65	135		0		

**Work Order:** 1804239  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Total Metals by EPA Method 200.8**

Sample ID <b>MB-20412</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>4/17/2018</b>	RunNo: <b>42924</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>20412</b>		Analysis Date: <b>4/17/2018</b>	SeqNo: <b>829704</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead ND 0.500

Sample ID <b>LCS-20412</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>	Prep Date: <b>4/17/2018</b>	RunNo: <b>42924</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>20412</b>		Analysis Date: <b>4/17/2018</b>	SeqNo: <b>829705</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 52.2 0.500 50.00 0 104 85 115

Sample ID <b>1804229-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>4/17/2018</b>	RunNo: <b>42924</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20412</b>		Analysis Date: <b>4/17/2018</b>	SeqNo: <b>829707</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 2.34 0.500 2.224 5.02 30

Sample ID <b>1804229-001AMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>	Prep Date: <b>4/17/2018</b>	RunNo: <b>42924</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20412</b>		Analysis Date: <b>4/17/2018</b>	SeqNo: <b>829708</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 266 0.500 250.0 2.224 105 70 130

Sample ID <b>1804229-001AMSD</b>	SampType: <b>MSD</b>	Units: <b>µg/L</b>	Prep Date: <b>4/17/2018</b>	RunNo: <b>42924</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20412</b>		Analysis Date: <b>4/17/2018</b>	SeqNo: <b>829711</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 279 0.500 250.0 2.224 111 70 130 265.5 4.96 30

**Work Order:** 1804239  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	LCS-20418	SampType:	LCS	Units:	µg/L	Prep Date:	4/17/2018	RunNo:	42949		
Client ID:	LCSW	Batch ID:	20418	Analysis Date:	4/18/2018	SeqNo:	830028				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	19.6	0.200	20.00	0	98.0	48	145				
1,1-Dichloroethene	19.9	1.00	20.00	0	99.4	57.5	150				
trans-1,2-Dichloroethene	20.2	1.00	20.00	0	101	71.7	129				
Methyl tert-butyl ether (MTBE)	20.0	1.00	20.00	0	100	58	138				
cis-1,2-Dichloroethene	20.1	1.00	20.00	0	100	70.2	139				
1,2-Dichloroethane (EDC)	20.2	1.00	20.00	0	101	67	126				
Benzene	20.3	1.00	20.00	0	102	69.3	132				
Trichloroethene (TCE)	18.9	0.500	20.00	0	94.5	65.2	136				
Toluene	20.2	1.00	20.00	0	101	61.3	145				
Tetrachloroethene (PCE)	19.6	1.00	20.00	0	98.2	47.5	147				
Ethylbenzene	20.7	1.00	20.00	0	103	72	130				
m,p-Xylene	40.4	1.00	40.00	0	101	70.3	134				
o-Xylene	19.7	1.00	20.00	0	98.6	72.1	131				
Surr: Dibromofluoromethane	26.2		25.00		105	45.4	152				
Surr: Toluene-d8	25.5		25.00		102	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	25.5		25.00		102	64.2	128				

Sample ID	MB-20418	SampType:	MBLK	Units:	µg/L	Prep Date:	4/17/2018	RunNo:	42949		
Client ID:	MBLKW	Batch ID:	20418	Analysis Date:	4/18/2018	SeqNo:	830029				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.200									
1,1-Dichloroethene	ND	1.00									
trans-1,2-Dichloroethene	ND	1.00									
Methyl tert-butyl ether (MTBE)	ND	1.00									
cis-1,2-Dichloroethene	ND	1.00									
1,2-Dichloroethane (EDC)	ND	1.00									
Benzene	ND	1.00									
Trichloroethene (TCE)	ND	0.500									
Toluene	ND	1.00									



**Work Order:** 1804239  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>MB-20418</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>4/17/2018</b>	RunNo: <b>42949</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>20418</b>		Analysis Date: <b>4/18/2018</b>	SeqNo: <b>830029</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Tetrachloroethene (PCE)	ND	1.00									
Ethylbenzene	ND	1.00									
m,p-Xylene	ND	1.00									
o-Xylene	ND	1.00									
Surr: Dibromofluoromethane	26.1		25.00		104	45.4	152				
Surr: Toluene-d8	24.6		25.00		98.4	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	24.1		25.00		96.2	64.2	128				

Sample ID <b>1804241-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>4/17/2018</b>	RunNo: <b>42949</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20418</b>		Analysis Date: <b>4/18/2018</b>	SeqNo: <b>830022</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Vinyl chloride	ND	0.200						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
Toluene	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Ethylbenzene	ND	1.00						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	1.00						0		30	
Surr: Dibromofluoromethane	26.8		25.00		107	45.4	152		0		
Surr: Toluene-d8	24.9		25.00		99.6	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	23.9		25.00		95.5	64.2	128		0		

**Work Order:** 1804239  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1804239-004AMS	SampType:	MS	Units:	µg/L	Prep Date:	4/17/2018	RunNo:	42949		
Client ID:	S-MW-4:W-041318	Batch ID:	20418	Analysis Date:	4/18/2018	SeqNo:	830014				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	21.7	0.200	20.00	0	108	41	165				
1,1-Dichloroethene	23.9	1.00	20.00	0	120	51.6	164				
trans-1,2-Dichloroethene	23.1	1.00	20.00	0	115	63.5	138				
Methyl tert-butyl ether (MTBE)	20.7	1.00	20.00	0	103	60.9	132				
cis-1,2-Dichloroethene	22.3	1.00	20.00	0	111	60	154				
1,2-Dichloroethane (EDC)	21.8	1.00	20.00	0	109	63.4	137				
Benzene	23.1	1.00	20.00	0	116	65.4	138				
Trichloroethene (TCE)	21.5	0.500	20.00	0	107	60.4	134				
Toluene	22.7	1.00	20.00	0	114	52	147				
Tetrachloroethene (PCE)	28.1	1.00	20.00	8.247	99.1	50.3	133				
Ethylbenzene	23.8	1.00	20.00	0	119	64.5	136				
m,p-Xylene	45.2	1.00	40.00	0	113	63.3	135				
o-Xylene	21.7	1.00	20.00	0	108	64.8	150				
Surr: Dibromofluoromethane	27.1		25.00		108	45.4	152				
Surr: Toluene-d8	26.0		25.00		104	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	25.9		25.00		103	64.2	128				

Sample ID	1804239-004AMSD	SampType:	MSD	Units:	µg/L	Prep Date:	4/17/2018	RunNo:	42949		
Client ID:	S-MW-4:W-041318	Batch ID:	20418	Analysis Date:	4/18/2018	SeqNo:	830015				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	21.6	0.200	20.00	0	108	41	165	21.68	0.602	30	
1,1-Dichloroethene	23.0	1.00	20.00	0	115	51.6	164	23.91	3.94	30	
trans-1,2-Dichloroethene	22.2	1.00	20.00	0	111	63.5	138	23.09	4.13	30	
Methyl tert-butyl ether (MTBE)	20.2	1.00	20.00	0	101	60.9	132	20.66	2.43	30	
cis-1,2-Dichloroethene	21.3	1.00	20.00	0	107	60	154	22.28	4.42	30	
1,2-Dichloroethane (EDC)	20.7	1.00	20.00	0	104	63.4	137	21.82	5.13	30	
Benzene	21.9	1.00	20.00	0	109	65.4	138	23.11	5.59	30	
Trichloroethene (TCE)	20.8	0.500	20.00	0	104	60.4	134	21.46	3.20	30	
Toluene	21.3	1.00	20.00	0	107	52	147	22.71	6.24	30	

**Work Order:** 1804239  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>1804239-004AMSD</b>	SampType: <b>MSD</b>	Units: <b>µg/L</b>				Prep Date: <b>4/17/2018</b>	RunNo: <b>42949</b>				
Client ID: <b>S-MW-4:W-041318</b>	Batch ID: <b>20418</b>					Analysis Date: <b>4/18/2018</b>	SeqNo: <b>830015</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachloroethene (PCE)	26.4	1.00	20.00	8.247	91.0	50.3	133	28.06	5.94	30	
Ethylbenzene	22.3	1.00	20.00	0	112	64.5	136	23.78	6.21	30	
m,p-Xylene	42.8	1.00	40.00	0	107	63.3	135	45.16	5.35	30	
o-Xylene	20.6	1.00	20.00	0	103	64.8	150	21.65	5.16	30	
Surr: Dibromofluoromethane	27.0		25.00		108	45.4	152		0		
Surr: Toluene-d8	25.6		25.00		102	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	25.6		25.00		102	64.2	128		0		

Sample ID <b>1804240-002ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>				Prep Date: <b>4/17/2018</b>	RunNo: <b>42949</b>				
Client ID: <b>BATCH</b>	Batch ID: <b>20418</b>					Analysis Date: <b>4/18/2018</b>	SeqNo: <b>830594</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.200						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
Toluene	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Ethylbenzene	ND	1.00						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	1.00						0		30	
Surr: Dibromofluoromethane	26.2		25.00		105	45.4	152		0		
Surr: Toluene-d8	24.8		25.00		99.1	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	24.6		25.00		98.3	64.2	128		0		

Client Name: <b>KANE</b>	Work Order Number: <b>1804239</b>
Logged by: <b>Clare Griggs</b>	Date Received: <b>4/13/2018 5:41:00 PM</b>

### Chain of Custody

1. Is Chain of Custody complete?      Yes       No       Not Present
2. How was the sample delivered?      Client

### Log In

3. Coolers are present?      Yes       No       NA
4. Shipping container/cooler in good condition?      Yes       No
5. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact)      Yes       No       Not Required
6. Was an attempt made to cool the samples?      Yes       No       NA
7. Were all items received at a temperature of >0°C to 10.0°C\*      Yes       No       NA
8. Sample(s) in proper container(s)?      Yes       No
9. Sufficient sample volume for indicated test(s)?      Yes       No
10. Are samples properly preserved?      Yes       No
11. Was preservative added to bottles?      Yes       No       NA
12. Is there headspace in the VOA vials?      Yes       No       NA
13. Did all samples containers arrive in good condition(unbroken)?      Yes       No
14. Does paperwork match bottle labels?      Yes       No
15. Are matrices correctly identified on Chain of Custody?      Yes       No
16. Is it clear what analyses were requested?      Yes       No
17. Were all holding times able to be met?      Yes       No

### Special Handling (if applicable)

18. Was client notified of all discrepancies with this order?      Yes       No       NA

Person Notified:	<input type="text" value="Nate Evenson"/>	Date	<input type="text" value="4/16/2018"/>
By Whom:	<input type="text" value="Clare Griggs"/>	Via:	<input checked="" type="checkbox"/> eMail <input checked="" type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text" value="Confirming method for EDB."/>		
Client Instructions:	<input type="text" value="EDB by 8011"/>		

19. Additional remarks:

### Item Information

Item #	Temp °C
Cooler	5.8
Sample	4.6

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

# Chain of Custody Record & Laboratory Services Agreement

Date: 4/13/18 Page: 1 of 1

Project Name: City of Bothell - Wexler

Project No: 82305

Collected by: Nate Everson, Kave Env.

Location: 18125 Bothell Way NE, Bothell

Report To (PM): Nate Everson

PM Email: neverson@kave-environmental.com

Laboratory Project No (Internal): 1804239

Special Remarks:  
PCE, breakdowns, other HVOCS may be present in all samples. Please account for these when reporting GX.

Sample Disposal:  Return to client  Disposal by lab (after 30 days)

Client: Kave Environmental  
Address: 3815 Woodland Park Ave N, SE 102  
City, State, Zip: Seattle, WA 98103  
Telephone: (206) 691-0476  
Fax: (206) 675-0650

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GV/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCS (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T)   Dissolved (D)	Anions (IC)***	EDB (8011)	EDP, EDI, MTBE (8260)	PCE & Breakdowns (8260)	Comments	Turn-around Time:
1 S-MW-2:W-041318	4/13/18	1050	GW	X	X	X	X	X	X	X	X	X	T	X	X	X	X	X	3 x HCl vials, 1 vial PCE, 1 vial MTBE, 1 vial BTEX, 1 vial DIBP, 1 vial HCl 1-L amber	Standard Results by COB 4/19/18
2 S-MW-3:W-041318		1146		X	X	X	X	X	X	X	X	X	T	X	X	X	X	X	1 x HCl vial, 1 vial PCE, 1 vial MTBE, 1 vial BTEX, 1 vial DIBP, 1 vial HCl 1-L amber	
3 S-MW-5:W-041318		1230		X	X	X	X	X	X	X	X	X	T	X	X	X	X	X	7 x HCl vials, 2 x HCl 1-L amber	
4 S-MW-4:W-041318		1340		X	X	X	X	X	X	X	X	X	T	X	X	X	X	X	1 x H <sub>2</sub> O <sub>2</sub> vial, 1 x HCl 1-L amber	
5 H2-MW-16:W-041318		1415		X	X	X	X	X	X	X	X	X	T	X	X	X	X	X	3 x HCl vials, 1 x HCl 1-L amber	
6 S-MW-1:W-041318		1509		X	X	X	X	X	X	X	X	X	T	X	X	X	X	X	1 x H <sub>2</sub> O <sub>2</sub> vial	
7																				
8																				
9																				
10																				

\*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SI = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

\*\*Metals (Circle): MICA-5 RICA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni **Pb** Sb Se Sr Sn Tl U V Zn

\*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide Iodide Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished: [Signature] Date/Time: 4/13/18 1741  
Received: [Signature] Date/Time: 4/13/18 1741  
Relinquished: [Signature] Date/Time: 4/13/18 1741





3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7118

### Chain of Custody Record & Laboratory Services Agreement

Date: 4/13/18 Page: 1 of 1

Project Name: City of Bothell - Wexler

Project No: 82305

Collected by: Nate Everson, Kane Env.

Location: 18125 Bothell Way NE, Bothell

Report To (PM): Nate Everson

PM Email: neverson@kane-environmental.com

Laboratory Project No (Internal): 1804139

Special Remarks:  
PCE, breakdowns, other HUCs may be present in all samples, please account for these when reporting GX.

Sample Disposal:  Return to client  Disposal by lab (after 30 days)

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 824)	GYBTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HClD)	Diesel/Heavy Oil Range Organics (Dk)	SVOCs (EPA 8270 / 825)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8092 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) Dissolved (D)	Anions (IC)**	EDB (801)	PEB, EDB, MTBE (8260)	PCE & Breakdowns (8260)	Comments
1 S-MW-2:W-041318	4/13/18	1050	GW	X	X	X	X	X	X	X	X	X	T	X	X	X	X	X	3x HCl VOA, 1x HCl UVA, 1x HCl I-L ambar
2 S-MW-3:W-041318		1146		X	X	X	X	X	X	X	X	X	T	X	X	X	X	X	3x HCl VOA, 1x HCl UVA, 1x HCl I-L ambar
3 S-MW-5:W-041318		1230		X	X	X	X	X	X	X	X	X	T	X	X	X	X	X	1x HCl VOA, 2x HCl I-L ambar
4 S-MW-4:W-041318		1340		X	X	X	X	X	X	X	X	X	T	X	X	X	X	X	1x HCl VOA, 1x HCl I-L ambar
5 H2-MW-16:W-041318		1415		X	X	X	X	X	X	X	X	X	T	X	X	X	X	X	3x HCl VOA, 1x HCl I-L ambar
6 S-MW-1:W-041318		1509		X	X	X	X	X	X	X	X	X	T	X	X	X	X	X	3x HCl VOA, 1x HCl I-L ambar
7																			
8																			
9																			
10																			

*add for NE 4/14/18*

\*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

\*\*Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Tl U V Zn

\*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate-Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished *[Signature]* Date/Time 4/13/18 1741

Received *[Signature]* Date/Time 4/13/18 1741

Relinquished *[Signature]* Date/Time

Received *[Signature]* Date/Time

Turn-around Time:

Standard Results

3 Day by COB

2 Day

Next Day 4/14/18

Same Day (Specify)



3600 Fremont Ave. N.  
Seattle, WA 98103  
T: (206) 352-3790  
F: (206) 352-7178  
info@fremontanalytical.com

**Kane Environmental, Inc.**  
Nate Evenson  
3815 Woodland Park Ave N, Ste. 102  
Seattle, WA 98103

**RE: City of Bothell - Wexler**  
**Work Order Number: 1804361**

May 04, 2018

**Attention Nate Evenson:**

Fremont Analytical, Inc. received 9 sample(s) on 4/23/2018 for the analyses presented in the following report.

- Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.***
- Gasoline by NWTPH-Gx***
- Sample Moisture (Percent Moisture)***
- Total Metals by EPA Method 6020***
- Volatile Organic Compounds by EPA Method 8260C***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Chelsea Ward  
Project Manager

DoD/ELAP Certification #L17-135, ISO/IEC 17025:2005  
ORELAP Certification: WA 100009-007 (NELAP Recognized)



Date: 05/04/2018

**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler  
**Work Order:** 1804361

## Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1804361-001	S-KSB-1: 2ft	04/23/2018 11:38 AM	04/23/2018 4:42 PM
1804361-002	S-KSB-2: 4ft	04/23/2018 11:45 AM	04/23/2018 4:42 PM
1804361-003	S-KSB-9: 3ft	04/23/2018 12:31 PM	04/23/2018 4:42 PM
1804361-004	S-KSB-3: 3ft	04/23/2018 12:58 PM	04/23/2018 4:42 PM
1804361-005	S-KSB-4: 5ft	04/23/2018 1:15 PM	04/23/2018 4:42 PM
1804361-006	S-KSB-5: 2.5ft	04/23/2018 1:26 PM	04/23/2018 4:42 PM
1804361-007	S-KSB-6: 2.5ft	04/23/2018 1:40 PM	04/23/2018 4:42 PM
1804361-008	S-KSB-7: 2.5ft	04/23/2018 1:52 PM	04/23/2018 4:42 PM
1804361-009	S-KSB-8: 3ft	04/23/2018 2:01 PM	04/23/2018 4:42 PM



**CLIENT:** Kane Environmental, Inc.

**Project:** City of Bothell - Wexler

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**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



**Client:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler  
**Lab ID:** 1804361-001  
**Client Sample ID:** S-KSB-1: 2ft

**Collection Date:** 4/23/2018 11:38:00 AM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 20500 Analyst: SB

Diesel (Fuel Oil)	ND	18.4		mg/Kg-dry	1	4/26/2018 6:38:38 AM
Heavy Oil	ND	46.0		mg/Kg-dry	1	4/26/2018 6:38:38 AM
Surr: 2-Fluorobiphenyl	90.3	50 - 150		%Rec	1	4/26/2018 6:38:38 AM
Surr: o-Terphenyl	102	50 - 150		%Rec	1	4/26/2018 6:38:38 AM

**Gasoline by NWTPH-Gx**

Batch ID: 20528 Analyst: MW

Gasoline	ND	5.74		mg/Kg-dry	1	4/27/2018 3:02:26 PM
Surr: Toluene-d8	84.3	65 - 135		%Rec	1	4/27/2018 3:02:26 PM
Surr: 4-Bromofluorobenzene	97.4	65 - 135		%Rec	1	4/27/2018 3:02:26 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 20528 Analyst: MW

Vinyl chloride	ND	0.0288		mg/Kg-dry	1	4/27/2018 3:02:26 PM
1,1-Dichloroethene	ND	0.0230		mg/Kg-dry	1	4/27/2018 3:02:26 PM
trans-1,2-Dichloroethene	ND	0.0230		mg/Kg-dry	1	4/27/2018 3:02:26 PM
Methyl tert-butyl ether (MTBE)	ND	0.0576		mg/Kg-dry	1	4/27/2018 3:02:26 PM
cis-1,2-Dichloroethene	ND	0.0230		mg/Kg-dry	1	4/27/2018 3:02:26 PM
1,2-Dichloroethane (EDC)	ND	0.0230		mg/Kg-dry	1	4/27/2018 3:02:26 PM
Benzene	ND	0.0230		mg/Kg-dry	1	4/27/2018 3:02:26 PM
Trichloroethene (TCE)	0.0292	0.0230		mg/Kg-dry	1	4/27/2018 3:02:26 PM
Toluene	ND	0.0230		mg/Kg-dry	1	4/27/2018 3:02:26 PM
Tetrachloroethene (PCE)	0.145	0.0288		mg/Kg-dry	1	4/27/2018 3:02:26 PM
1,2-Dibromoethane (EDB)	ND	0.00576		mg/Kg-dry	1	4/27/2018 3:02:26 PM
Ethylbenzene	ND	0.0288		mg/Kg-dry	1	4/27/2018 3:02:26 PM
m,p-Xylene	ND	0.0576		mg/Kg-dry	1	4/27/2018 3:02:26 PM
o-Xylene	ND	0.0288		mg/Kg-dry	1	4/27/2018 3:02:26 PM
Naphthalene	ND	0.0576		mg/Kg-dry	1	4/27/2018 3:02:26 PM
Surr: Dibromofluoromethane	92.3	56.5 - 129		%Rec	1	4/27/2018 3:02:26 PM
Surr: Toluene-d8	94.4	64.5 - 151		%Rec	1	4/27/2018 3:02:26 PM
Surr: 1-Bromo-4-fluorobenzene	98.5	43.2 - 143		%Rec	1	4/27/2018 3:02:26 PM

**Total Metals by EPA Method 6020**

Batch ID: 20484 Analyst: WC

Lead	1.82	0.169		mg/Kg-dry	1	4/24/2018 4:54:30 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R43062 Analyst: NG

Percent Moisture	5.97	0.500		wt%	1	4/24/2018 9:27:24 AM
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**Client:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler  
**Lab ID:** 1804361-003  
**Client Sample ID:** S-KSB-9: 3ft

**Collection Date:** 4/23/2018 12:31:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 20500 Analyst: SB

Diesel (Fuel Oil)	ND	19.8		mg/Kg-dry	1	4/26/2018 7:37:57 AM
Heavy Oil	ND	49.6		mg/Kg-dry	1	4/26/2018 7:37:57 AM
Surr: 2-Fluorobiphenyl	89.6	50 - 150		%Rec	1	4/26/2018 7:37:57 AM
Surr: o-Terphenyl	101	50 - 150		%Rec	1	4/26/2018 7:37:57 AM

**Gasoline by NWTPH-Gx**

Batch ID: 20528 Analyst: MW

Gasoline	ND	3.82		mg/Kg-dry	1	4/27/2018 3:32:37 PM
Surr: Toluene-d8	105	65 - 135		%Rec	1	4/27/2018 3:32:37 PM
Surr: 4-Bromofluorobenzene	96.2	65 - 135		%Rec	1	4/27/2018 3:32:37 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 20528 Analyst: MW

Vinyl chloride	ND	0.0191		mg/Kg-dry	1	4/27/2018 3:32:37 PM
1,1-Dichloroethene	ND	0.0153		mg/Kg-dry	1	4/27/2018 3:32:37 PM
trans-1,2-Dichloroethene	ND	0.0153		mg/Kg-dry	1	4/27/2018 3:32:37 PM
Methyl tert-butyl ether (MTBE)	ND	0.0382		mg/Kg-dry	1	4/27/2018 3:32:37 PM
cis-1,2-Dichloroethene	ND	0.0153		mg/Kg-dry	1	4/27/2018 3:32:37 PM
1,2-Dichloroethane (EDC)	ND	0.0153		mg/Kg-dry	1	4/27/2018 3:32:37 PM
Benzene	ND	0.0153		mg/Kg-dry	1	4/27/2018 3:32:37 PM
Trichloroethene (TCE)	0.0153	0.0153		mg/Kg-dry	1	4/27/2018 3:32:37 PM
Toluene	ND	0.0153		mg/Kg-dry	1	4/27/2018 3:32:37 PM
Tetrachloroethene (PCE)	0.0450	0.0191		mg/Kg-dry	1	4/27/2018 3:32:37 PM
1,2-Dibromoethane (EDB)	ND	0.00382		mg/Kg-dry	1	4/27/2018 3:32:37 PM
Ethylbenzene	ND	0.0191		mg/Kg-dry	1	4/27/2018 3:32:37 PM
m,p-Xylene	ND	0.0382		mg/Kg-dry	1	4/27/2018 3:32:37 PM
o-Xylene	ND	0.0191		mg/Kg-dry	1	4/27/2018 3:32:37 PM
Naphthalene	ND	0.0382		mg/Kg-dry	1	4/27/2018 3:32:37 PM
Surr: Dibromofluoromethane	92.3	56.5 - 129		%Rec	1	4/27/2018 3:32:37 PM
Surr: Toluene-d8	100	64.5 - 151		%Rec	1	4/27/2018 3:32:37 PM
Surr: 1-Bromo-4-fluorobenzene	97.3	43.2 - 143		%Rec	1	4/27/2018 3:32:37 PM

**Total Metals by EPA Method 6020**

Batch ID: 20484 Analyst: WC

Lead	2.17	0.157		mg/Kg-dry	1	4/24/2018 4:58:36 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R43062 Analyst: NG

Percent Moisture	6.40	0.500		wt%	1	4/24/2018 9:27:24 AM
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**Client:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler  
**Lab ID:** 1804361-004  
**Client Sample ID:** S-KSB-3: 3ft

**Collection Date:** 4/23/2018 12:58:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 20500      Analyst: SB

Diesel (Fuel Oil)	ND	18.8		mg/Kg-dry	1	4/26/2018 8:38:03 AM
Heavy Oil	ND	47.0		mg/Kg-dry	1	4/26/2018 8:38:03 AM
Surr: 2-Fluorobiphenyl	86.8	50 - 150		%Rec	1	4/26/2018 8:38:03 AM
Surr: o-Terphenyl	100	50 - 150		%Rec	1	4/26/2018 8:38:03 AM

**Gasoline by NWTPH-Gx**

Batch ID: 20528      Analyst: MW

Gasoline	ND	3.61		mg/Kg-dry	1	4/27/2018 4:33:00 PM
Surr: Toluene-d8	105	65 - 135		%Rec	1	4/27/2018 4:33:00 PM
Surr: 4-Bromofluorobenzene	95.3	65 - 135		%Rec	1	4/27/2018 4:33:00 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 20528      Analyst: MW

Vinyl chloride	ND	0.0180		mg/Kg-dry	1	4/27/2018 4:33:00 PM
1,1-Dichloroethene	ND	0.0144		mg/Kg-dry	1	4/27/2018 4:33:00 PM
trans-1,2-Dichloroethene	ND	0.0144		mg/Kg-dry	1	4/27/2018 4:33:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0361		mg/Kg-dry	1	4/27/2018 4:33:00 PM
cis-1,2-Dichloroethene	ND	0.0144		mg/Kg-dry	1	4/27/2018 4:33:00 PM
1,2-Dichloroethane (EDC)	ND	0.0144		mg/Kg-dry	1	4/27/2018 4:33:00 PM
Benzene	ND	0.0144		mg/Kg-dry	1	4/27/2018 4:33:00 PM
Trichloroethene (TCE)	ND	0.0144		mg/Kg-dry	1	4/27/2018 4:33:00 PM
Toluene	ND	0.0144		mg/Kg-dry	1	4/27/2018 4:33:00 PM
Tetrachloroethene (PCE)	ND	0.0180		mg/Kg-dry	1	4/27/2018 4:33:00 PM
1,2-Dibromoethane (EDB)	ND	0.00361		mg/Kg-dry	1	4/27/2018 4:33:00 PM
Ethylbenzene	ND	0.0180		mg/Kg-dry	1	4/27/2018 4:33:00 PM
m,p-Xylene	ND	0.0361		mg/Kg-dry	1	4/27/2018 4:33:00 PM
o-Xylene	ND	0.0180		mg/Kg-dry	1	4/27/2018 4:33:00 PM
Naphthalene	ND	0.0361		mg/Kg-dry	1	4/27/2018 4:33:00 PM
Surr: Dibromofluoromethane	86.8	56.5 - 129		%Rec	1	4/27/2018 4:33:00 PM
Surr: Toluene-d8	131	64.5 - 151		%Rec	1	4/27/2018 4:33:00 PM
Surr: 1-Bromo-4-fluorobenzene	96.3	43.2 - 143		%Rec	1	4/27/2018 4:33:00 PM

**Total Metals by EPA Method 6020**

Batch ID: 20484      Analyst: WC

Lead	1.97	0.166		mg/Kg-dry	1	4/24/2018 5:02:42 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R43062      Analyst: NG

Percent Moisture	7.56	0.500		wt%	1	4/24/2018 9:27:24 AM
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**Client:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler  
**Lab ID:** 1804361-005  
**Client Sample ID:** S-KSB-4: 5ft

**Collection Date:** 4/23/2018 1:15:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 20500 Analyst: SB

Diesel (Fuel Oil)	ND	23.7		mg/Kg-dry	1	4/26/2018 9:08:11 AM
Heavy Oil	ND	59.2		mg/Kg-dry	1	4/26/2018 9:08:11 AM
Surr: 2-Fluorobiphenyl	91.9	50 - 150		%Rec	1	4/26/2018 9:08:11 AM
Surr: o-Terphenyl	104	50 - 150		%Rec	1	4/26/2018 9:08:11 AM

**Gasoline by NWTPH-Gx**

Batch ID: 20528 Analyst: MW

Gasoline	ND	7.18		mg/Kg-dry	1	4/27/2018 5:03:12 PM
Surr: Toluene-d8	73.6	65 - 135		%Rec	1	4/27/2018 5:03:12 PM
Surr: 4-Bromofluorobenzene	96.6	65 - 135		%Rec	1	4/27/2018 5:03:12 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 20528 Analyst: MW

Vinyl chloride	ND	0.0359		mg/Kg-dry	1	4/27/2018 5:03:12 PM
1,1-Dichloroethene	ND	0.0287		mg/Kg-dry	1	4/27/2018 5:03:12 PM
trans-1,2-Dichloroethene	ND	0.0287		mg/Kg-dry	1	4/27/2018 5:03:12 PM
Methyl tert-butyl ether (MTBE)	ND	0.0718		mg/Kg-dry	1	4/27/2018 5:03:12 PM
cis-1,2-Dichloroethene	ND	0.0287		mg/Kg-dry	1	4/27/2018 5:03:12 PM
1,2-Dichloroethane (EDC)	ND	0.0287		mg/Kg-dry	1	4/27/2018 5:03:12 PM
Benzene	ND	0.0287		mg/Kg-dry	1	4/27/2018 5:03:12 PM
Trichloroethene (TCE)	ND	0.0287		mg/Kg-dry	1	4/27/2018 5:03:12 PM
Toluene	ND	0.0287		mg/Kg-dry	1	4/27/2018 5:03:12 PM
Tetrachloroethene (PCE)	ND	0.0359		mg/Kg-dry	1	4/27/2018 5:03:12 PM
1,2-Dibromoethane (EDB)	ND	0.00718		mg/Kg-dry	1	4/27/2018 5:03:12 PM
Ethylbenzene	ND	0.0359		mg/Kg-dry	1	4/27/2018 5:03:12 PM
m,p-Xylene	ND	0.0718		mg/Kg-dry	1	4/27/2018 5:03:12 PM
o-Xylene	ND	0.0359		mg/Kg-dry	1	4/27/2018 5:03:12 PM
Naphthalene	ND	0.0718		mg/Kg-dry	1	4/27/2018 5:03:12 PM
Surr: Dibromofluoromethane	98.9	56.5 - 129		%Rec	1	4/27/2018 5:03:12 PM
Surr: Toluene-d8	66.9	64.5 - 151		%Rec	1	4/27/2018 5:03:12 PM
Surr: 1-Bromo-4-fluorobenzene	97.7	43.2 - 143		%Rec	1	4/27/2018 5:03:12 PM

**Total Metals by EPA Method 6020**

Batch ID: 20484 Analyst: WC

Lead	2.31	0.193		mg/Kg-dry	1	4/24/2018 5:15:34 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R43062 Analyst: NG

Percent Moisture	19.5	0.500		wt%	1	4/24/2018 9:27:24 AM
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**Client:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler  
**Lab ID:** 1804361-006  
**Client Sample ID:** S-KSB-5: 2.5ft

**Collection Date:** 4/23/2018 1:26:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 20541 Analyst: SB

Diesel (Fuel Oil)	ND	22.9		mg/Kg-dry	1	5/1/2018 12:40:48 AM
Heavy Oil	ND	57.2		mg/Kg-dry	1	5/1/2018 12:40:48 AM
Surr: 2-Fluorobiphenyl	76.0	50 - 150		%Rec	1	5/1/2018 12:40:48 AM
Surr: o-Terphenyl	91.2	50 - 150		%Rec	1	5/1/2018 12:40:48 AM

**Gasoline by NWTPH-Gx**

Batch ID: 20566 Analyst: EM

Gasoline	ND	6.21		mg/Kg-dry	1	5/4/2018 2:51:00 AM
Surr: Toluene-d8	91.0	65 - 135		%Rec	1	5/4/2018 2:51:00 AM
Surr: 4-Bromofluorobenzene	107	65 - 135		%Rec	1	5/4/2018 2:51:00 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 20566 Analyst: MW

Vinyl chloride	ND	0.0311		mg/Kg-dry	1	5/2/2018 8:12:15 PM
1,1-Dichloroethene	ND	0.0249		mg/Kg-dry	1	5/2/2018 8:12:15 PM
trans-1,2-Dichloroethene	ND	0.0249		mg/Kg-dry	1	5/2/2018 8:12:15 PM
Methyl tert-butyl ether (MTBE)	ND	0.0621		mg/Kg-dry	1	5/2/2018 8:12:15 PM
cis-1,2-Dichloroethene	ND	0.0249		mg/Kg-dry	1	5/2/2018 8:12:15 PM
1,2-Dichloroethane (EDC)	ND	0.0249		mg/Kg-dry	1	5/2/2018 8:12:15 PM
Benzene	ND	0.0249		mg/Kg-dry	1	5/2/2018 8:12:15 PM
Trichloroethene (TCE)	ND	0.0249		mg/Kg-dry	1	5/2/2018 8:12:15 PM
Toluene	ND	0.0249		mg/Kg-dry	1	5/2/2018 8:12:15 PM
Tetrachloroethene (PCE)	ND	0.0311		mg/Kg-dry	1	5/2/2018 8:12:15 PM
1,2-Dibromoethane (EDB)	ND	0.00621		mg/Kg-dry	1	5/2/2018 8:12:15 PM
Ethylbenzene	ND	0.0311		mg/Kg-dry	1	5/2/2018 8:12:15 PM
m,p-Xylene	ND	0.0621		mg/Kg-dry	1	5/2/2018 8:12:15 PM
o-Xylene	ND	0.0311		mg/Kg-dry	1	5/2/2018 8:12:15 PM
Naphthalene	ND	0.0621		mg/Kg-dry	1	5/2/2018 8:12:15 PM
Surr: Dibromofluoromethane	95.7	56.5 - 129		%Rec	1	5/2/2018 8:12:15 PM
Surr: Toluene-d8	98.0	64.5 - 151		%Rec	1	5/2/2018 8:12:15 PM
Surr: 1-Bromo-4-fluorobenzene	98.6	43.2 - 143		%Rec	1	5/2/2018 8:12:15 PM

**Total Metals by EPA Method 6020**

Batch ID: 20540 Analyst: TN

Lead	3.06	0.195		mg/Kg-dry	1	4/30/2018 4:12:16 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R43161 Analyst: EAS

Percent Moisture	18.7	0.500		wt%	1	4/30/2018 9:22:24 AM
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**Client:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler  
**Lab ID:** 1804361-007  
**Client Sample ID:** S-KSB-6: 2.5ft

**Collection Date:** 4/23/2018 1:40:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 20500 Analyst: SB

Diesel (Fuel Oil)	ND	20.8		mg/Kg-dry	1	4/26/2018 9:38:17 AM
Heavy Oil	ND	52.0		mg/Kg-dry	1	4/26/2018 9:38:17 AM
Surr: 2-Fluorobiphenyl	68.4	50 - 150		%Rec	1	4/26/2018 9:38:17 AM
Surr: o-Terphenyl	76.9	50 - 150		%Rec	1	4/26/2018 9:38:17 AM

**Gasoline by NWTPH-Gx**

Batch ID: 20528 Analyst: MW

Gasoline	ND	6.01		mg/Kg-dry	1	4/27/2018 5:33:23 PM
Surr: Toluene-d8	76.4	65 - 135		%Rec	1	4/27/2018 5:33:23 PM
Surr: 4-Bromofluorobenzene	96.3	65 - 135		%Rec	1	4/27/2018 5:33:23 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 20528 Analyst: MW

Vinyl chloride	ND	0.0301		mg/Kg-dry	1	4/27/2018 5:33:23 PM
1,1-Dichloroethene	ND	0.0240		mg/Kg-dry	1	4/27/2018 5:33:23 PM
trans-1,2-Dichloroethene	ND	0.0240		mg/Kg-dry	1	4/27/2018 5:33:23 PM
Methyl tert-butyl ether (MTBE)	ND	0.0601		mg/Kg-dry	1	4/27/2018 5:33:23 PM
cis-1,2-Dichloroethene	ND	0.0240		mg/Kg-dry	1	4/27/2018 5:33:23 PM
1,2-Dichloroethane (EDC)	ND	0.0240		mg/Kg-dry	1	4/27/2018 5:33:23 PM
Benzene	ND	0.0240		mg/Kg-dry	1	4/27/2018 5:33:23 PM
Trichloroethene (TCE)	ND	0.0240		mg/Kg-dry	1	4/27/2018 5:33:23 PM
Toluene	ND	0.0240		mg/Kg-dry	1	4/27/2018 5:33:23 PM
Tetrachloroethene (PCE)	ND	0.0301		mg/Kg-dry	1	4/27/2018 5:33:23 PM
1,2-Dibromoethane (EDB)	ND	0.00601		mg/Kg-dry	1	4/27/2018 5:33:23 PM
Ethylbenzene	ND	0.0301		mg/Kg-dry	1	4/27/2018 5:33:23 PM
m,p-Xylene	ND	0.0601		mg/Kg-dry	1	4/27/2018 5:33:23 PM
o-Xylene	ND	0.0301		mg/Kg-dry	1	4/27/2018 5:33:23 PM
Naphthalene	ND	0.0601		mg/Kg-dry	1	4/27/2018 5:33:23 PM
Surr: Dibromofluoromethane	115	56.5 - 129		%Rec	1	4/27/2018 5:33:23 PM
Surr: Toluene-d8	85.8	64.5 - 151		%Rec	1	4/27/2018 5:33:23 PM
Surr: 1-Bromo-4-fluorobenzene	97.4	43.2 - 143		%Rec	1	4/27/2018 5:33:23 PM

**Total Metals by EPA Method 6020**

Batch ID: 20484 Analyst: WC

Lead	5.69	0.177		mg/Kg-dry	1	4/24/2018 5:19:39 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R43062 Analyst: NG

Percent Moisture	13.0	0.500		wt%	1	4/24/2018 9:27:24 AM
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**Work Order:** 1804361  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID <b>MB-20541</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>4/30/2018</b>	RunNo: <b>43194</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>20541</b>		Analysis Date: <b>4/30/2018</b>	SeqNo: <b>836030</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	16.2		20.00		81.0	50	150				
Surr: o-Terphenyl	18.3		20.00		91.4	50	150				

Sample ID <b>LCS-20541</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>	Prep Date: <b>4/30/2018</b>	RunNo: <b>43194</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>20541</b>		Analysis Date: <b>4/30/2018</b>	SeqNo: <b>836031</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	521	20.0	500.0	0	104	65	135				
Surr: 2-Fluorobiphenyl	20.4		20.00		102	50	150				
Surr: o-Terphenyl	22.0		20.00		110	50	150				

Sample ID <b>1804430-002ADUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>4/30/2018</b>	RunNo: <b>43194</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20541</b>		Analysis Date: <b>4/30/2018</b>	SeqNo: <b>836033</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	23.8						0		30	
Heavy Oil	ND	59.5						0		30	
Surr: 2-Fluorobiphenyl	13.8		23.79		58.2	50	150		0		
Surr: o-Terphenyl	15.3		23.79		64.5	50	150		0		

Sample ID <b>1804430-002AMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>4/30/2018</b>	RunNo: <b>43194</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20541</b>		Analysis Date: <b>4/30/2018</b>	SeqNo: <b>836034</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	267	20.9	521.7	0	51.2	65	135				S
Surr: 2-Fluorobiphenyl	5.03		20.87		24.1	50	150				S
Surr: o-Terphenyl	4.46		20.87		21.4	50	150				S

**Work Order:** 1804361  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID <b>1804430-002AMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>4/30/2018</b>	RunNo: <b>43194</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20541</b>		Analysis Date: <b>4/30/2018</b>	SeqNo: <b>836034</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**NOTES:**

- S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.
- S - Outlying surrogate recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID <b>1804430-002AMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>4/30/2018</b>	RunNo: <b>43194</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20541</b>		Analysis Date: <b>4/30/2018</b>	SeqNo: <b>836035</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	294	20.9	522.2	0	56.2	65	135	267.0	9.53	30	S
Surr: 2-Fluorobiphenyl	4.98		20.89		23.9	50	150		0		S
Surr: o-Terphenyl	4.24		20.89		20.3	50	150		0		S

**NOTES:**

- S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.
- S - Outlying surrogate recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID <b>1804422-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>4/30/2018</b>	RunNo: <b>43194</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20541</b>		Analysis Date: <b>5/1/2018</b>	SeqNo: <b>836046</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	22.9						0		30	
Heavy Oil	ND	57.3						0		30	
Surr: 2-Fluorobiphenyl	20.4		22.91		89.2	50	150		0		
Surr: o-Terphenyl	22.6		22.91		98.8	50	150		0		

**Work Order:** 1804361  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID <b>MB-20500</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>4/25/2018</b>	RunNo: <b>43141</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>20500</b>		Analysis Date: <b>4/25/2018</b>	SeqNo: <b>833927</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	17.6		20.00		87.8	50	150				
Surr: o-Terphenyl	19.4		20.00		97.0	50	150				

Sample ID <b>LCS-20500</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>	Prep Date: <b>4/25/2018</b>	RunNo: <b>43141</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>20500</b>		Analysis Date: <b>4/25/2018</b>	SeqNo: <b>833928</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	632	20.0	500.0	0	126	65	135				
Surr: 2-Fluorobiphenyl	20.9		20.00		104	50	150				
Surr: o-Terphenyl	23.1		20.00		115	50	150				

Sample ID <b>1804375-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>4/25/2018</b>	RunNo: <b>43141</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20500</b>		Analysis Date: <b>4/25/2018</b>	SeqNo: <b>833930</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	22.3						0		30	
Heavy Oil	ND	55.8						0		30	
Surr: 2-Fluorobiphenyl	19.3		22.32		86.6	50	150		0		
Surr: o-Terphenyl	21.9		22.32		98.3	50	150		0		

Sample ID <b>1804375-001AMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>4/25/2018</b>	RunNo: <b>43141</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20500</b>		Analysis Date: <b>4/25/2018</b>	SeqNo: <b>833931</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	724	23.6	589.3	0	123	65	135				
Surr: 2-Fluorobiphenyl	23.1		23.57		97.9	50	150				
Surr: o-Terphenyl	26.3		23.57		112	50	150				

**Work Order:** 1804361  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID <b>1804375-001AMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>4/25/2018</b>	RunNo: <b>43141</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20500</b>	Analysis Date: <b>4/25/2018</b>	SeqNo: <b>833931</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID <b>1804375-001AMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>4/25/2018</b>	RunNo: <b>43141</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20500</b>	Analysis Date: <b>4/25/2018</b>	SeqNo: <b>833932</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	730	23.4	584.1	0	125	65	135	724.5	0.770	30	
Surr: 2-Fluorobiphenyl	23.1		23.36		99.0	50	150		0		
Surr: o-Terphenyl	25.5		23.36		109	50	150		0		

Sample ID <b>1804361-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>4/25/2018</b>	RunNo: <b>43141</b>							
Client ID: <b>S-KSB-1: 2ft</b>	Batch ID: <b>20500</b>	Analysis Date: <b>4/26/2018</b>	SeqNo: <b>833944</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	20.4						0		30	
Heavy Oil	ND	51.0						0		30	
Surr: 2-Fluorobiphenyl	18.1		20.39		88.9	50	150		0		
Surr: o-Terphenyl	20.5		20.39		101	50	150		0		

**Work Order:** 1804361  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID <b>LCS-20566</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>			Prep Date: <b>5/1/2018</b>	RunNo: <b>43277</b>					
Client ID: <b>LCSS</b>	Batch ID: <b>20566</b>				Analysis Date: <b>5/4/2018</b>	SeqNo: <b>836541</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	20.2	5.00	25.00	0	80.9	65	135				
Surr: Toluene-d8	1.12		1.250		89.3	65	135				
Surr: 4-Bromofluorobenzene	1.32		1.250		106	65	135				

Sample ID <b>MB-20566</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>			Prep Date: <b>5/1/2018</b>	RunNo: <b>43277</b>					
Client ID: <b>MBLKS</b>	Batch ID: <b>20566</b>				Analysis Date: <b>5/4/2018</b>	SeqNo: <b>836542</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	5.00									
Surr: Toluene-d8	1.06		1.250		84.7	65	135				
Surr: 4-Bromofluorobenzene	1.29		1.250		103	65	135				

Sample ID <b>1804411-009BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>			Prep Date: <b>5/1/2018</b>	RunNo: <b>43277</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>20566</b>				Analysis Date: <b>5/4/2018</b>	SeqNo: <b>836536</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	5.14						0		30	
Surr: Toluene-d8	1.13		1.286		88.1	65	135		0		
Surr: 4-Bromofluorobenzene	1.42		1.286		110	65	135		0		

Sample ID <b>1804411-004BMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>			Prep Date: <b>5/1/2018</b>	RunNo: <b>43277</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>20566</b>				Analysis Date: <b>5/4/2018</b>	SeqNo: <b>836532</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	21.4	5.27	26.36	0	81.2	65	135				
Surr: Toluene-d8	1.20		1.318		91.4	65	135				
Surr: 4-Bromofluorobenzene	1.59		1.318		121	65	135				

**Work Order:** 1804361  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID <b>1804411-004BMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>		Prep Date: <b>5/1/2018</b>	RunNo: <b>43277</b>						
Client ID: <b>BATCH</b>	Batch ID: <b>20566</b>			Analysis Date: <b>5/4/2018</b>	SeqNo: <b>836533</b>						
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	21.1	5.27	26.36	0	79.9	65	135	21.40	1.63	30	
Surr: Toluene-d8	1.25		1.318		94.9	65	135		0		
Surr: 4-Bromofluorobenzene	1.59		1.318		120	65	135		0		

**Work Order:** 1804361  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID <b>LCS-20528</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>			Prep Date: <b>4/27/2018</b>	RunNo: <b>43163</b>					
Client ID: <b>LCSS</b>	Batch ID: <b>20528</b>				Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834332</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	21.3	5.00	25.00	0	85.1	65	135				
Surr: Toluene-d8	1.30		1.250		104	65	135				
Surr: 4-Bromofluorobenzene	1.27		1.250		102	65	135				

Sample ID <b>MB-20528</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>			Prep Date: <b>4/27/2018</b>	RunNo: <b>43163</b>					
Client ID: <b>MBLKS</b>	Batch ID: <b>20528</b>				Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834333</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	5.00									
Surr: Toluene-d8	1.30		1.250		104	65	135				
Surr: 4-Bromofluorobenzene	1.22		1.250		97.4	65	135				

Sample ID <b>1804361-003BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>			Prep Date: <b>4/27/2018</b>	RunNo: <b>43163</b>					
Client ID: <b>S-KSB-9: 3ft</b>	Batch ID: <b>20528</b>				Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834316</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	3.82						0		30	
Surr: Toluene-d8	1.04		0.9545		109	65	135		0		
Surr: 4-Bromofluorobenzene	0.921		0.9545		96.5	65	135		0		

Sample ID <b>1804375-003BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>			Prep Date: <b>4/27/2018</b>	RunNo: <b>43163</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>20528</b>				Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834325</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	2.72						0		30	
Surr: Toluene-d8	0.690		0.6792		102	65	135		0		
Surr: 4-Bromofluorobenzene	0.664		0.6792		97.8	65	135		0		

**Work Order:** 1804361  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID <b>1804375-002BMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>4/27/2018</b>	RunNo: <b>43163</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20528</b>		Analysis Date: <b>4/28/2018</b>	SeqNo: <b>834322</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	17.8	3.38	16.90	0	105	65	135				
Surr: Toluene-d8	0.768		0.8451		90.9	65	135				
Surr: 4-Bromofluorobenzene	0.785		0.8451		92.9	65	135				

Sample ID <b>1804375-002BMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>4/27/2018</b>	RunNo: <b>43163</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20528</b>		Analysis Date: <b>4/28/2018</b>	SeqNo: <b>834323</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	18.1	3.38	16.90	0	107	65	135	17.81	1.83	30	
Surr: Toluene-d8	0.774		0.8451		91.5	65	135		0		
Surr: 4-Bromofluorobenzene	0.782		0.8451		92.6	65	135		0		





**Work Order:** 1804361  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Sample Moisture (Percent Moisture)**

Sample ID <b>1804179-057ADUP</b>	SampType: <b>DUP</b>	Units: <b>wt%</b>			Prep Date: <b>4/30/2018</b>	RunNo: <b>43161</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>R43161</b>				Analysis Date: <b>4/30/2018</b>	SeqNo: <b>834240</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	15.2	0.500						15.86	4.43	20	

Sample ID <b>1804411-009ADUP</b>	SampType: <b>DUP</b>	Units: <b>wt%</b>			Prep Date: <b>4/30/2018</b>	RunNo: <b>43161</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>R43161</b>				Analysis Date: <b>4/30/2018</b>	SeqNo: <b>834260</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	10.0	0.500						11.51	13.8	20	



**Work Order:** 1804361  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Sample Moisture (Percent Moisture)**

Sample ID <b>1804361-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>wt%</b>	Prep Date: <b>4/24/2018</b>	RunNo: <b>43062</b>							
Client ID: <b>S-KSB-1: 2ft</b>	Batch ID: <b>R43062</b>	Analysis Date: <b>4/24/2018</b>	SeqNo: <b>832304</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	6.21	0.500						5.973	3.84	20	

Sample ID <b>1804361-005ADUP</b>	SampType: <b>DUP</b>	Units: <b>wt%</b>	Prep Date: <b>4/24/2018</b>	RunNo: <b>43062</b>							
Client ID: <b>S-KSB-4: 5ft</b>	Batch ID: <b>R43062</b>	Analysis Date: <b>4/24/2018</b>	SeqNo: <b>832308</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	19.5	0.500						19.50	0.169	20	

**Work Order:** 1804361  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Total Metals by EPA Method 6020**

Sample ID <b>MB-20540</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>			Prep Date: <b>4/30/2018</b>	RunNo: <b>43181</b>					
Client ID: <b>MBLKS</b>	Batch ID: <b>20540</b>				Analysis Date: <b>4/30/2018</b>	SeqNo: <b>834658</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead ND 0.150

Sample ID <b>LCS-20540</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>			Prep Date: <b>4/30/2018</b>	RunNo: <b>43181</b>					
Client ID: <b>LCSS</b>	Batch ID: <b>20540</b>				Analysis Date: <b>4/30/2018</b>	SeqNo: <b>834659</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 19.5 0.160 20.00 0 97.5 80 120

Sample ID <b>1804361-006ADUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>			Prep Date: <b>4/30/2018</b>	RunNo: <b>43181</b>					
Client ID: <b>S-KSB-5: 2.5ft</b>	Batch ID: <b>20540</b>				Analysis Date: <b>4/30/2018</b>	SeqNo: <b>834661</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 3.27 0.197 3.062 6.45 20

Sample ID <b>1804361-006AMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>			Prep Date: <b>4/30/2018</b>	RunNo: <b>43181</b>					
Client ID: <b>S-KSB-5: 2.5ft</b>	Batch ID: <b>20540</b>				Analysis Date: <b>4/30/2018</b>	SeqNo: <b>834663</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 25.1 0.198 24.81 3.062 88.9 75 125

Sample ID <b>1804361-006AMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>			Prep Date: <b>4/30/2018</b>	RunNo: <b>43181</b>					
Client ID: <b>S-KSB-5: 2.5ft</b>	Batch ID: <b>20540</b>				Analysis Date: <b>4/30/2018</b>	SeqNo: <b>834664</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 24.6 0.195 24.41 3.062 88.3 75 125 25.11 1.98 20



Date: 5/4/2018

**Work Order:** 1804361  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Total Metals by EPA Method 6020**

Sample ID <b>MB-20484</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>4/24/2018</b>	RunNo: <b>43083</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>20484</b>	Analysis Date: <b>4/24/2018</b>	SeqNo: <b>832796</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead ND 0.143

Sample ID <b>LCS-20484</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>	Prep Date: <b>4/24/2018</b>	RunNo: <b>43083</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>20484</b>	Analysis Date: <b>4/24/2018</b>	SeqNo: <b>832799</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 20.4 0.147 18.38 0 111 80 120

Sample ID <b>1804267-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>4/24/2018</b>	RunNo: <b>43083</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20484</b>	Analysis Date: <b>4/24/2018</b>	SeqNo: <b>832801</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 5.53 0.169 11.81 72.4 20 R

**NOTES:**

R - High RPD observed. The method is in control as indicated by the LCS.

Sample ID <b>1804267-001AMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>4/24/2018</b>	RunNo: <b>43083</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20484</b>	Analysis Date: <b>4/24/2018</b>	SeqNo: <b>832803</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 26.8 0.170 21.26 11.81 70.5 75 125 S

**NOTES:**

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range.

Sample ID <b>1804267-001AMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>4/24/2018</b>	RunNo: <b>43083</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20484</b>	Analysis Date: <b>4/24/2018</b>	SeqNo: <b>832804</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 28.0 0.168 20.94 11.81 77.1 75 125 26.80 4.24 20

**Work Order:** 1804361  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>LCS-20566</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>	Prep Date: <b>5/1/2018</b>	RunNo: <b>43244</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>20566</b>		Analysis Date: <b>5/2/2018</b>	SeqNo: <b>836001</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Vinyl chloride	0.811	0.0250	1.000	0	81.1	43.4	151				
1,1-Dichloroethene	0.887	0.0200	1.000	0	88.7	39	144				
trans-1,2-Dichloroethene	0.921	0.0200	1.000	0	92.1	68	130				
Methyl tert-butyl ether (MTBE)	0.927	0.0500	1.000	0	92.7	44.1	152				
cis-1,2-Dichloroethene	0.917	0.0200	1.000	0	91.7	71.3	135				
1,2-Dichloroethane (EDC)	0.918	0.0200	1.000	0	91.8	50.9	162				
Benzene	0.921	0.0200	1.000	0	92.1	64.3	133				
Trichloroethene (TCE)	0.906	0.0200	1.000	0	90.6	65.5	137				
Toluene	0.915	0.0200	1.000	0	91.5	67.3	138				
Tetrachloroethene (PCE)	0.907	0.0250	1.000	0	90.7	52.7	150				
1,2-Dibromoethane (EDB)	0.907	0.00500	1.000	0	90.7	50.5	154				
Ethylbenzene	0.962	0.0250	1.000	0	96.2	74	129				
m,p-Xylene	1.88	0.0500	2.000	0	93.8	70	124				
o-Xylene	0.917	0.0250	1.000	0	91.7	68.1	139				
Naphthalene	0.958	0.0500	1.000	0	95.8	46.5	167				
Surr: Dibromofluoromethane	1.29		1.250		103	56.5	129				
Surr: Toluene-d8	1.22		1.250		97.8	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.25		1.250		100	43.2	143				

Sample ID <b>MB-20566</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>5/1/2018</b>	RunNo: <b>43244</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>20566</b>		Analysis Date: <b>5/2/2018</b>	SeqNo: <b>836002</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Vinyl chloride	ND	0.0250									
1,1-Dichloroethene	ND	0.0200									
trans-1,2-Dichloroethene	ND	0.0200									
Methyl tert-butyl ether (MTBE)	ND	0.0500									
cis-1,2-Dichloroethene	ND	0.0200									
1,2-Dichloroethane (EDC)	ND	0.0200									
Benzene	ND	0.0200									

**Work Order:** 1804361  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>MB-20566</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>5/1/2018</b>	RunNo: <b>43244</b>
Client ID: <b>MBLKS</b>	Batch ID: <b>20566</b>		Analysis Date: <b>5/2/2018</b>	SeqNo: <b>836002</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	ND	0.0200									
Toluene	ND	0.0200									
Tetrachloroethene (PCE)	ND	0.0250									
1,2-Dibromoethane (EDB)	ND	0.00500									
Ethylbenzene	ND	0.0250									
m,p-Xylene	ND	0.0500									
o-Xylene	ND	0.0250									
Naphthalene	ND	0.0500									
Surr: Dibromofluoromethane	1.20		1.250		95.7	56.5	129				
Surr: Toluene-d8	1.22		1.250		97.5	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.22		1.250		97.5	43.2	143				

Sample ID <b>1804398-002BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>5/1/2018</b>	RunNo: <b>43244</b>
Client ID: <b>BATCH</b>	Batch ID: <b>20566</b>		Analysis Date: <b>5/2/2018</b>	SeqNo: <b>835978</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.0292						0		30	
1,1-Dichloroethene	ND	0.0234						0		30	
trans-1,2-Dichloroethene	ND	0.0234						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0584						0		30	
cis-1,2-Dichloroethene	ND	0.0234						0		30	
1,2-Dichloroethane (EDC)	ND	0.0234						0		30	
Benzene	ND	0.0234						0		30	
Trichloroethene (TCE)	ND	0.0234						0		30	
Toluene	ND	0.0234						0		30	
Tetrachloroethene (PCE)	ND	0.0292						0		30	
1,2-Dibromoethane (EDB)	ND	0.00584						0		30	
Ethylbenzene	ND	0.0292						0		30	
m,p-Xylene	ND	0.0584						0		30	
o-Xylene	ND	0.0292						0		30	

**Work Order:** 1804361  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>1804398-002BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>5/1/2018</b>	RunNo: <b>43244</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20566</b>		Analysis Date: <b>5/2/2018</b>	SeqNo: <b>835978</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Naphthalene	ND	0.0584						0		30	
Surr: Dibromofluoromethane	1.40		1.460		96.0	56.5	129		0		
Surr: Toluene-d8	1.44		1.460		98.7	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.45		1.460		99.5	43.2	143		0		

Sample ID <b>1804398-017BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>5/1/2018</b>	RunNo: <b>43244</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20566</b>		Analysis Date: <b>5/3/2018</b>	SeqNo: <b>835987</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Vinyl chloride	ND	0.0395						0		30	
1,1-Dichloroethene	ND	0.0316						0		30	
trans-1,2-Dichloroethene	ND	0.0316						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0791						0		30	
cis-1,2-Dichloroethene	ND	0.0316						0		30	
1,2-Dichloroethane (EDC)	ND	0.0316						0		30	
Benzene	ND	0.0316						0		30	
Trichloroethene (TCE)	ND	0.0316						0		30	
Toluene	ND	0.0316						0		30	
Tetrachloroethene (PCE)	ND	0.0395						0		30	
1,2-Dibromoethane (EDB)	ND	0.00791						0		30	
Ethylbenzene	ND	0.0395						0		30	
m,p-Xylene	ND	0.0791						0		30	
o-Xylene	ND	0.0395						0		30	
Naphthalene	ND	0.0791						0		30	
Surr: Dibromofluoromethane	1.82		1.977		92.0	56.5	129		0		
Surr: Toluene-d8	1.92		1.977		97.0	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.92		1.977		96.9	43.2	143		0		

**Work Order:** 1804361  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>1804398-008BMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>5/1/2018</b>	RunNo: <b>43244</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20566</b>		Analysis Date: <b>5/3/2018</b>	SeqNo: <b>835982</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Vinyl chloride	1.70	0.0426	1.705	0	99.6	43.6	150				
1,1-Dichloroethene	1.55	0.0341	1.705	0	90.6	47.3	147				
trans-1,2-Dichloroethene	1.57	0.0341	1.705	0	91.9	52	136				
Methyl tert-butyl ether (MTBE)	1.56	0.0852	1.705	0	91.7	58.5	167				
cis-1,2-Dichloroethene	1.55	0.0341	1.705	0	90.8	58.6	136				
1,2-Dichloroethane (EDC)	1.57	0.0341	1.705	0	92.2	51.3	139				
Benzene	1.57	0.0341	1.705	0	92.2	63.5	133				
Trichloroethene (TCE)	1.55	0.0341	1.705	0	90.7	61.6	147				
Toluene	1.56	0.0341	1.705	0	91.3	63.4	132				
Tetrachloroethene (PCE)	1.59	0.0426	1.705	0	93.5	35.6	158				
1,2-Dibromoethane (EDB)	1.64	0.00852	1.705	0	96.1	50.4	136				
Ethylbenzene	1.64	0.0426	1.705	0	96.4	54.5	134				
m,p-Xylene	3.18	0.0852	3.410	0	93.2	53.1	132				
o-Xylene	1.52	0.0426	1.705	0	89.2	53.3	139				
Naphthalene	1.65	0.0852	1.705	0	96.9	52.3	124				
Surr: Dibromofluoromethane	2.16		2.131		102	56.5	129				
Surr: Toluene-d8	2.10		2.131		98.7	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	2.07		2.131		97.0	43.2	143				

Sample ID <b>1804398-008BMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>5/1/2018</b>	RunNo: <b>43244</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20566</b>		Analysis Date: <b>5/3/2018</b>	SeqNo: <b>835983</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Vinyl chloride	1.93	0.0426	1.705	0	113	43.6	150	1.698	12.9	30	
1,1-Dichloroethene	1.75	0.0341	1.705	0	103	47.3	147	1.545	12.4	30	
trans-1,2-Dichloroethene	1.75	0.0341	1.705	0	103	52	136	1.567	11.1	30	
Methyl tert-butyl ether (MTBE)	1.63	0.0852	1.705	0	95.9	58.5	167	1.563	4.51	30	
cis-1,2-Dichloroethene	1.69	0.0341	1.705	0	99.3	58.6	136	1.548	8.97	30	
1,2-Dichloroethane (EDC)	1.64	0.0341	1.705	0	96.5	51.3	139	1.572	4.52	30	
Benzene	1.72	0.0341	1.705	0	101	63.5	133	1.572	9.11	30	



**Work Order:** 1804361  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	1.74	0.0341	1.705	0	102	61.6	147	1.547	11.7	30	
Toluene	1.70	0.0341	1.705	0	99.5	63.4	132	1.556	8.58	30	
Tetrachloroethene (PCE)	1.77	0.0426	1.705	0	104	35.6	158	1.593	10.8	30	
1,2-Dibromoethane (EDB)	1.70	0.00852	1.705	0	99.9	50.4	136	1.639	3.90	30	
Ethylbenzene	1.81	0.0426	1.705	0	106	54.5	134	1.644	9.41	30	
m,p-Xylene	3.50	0.0852	3.410	0	103	53.1	132	3.179	9.68	30	
o-Xylene	1.72	0.0426	1.705	0	101	53.3	139	1.521	12.2	30	
Naphthalene	1.71	0.0852	1.705	0	100	52.3	124	1.652	3.58	30	
Surr: Dibromofluoromethane	2.17		2.131		102	56.5	129		0		
Surr: Toluene-d8	2.07		2.131		97.1	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	2.15		2.131		101	43.2	143		0		

**Work Order:** 1804361  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	<b>LCS-20528</b>	SampType:	<b>LCS</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>4/27/2018</b>	RunNo:	<b>43162</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>20528</b>			Analysis Date:	<b>4/27/2018</b>	SeqNo:	<b>834289</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	1.18	0.0250	1.000	0	118	43.4	151				
1,1-Dichloroethene	1.33	0.0200	1.000	0	133	39	144				
trans-1,2-Dichloroethene	1.34	0.0200	1.000	0	134	68	130				S
Methyl tert-butyl ether (MTBE)	1.32	0.0500	1.000	0	132	44.1	152				
cis-1,2-Dichloroethene	1.29	0.0200	1.000	0	129	71.3	135				
1,2-Dichloroethane (EDC)	1.43	0.0200	1.000	0	143	50.9	162				
Benzene	1.33	0.0200	1.000	0	133	64.3	133				
Trichloroethene (TCE)	1.33	0.0200	1.000	0	133	65.5	137				
Toluene	1.37	0.0200	1.000	0	137	67.3	138				
Tetrachloroethene (PCE)	1.22	0.0250	1.000	0	122	52.7	150				
1,2-Dibromoethane (EDB)	1.20	0.00500	1.000	0	120	50.5	154				
Ethylbenzene	1.07	0.0250	1.000	0	107	74	129				
m,p-Xylene	2.07	0.0500	2.000	0	104	70	124				
o-Xylene	1.04	0.0250	1.000	0	104	68.1	139				
Naphthalene	0.951	0.0500	1.000	0	95.1	46.5	167				
Surr: Dibromofluoromethane	1.17		1.250		93.4	56.5	129				
Surr: Toluene-d8	1.63		1.250		130	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.29		1.250		103	43.2	143				

**NOTES:**

S - Outlying spike recovery observed (high bias). Samples are non-detect for this analyte; no further action required.

Sample ID	<b>MB-20528</b>	SampType:	<b>MBLK</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>4/27/2018</b>	RunNo:	<b>43162</b>
Client ID:	<b>MBLKS</b>	Batch ID:	<b>20528</b>			Analysis Date:	<b>4/27/2018</b>	SeqNo:	<b>834290</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.0250									
1,1-Dichloroethene	ND	0.0200									
trans-1,2-Dichloroethene	ND	0.0200									
Methyl tert-butyl ether (MTBE)	ND	0.0500									
cis-1,2-Dichloroethene	ND	0.0200									
1,2-Dichloroethane (EDC)	ND	0.0200									



Date: 5/4/2018

**Work Order:** 1804361  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>MB-20528</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>4/27/2018</b>	RunNo: <b>43162</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>20528</b>		Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834290</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0200									
Trichloroethene (TCE)	ND	0.0200									
Toluene	ND	0.0200									
Tetrachloroethene (PCE)	ND	0.0250									
1,2-Dibromoethane (EDB)	ND	0.00500									
Ethylbenzene	ND	0.0250									
m,p-Xylene	ND	0.0500									
o-Xylene	ND	0.0250									
Naphthalene	ND	0.0500									
Surr: Dibromofluoromethane	1.33		1.250		106	56.5	129				
Surr: Toluene-d8	1.26		1.250		101	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.23		1.250		98.5	43.2	143				

Sample ID <b>1804361-003BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>4/27/2018</b>	RunNo: <b>43162</b>							
Client ID: <b>S-KSB-9: 3ft</b>	Batch ID: <b>20528</b>		Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834273</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.0191						0		30	
1,1-Dichloroethene	ND	0.0153						0		30	
trans-1,2-Dichloroethene	ND	0.0153						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0382						0		30	
cis-1,2-Dichloroethene	ND	0.0153						0		30	
1,2-Dichloroethane (EDC)	ND	0.0153						0		30	
Benzene	ND	0.0153						0		30	
Trichloroethene (TCE)	0.0238	0.0153						0.01534	43.1	30	
Toluene	ND	0.0153						0		30	
Tetrachloroethene (PCE)	0.0549	0.0191						0.04502	19.7	30	
1,2-Dibromoethane (EDB)	ND	0.00382						0		30	
Ethylbenzene	ND	0.0191						0		30	
m,p-Xylene	ND	0.0382						0		30	

**Work Order:** 1804361  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>1804361-003BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>4/27/2018</b>	RunNo: <b>43162</b>							
Client ID: <b>S-KSB-9: 3ft</b>	Batch ID: <b>20528</b>		Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834273</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-Xylene	ND	0.0191						0		30	
Naphthalene	ND	0.0382						0		30	
Surr: Dibromofluoromethane	0.935		0.9545		98.0	56.5	129		0		
Surr: Toluene-d8	1.05		0.9545		110	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	0.932		0.9545		97.6	43.2	143		0		

Sample ID <b>1804361-005BMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>4/27/2018</b>	RunNo: <b>43162</b>							
Client ID: <b>S-KSB-4: 5ft</b>	Batch ID: <b>20528</b>		Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834276</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	1.93	0.0359	1.436	0	134	43.6	150				
1,1-Dichloroethene	3.13	0.0287	1.436	0	218	47.3	147				S
trans-1,2-Dichloroethene	2.22	0.0287	1.436	0	155	52	136				S
Methyl tert-butyl ether (MTBE)	2.47	0.0718	1.436	0	172	58.5	167				S
cis-1,2-Dichloroethene	2.25	0.0287	1.436	0	157	58.6	136				S
1,2-Dichloroethane (EDC)	1.08	0.0287	1.436	0	75.1	51.3	139				
Benzene	0.981	0.0287	1.436	0	68.3	63.5	133				
Trichloroethene (TCE)	1.09	0.0287	1.436	0	76.1	61.6	147				
Toluene	1.07	0.0287	1.436	0	74.6	63.4	132				
Tetrachloroethene (PCE)	1.49	0.0359	1.436	0	104	35.6	158				
1,2-Dibromoethane (EDB)	1.16	0.00718	1.436	0	80.9	50.4	136				
Ethylbenzene	1.38	0.0359	1.436	0	96.2	54.5	134				
m,p-Xylene	2.86	0.0718	2.872	0	99.8	53.1	132				
o-Xylene	1.43	0.0359	1.436	0	99.6	53.3	139				
Naphthalene	1.48	0.0718	1.436	0	103	52.3	124				
Surr: Dibromofluoromethane	1.62		1.795		90.2	56.5	129				
Surr: Toluene-d8	1.32		1.795		73.5	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.76		1.795		98.2	43.2	143				

**NOTES:**

S - Outlying spike recovery(ies) observed.

**Work Order:** 1804361  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>1804361-005BMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>4/27/2018</b>	RunNo: <b>43162</b>							
Client ID: <b>S-KSB-4: 5ft</b>	Batch ID: <b>20528</b>		Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834277</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Vinyl chloride	0.742	0.0359	1.436	0	51.7	43.6	150	1.930	89.0	30	R
1,1-Dichloroethene	1.34	0.0287	1.436	0	93.1	47.3	147	3.135	80.5	30	R
trans-1,2-Dichloroethene	1.22	0.0287	1.436	0	85.2	52	136	2.220	57.9	30	R
Methyl tert-butyl ether (MTBE)	1.17	0.0718	1.436	0	81.4	58.5	167	2.470	71.6	30	R
cis-1,2-Dichloroethene	1.20	0.0287	1.436	0	83.2	58.6	136	2.253	61.4	30	R
1,2-Dichloroethane (EDC)	1.12	0.0287	1.436	0	78.1	51.3	139	1.078	3.98	30	
Benzene	1.08	0.0287	1.436	0	75.2	63.5	133	0.9807	9.65	30	
Trichloroethene (TCE)	1.21	0.0287	1.436	0	84.1	61.6	147	1.092	9.99	30	
Toluene	1.17	0.0287	1.436	0	81.8	63.4	132	1.071	9.25	30	
Tetrachloroethene (PCE)	1.36	0.0359	1.436	0	94.8	35.6	158	1.493	9.25	30	
1,2-Dibromoethane (EDB)	1.06	0.00718	1.436	0	74.2	50.4	136	1.162	8.69	30	
Ethylbenzene	1.40	0.0359	1.436	0	97.7	54.5	134	1.381	1.59	30	
m,p-Xylene	2.87	0.0718	2.872	0	100	53.1	132	2.865	0.327	30	
o-Xylene	1.43	0.0359	1.436	0	99.3	53.3	139	1.431	0.360	30	
Naphthalene	1.49	0.0718	1.436	0	104	52.3	124	1.477	0.903	30	
Surr: Dibromofluoromethane	1.63		1.795		90.7	56.5	129		0		
Surr: Toluene-d8	1.44		1.795		80.1	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.73		1.795		96.5	43.2	143		0		

**NOTES:**

R - High RPD observed.

Sample ID <b>1804375-003BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>4/27/2018</b>	RunNo: <b>43162</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20528</b>		Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834282</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Vinyl chloride	ND	0.0136						0		30	
1,1-Dichloroethene	ND	0.0109						0		30	
trans-1,2-Dichloroethene	ND	0.0109						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0272						0		30	
cis-1,2-Dichloroethene	ND	0.0109						0		30	
1,2-Dichloroethane (EDC)	ND	0.0109						0		30	



Date: 5/4/2018

Work Order: 1804361  
 CLIENT: Kane Environmental, Inc.  
 Project: City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>1804375-003BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>4/27/2018</b>	RunNo: <b>43162</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20528</b>	Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834282</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	ND	0.0109						0		30	
Trichloroethene (TCE)	ND	0.0109						0		30	
Toluene	ND	0.0109						0		30	
Tetrachloroethene (PCE)	ND	0.0136						0		30	
1,2-Dibromoethane (EDB)	ND	0.00272						0		30	
Ethylbenzene	ND	0.0136						0		30	
m,p-Xylene	ND	0.0272						0		30	
o-Xylene	ND	0.0136						0		30	
Naphthalene	ND	0.0272						0		30	
Surr: Dibromofluoromethane	0.600		0.6792		88.4	56.5	129		0		
Surr: Toluene-d8	0.894		0.6792		132	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	0.672		0.6792		98.9	43.2	143		0		

Client Name: **KANE**

 Work Order Number: **1804361**

 Logged by: **Brianna Barnes**

 Date Received: **4/23/2018 4:42:00 PM**

### Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present
2. How was the sample delivered? Client

### Log In

3. Coolers are present? Yes  No  NA
4. Shipping container/cooler in good condition? Yes  No
5. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact) Yes  No  Not Required
6. Was an attempt made to cool the samples? Yes  No  NA
7. Were all items received at a temperature of >0°C to 10.0°C\* Yes  No  NA
- Please refer to item information.
8. Sample(s) in proper container(s)? Yes  No
9. Sufficient sample volume for indicated test(s)? Yes  No
10. Are samples properly preserved? Yes  No
11. Was preservative added to bottles? Yes  No  NA
12. Is there headspace in the VOA vials? Yes  No  NA
13. Did all samples containers arrive in good condition(unbroken)? Yes  No
14. Does paperwork match bottle labels? Yes  No
15. Are matrices correctly identified on Chain of Custody? Yes  No
16. Is it clear what analyses were requested? Yes  No
17. Were all holding times able to be met? Yes  No

### Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

### Item Information

Item #	Temp °C
Cooler	11.3
Sample	10.5

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C









**Fremont**  
ANALYTICAL

3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

**Chain of Custody Record & Laboratory Services Agreement**

Date: 4/23/18 Page: 1 of 1

Project Name: City of Bothell - Wexler

Project No: 82305

Collected by: Nate Evenson

Location: 15175 Bothell Way NE, Bothell

Report To (PM): Nate Evenson

PM Email: nevenson@leawe-environmental.com

Laboratory Project No (internal): 1904361

Special Remarks:

Sample Disposal:  Return to client  Disposal by lab (after 30 days)

Comments

Client: Kane Environmental

Address: 3815 Woodland Park AVE N, Ste 102

City, State, Zip: Seattle, WA 98103

Telephone: (206) 991-0476

Fax: (206) 675-0650

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HID)	Diesel/Heavy Oil Range Organics (DOY)	SVOCs (EPA 8270 / 635)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 808)	Nitrate** (EPA 8020 / 200.8)	Total IT   Dissolved (D)	Arsenic (IC)**	EDB (8021)	EDB, EDC, MTBE, Naphthalene (8260)	PCE & Breakdown (8260)
1 S-KSB-1: 2ft	4/23/18	1138	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2 S-KSB-2: 4ft		1145	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3 S-KSB-9: 3ft		1231	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4 S-KSB-3: 3ft		1258	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5 S-KSB-4: 5ft		1315	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
6 S-KSB-5: 2.5ft		1326	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
7 S-KSB-6: 2.5ft		1340	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
8 S-KSB-7: 2.5ft		1352	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
9 S-KSB-8: 3ft		1401	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
10																		

NE 4/27 DUE EOD 5/3/18  
Dum per NE 4/27/18 1545

\*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water  
 \*\*Metals (Circle): MTAS- RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be C Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Se Sr Sn Tl U V Zn  
 \*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate-Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Reinquired: *[Signature]* Date/Time: 4/23/18 1642  
 Received: *[Signature]* Date/Time: 4/23/18 1642  
 Date/Time: 4/23/18 1642  
 Date/Time: 4/23/18 1642



3600 Fremont Ave. N.  
Seattle, WA 98103  
T: (206) 352-3790  
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info@fremontanalytical.com

**Kane Environmental, Inc.**  
Nate Evenson  
3815 Woodland Park Ave N, Ste. 102  
Seattle, WA 98103

**RE: City of Bothell - Wexler**  
**Work Order Number: 1804389**

May 08, 2018

**Attention Nate Evenson:**

Fremont Analytical, Inc. received 8 sample(s) on 4/25/2018 for the analyses presented in the following report.

- 1,2-Dibromoethane (EDB) by EPA Method 8011***
- Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.***
- Dissolved Metals by EPA Method 200.8***
- Gasoline by NWTPH-Gx***
- Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)***
- Polychlorinated Biphenyls (PCB) by EPA 8082***
- Total Metals by EPA Method 200.8***
- Volatile Organic Compounds by EPA Method 8260C***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Chelsea Ward  
Project Manager

DoD/ELAP Certification #L17-135, ISO/IEC 17025:2005  
ORELAP Certification: WA 100009-007 (NELAP Recognized)



Date: 05/08/2018

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**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler  
**Work Order:** 1804389

## Work Order Sample Summary

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Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1804389-001	S-KSB-5:W	04/24/2018 8:55 AM	04/25/2018 12:04 PM
1804389-002	S-KSB-3:W	04/24/2018 9:40 AM	04/25/2018 12:04 PM
1804389-003	S-KSB-2:W	04/24/2018 11:05 AM	04/25/2018 12:04 PM
1804389-004	S-KSB-4:W	04/24/2018 12:04 PM	04/25/2018 12:04 PM
1804389-005	S-KSB-1:W	04/24/2018 1:38 PM	04/25/2018 12:04 PM
1804389-006	S-KSB-6:W	04/24/2018 2:47 PM	04/25/2018 12:04 PM
1804389-007	S-KSB-8:W	04/24/2018 3:45 PM	04/25/2018 12:04 PM
1804389-008	S-KSB-7:W	04/24/2018 4:35 PM	04/25/2018 12:04 PM

**CLIENT:** Kane Environmental, Inc.

**Project:** City of Bothell - Wexler

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**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate





**Client:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler  
**Lab ID:** 1804389-001  
**Client Sample ID:** S-KSB-5:W

**Collection Date:** 4/24/2018 8:55:00 AM  
**Matrix:** Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>1,2-Dibromoethane (EDB) by EPA Method 8011</u></b>					Batch ID: 20542	Analyst: SB
1,2-Dibromoethane (EDB)	ND	0.00997		µg/L	1	5/1/2018 5:52:51 AM
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>					Batch ID: 20520	Analyst: SB
Diesel (Fuel Oil)	ND	49.9		µg/L	1	4/27/2018 3:05:15 PM
Heavy Oil	ND	99.8		µg/L	1	4/27/2018 3:05:15 PM
Surr: 2-Fluorobiphenyl	89.1	50 - 150		%Rec	1	4/27/2018 3:05:15 PM
Surr: o-Terphenyl	94.9	50 - 150		%Rec	1	4/27/2018 3:05:15 PM
<b><u>Gasoline by NWTPH-Gx</u></b>					Batch ID: 20551	Analyst: MW
Gasoline	ND	50.0		µg/L	1	4/30/2018 7:47:31 PM
Surr: Toluene-d8	99.1	65 - 135		%Rec	1	4/30/2018 7:47:31 PM
Surr: 4-Bromofluorobenzene	101	65 - 135		%Rec	1	4/30/2018 7:47:31 PM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>					Batch ID: 20551	Analyst: MW
Vinyl chloride	ND	0.200		µg/L	1	4/30/2018 7:47:31 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	4/30/2018 7:47:31 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	4/30/2018 7:47:31 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	4/30/2018 7:47:31 PM
cis-1,2-Dichloroethene	10.1	1.00		µg/L	1	4/30/2018 7:47:31 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	4/30/2018 7:47:31 PM
Benzene	ND	1.00		µg/L	1	4/30/2018 7:47:31 PM
Trichloroethene (TCE)	5.97	0.500		µg/L	1	4/30/2018 7:47:31 PM
Toluene	ND	1.00		µg/L	1	4/30/2018 7:47:31 PM
Tetrachloroethene (PCE)	5.87	1.00		µg/L	1	4/30/2018 7:47:31 PM
Ethylbenzene	ND	1.00		µg/L	1	4/30/2018 7:47:31 PM
m,p-Xylene	ND	1.00		µg/L	1	4/30/2018 7:47:31 PM
o-Xylene	ND	1.00		µg/L	1	4/30/2018 7:47:31 PM
Naphthalene	ND	1.00		µg/L	1	4/30/2018 7:47:31 PM
Surr: Dibromofluoromethane	99.0	45.4 - 152		%Rec	1	4/30/2018 7:47:31 PM
Surr: Toluene-d8	99.3	40.1 - 139		%Rec	1	4/30/2018 7:47:31 PM
Surr: 1-Bromo-4-fluorobenzene	100	64.2 - 128		%Rec	1	4/30/2018 7:47:31 PM
<b><u>Dissolved Metals by EPA Method 200.8</u></b>					Batch ID: 20524	Analyst: TN
Lead	0.919	0.500		µg/L	1	4/27/2018 9:50:13 AM



**Client:** Kane Environmental, Inc.

**Collection Date:** 4/24/2018 8:55:00 AM

**Project:** City of Bothell - Wexler

**Lab ID:** 1804389-001

**Matrix:** Groundwater

**Client Sample ID:** S-KSB-5:W

<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
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**Total Metals by EPA Method 200.8**

Batch ID: 20513

Analyst: WC

Lead	1.72	0.500		µg/L	1	4/26/2018 4:21:34 PM
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**Client:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler  
**Lab ID:** 1804389-002  
**Client Sample ID:** S-KSB-3:W

**Collection Date:** 4/24/2018 9:40:00 AM  
**Matrix:** Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>1,2-Dibromoethane (EDB) by EPA Method 8011</u></b>					Batch ID: 20542	Analyst: SB
1,2-Dibromoethane (EDB)	ND	0.00996		µg/L	1	5/1/2018 6:00:39 AM
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>					Batch ID: 20520	Analyst: SB
Diesel (Fuel Oil)	ND	49.8		µg/L	1	4/27/2018 3:35:20 PM
Heavy Oil	ND	99.5		µg/L	1	4/27/2018 3:35:20 PM
Surr: 2-Fluorobiphenyl	81.2	50 - 150		%Rec	1	4/27/2018 3:35:20 PM
Surr: o-Terphenyl	59.7	50 - 150		%Rec	1	4/27/2018 3:35:20 PM
<b><u>Gasoline by NWTPH-Gx</u></b>					Batch ID: 20551	Analyst: MW
Gasoline	1,150	50.0		µg/L	1	4/30/2018 8:17:57 PM
Surr: Toluene-d8	99.6	65 - 135		%Rec	1	4/30/2018 8:17:57 PM
Surr: 4-Bromofluorobenzene	103	65 - 135		%Rec	1	4/30/2018 8:17:57 PM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>					Batch ID: 20551	Analyst: MW
Vinyl chloride	ND	0.200		µg/L	1	4/30/2018 8:17:57 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	4/30/2018 8:17:57 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	4/30/2018 8:17:57 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	4/30/2018 8:17:57 PM
cis-1,2-Dichloroethene	22.6	1.00		µg/L	1	4/30/2018 8:17:57 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	4/30/2018 8:17:57 PM
Benzene	ND	1.00		µg/L	1	4/30/2018 8:17:57 PM
Trichloroethene (TCE)	2.81	0.500		µg/L	1	4/30/2018 8:17:57 PM
Toluene	ND	1.00		µg/L	1	4/30/2018 8:17:57 PM
Tetrachloroethene (PCE)	25.7	1.00		µg/L	1	4/30/2018 8:17:57 PM
Ethylbenzene	3.50	1.00		µg/L	1	4/30/2018 8:17:57 PM
m,p-Xylene	2.13	1.00		µg/L	1	4/30/2018 8:17:57 PM
o-Xylene	ND	1.00		µg/L	1	4/30/2018 8:17:57 PM
Naphthalene	ND	1.00		µg/L	1	4/30/2018 8:17:57 PM
Surr: Dibromofluoromethane	101	45.4 - 152		%Rec	1	4/30/2018 8:17:57 PM
Surr: Toluene-d8	103	40.1 - 139		%Rec	1	4/30/2018 8:17:57 PM
Surr: 1-Bromo-4-fluorobenzene	103	64.2 - 128		%Rec	1	4/30/2018 8:17:57 PM
<b><u>Dissolved Metals by EPA Method 200.8</u></b>					Batch ID: 20524	Analyst: TN
Lead	ND	0.500		µg/L	1	4/27/2018 9:34:07 AM





**Client:** Kane Environmental, Inc.

**Collection Date:** 4/24/2018 9:40:00 AM

**Project:** City of Bothell - Wexler

**Lab ID:** 1804389-002

**Matrix:** Groundwater

**Client Sample ID:** S-KSB-3:W

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Total Metals by EPA Method 200.8**

Batch ID: 20513

Analyst: WC

Lead	4.57	0.500		µg/L	1	4/26/2018 4:37:23 PM
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**Client:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler  
**Lab ID:** 1804389-003  
**Client Sample ID:** S-KSB-2:W

**Collection Date:** 4/24/2018 11:05:00 AM  
**Matrix:** Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**1,2-Dibromoethane (EDB) by EPA Method 8011**

Batch ID: 20542      Analyst: SB

1,2-Dibromoethane (EDB)	ND	0.0101		µg/L	1	5/1/2018 6:08:29 AM
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 20520      Analyst: SB

Diesel (Fuel Oil)	ND	49.9		µg/L	1	4/27/2018 4:35:50 PM
Diesel Range Organics (C12-C24)	409	49.9		µg/L	1	4/27/2018 4:35:50 PM
Heavy Oil	323	99.7		µg/L	1	4/27/2018 4:35:50 PM
Surr: 2-Fluorobiphenyl	87.2	50 - 150		%Rec	1	4/27/2018 4:35:50 PM
Surr: o-Terphenyl	61.9	50 - 150		%Rec	1	4/27/2018 4:35:50 PM

**NOTES:**

DRO - Indicates the presence of unresolved compounds eluting from dodecane through tetracosane (~C12-C24).  
Chromatography demonstrates a continuation of gasoline.

**Gasoline by NWTPH-Gx**

Batch ID: 20551      Analyst: MW

Gasoline	2,830	500	D	µg/L	10	5/1/2018 10:32:12 AM
Surr: Toluene-d8	101	65 - 135	D	%Rec	10	5/1/2018 10:32:12 AM
Surr: 4-Bromofluorobenzene	100	65 - 135	D	%Rec	10	5/1/2018 10:32:12 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 20551      Analyst: MW

Vinyl chloride	ND	0.200		µg/L	1	4/30/2018 8:48:23 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	4/30/2018 8:48:23 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	4/30/2018 8:48:23 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	4/30/2018 8:48:23 PM
cis-1,2-Dichloroethene	2.01	1.00		µg/L	1	4/30/2018 8:48:23 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	4/30/2018 8:48:23 PM
Benzene	ND	1.00		µg/L	1	4/30/2018 8:48:23 PM
Trichloroethene (TCE)	2.67	0.500		µg/L	1	4/30/2018 8:48:23 PM
Toluene	ND	1.00		µg/L	1	4/30/2018 8:48:23 PM
Tetrachloroethene (PCE)	7.79	1.00		µg/L	1	4/30/2018 8:48:23 PM
Ethylbenzene	2.42	1.00		µg/L	1	4/30/2018 8:48:23 PM
m,p-Xylene	1.83	1.00		µg/L	1	4/30/2018 8:48:23 PM
o-Xylene	ND	1.00		µg/L	1	4/30/2018 8:48:23 PM
Naphthalene	10.2	1.00		µg/L	1	4/30/2018 8:48:23 PM
Surr: Dibromofluoromethane	101	45.4 - 152		%Rec	1	4/30/2018 8:48:23 PM
Surr: Toluene-d8	108	40.1 - 139		%Rec	1	4/30/2018 8:48:23 PM
Surr: 1-Bromo-4-fluorobenzene	106	64.2 - 128		%Rec	1	4/30/2018 8:48:23 PM



**Client:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler  
**Lab ID:** 1804389-003  
**Client Sample ID:** S-KSB-2:W

**Collection Date:** 4/24/2018 11:05:00 AM  
**Matrix:** Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Dissolved Metals by EPA Method 200.8</u></b>				Batch ID: 20524		Analyst: TN
Lead	ND	0.500		µg/L	1	4/27/2018 9:54:45 AM
<b><u>Total Metals by EPA Method 200.8</u></b>				Batch ID: 20513		Analyst: WC
Lead	49.5	0.500		µg/L	1	4/26/2018 4:41:24 PM



**Client:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler  
**Lab ID:** 1804389-004  
**Client Sample ID:** S-KSB-4:W

**Collection Date:** 4/24/2018 12:04:00 PM  
**Matrix:** Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**1,2-Dibromoethane (EDB) by EPA Method 8011**

Batch ID: 20542 Analyst: SB

1,2-Dibromoethane (EDB)	ND	0.0100		µg/L	1	5/1/2018 6:16:19 AM
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 20520 Analyst: SB

Diesel (Fuel Oil)	ND	50.0		µg/L	1	4/27/2018 4:05:38 PM
Diesel Range Organics (C12-C24)	60.7	50.0		µg/L	1	4/27/2018 4:05:38 PM
Heavy Oil	ND	100		µg/L	1	4/27/2018 4:05:38 PM
Surr: 2-Fluorobiphenyl	85.1	50 - 150		%Rec	1	4/27/2018 4:05:38 PM
Surr: o-Terphenyl	87.9	50 - 150		%Rec	1	4/27/2018 4:05:38 PM

**NOTES:**

DRO - Indicates detections eluting from dodecane through tetracosane (~C12-C24). Chromatographic pattern does not resemble a known petroleum distillate.

**Gasoline by NWTPH-Gx**

Batch ID: 20551 Analyst: MW

Gasoline	ND	50.0		µg/L	1	4/30/2018 9:18:57 PM
Surr: Toluene-d8	98.3	65 - 135		%Rec	1	4/30/2018 9:18:57 PM
Surr: 4-Bromofluorobenzene	101	65 - 135		%Rec	1	4/30/2018 9:18:57 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 20551 Analyst: MW

Vinyl chloride	ND	0.200		µg/L	1	4/30/2018 9:18:57 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	4/30/2018 9:18:57 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	4/30/2018 9:18:57 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	4/30/2018 9:18:57 PM
cis-1,2-Dichloroethene	5.23	1.00		µg/L	1	4/30/2018 9:18:57 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	4/30/2018 9:18:57 PM
Benzene	ND	1.00		µg/L	1	4/30/2018 9:18:57 PM
Trichloroethene (TCE)	3.07	0.500		µg/L	1	4/30/2018 9:18:57 PM
Toluene	ND	1.00		µg/L	1	4/30/2018 9:18:57 PM
Tetrachloroethene (PCE)	41.8	10.0	D	µg/L	10	5/1/2018 11:02:44 AM
Ethylbenzene	ND	1.00		µg/L	1	4/30/2018 9:18:57 PM
m,p-Xylene	ND	1.00		µg/L	1	4/30/2018 9:18:57 PM
o-Xylene	ND	1.00		µg/L	1	4/30/2018 9:18:57 PM
Naphthalene	ND	1.00		µg/L	1	4/30/2018 9:18:57 PM
Surr: Dibromofluoromethane	99.4	45.4 - 152		%Rec	1	4/30/2018 9:18:57 PM
Surr: Toluene-d8	99.6	40.1 - 139		%Rec	1	4/30/2018 9:18:57 PM
Surr: 1-Bromo-4-fluorobenzene	99.7	64.2 - 128		%Rec	1	4/30/2018 9:18:57 PM



**Client:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler  
**Lab ID:** 1804389-004  
**Client Sample ID:** S-KSB-4:W

**Collection Date:** 4/24/2018 12:04:00 PM  
**Matrix:** Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Dissolved Metals by EPA Method 200.8</u></b>				Batch ID: 20524		Analyst: TN
Lead	ND	0.500		µg/L	1	4/27/2018 10:08:22 AM
<b><u>Total Metals by EPA Method 200.8</u></b>				Batch ID: 20513		Analyst: WC
Lead	3.14	0.500		µg/L	1	4/26/2018 4:45:26 PM



**Client:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler  
**Lab ID:** 1804389-005  
**Client Sample ID:** S-KSB-1:W

**Collection Date:** 4/24/2018 1:38:00 PM  
**Matrix:** Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**1,2-Dibromoethane (EDB) by EPA Method 8011**

Batch ID: 20542 Analyst: SB

1,2-Dibromoethane (EDB)	ND	0.00978		µg/L	1	5/1/2018 6:24:06 AM
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 20520 Analyst: SB

Diesel (Fuel Oil)	ND	49.9		µg/L	1	4/27/2018 6:36:05 PM
Diesel Range Organics (C12-C24)	96.5	49.9		µg/L	1	4/27/2018 6:36:05 PM
Heavy Oil	ND	99.9		µg/L	1	4/27/2018 6:36:05 PM
Surr: 2-Fluorobiphenyl	85.0	50 - 150		%Rec	1	4/27/2018 6:36:05 PM
Surr: o-Terphenyl	61.8	50 - 150		%Rec	1	4/27/2018 6:36:05 PM

**NOTES:**

DRO - Indicates the presence of unresolved compounds eluting from dodecane through tetracosane (~C12-C24).  
Chromatography demonstrates a continuation of gasoline.

**Gasoline by NWTPH-Gx**

Batch ID: 20551 Analyst: MW

Gasoline	1,430	500	D	µg/L	10	5/1/2018 11:33:16 AM
Surr: Toluene-d8	97.9	65 - 135	D	%Rec	10	5/1/2018 11:33:16 AM
Surr: 4-Bromofluorobenzene	102	65 - 135	D	%Rec	10	5/1/2018 11:33:16 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 20551 Analyst: MW

Vinyl chloride	ND	0.200		µg/L	1	5/1/2018 2:23:23 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	5/1/2018 2:23:23 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	5/1/2018 2:23:23 AM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	5/1/2018 2:23:23 AM
cis-1,2-Dichloroethene	2.52	1.00		µg/L	1	5/1/2018 2:23:23 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	5/1/2018 2:23:23 AM
Benzene	ND	1.00		µg/L	1	5/1/2018 2:23:23 AM
Trichloroethene (TCE)	2.30	0.500		µg/L	1	5/1/2018 2:23:23 AM
Toluene	ND	1.00		µg/L	1	5/1/2018 2:23:23 AM
Tetrachloroethene (PCE)	17.1	1.00		µg/L	1	5/1/2018 2:23:23 AM
Ethylbenzene	3.87	1.00		µg/L	1	5/1/2018 2:23:23 AM
m,p-Xylene	ND	1.00		µg/L	1	5/1/2018 2:23:23 AM
o-Xylene	ND	1.00		µg/L	1	5/1/2018 2:23:23 AM
Naphthalene	8.00	1.00		µg/L	1	5/1/2018 2:23:23 AM
Surr: Dibromofluoromethane	99.4	45.4 - 152		%Rec	1	5/1/2018 2:23:23 AM
Surr: Toluene-d8	104	40.1 - 139		%Rec	1	5/1/2018 2:23:23 AM
Surr: 1-Bromo-4-fluorobenzene	104	64.2 - 128		%Rec	1	5/1/2018 2:23:23 AM



**Client:** Kane Environmental, Inc.

**Collection Date:** 4/24/2018 1:38:00 PM

**Project:** City of Bothell - Wexler

**Lab ID:** 1804389-005

**Matrix:** Groundwater

**Client Sample ID:** S-KSB-1:W

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Dissolved Metals by EPA Method 200.8</u></b>				Batch ID: 20524		Analyst: TN
Lead	1.76	0.500		µg/L	1	4/27/2018 10:12:24 AM
<b><u>Total Metals by EPA Method 200.8</u></b>				Batch ID: 20513		Analyst: WC
Lead	63.0	0.500		µg/L	1	4/26/2018 4:50:13 PM



**Client:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler  
**Lab ID:** 1804389-006  
**Client Sample ID:** S-KSB-6:W

**Collection Date:** 4/24/2018 2:47:00 PM  
**Matrix:** Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**1,2-Dibromoethane (EDB) by EPA Method 8011**

Batch ID: 20542      Analyst: SB

1,2-Dibromoethane (EDB)	ND	0.00988		µg/L	1	5/1/2018 5:29:32 AM
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 20520      Analyst: SB

Diesel (Fuel Oil)	ND	49.8		µg/L	1	4/27/2018 7:06:07 PM
Diesel Range Organics (C12-C24)	74.5	49.8		µg/L	1	4/27/2018 7:06:07 PM
Heavy Oil	ND	99.6		µg/L	1	4/27/2018 7:06:07 PM
Surr: 2-Fluorobiphenyl	90.0	50 - 150		%Rec	1	4/27/2018 7:06:07 PM
Surr: o-Terphenyl	82.6	50 - 150		%Rec	1	4/27/2018 7:06:07 PM

**NOTES:**

DRO - Indicates detections eluting from dodecane through tetracosane (~C12-C24). Chromatographic pattern does not resemble a known petroleum distillate.

**Gasoline by NWTPH-Gx**

Batch ID: 20551      Analyst: MW

Gasoline	ND	50.0		µg/L	1	5/1/2018 2:53:41 AM
Surr: Toluene-d8	100	65 - 135		%Rec	1	5/1/2018 2:53:41 AM
Surr: 4-Bromofluorobenzene	101	65 - 135		%Rec	1	5/1/2018 2:53:41 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 20551      Analyst: MW

Vinyl chloride	ND	0.200		µg/L	1	5/1/2018 2:53:41 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	5/1/2018 2:53:41 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	5/1/2018 2:53:41 AM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	5/1/2018 2:53:41 AM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	5/1/2018 2:53:41 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	5/1/2018 2:53:41 AM
Benzene	ND	1.00		µg/L	1	5/1/2018 2:53:41 AM
Trichloroethene (TCE)	ND	0.500		µg/L	1	5/1/2018 2:53:41 AM
Toluene	ND	1.00		µg/L	1	5/1/2018 2:53:41 AM
Tetrachloroethene (PCE)	23.5	1.00		µg/L	1	5/1/2018 2:53:41 AM
Ethylbenzene	ND	1.00		µg/L	1	5/1/2018 2:53:41 AM
m,p-Xylene	ND	1.00		µg/L	1	5/1/2018 2:53:41 AM
o-Xylene	ND	1.00		µg/L	1	5/1/2018 2:53:41 AM
Naphthalene	ND	1.00		µg/L	1	5/1/2018 2:53:41 AM
Surr: Dibromofluoromethane	107	45.4 - 152		%Rec	1	5/1/2018 2:53:41 AM
Surr: Toluene-d8	99.3	40.1 - 139		%Rec	1	5/1/2018 2:53:41 AM
Surr: 1-Bromo-4-fluorobenzene	99.7	64.2 - 128		%Rec	1	5/1/2018 2:53:41 AM





**Client:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler  
**Lab ID:** 1804389-006  
**Client Sample ID:** S-KSB-6:W

**Collection Date:** 4/24/2018 2:47:00 PM  
**Matrix:** Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Dissolved Metals by EPA Method 200.8</u></b>				Batch ID: 20524		Analyst: TN
Lead	ND	0.500		µg/L	1	4/27/2018 10:16:26 AM
<b><u>Total Metals by EPA Method 200.8</u></b>				Batch ID: 20513		Analyst: WC
Lead	2.71	0.500		µg/L	1	4/26/2018 4:54:14 PM



**Client:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler  
**Lab ID:** 1804389-007  
**Client Sample ID:** S-KSB-8:W

**Collection Date:** 4/24/2018 3:45:00 PM  
**Matrix:** Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 20520 Analyst: SB

Diesel (Fuel Oil)	ND	49.7		µg/L	1	4/27/2018 7:36:00 PM
Heavy Oil	ND	99.5		µg/L	1	4/27/2018 7:36:00 PM
Surr: 2-Fluorobiphenyl	88.1	50 - 150		%Rec	1	4/27/2018 7:36:00 PM
Surr: o-Terphenyl	93.8	50 - 150		%Rec	1	4/27/2018 7:36:00 PM

**Gasoline by NWTPH-Gx**

Batch ID: 20551 Analyst: MW

Gasoline	ND	50.0		µg/L	1	5/1/2018 3:24:12 AM
Surr: Toluene-d8	98.9	65 - 135		%Rec	1	5/1/2018 3:24:12 AM
Surr: 4-Bromofluorobenzene	100	65 - 135		%Rec	1	5/1/2018 3:24:12 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 20551 Analyst: MW

Vinyl chloride	ND	0.200		µg/L	1	5/1/2018 3:24:12 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	5/1/2018 3:24:12 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	5/1/2018 3:24:12 AM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	5/1/2018 3:24:12 AM
Benzene	ND	1.00		µg/L	1	5/1/2018 3:24:12 AM
Trichloroethene (TCE)	ND	0.500		µg/L	1	5/1/2018 3:24:12 AM
Toluene	ND	1.00		µg/L	1	5/1/2018 3:24:12 AM
Tetrachloroethene (PCE)	12.1	1.00		µg/L	1	5/1/2018 3:24:12 AM
Ethylbenzene	ND	1.00		µg/L	1	5/1/2018 3:24:12 AM
m,p-Xylene	ND	1.00		µg/L	1	5/1/2018 3:24:12 AM
o-Xylene	ND	1.00		µg/L	1	5/1/2018 3:24:12 AM
Surr: Dibromofluoromethane	105	45.4 - 152		%Rec	1	5/1/2018 3:24:12 AM
Surr: Toluene-d8	98.6	40.1 - 139		%Rec	1	5/1/2018 3:24:12 AM
Surr: 1-Bromo-4-fluorobenzene	99.8	64.2 - 128		%Rec	1	5/1/2018 3:24:12 AM



**Client:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler  
**Lab ID:** 1804389-008  
**Client Sample ID:** S-KSB-7:W

**Collection Date:** 4/24/2018 4:35:00 PM  
**Matrix:** Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Polychlorinated Biphenyls (PCB) by EPA 8082**

Batch ID: 20535      Analyst: SB

Aroclor 1016	ND	0.0999		µg/L	1	5/1/2018 2:42:05 AM
Aroclor 1221	ND	0.0999		µg/L	1	5/1/2018 2:42:05 AM
Aroclor 1232	ND	0.0999		µg/L	1	5/1/2018 2:42:05 AM
Aroclor 1242	ND	0.0999		µg/L	1	5/1/2018 2:42:05 AM
Aroclor 1248	ND	0.0999		µg/L	1	5/1/2018 2:42:05 AM
Aroclor 1254	ND	0.0999		µg/L	1	5/1/2018 2:42:05 AM
Aroclor 1260	ND	0.0999		µg/L	1	5/1/2018 2:42:05 AM
Aroclor 1262	ND	0.0999		µg/L	1	5/1/2018 2:42:05 AM
Aroclor 1268	ND	0.0999		µg/L	1	5/1/2018 2:42:05 AM
Total PCBs	ND	0.0999		µg/L	1	5/1/2018 2:42:05 AM
Surr: Decachlorobiphenyl	97.3	23.1 - 172		%Rec	1	5/1/2018 2:42:05 AM
Surr: Tetrachloro-m-xylene	88.7	10 - 125		%Rec	1	5/1/2018 2:42:05 AM

**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 20520      Analyst: SB

Diesel (Fuel Oil)	ND	50.0		µg/L	1	4/27/2018 8:05:57 PM
Heavy Oil	ND	99.9		µg/L	1	4/27/2018 8:05:57 PM
Surr: 2-Fluorobiphenyl	85.4	50 - 150		%Rec	1	4/27/2018 8:05:57 PM
Surr: o-Terphenyl	82.1	50 - 150		%Rec	1	4/27/2018 8:05:57 PM

**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Batch ID: 20518      Analyst: SG

Naphthalene	ND	0.0995		µg/L	1	4/27/2018 1:53:38 PM
2-Methylnaphthalene	ND	0.0995		µg/L	1	4/27/2018 1:53:38 PM
1-Methylnaphthalene	ND	0.0995		µg/L	1	4/27/2018 1:53:38 PM
Acenaphthylene	ND	0.0995		µg/L	1	4/27/2018 1:53:38 PM
Acenaphthene	ND	0.0995		µg/L	1	4/27/2018 1:53:38 PM
Fluorene	ND	0.0995		µg/L	1	4/27/2018 1:53:38 PM
Phenanthrene	ND	0.0995		µg/L	1	4/27/2018 1:53:38 PM
Anthracene	ND	0.0995		µg/L	1	4/27/2018 1:53:38 PM
Fluoranthene	ND	0.0995		µg/L	1	4/27/2018 1:53:38 PM
Pyrene	0.177	0.0995		µg/L	1	4/27/2018 1:53:38 PM
Benz(a)anthracene	ND	0.0995		µg/L	1	4/27/2018 1:53:38 PM
Chrysene	ND	0.0995		µg/L	1	4/27/2018 1:53:38 PM
Benzo(b)fluoranthene	ND	0.0995		µg/L	1	4/27/2018 1:53:38 PM
Benzo(k)fluoranthene	ND	0.0995		µg/L	1	4/27/2018 1:53:38 PM
Benzo(a)pyrene	ND	0.0995		µg/L	1	4/27/2018 1:53:38 PM
Indeno(1,2,3-cd)pyrene	ND	0.0995		µg/L	1	4/27/2018 1:53:38 PM
Dibenz(a,h)anthracene	ND	0.0995	Q	µg/L	1	4/27/2018 1:53:38 PM



**Client:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler  
**Lab ID:** 1804389-008  
**Client Sample ID:** S-KSB-7:W

**Collection Date:** 4/24/2018 4:35:00 PM  
**Matrix:** Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Batch ID: 20518 Analyst: SG

Benzo(g,h,i)perylene	0.154	0.0995	Q	µg/L	1	4/27/2018 1:53:38 PM
Surr: 2-Fluorobiphenyl	69.2	31.2 - 159		%Rec	1	4/27/2018 1:53:38 PM
Surr: Terphenyl-d14	71.0	24.3 - 133		%Rec	1	4/27/2018 1:53:38 PM

**NOTES:**

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift)

**Gasoline by NWTPH-Gx**

Batch ID: 20551 Analyst: MW

Gasoline	ND	50.0		µg/L	1	5/1/2018 3:54:34 AM
Surr: Toluene-d8	98.7	65 - 135		%Rec	1	5/1/2018 3:54:34 AM
Surr: 4-Bromofluorobenzene	100	65 - 135		%Rec	1	5/1/2018 3:54:34 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 20551 Analyst: MW

Vinyl chloride	ND	0.200		µg/L	1	5/1/2018 3:54:34 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	5/1/2018 3:54:34 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	5/1/2018 3:54:34 AM
cis-1,2-Dichloroethene	2.41	1.00		µg/L	1	5/1/2018 3:54:34 AM
Benzene	ND	1.00		µg/L	1	5/1/2018 3:54:34 AM
Trichloroethene (TCE)	ND	0.500		µg/L	1	5/1/2018 3:54:34 AM
Toluene	ND	1.00		µg/L	1	5/1/2018 3:54:34 AM
Tetrachloroethene (PCE)	4.26	1.00		µg/L	1	5/1/2018 3:54:34 AM
Ethylbenzene	ND	1.00		µg/L	1	5/1/2018 3:54:34 AM
m,p-Xylene	ND	1.00		µg/L	1	5/1/2018 3:54:34 AM
o-Xylene	ND	1.00		µg/L	1	5/1/2018 3:54:34 AM
Surr: Dibromofluoromethane	106	45.4 - 152		%Rec	1	5/1/2018 3:54:34 AM
Surr: Toluene-d8	100	40.1 - 139		%Rec	1	5/1/2018 3:54:34 AM
Surr: 1-Bromo-4-fluorobenzene	99.6	64.2 - 128		%Rec	1	5/1/2018 3:54:34 AM

**Work Order:** 1804389  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**1,2-Dibromoethane (EDB) by EPA Method 8011**

Sample ID <b>MB-20542</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>4/30/2018</b>	RunNo: <b>43204</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>20542</b>		Analysis Date: <b>5/1/2018</b>	SeqNo: <b>835062</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2-Dibromoethane (EDB) ND 0.0101

Sample ID <b>LCS-20542</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>	Prep Date: <b>4/30/2018</b>	RunNo: <b>43204</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>20542</b>		Analysis Date: <b>5/1/2018</b>	SeqNo: <b>835063</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2-Dibromoethane (EDB) 1.02 0.0101 1.008 0 101 60 140

Sample ID <b>1804394-002EDUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>4/30/2018</b>	RunNo: <b>43204</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20542</b>		Analysis Date: <b>5/1/2018</b>	SeqNo: <b>835065</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2-Dibromoethane (EDB) ND 0.00990 0 30

Sample ID <b>1804389-006EMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>	Prep Date: <b>4/30/2018</b>	RunNo: <b>43204</b>							
Client ID: <b>S-KSB-6:W</b>	Batch ID: <b>20542</b>		Analysis Date: <b>5/1/2018</b>	SeqNo: <b>835067</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2-Dibromoethane (EDB) 1.02 0.0101 1.012 0 101 60 140

Sample ID <b>1804389-006EMSD</b>	SampType: <b>MSD</b>	Units: <b>µg/L</b>	Prep Date: <b>4/30/2018</b>	RunNo: <b>43204</b>							
Client ID: <b>S-KSB-6:W</b>	Batch ID: <b>20542</b>		Analysis Date: <b>5/1/2018</b>	SeqNo: <b>835068</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2-Dibromoethane (EDB) 0.918 0.00977 0.9771 0 93.9 60 140 1.023 10.8 30

**Work Order:** 1804389  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID <b>MB-20520</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>			Prep Date: <b>4/26/2018</b>	RunNo: <b>43151</b>					
Client ID: <b>MBLKW</b>	Batch ID: <b>20520</b>				Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834142</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	50.0									
Heavy Oil	ND	100									
Surr: 2-Fluorobiphenyl	64.6		80.00		80.8	50	150				
Surr: o-Terphenyl	75.3		80.00		94.1	50	150				

Sample ID <b>LCS-20520</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>			Prep Date: <b>4/26/2018</b>	RunNo: <b>43151</b>					
Client ID: <b>LCSW</b>	Batch ID: <b>20520</b>				Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834143</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	860	50.0	1,000	0	86.0	65	135				
Surr: 2-Fluorobiphenyl	73.9		80.00		92.4	50	150				
Surr: o-Terphenyl	77.0		80.00		96.3	50	150				

Sample ID <b>1804394-002BDUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>			Prep Date: <b>4/26/2018</b>	RunNo: <b>43151</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>20520</b>				Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834922</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	49.8						0		30	
Heavy Oil	ND	99.6						0		30	
Surr: 2-Fluorobiphenyl	59.6		79.65		74.8	50	150		0		
Surr: o-Terphenyl	61.1		79.65		76.7	50	150		0		

Sample ID <b>1804394-002BMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>			Prep Date: <b>4/26/2018</b>	RunNo: <b>43151</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>20520</b>				Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834923</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	901	50.0	999.1	18.72	88.3	65	135				
Surr: 2-Fluorobiphenyl	71.5		79.93		89.4	50	150				
Surr: o-Terphenyl	64.8		79.93		81.1	50	150				

**Work Order:** 1804389  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID <b>1804394-002BMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>	Prep Date: <b>4/26/2018</b>	RunNo: <b>43151</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20520</b>	Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834923</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID <b>1804394-002BMSD</b>	SampType: <b>MSD</b>	Units: <b>µg/L</b>	Prep Date: <b>4/26/2018</b>	RunNo: <b>43151</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20520</b>	Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834924</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	936	49.9	998.8	18.72	91.8	65	135	900.8	3.81	30	
Surr: 2-Fluorobiphenyl	73.3		79.90		91.7	50	150		0		
Surr: o-Terphenyl	63.2		79.90		79.1	50	150		0		

**Work Order:** 1804389  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Dissolved Metals by EPA Method 200.8**

Sample ID <b>MB-20524</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>4/27/2018</b>	RunNo: <b>43145</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>20524</b>	Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834047</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead ND 0.500

Sample ID <b>LCS-20524</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>	Prep Date: <b>4/27/2018</b>	RunNo: <b>43145</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>20524</b>	Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834048</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 52.8 0.500 50.00 0 106 85 115

Sample ID <b>1804389-002DMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>	Prep Date: <b>4/27/2018</b>	RunNo: <b>43145</b>							
Client ID: <b>S-KSB-3:W</b>	Batch ID: <b>20524</b>	Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834050</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 252 0.500 250.0 0.3110 101 70 130

Sample ID <b>1804389-002DMSD</b>	SampType: <b>MSD</b>	Units: <b>µg/L</b>	Prep Date: <b>4/27/2018</b>	RunNo: <b>43145</b>							
Client ID: <b>S-KSB-3:W</b>	Batch ID: <b>20524</b>	Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834051</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 270 0.500 250.0 0.3110 108 70 130 251.6 6.88 30

Sample ID <b>1804389-002DDUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>4/27/2018</b>	RunNo: <b>43145</b>							
Client ID: <b>S-KSB-3:W</b>	Batch ID: <b>20524</b>	Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834052</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead ND 0.500 0 30



**Work Order:** 1804389  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID <b>LCS-20551</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>			Prep Date: <b>4/30/2018</b>	RunNo: <b>43206</b>					
Client ID: <b>LCSW</b>	Batch ID: <b>20551</b>				Analysis Date: <b>4/30/2018</b>	SeqNo: <b>835163</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	539	50.0	500.0	0	108	65	135				
Surr: Toluene-d8	25.2		25.00		101	65	135				
Surr: 4-Bromofluorobenzene	25.4		25.00		102	65	135				

Sample ID <b>MB-20551</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>			Prep Date: <b>4/30/2018</b>	RunNo: <b>43206</b>					
Client ID: <b>MBLKW</b>	Batch ID: <b>20551</b>				Analysis Date: <b>4/30/2018</b>	SeqNo: <b>835164</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	50.0									
Surr: Toluene-d8	24.8		25.00		99.0	65	135				
Surr: 4-Bromofluorobenzene	24.8		25.00		99.1	65	135				

Sample ID <b>1804408-005ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>			Prep Date: <b>4/30/2018</b>	RunNo: <b>43206</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>20551</b>				Analysis Date: <b>4/30/2018</b>	SeqNo: <b>835153</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	50.0						0		30	
Surr: Toluene-d8	25.0		25.00		99.9	65	135		0		
Surr: 4-Bromofluorobenzene	25.0		25.00		100	65	135		0		

Sample ID <b>1804389-008AMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>			Prep Date: <b>4/30/2018</b>	RunNo: <b>43206</b>					
Client ID: <b>S-KSB-7:W</b>	Batch ID: <b>20551</b>				Analysis Date: <b>4/30/2018</b>	SeqNo: <b>835149</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	566	50.0	500.0	0	113	65	135				
Surr: Toluene-d8	25.0		25.00		100	65	135				
Surr: 4-Bromofluorobenzene	25.5		25.00		102	65	135				

**Work Order:** 1804389  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID <b>1804389-008AMSD</b>	SampType: <b>MSD</b>	Units: <b>µg/L</b>			Prep Date: <b>4/30/2018</b>	RunNo: <b>43206</b>					
Client ID: <b>S-KSB-7:W</b>	Batch ID: <b>20551</b>				Analysis Date: <b>4/30/2018</b>	SeqNo: <b>835150</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	556	50.0	500.0	0	111	65	135	565.7	1.76	30
Surr: Toluene-d8	25.2		25.00		101	65	135		0	
Surr: 4-Bromofluorobenzene	25.2		25.00		101	65	135		0	

Sample ID <b>1804411-013ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>			Prep Date: <b>4/30/2018</b>	RunNo: <b>43206</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>20551</b>				Analysis Date: <b>5/1/2018</b>	SeqNo: <b>835157</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	50.0						0		30
Surr: Toluene-d8	24.6		25.00		98.3	65	135		0	
Surr: 4-Bromofluorobenzene	25.4		25.00		101	65	135		0	

**Work Order:** 1804389  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Sample ID <b>MB-20518</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>4/26/2018</b>	RunNo: <b>43164</b>
Client ID: <b>MBLKW</b>	Batch ID: <b>20518</b>		Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834293</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	0.100									
2-Methylnaphthalene	ND	0.100									
1-Methylnaphthalene	ND	0.100									
Acenaphthylene	ND	0.100									
Acenaphthene	ND	0.100									
Fluorene	ND	0.100									
Phenanthrene	ND	0.100									
Anthracene	ND	0.100									
Fluoranthene	ND	0.100									
Pyrene	ND	0.100									
Benz(a)anthracene	ND	0.100									
Chrysene	ND	0.100									
Benzo(b)fluoranthene	ND	0.100									
Benzo(k)fluoranthene	ND	0.100									
Benzo(a)pyrene	ND	0.100									
Indeno(1,2,3-cd)pyrene	ND	0.100									
Dibenz(a,h)anthracene	ND	0.100									Q
Benzo(g,h,i)perylene	ND	0.100									Q
Surr: 2-Fluorobiphenyl	0.0869		2.000		4.34	31.2	159				S
Surr: Terphenyl-d14	0.285		2.000		14.3	24.3	133				S

**NOTES:**

S - Outlying surrogate recovery(ies) observed. All other laboratory and field samples recovered within range.

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift)

Sample ID <b>LCS-20518</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>	Prep Date: <b>4/26/2018</b>	RunNo: <b>43164</b>
Client ID: <b>LCSW</b>	Batch ID: <b>20518</b>		Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834294</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	3.07	0.100	4.000	0	76.6	30.4	113				
2-Methylnaphthalene	3.17	0.100	4.000	0	79.3	33.2	126				
1-Methylnaphthalene	3.12	0.100	4.000	0	77.9	30.2	119				

Work Order: 1804389  
 CLIENT: Kane Environmental, Inc.  
 Project: City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Sample ID	LCS-20518	SampType:	LCS	Units:	µg/L	Prep Date:	4/26/2018	RunNo:	43164		
Client ID:	LCSW	Batch ID:	20518	Analysis Date:	4/27/2018	SeqNo:	834294				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthylene	3.00	0.100	4.000	0	75.0	34	133				
Acenaphthene	3.41	0.100	4.000	0	85.2	31.8	127				
Fluorene	3.36	0.100	4.000	0	84.1	27.7	138				
Phenanthrene	3.49	0.100	4.000	0	87.2	26.3	139				
Anthracene	3.25	0.100	4.000	0	81.3	38.5	128				
Fluoranthene	3.31	0.100	4.000	0	82.7	23.5	142				
Pyrene	3.36	0.100	4.000	0	84.1	25.1	136				
Benz(a)anthracene	2.89	0.100	4.000	0	72.2	31.2	128				
Chrysene	3.00	0.100	4.000	0	75.0	32.3	120				
Benzo(b)fluoranthene	2.41	0.100	4.000	0	60.3	25.9	132				
Benzo(k)fluoranthene	2.71	0.100	4.000	0	67.7	25.1	118				
Benzo(a)pyrene	2.29	0.100	4.000	0	57.3	18.7	120				
Indeno(1,2,3-cd)pyrene	2.04	0.100	4.000	0	51.0	21.3	131				
Dibenz(a,h)anthracene	1.83	0.100	4.000	0	45.8	21.3	137				
Benzo(g,h,i)perylene	2.12	0.100	4.000	0	53.0	21.2	127				
Surr: 2-Fluorobiphenyl	1.46		2.000		72.9	31.2	159				
Surr: Terphenyl-d14	1.37		2.000		68.6	24.3	133				

Sample ID	LCS-20518	SampType:	LCS	Units:	µg/L	Prep Date:	4/26/2018	RunNo:	43164		
Client ID:	LCSW02	Batch ID:	20518	Analysis Date:	4/27/2018	SeqNo:	834295				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	3.20	0.100	4.000	0	80.0	30.4	113	3.065	4.34	30	
2-Methylnaphthalene	3.32	0.100	4.000	0	83.1	33.2	126	3.172	4.65	30	
1-Methylnaphthalene	3.25	0.100	4.000	0	81.1	30.2	119	3.118	4.00	30	
Acenaphthylene	3.15	0.100	4.000	0	78.6	34	133	3.001	4.68	30	
Acenaphthene	3.54	0.100	4.000	0	88.5	31.8	127	3.407	3.79	30	
Fluorene	3.52	0.100	4.000	0	88.1	27.7	138	3.363	4.66	30	
Phenanthrene	3.70	0.100	4.000	0	92.5	26.3	139	3.488	5.86	30	
Anthracene	3.53	0.100	4.000	0	88.3	38.5	128	3.252	8.20	30	



Date: 5/8/2018

**Work Order:** 1804389  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Sample ID <b>LCSD-20518</b>	SampType: <b>LCSD</b>	Units: <b>µg/L</b>				Prep Date: <b>4/26/2018</b>	RunNo: <b>43164</b>				
Client ID: <b>LCSW02</b>	Batch ID: <b>20518</b>					Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834295</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoranthene	3.54	0.100	4.000	0	88.5	23.5	142	3.310	6.74	30	
Pyrene	3.74	0.100	4.000	0	93.4	25.1	136	3.365	10.5	30	
Benz(a)anthracene	3.26	0.100	4.000	0	81.5	31.2	128	2.887	12.1	30	
Chrysene	3.45	0.100	4.000	0	86.4	32.3	120	2.998	14.1	30	
Benzo(b)fluoranthene	2.86	0.100	4.000	0	71.5	25.9	132	2.412	17.0	30	
Benzo(k)fluoranthene	3.26	0.100	4.000	0	81.5	25.1	118	2.708	18.5	30	
Benzo(a)pyrene	2.76	0.100	4.000	0	69.1	18.7	120	2.293	18.7	30	
Indeno(1,2,3-cd)pyrene	2.50	0.100	4.000	0	62.5	21.3	131	2.039	20.3	30	
Dibenz(a,h)anthracene	2.27	0.100	4.000	0	56.8	21.3	137	1.833	21.3	30	
Benzo(g,h,i)perylene	2.66	0.100	4.000	0	66.6	21.2	127	2.120	22.8	30	
Surr: 2-Fluorobiphenyl	1.42		2.000		71.1	31.2	159		0	0	
Surr: Terphenyl-d14	1.43		2.000		71.3	24.3	133		0	0	

Sample ID <b>1804389-008FDUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>				Prep Date: <b>4/26/2018</b>	RunNo: <b>43164</b>				
Client ID: <b>S-KSB-7:W</b>	Batch ID: <b>20518</b>					Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834298</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	0.0996						0		30	
2-Methylnaphthalene	ND	0.0996						0		30	
1-Methylnaphthalene	ND	0.0996						0		30	
Acenaphthylene	ND	0.0996						0		30	
Acenaphthene	ND	0.0996						0		30	
Fluorene	ND	0.0996						0		30	
Phenanthrene	ND	0.0996						0		30	
Anthracene	ND	0.0996						0		30	
Fluoranthene	ND	0.0996						0		30	
Pyrene	0.233	0.0996						0.1775	27.1	30	
Benz(a)anthracene	ND	0.0996						0		30	
Chrysene	ND	0.0996						0		30	
Benzo(b)fluoranthene	ND	0.0996						0		30	

**Work Order:** 1804389  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Sample ID <b>1804389-008FDUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>4/26/2018</b>	RunNo: <b>43164</b>							
Client ID: <b>S-KSB-7:W</b>	Batch ID: <b>20518</b>		Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834298</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzo(k)fluoranthene	ND	0.0996						0		30	
Benzo(a)pyrene	ND	0.0996						0		30	
Indeno(1,2,3-cd)pyrene	ND	0.0996						0		30	
Dibenz(a,h)anthracene	ND	0.0996						0		30	Q
Benzo(g,h,i)perylene	0.192	0.0996						0.1540	22.2	30	Q
Surr: 2-Fluorobiphenyl	1.39		1.992		69.8	31.2	159		0		
Surr: Terphenyl-d14	0.998		1.992		50.1	24.3	133		0		

**NOTES:**

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift)

**Work Order:** 1804389  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Polychlorinated Biphenyls (PCB) by EPA 8082**

Sample ID <b>MB-20535</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>				Prep Date: <b>4/27/2018</b>	RunNo: <b>43190</b>				
Client ID: <b>MBLKW</b>	Batch ID: <b>20535</b>					Analysis Date: <b>5/1/2018</b>	SeqNo: <b>834859</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.100									
Aroclor 1221	ND	0.100									
Aroclor 1232	ND	0.100									
Aroclor 1242	ND	0.100									
Aroclor 1248	ND	0.100									
Aroclor 1254	ND	0.100									
Aroclor 1260	ND	0.100									
Aroclor 1262	ND	0.100									
Aroclor 1268	ND	0.100									
Total PCBs	ND	0.100									
Surr: Decachlorobiphenyl	643		400.0		161	23.1	172				
Surr: Tetrachloro-m-xylene	367		400.0		91.7	10	125				

Sample ID <b>LCS1-20535</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>				Prep Date: <b>4/27/2018</b>	RunNo: <b>43190</b>				
Client ID: <b>LCSW</b>	Batch ID: <b>20535</b>					Analysis Date: <b>5/1/2018</b>	SeqNo: <b>834860</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	1.72	0.100	2.000	0	86.2	32.4	133				
Aroclor 1260	2.09	0.100	2.000	0	104	41.4	166				
Surr: Decachlorobiphenyl	560		400.0		140	23.1	172				
Surr: Tetrachloro-m-xylene	362		400.0		90.6	10	125				

Sample ID <b>LCS1D-20535</b>	SampType: <b>LCS D</b>	Units: <b>µg/L</b>				Prep Date: <b>4/27/2018</b>	RunNo: <b>43190</b>				
Client ID: <b>LCSW02</b>	Batch ID: <b>20535</b>					Analysis Date: <b>5/1/2018</b>	SeqNo: <b>834861</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	2.03	0.100	2.000	0	102	32.4	133	1.725	16.4	20	
Aroclor 1260	2.66	0.100	2.000	0	133	41.4	166	2.088	24.0	20	R
Surr: Decachlorobiphenyl	669		400.0		167	23.1	172		0		
Surr: Tetrachloro-m-xylene	393		400.0		98.2	10	125		0		

**Work Order:** 1804389  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Polychlorinated Biphenyls (PCB) by EPA 8082**

Sample ID	<b>LCS1D-20535</b>	SampType:	<b>LCS</b>	Units:	<b>µg/L</b>	Prep Date:	<b>4/27/2018</b>	RunNo:	<b>43190</b>		
Client ID:	<b>LCSW02</b>	Batch ID:	<b>20535</b>			Analysis Date:	<b>5/1/2018</b>	SeqNo:	<b>834861</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**NOTES:**

R - High RPD observed. The method is in control as indicated by the LCS.

Sample ID	<b>LCS2-20535</b>	SampType:	<b>LCS</b>	Units:	<b>µg/L</b>	Prep Date:	<b>4/27/2018</b>	RunNo:	<b>43190</b>		
Client ID:	<b>LCSW</b>	Batch ID:	<b>20535</b>			Analysis Date:	<b>5/1/2018</b>	SeqNo:	<b>834862</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1254	2.01	0.100	2.000	0	101	21.3	139				
Surr: Decachlorobiphenyl	576		400.0		144	23.1	172				
Surr: Tetrachloro-m-xylene	322		400.0		80.6	10	125				

Sample ID	<b>1804418-001BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>µg/L</b>	Prep Date:	<b>4/27/2018</b>	RunNo:	<b>43190</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>20535</b>			Analysis Date:	<b>5/1/2018</b>	SeqNo:	<b>834864</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.100						0		30	
Aroclor 1221	ND	0.100						0		30	
Aroclor 1232	ND	0.100						0		30	
Aroclor 1242	ND	0.100						0		30	
Aroclor 1248	ND	0.100						0		30	
Aroclor 1254	ND	0.100						0		30	
Aroclor 1260	ND	0.100						0		30	
Aroclor 1262	ND	0.100						0		30	
Aroclor 1268	ND	0.100						0		30	
Total PCBs	ND	0.100						0		30	
Surr: Decachlorobiphenyl	554		399.9		139	23.1	172		0		
Surr: Tetrachloro-m-xylene	440		399.9		110	10	125		0		



**Work Order:** 1804389  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Total Metals by EPA Method 200.8**

Sample ID <b>MB-20513</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>			Prep Date: <b>4/26/2018</b>	RunNo: <b>43133</b>					
Client ID: <b>MBLKW</b>	Batch ID: <b>20513</b>				Analysis Date: <b>4/26/2018</b>	SeqNo: <b>833751</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead ND 0.500

Sample ID <b>LCS-20513</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>			Prep Date: <b>4/26/2018</b>	RunNo: <b>43133</b>					
Client ID: <b>LCSW</b>	Batch ID: <b>20513</b>				Analysis Date: <b>4/26/2018</b>	SeqNo: <b>833752</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 51.1 0.500 50.00 0 102 85 115

Sample ID <b>1804363-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>			Prep Date: <b>4/26/2018</b>	RunNo: <b>43133</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>20513</b>				Analysis Date: <b>4/26/2018</b>	SeqNo: <b>833754</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead ND 0.500 0 30

Sample ID <b>1804363-001AMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>			Prep Date: <b>4/26/2018</b>	RunNo: <b>43133</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>20513</b>				Analysis Date: <b>4/26/2018</b>	SeqNo: <b>833755</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 250 0.500 250.0 0.4045 99.7 70 130

Sample ID <b>1804363-001AMSD</b>	SampType: <b>MSD</b>	Units: <b>µg/L</b>			Prep Date: <b>4/26/2018</b>	RunNo: <b>43133</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>20513</b>				Analysis Date: <b>4/26/2018</b>	SeqNo: <b>833756</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 245 0.500 250.0 0.4045 97.9 70 130 249.8 1.82 30

**Work Order:** 1804389  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	LCS-20551	SampType:	LCS	Units:	µg/L	Prep Date:	4/30/2018	RunNo:	43179		
Client ID:	LCSW	Batch ID:	20551	Analysis Date:	4/30/2018	SeqNo:	834590				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	20.2	0.200	20.00	0	101	48	145				
1,1-Dichloroethene	19.1	1.00	20.00	0	95.3	57.5	150				
trans-1,2-Dichloroethene	20.0	1.00	20.00	0	100	71.7	129				
Methyl tert-butyl ether (MTBE)	20.4	1.00	20.00	0	102	58	138				
cis-1,2-Dichloroethene	19.9	1.00	20.00	0	99.3	70.2	139				
1,2-Dichloroethane (EDC)	19.8	1.00	20.00	0	98.8	67	126				
Benzene	20.3	1.00	20.00	0	101	69.3	132				
Trichloroethene (TCE)	19.5	0.500	20.00	0	97.5	65.2	136				
Toluene	19.9	1.00	20.00	0	99.7	61.3	145				
Tetrachloroethene (PCE)	19.4	1.00	20.00	0	97.2	47.5	147				
Ethylbenzene	19.9	1.00	20.00	0	99.3	72	130				
m,p-Xylene	40.5	1.00	40.00	0	101	70.3	134				
o-Xylene	20.0	1.00	20.00	0	99.9	72.1	131				
Naphthalene	21.5	1.00	20.00	0	107	41.8	165				
Surr: Dibromofluoromethane	27.1		25.00		109	45.4	152				
Surr: Toluene-d8	24.7		25.00		98.8	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	25.7		25.00		103	64.2	128				

Sample ID	MB-20551	SampType:	MBLK	Units:	µg/L	Prep Date:	4/30/2018	RunNo:	43179		
Client ID:	MBLKW	Batch ID:	20551	Analysis Date:	4/30/2018	SeqNo:	834591				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.200									
1,1-Dichloroethene	ND	1.00									
trans-1,2-Dichloroethene	ND	1.00									
Methyl tert-butyl ether (MTBE)	ND	1.00									
cis-1,2-Dichloroethene	ND	1.00									
1,2-Dichloroethane (EDC)	ND	1.00									
Benzene	ND	1.00									
Trichloroethene (TCE)	ND	0.500									

**Work Order:** 1804389  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>MB-20551</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>4/30/2018</b>	RunNo: <b>43179</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>20551</b>		Analysis Date: <b>4/30/2018</b>	SeqNo: <b>834591</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Toluene	ND	1.00									
Tetrachloroethene (PCE)	ND	1.00									
Ethylbenzene	ND	1.00									
m,p-Xylene	ND	1.00									
o-Xylene	ND	1.00									
Naphthalene	ND	1.00									

Surr: Dibromofluoromethane	24.7		25.00		99.0	45.4	152				
Surr: Toluene-d8	24.7		25.00		98.7	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	24.8		25.00		99.1	64.2	128				

Sample ID <b>1804408-005ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>4/30/2018</b>	RunNo: <b>43179</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20551</b>		Analysis Date: <b>4/30/2018</b>	SeqNo: <b>834588</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Vinyl chloride	ND	0.200						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
Toluene	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Ethylbenzene	ND	1.00						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	1.00						0		30	
Naphthalene	ND	1.00						0		30	

Surr: Dibromofluoromethane	26.0		25.00		104	45.4	152		0		
Surr: Toluene-d8	24.7		25.00		98.7	40.1	139		0		

**Work Order:** 1804389  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>1804408-005ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>4/30/2018</b>	RunNo: <b>43179</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20551</b>		Analysis Date: <b>4/30/2018</b>	SeqNo: <b>834588</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: 1-Bromo-4-fluorobenzene	24.9		25.00		99.7	64.2	128		0		
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Sample ID <b>1804389-008AMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>	Prep Date: <b>4/30/2018</b>	RunNo: <b>43179</b>							
Client ID: <b>S-KSB-7:W</b>	Batch ID: <b>20551</b>		Analysis Date: <b>4/30/2018</b>	SeqNo: <b>835090</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Vinyl chloride	23.3	0.200	20.00	0	117	41	165				
1,1-Dichloroethene	22.4	1.00	20.00	0	112	51.6	164				
trans-1,2-Dichloroethene	21.8	1.00	20.00	0	109	63.5	138				
Methyl tert-butyl ether (MTBE)	20.8	1.00	20.00	0	104	60.9	132				
cis-1,2-Dichloroethene	23.5	1.00	20.00	2.412	106	60	154				
1,2-Dichloroethane (EDC)	19.8	1.00	20.00	0	98.8	63.4	137				
Benzene	21.3	1.00	20.00	0	106	65.4	138				
Trichloroethene (TCE)	21.3	0.500	20.00	0	107	60.4	134				
Toluene	20.9	1.00	20.00	0	105	52	147				
Tetrachloroethene (PCE)	26.0	1.00	20.00	4.256	109	50.3	133				
Ethylbenzene	21.3	1.00	20.00	0	106	64.5	136				
m,p-Xylene	41.8	1.00	40.00	0	105	63.3	135				
o-Xylene	21.0	1.00	20.00	0	105	64.8	150				
Naphthalene	20.8	1.00	20.00	0	104	50.7	154				
Surr: Dibromofluoromethane	27.1		25.00		108	45.4	152				
Surr: Toluene-d8	25.0		25.00		100	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	25.2		25.00		101	64.2	128				

Sample ID <b>1804389-008AMSD</b>	SampType: <b>MSD</b>	Units: <b>µg/L</b>	Prep Date: <b>4/30/2018</b>	RunNo: <b>43179</b>							
Client ID: <b>S-KSB-7:W</b>	Batch ID: <b>20551</b>		Analysis Date: <b>4/30/2018</b>	SeqNo: <b>835091</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Vinyl chloride	23.6	0.200	20.00	0	118	41	165	23.32	1.39	30	
1,1-Dichloroethene	22.2	1.00	20.00	0	111	51.6	164	22.37	0.531	30	

**Work Order:** 1804389  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1804389-008AMSD	SampType:	MSD	Units:	µg/L	Prep Date:	4/30/2018	RunNo:	43179		
Client ID:	S-KSB-7:W	Batch ID:	20551	Analysis Date:	4/30/2018	SeqNo:	835091				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,2-Dichloroethene	21.5	1.00	20.00	0	107	63.5	138	21.78	1.53	30	
Methyl tert-butyl ether (MTBE)	20.6	1.00	20.00	0	103	60.9	132	20.82	1.17	30	
cis-1,2-Dichloroethene	23.7	1.00	20.00	2.412	107	60	154	23.53	0.817	30	
1,2-Dichloroethane (EDC)	19.5	1.00	20.00	0	97.6	63.4	137	19.76	1.17	30	
Benzene	21.0	1.00	20.00	0	105	65.4	138	21.26	1.08	30	
Trichloroethene (TCE)	20.9	0.500	20.00	0	105	60.4	134	21.31	1.68	30	
Toluene	20.8	1.00	20.00	0	104	52	147	20.93	0.549	30	
Tetrachloroethene (PCE)	25.9	1.00	20.00	4.256	108	50.3	133	26.01	0.280	30	
Ethylbenzene	21.3	1.00	20.00	0	106	64.5	136	21.29	0.0396	30	
m,p-Xylene	42.2	1.00	40.00	0	105	63.3	135	41.82	0.842	30	
o-Xylene	20.8	1.00	20.00	0	104	64.8	150	21.01	0.786	30	
Naphthalene	22.9	1.00	20.00	0	115	50.7	154	20.80	9.81	30	
Surr: Dibromofluoromethane	26.8		25.00		107	45.4	152		0		
Surr: Toluene-d8	24.6		25.00		98.4	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	25.3		25.00		101	64.2	128		0		

Sample ID	1804411-013ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	4/30/2018	RunNo:	43179		
Client ID:	BATCH	Batch ID:	20551	Analysis Date:	5/1/2018	SeqNo:	835097				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.200						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
Toluene	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	

**Work Order:** 1804389  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>1804411-013ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>4/30/2018</b>	RunNo: <b>43179</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20551</b>		Analysis Date: <b>5/1/2018</b>	SeqNo: <b>835097</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Ethylbenzene	ND	1.00						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	1.00						0		30	
Naphthalene	ND	1.00						0		30	
Surr: Dibromofluoromethane	26.5		25.00		106	45.4	152		0		
Surr: Toluene-d8	24.8		25.00		99.2	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	25.3		25.00		101	64.2	128		0		

Client Name: **KANE**

 Work Order Number: **1804389**

 Logged by: **Brianna Barnes**

 Date Received: **4/25/2018 12:04:00 PM**

### Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present
2. How was the sample delivered? Client

### Log In

3. Coolers are present? Yes  No  NA
4. Shipping container/cooler in good condition? Yes  No
5. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact) Yes  No  Not Required
6. Was an attempt made to cool the samples? Yes  No  NA
7. Were all items received at a temperature of >0°C to 10.0°C\* Yes  No  NA
8. Sample(s) in proper container(s)? Yes  No
9. Sufficient sample volume for indicated test(s)? Yes  No
10. Are samples properly preserved? Yes  No
11. Was preservative added to bottles? Yes  No  NA
12. Is there headspace in the VOA vials? Yes  No  NA
13. Did all samples containers arrive in good condition(unbroken)? Yes  No
14. Does paperwork match bottle labels? Yes  No
15. Are matrices correctly identified on Chain of Custody? Yes  No
16. Is it clear what analyses were requested? Yes  No
17. Were all holding times able to be met? Yes  No

HNO3 added to 001-006 D fraction.

### Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

### Item Information

Item #	Temp °C
Cooler 1	4.1
Cooler 2	5.4
Sample 1	1.9
Sample 2	2.6

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C





3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

# Chain of Custody Record & Laboratory Services Agreement

Client: Kane Environmental  
Address: 3815 Woodland Park Ave N, Ste 102  
City, State, Zip: Seattle, WA 98103  
Telephone: (206) 691-0476  
Fax: (206) 675-0650

Date: 4/24/18 Page: 1 of 1  
Project Name: City of Botell - Wexler  
Project No: 82305  
Collected by: Kate Evenson  
Location: 18125 Botell Way NE, Botell  
Report To (PM): Kate Evenson  
PM Email: kateevenson@kane-environmental.com

Laboratory Project No (Internal): 10043891  
Special Remarks:  
Sample Disposal:  Return Client  Disposal by lab (after 30 days)

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (HX)	SVOs (EPA 8270 / 625)	PAHs (EPA 8270 - 5M)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T)   Dissolved (D)	Anions (IC)***	EPA 8011	EPC, MTBE, Naphthalene, Cyanide	PCE & Breakdowns	Comments
1 S-KSB-5:W	4/24/18	0855	GW																6 Volt, 1 canter, 1 pres poly, 1 unpres poly unpres poly filtered, please preserve
2 S-KSB-3:W		0940																	
3 S-KSB-2:W		1106																	
4 S-KSB-4:W		1204																	
5 S-KSB-1:W		1338																	
6 S-KSB-6:W		1447																	
7 S-KSB-8:W		1545																	
8 S-KSB-7:W		1635																	10 Volt, 1 canter, 1 pres poly, 1 unpres poly unpres poly filtered, please preserve 6 Volt, 1 canter, 1 pres poly, 1 unpres poly filtered unpreserved poly. 10 Volt, 1 HD canter 2 unpres canter 1 pres poly, 1 unpres poly. Filter unpres poly.
9																			
10																			

\*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water  
\*\*Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Tl U V Zn  
\*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate-Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Reinquired: x Date/Time: 4/25/18 1204  
Received: x Date/Time: 4/25/18 1204  
Date/Time: 4/25/18 1204





3600 Fremont Ave. N.  
Seattle, WA 98103  
T: (206) 352-3790  
F: (206) 352-7178  
info@fremontanalytical.com

**Kane Environmental, Inc.**  
Nate Evenson  
3815 Woodland Park Ave N, Ste. 102  
Seattle, WA 98103

**RE: City of Bothell - Wexler**  
**Work Order Number: 1804430**

May 04, 2018

**Attention Nate Evenson:**

Fremont Analytical, Inc. received 8 sample(s) on 4/25/2018 for the analyses presented in the following report.

- Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.***
- Gasoline by NWTPH-Gx***
- Sample Moisture (Percent Moisture)***
- Total Metals by EPA Method 6020***
- Volatile Organic Compounds by EPA Method 8260C***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Chelsea Ward  
Project Manager

DoD/ELAP Certification #L17-135, ISO/IEC 17025:2005  
ORELAP Certification: WA 100009-007 (NELAP Recognized)



Date: 05/04/2018

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**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler  
**Work Order:** 1804430

## Work Order Sample Summary

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Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1804430-001	S-KSB-10: 2.75ft	04/25/2018 8:48 AM	04/25/2018 4:40 PM
1804430-002	S-KSB-10: 3.75ft	04/25/2018 8:53 AM	04/25/2018 4:40 PM
1804430-003	S-KSB-12: 3.5ft	04/25/2018 9:05 AM	04/25/2018 4:40 PM
1804430-004	S-KSB-12: 10ft	04/25/2018 9:15 AM	04/25/2018 4:40 PM
1804430-005	S-KSB-12: 15ft	04/25/2018 9:25 AM	04/25/2018 4:40 PM
1804430-006	S-KSB-11: 3.75ft	04/25/2018 11:35 AM	04/25/2018 4:40 PM
1804430-007	S-KSB-11: 8ft	04/25/2018 12:30 PM	04/25/2018 4:40 PM
1804430-008	S-KSB-11: 15ft	04/25/2018 12:45 PM	04/25/2018 4:40 PM

**CLIENT:** Kane Environmental, Inc.

**Project:** City of Bothell - Wexler

---

**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



**Client:** Kane Environmental, Inc.

**Collection Date:** 4/25/2018 8:53:00 AM

**Project:** City of Bothell - Wexler

**Lab ID:** 1804430-002

**Matrix:** Soil

**Client Sample ID:** S-KSB-10: 3.75ft

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 20541 Analyst: SB

Diesel (Fuel Oil)	ND	23.8		mg/Kg-dry	1	4/30/2018 10:12:29 PM
Heavy Oil	ND	59.6		mg/Kg-dry	1	4/30/2018 10:12:29 PM
Surr: 2-Fluorobiphenyl	61.7	50 - 150		%Rec	1	4/30/2018 10:12:29 PM
Surr: o-Terphenyl	68.1	50 - 150		%Rec	1	4/30/2018 10:12:29 PM

**Gasoline by NWTPH-Gx**

Batch ID: 20577 Analyst: MW

Gasoline	9.23	7.21		mg/Kg-dry	1	5/3/2018 1:27:04 PM
Surr: Toluene-d8	103	65 - 135		%Rec	1	5/3/2018 1:27:04 PM
Surr: 4-Bromofluorobenzene	92.8	65 - 135		%Rec	1	5/3/2018 1:27:04 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 20577 Analyst: MW

Vinyl chloride	ND	0.0360		mg/Kg-dry	1	5/3/2018 1:27:04 PM
1,1-Dichloroethene	ND	0.0288	*Q	mg/Kg-dry	1	5/3/2018 1:27:04 PM
trans-1,2-Dichloroethene	ND	0.0288		mg/Kg-dry	1	5/3/2018 1:27:04 PM
Methyl tert-butyl ether (MTBE)	ND	0.0721		mg/Kg-dry	1	5/3/2018 1:27:04 PM
cis-1,2-Dichloroethene	ND	0.0288		mg/Kg-dry	1	5/3/2018 1:27:04 PM
1,2-Dichloroethane (EDC)	ND	0.0288		mg/Kg-dry	1	5/3/2018 1:27:04 PM
Benzene	ND	0.0288		mg/Kg-dry	1	5/3/2018 1:27:04 PM
Trichloroethene (TCE)	ND	0.0288		mg/Kg-dry	1	5/3/2018 1:27:04 PM
Toluene	ND	0.0288		mg/Kg-dry	1	5/3/2018 1:27:04 PM
Tetrachloroethene (PCE)	ND	0.0360		mg/Kg-dry	1	5/3/2018 1:27:04 PM
1,2-Dibromoethane (EDB)	ND	0.00721		mg/Kg-dry	1	5/3/2018 1:27:04 PM
Ethylbenzene	ND	0.0360		mg/Kg-dry	1	5/3/2018 1:27:04 PM
m,p-Xylene	ND	0.0721		mg/Kg-dry	1	5/3/2018 1:27:04 PM
o-Xylene	ND	0.0360		mg/Kg-dry	1	5/3/2018 1:27:04 PM
Naphthalene	0.0941	0.0721		mg/Kg-dry	1	5/3/2018 1:27:04 PM
Surr: Dibromofluoromethane	93.4	56.5 - 129		%Rec	1	5/3/2018 1:27:04 PM
Surr: Toluene-d8	97.6	64.5 - 151		%Rec	1	5/3/2018 1:27:04 PM
Surr: 1-Bromo-4-fluorobenzene	97.1	43.2 - 143		%Rec	1	5/3/2018 1:27:04 PM

**NOTES:**

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift)

\* - Flagged value is not within established control limits.

**Total Metals by EPA Method 6020**

Batch ID: 20540 Analyst: TN

Lead	2.80	0.179		mg/Kg-dry	1	4/30/2018 4:40:34 PM
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**Client:** Kane Environmental, Inc.

**Collection Date:** 4/25/2018 8:53:00 AM

**Project:** City of Bothell - Wexler

**Lab ID:** 1804430-002

**Matrix:** Soil

**Client Sample ID:** S-KSB-10: 3.75ft

<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
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**Sample Moisture (Percent Moisture)**

Batch ID: R43191      Analyst: NG

Percent Moisture	17.7	0.500		wt%	1	5/1/2018 9:34:34 AM
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**Client:** Kane Environmental, Inc.

**Collection Date:** 4/25/2018 11:35:00 AM

**Project:** City of Bothell - Wexler

**Lab ID:** 1804430-006

**Matrix:** Soil

**Client Sample ID:** S-KSB-11: 3.75ft

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 20572 Analyst: SB

Diesel (Fuel Oil)	ND	24.7		mg/Kg-dry	1	5/2/2018 8:56:18 PM
Heavy Oil	ND	61.6		mg/Kg-dry	1	5/2/2018 8:56:18 PM
Surr: 2-Fluorobiphenyl	66.5	50 - 150		%Rec	1	5/2/2018 8:56:18 PM
Surr: o-Terphenyl	73.2	50 - 150		%Rec	1	5/2/2018 8:56:18 PM

**Gasoline by NWTPH-Gx**

Batch ID: 20577 Analyst: MW

Gasoline	7.13	7.01		mg/Kg-dry	1	5/3/2018 1:57:41 PM
Surr: Toluene-d8	103	65 - 135		%Rec	1	5/3/2018 1:57:41 PM
Surr: 4-Bromofluorobenzene	92.4	65 - 135		%Rec	1	5/3/2018 1:57:41 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 20577 Analyst: MW

Vinyl chloride	ND	0.0350		mg/Kg-dry	1	5/3/2018 1:57:41 PM
1,1-Dichloroethene	ND	0.0280	*Q	mg/Kg-dry	1	5/3/2018 1:57:41 PM
trans-1,2-Dichloroethene	ND	0.0280		mg/Kg-dry	1	5/3/2018 1:57:41 PM
Methyl tert-butyl ether (MTBE)	ND	0.0701		mg/Kg-dry	1	5/3/2018 1:57:41 PM
cis-1,2-Dichloroethene	ND	0.0280		mg/Kg-dry	1	5/3/2018 1:57:41 PM
1,2-Dichloroethane (EDC)	ND	0.0280		mg/Kg-dry	1	5/3/2018 1:57:41 PM
Benzene	ND	0.0280		mg/Kg-dry	1	5/3/2018 1:57:41 PM
Trichloroethene (TCE)	ND	0.0280		mg/Kg-dry	1	5/3/2018 1:57:41 PM
Toluene	ND	0.0280		mg/Kg-dry	1	5/3/2018 1:57:41 PM
Tetrachloroethene (PCE)	ND	0.0350		mg/Kg-dry	1	5/3/2018 1:57:41 PM
1,2-Dibromoethane (EDB)	ND	0.00701		mg/Kg-dry	1	5/3/2018 1:57:41 PM
Ethylbenzene	ND	0.0350		mg/Kg-dry	1	5/3/2018 1:57:41 PM
m,p-Xylene	ND	0.0701		mg/Kg-dry	1	5/3/2018 1:57:41 PM
o-Xylene	ND	0.0350		mg/Kg-dry	1	5/3/2018 1:57:41 PM
Naphthalene	ND	0.0701		mg/Kg-dry	1	5/3/2018 1:57:41 PM
Surr: Dibromofluoromethane	92.9	56.5 - 129		%Rec	1	5/3/2018 1:57:41 PM
Surr: Toluene-d8	95.9	64.5 - 151		%Rec	1	5/3/2018 1:57:41 PM
Surr: 1-Bromo-4-fluorobenzene	96.6	43.2 - 143		%Rec	1	5/3/2018 1:57:41 PM

**NOTES:**

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift)

\* - Flagged value is not within established control limits.

**Total Metals by EPA Method 6020**

Batch ID: 20540 Analyst: TN

Lead	2.39	0.195		mg/Kg-dry	1	4/30/2018 4:52:41 PM
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**Client:** Kane Environmental, Inc.

**Collection Date:** 4/25/2018 11:35:00 AM

**Project:** City of Bothell - Wexler

**Lab ID:** 1804430-006

**Matrix:** Soil

**Client Sample ID:** S-KSB-11: 3.75ft

**Analyses**

**Result**

**RL**

**Qual**

**Units**

**DF**

**Date Analyzed**

**Sample Moisture (Percent Moisture)**

Batch ID: R43191

Analyst: NG

Percent Moisture

22.1

0.500

wt%

1

5/1/2018 9:34:34 AM



**Work Order:** 1804430  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID <b>MB-20572</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>5/2/2018</b>	RunNo: <b>43239</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>20572</b>		Analysis Date: <b>5/2/2018</b>	SeqNo: <b>835889</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	18.7		20.00		93.4	50	150				
Surr: o-Terphenyl	19.6		20.00		98.2	50	150				

Sample ID <b>LCS-20572</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>	Prep Date: <b>5/2/2018</b>	RunNo: <b>43239</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>20572</b>		Analysis Date: <b>5/2/2018</b>	SeqNo: <b>835890</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	502	20.0	500.0	0	100	65	135				
Surr: 2-Fluorobiphenyl	19.9		20.00		99.4	50	150				
Surr: o-Terphenyl	21.7		20.00		108	50	150				

Sample ID <b>1805009-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>5/2/2018</b>	RunNo: <b>43239</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20572</b>		Analysis Date: <b>5/2/2018</b>	SeqNo: <b>835892</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	25.9						0		30	
Heavy Oil	322	64.7						36.04	160	30	R
Surr: 2-Fluorobiphenyl	23.1		25.87		89.4	50	150		0		
Surr: o-Terphenyl	26.7		25.87		103	50	150		0		

**NOTES:**

R - High RPD due to suspected sample inhomogeneity. The method is in control as indicated by the Laboratory Control Sample (LCS).

Sample ID <b>1805009-001AMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>5/2/2018</b>	RunNo: <b>43239</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20572</b>		Analysis Date: <b>5/2/2018</b>	SeqNo: <b>835893</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	660	26.9	673.0	0	98.0	65	135				
Surr: 2-Fluorobiphenyl	26.2		26.92		97.2	50	150				

**Work Order:** 1804430  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID <b>1805009-001AMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>5/2/2018</b>	RunNo: <b>43239</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20572</b>	Analysis Date: <b>5/2/2018</b>	SeqNo: <b>835893</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: o-Terphenyl                      30.4                      26.92                      113                      50                      150

Sample ID <b>1805009-001AMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>5/2/2018</b>	RunNo: <b>43239</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20572</b>	Analysis Date: <b>5/2/2018</b>	SeqNo: <b>835894</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)                      636                      26.3                      658.6                      0                      96.5                      65                      135                      659.6                      3.67                      30  
Surr: 2-Fluorobiphenyl                      27.4                      26.34                      104                      50                      150                      0  
Surr: o-Terphenyl                      31.0                      26.34                      118                      50                      150                      0

**Work Order:** 1804430  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID <b>MB-20541</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>			Prep Date: <b>4/30/2018</b>	RunNo: <b>43194</b>					
Client ID: <b>MBLKS</b>	Batch ID: <b>20541</b>				Analysis Date: <b>4/30/2018</b>	SeqNo: <b>836030</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	16.2		20.00		81.0	50	150				
Surr: o-Terphenyl	18.3		20.00		91.4	50	150				

Sample ID <b>LCS-20541</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>			Prep Date: <b>4/30/2018</b>	RunNo: <b>43194</b>					
Client ID: <b>LCSS</b>	Batch ID: <b>20541</b>				Analysis Date: <b>4/30/2018</b>	SeqNo: <b>836031</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	521	20.0	500.0	0	104	65	135				
Surr: 2-Fluorobiphenyl	20.4		20.00		102	50	150				
Surr: o-Terphenyl	22.0		20.00		110	50	150				

Sample ID <b>1804430-002ADUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>			Prep Date: <b>4/30/2018</b>	RunNo: <b>43194</b>					
Client ID: <b>S-KSB-10: 3.75ft</b>	Batch ID: <b>20541</b>				Analysis Date: <b>4/30/2018</b>	SeqNo: <b>836033</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	23.8						0		30	
Heavy Oil	ND	59.5						0		30	
Surr: 2-Fluorobiphenyl	13.8		23.79		58.2	50	150		0		
Surr: o-Terphenyl	15.3		23.79		64.5	50	150		0		

Sample ID <b>1804430-002AMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>			Prep Date: <b>4/30/2018</b>	RunNo: <b>43194</b>					
Client ID: <b>S-KSB-10: 3.75ft</b>	Batch ID: <b>20541</b>				Analysis Date: <b>4/30/2018</b>	SeqNo: <b>836034</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	267	20.9	521.7	0	51.2	65	135				S
Surr: 2-Fluorobiphenyl	5.03		20.87		24.1	50	150				S
Surr: o-Terphenyl	4.46		20.87		21.4	50	150				S

**Work Order:** 1804430  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID	<b>1804430-002AMS</b>	SampType:	<b>MS</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>4/30/2018</b>	RunNo:	<b>43194</b>		
Client ID:	<b>S-KSB-10: 3.75ft</b>	Batch ID:	<b>20541</b>			Analysis Date:	<b>4/30/2018</b>	SeqNo:	<b>836034</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**NOTES:**

- S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.
- S - Outlying surrogate recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID	<b>1804430-002AMSD</b>	SampType:	<b>MSD</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>4/30/2018</b>	RunNo:	<b>43194</b>		
Client ID:	<b>S-KSB-10: 3.75ft</b>	Batch ID:	<b>20541</b>			Analysis Date:	<b>4/30/2018</b>	SeqNo:	<b>836035</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	294	20.9	522.2	0	56.2	65	135	267.0	9.53	30	S
Surr: 2-Fluorobiphenyl	4.98		20.89		23.9	50	150		0		S
Surr: o-Terphenyl	4.24		20.89		20.3	50	150		0		S

**NOTES:**

- S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.
- S - Outlying surrogate recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID	<b>1804422-001ADUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>4/30/2018</b>	RunNo:	<b>43194</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>20541</b>			Analysis Date:	<b>5/1/2018</b>	SeqNo:	<b>836046</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	22.9						0		30	
Heavy Oil	ND	57.3						0		30	
Surr: 2-Fluorobiphenyl	20.4		22.91		89.2	50	150		0		
Surr: o-Terphenyl	22.6		22.91		98.8	50	150		0		

**Work Order:** 1804430  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID <b>LCS-20577</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>				Prep Date: <b>5/2/2018</b>	RunNo: <b>43265</b>				
Client ID: <b>LCSS</b>	Batch ID: <b>20577</b>					Analysis Date: <b>5/3/2018</b>	SeqNo: <b>836413</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	27.2	5.00	25.00	0	109	65	135				
Surr: Toluene-d8	1.25		1.250		100	65	135				
Surr: 4-Bromofluorobenzene	1.19		1.250		95.3	65	135				

Sample ID <b>MB-20577</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>				Prep Date: <b>5/2/2018</b>	RunNo: <b>43265</b>				
Client ID: <b>MBLKS</b>	Batch ID: <b>20577</b>					Analysis Date: <b>5/3/2018</b>	SeqNo: <b>836414</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	5.00									
Surr: Toluene-d8	1.29		1.250		103	65	135				
Surr: 4-Bromofluorobenzene	1.12		1.250		89.4	65	135				

Sample ID <b>1804422-002BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>				Prep Date: <b>5/2/2018</b>	RunNo: <b>43265</b>				
Client ID: <b>BATCH</b>	Batch ID: <b>20577</b>					Analysis Date: <b>5/3/2018</b>	SeqNo: <b>836483</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	4.48						0		30	
Surr: Toluene-d8	1.08		1.121		96.3	65	135		0		
Surr: 4-Bromofluorobenzene	0.968		1.121		86.4	65	135		0		

Sample ID <b>1804422-005BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>				Prep Date: <b>5/2/2018</b>	RunNo: <b>43265</b>				
Client ID: <b>BATCH</b>	Batch ID: <b>20577</b>					Analysis Date: <b>5/3/2018</b>	SeqNo: <b>836486</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	6.32						0		30	
Surr: Toluene-d8	1.55		1.579		98.2	65	135		0		
Surr: 4-Bromofluorobenzene	1.40		1.579		88.5	65	135		0		

**Work Order:** 1804430  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID <b>1804422-003BMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>5/2/2018</b>	RunNo: <b>43265</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20577</b>		Analysis Date: <b>5/3/2018</b>	SeqNo: <b>836484</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	16.3	4.20	21.01	0	77.4	65	135				
Surr: Toluene-d8	1.04		1.051		99.0	65	135				
Surr: 4-Bromofluorobenzene	0.958		1.051		91.2	65	135				

Sample ID <b>1804422-003BMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>5/2/2018</b>	RunNo: <b>43265</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20577</b>		Analysis Date: <b>5/4/2018</b>	SeqNo: <b>836485</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	15.4	4.20	21.01	0	73.3	65	135	16.26	5.39	30	
Surr: Toluene-d8	1.03		1.051		97.7	65	135		0		
Surr: 4-Bromofluorobenzene	0.955		1.051		90.9	65	135		0		

**Work Order:** 1804430  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Sample Moisture (Percent Moisture)**

Sample ID <b>1804428-003ADUP</b>	SampType: <b>DUP</b>	Units: <b>wt%</b>	Prep Date: <b>5/1/2018</b>	RunNo: <b>43191</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>R43191</b>	Analysis Date: <b>5/1/2018</b>	SeqNo: <b>834883</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	11.2	0.500						10.99	2.27	20	

Sample ID <b>1804444-002ADUP</b>	SampType: <b>DUP</b>	Units: <b>wt%</b>	Prep Date: <b>5/1/2018</b>	RunNo: <b>43191</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>R43191</b>	Analysis Date: <b>5/1/2018</b>	SeqNo: <b>834891</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	11.0	0.500						11.30	2.83	20	

**Work Order:** 1804430  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Total Metals by EPA Method 6020**

Sample ID <b>MB-20540</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>			Prep Date: <b>4/30/2018</b>	RunNo: <b>43181</b>					
Client ID: <b>MBLKS</b>	Batch ID: <b>20540</b>				Analysis Date: <b>4/30/2018</b>	SeqNo: <b>834658</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead ND 0.150

Sample ID <b>LCS-20540</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>			Prep Date: <b>4/30/2018</b>	RunNo: <b>43181</b>					
Client ID: <b>LCSS</b>	Batch ID: <b>20540</b>				Analysis Date: <b>4/30/2018</b>	SeqNo: <b>834659</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 19.5 0.160 20.00 0 97.5 80 120

Sample ID <b>1804361-006ADUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>			Prep Date: <b>4/30/2018</b>	RunNo: <b>43181</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>20540</b>				Analysis Date: <b>4/30/2018</b>	SeqNo: <b>834661</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 3.27 0.197 3.062 6.45 20

Sample ID <b>1804361-006AMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>			Prep Date: <b>4/30/2018</b>	RunNo: <b>43181</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>20540</b>				Analysis Date: <b>4/30/2018</b>	SeqNo: <b>834663</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 25.1 0.198 24.81 3.062 88.9 75 125

Sample ID <b>1804361-006AMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>			Prep Date: <b>4/30/2018</b>	RunNo: <b>43181</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>20540</b>				Analysis Date: <b>4/30/2018</b>	SeqNo: <b>834664</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 24.6 0.195 24.41 3.062 88.3 75 125 25.11 1.98 20



**Work Order:** 1804430  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	<b>LCS-20577</b>	SampType:	<b>LCS</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>5/2/2018</b>	RunNo:	<b>43264</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>20577</b>			Analysis Date:	<b>5/3/2018</b>	SeqNo:	<b>836399</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	0.883	0.0250	1.000	0	88.3	43.4	151				
1,1-Dichloroethene	0.382	0.0200	1.000	0	38.2	39	144				S
trans-1,2-Dichloroethene	0.945	0.0200	1.000	0	94.5	68	130				
Methyl tert-butyl ether (MTBE)	0.868	0.0500	1.000	0	86.8	44.1	152				
cis-1,2-Dichloroethene	0.935	0.0200	1.000	0	93.5	71.3	135				
1,2-Dichloroethane (EDC)	0.904	0.0200	1.000	0	90.4	50.9	162				
Benzene	0.934	0.0200	1.000	0	93.4	64.3	133				
Trichloroethene (TCE)	0.966	0.0200	1.000	0	96.6	65.5	137				
Toluene	0.968	0.0200	1.000	0	96.8	67.3	138				
Tetrachloroethene (PCE)	1.05	0.0250	1.000	0	105	52.7	150				
1,2-Dibromoethane (EDB)	0.932	0.00500	1.000	0	93.2	50.5	154				
Ethylbenzene	1.02	0.0250	1.000	0	102	74	129				
m,p-Xylene	2.01	0.0500	2.000	0	101	70	124				
o-Xylene	0.967	0.0250	1.000	0	96.7	68.1	139				
Naphthalene	0.950	0.0500	1.000	0	95.0	46.5	167				
Surr: Dibromofluoromethane	1.26		1.250		101	56.5	129				
Surr: Toluene-d8	1.25		1.250		99.7	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.25		1.250		99.8	43.2	143				

**NOTES:**

S - Outlying spike recovery observed (low bias). Samples will be qualified with a \*.

Sample ID	<b>MB-20577</b>	SampType:	<b>MBLK</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>5/2/2018</b>	RunNo:	<b>43264</b>
Client ID:	<b>MBLKS</b>	Batch ID:	<b>20577</b>			Analysis Date:	<b>5/3/2018</b>	SeqNo:	<b>836400</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.0250									
1,1-Dichloroethene	ND	0.0200									*Q
trans-1,2-Dichloroethene	ND	0.0200									
Methyl tert-butyl ether (MTBE)	ND	0.0500									
cis-1,2-Dichloroethene	ND	0.0200									
1,2-Dichloroethane (EDC)	ND	0.0200									

**Work Order:** 1804430  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>MB-20577</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>5/2/2018</b>	RunNo: <b>43264</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>20577</b>		Analysis Date: <b>5/3/2018</b>	SeqNo: <b>836400</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	ND	0.0200									
Trichloroethene (TCE)	ND	0.0200									
Toluene	ND	0.0200									
Tetrachloroethene (PCE)	ND	0.0250									
1,2-Dibromoethane (EDB)	ND	0.00500									
Ethylbenzene	ND	0.0250									
m,p-Xylene	ND	0.0500									
o-Xylene	ND	0.0250									
Naphthalene	ND	0.0500									
Surr: Dibromofluoromethane	1.15		1.250		92.2	56.5	129				
Surr: Toluene-d8	1.20		1.250		95.9	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.17		1.250		93.7	43.2	143				

**NOTES:**

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift)  
\* - Flagged value is not within established control limits.

Sample ID <b>1804422-002BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>5/2/2018</b>	RunNo: <b>43264</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20577</b>		Analysis Date: <b>5/3/2018</b>	SeqNo: <b>836479</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Vinyl chloride	ND	0.0224						0		30	
1,1-Dichloroethene	ND	0.0179						0		30	*
trans-1,2-Dichloroethene	ND	0.0179						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0448						0		30	
cis-1,2-Dichloroethene	ND	0.0179						0		30	
1,2-Dichloroethane (EDC)	ND	0.0179						0		30	
Benzene	ND	0.0179						0		30	
Trichloroethene (TCE)	ND	0.0179						0		30	
Toluene	ND	0.0179						0		30	
Tetrachloroethene (PCE)	ND	0.0224						0		30	
1,2-Dibromoethane (EDB)	ND	0.00448						0		30	

Work Order: 1804430  
 CLIENT: Kane Environmental, Inc.  
 Project: City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	<b>1804422-002BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>5/2/2018</b>	RunNo:	<b>43264</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>20577</b>			Analysis Date:	<b>5/3/2018</b>	SeqNo:	<b>836479</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Ethylbenzene	ND	0.0224						0		30	
m,p-Xylene	ND	0.0448						0		30	
o-Xylene	ND	0.0224						0		30	
Naphthalene	ND	0.0448						0		30	
Surr: Dibromofluoromethane	1.05		1.121		93.4	56.5	129		0		
Surr: Toluene-d8	1.09		1.121		96.8	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.01		1.121		90.5	43.2	143		0		

**NOTES:**

\* - Flagged value is not within established control limits.

Sample ID	<b>1804422-005BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>5/2/2018</b>	RunNo:	<b>43264</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>20577</b>			Analysis Date:	<b>5/3/2018</b>	SeqNo:	<b>836480</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Vinyl chloride	ND	0.0316						0		30	
1,1-Dichloroethene	ND	0.0253						0		30	*
trans-1,2-Dichloroethene	ND	0.0253						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0632						0		30	
cis-1,2-Dichloroethene	ND	0.0253						0		30	
1,2-Dichloroethane (EDC)	ND	0.0253						0		30	
Benzene	ND	0.0253						0		30	
Trichloroethene (TCE)	ND	0.0253						0		30	
Toluene	ND	0.0253						0		30	
Tetrachloroethene (PCE)	ND	0.0316						0		30	
1,2-Dibromoethane (EDB)	ND	0.00632						0		30	
Ethylbenzene	ND	0.0316						0		30	
m,p-Xylene	ND	0.0632						0		30	
o-Xylene	ND	0.0316						0		30	
Naphthalene	ND	0.0632						0		30	
Surr: Dibromofluoromethane	1.47		1.579		92.9	56.5	129		0		
Surr: Toluene-d8	1.51		1.579		95.8	64.5	151		0		

**Work Order:** 1804430  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>1804422-005BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>5/2/2018</b>	RunNo: <b>43264</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20577</b>		Analysis Date: <b>5/3/2018</b>	SeqNo: <b>836480</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: 1-Bromo-4-fluorobenzene      1.46      1.579      92.7      43.2      143      0

**NOTES:**

\* - Flagged value is not within established control limits.

Sample ID <b>1804422-001BMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>5/2/2018</b>	RunNo: <b>43264</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20577</b>		Analysis Date: <b>5/3/2018</b>	SeqNo: <b>836477</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Vinyl chloride	1.62	0.0294	1.177	0	138	43.6	150				
1,1-Dichloroethene	1.29	0.0235	1.177	0	109	47.3	147				
trans-1,2-Dichloroethene	1.29	0.0235	1.177	0	109	52	136				
Methyl tert-butyl ether (MTBE)	1.07	0.0589	1.177	0	91.0	58.5	167				
cis-1,2-Dichloroethene	1.22	0.0235	1.177	0	103	58.6	136				
1,2-Dichloroethane (EDC)	1.13	0.0235	1.177	0	96.2	51.3	139				
Benzene	1.22	0.0235	1.177	0	104	63.5	133				
Trichloroethene (TCE)	1.40	0.0235	1.177	0	119	61.6	147				
Toluene	1.26	0.0235	1.177	0	107	63.4	132				
Tetrachloroethene (PCE)	1.35	0.0294	1.177	0	115	35.6	158				
1,2-Dibromoethane (EDB)	1.16	0.00589	1.177	0	98.9	50.4	136				
Ethylbenzene	1.33	0.0294	1.177	0	113	54.5	134				
m,p-Xylene	2.58	0.0589	2.355	0	110	53.1	132				
o-Xylene	1.26	0.0294	1.177	0	107	53.3	139				
Naphthalene	1.04	0.0589	1.177	0	88.2	52.3	124				
Surr: Dibromofluoromethane	1.51		1.472		103	56.5	129				
Surr: Toluene-d8	1.45		1.472		98.8	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.45		1.472		98.6	43.2	143				

Work Order: 1804430  
 CLIENT: Kane Environmental, Inc.  
 Project: City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	<b>1804422-001BMSD</b>	SampType:	<b>MSD</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>5/2/2018</b>	RunNo:	<b>43264</b>
Client ID:	<b>BATCH</b>	Batch ID:	<b>20577</b>			Analysis Date:	<b>5/3/2018</b>	SeqNo:	<b>836478</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	1.54	0.0294	1.177	0	131	43.6	150	1.624	5.50	30	
1,1-Dichloroethene	1.23	0.0235	1.177	0	105	47.3	147	1.289	4.39	30	
trans-1,2-Dichloroethene	1.22	0.0235	1.177	0	104	52	136	1.286	5.40	30	
Methyl tert-butyl ether (MTBE)	1.07	0.0589	1.177	0	90.5	58.5	167	1.071	0.538	30	
cis-1,2-Dichloroethene	1.16	0.0235	1.177	0	98.4	58.6	136	1.215	4.77	30	
1,2-Dichloroethane (EDC)	1.09	0.0235	1.177	0	92.5	51.3	139	1.133	3.90	30	
Benzene	1.14	0.0235	1.177	0	97.2	63.5	133	1.223	6.66	30	
Trichloroethene (TCE)	1.29	0.0235	1.177	0	110	61.6	147	1.396	7.91	30	
Toluene	1.19	0.0235	1.177	0	101	63.4	132	1.260	6.08	30	
Tetrachloroethene (PCE)	1.27	0.0294	1.177	0	108	35.6	158	1.350	6.03	30	
1,2-Dibromoethane (EDB)	1.17	0.00589	1.177	0	99.0	50.4	136	1.164	0.158	30	
Ethylbenzene	1.22	0.0294	1.177	0	103	54.5	134	1.330	8.78	30	
m,p-Xylene	2.39	0.0589	2.355	0	101	53.1	132	2.580	7.74	30	
o-Xylene	1.17	0.0294	1.177	0	99.7	53.3	139	1.257	6.82	30	
Naphthalene	1.09	0.0589	1.177	0	92.5	52.3	124	1.038	4.76	30	
Surr: Dibromofluoromethane	1.51		1.472		102	56.5	129		0		
Surr: Toluene-d8	1.44		1.472		98.2	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.40		1.472		95.4	43.2	143		0		

Client Name: **KANE**

 Work Order Number: **1804430**

 Logged by: **Brianna Barnes**

 Date Received: **4/25/2018 4:40:00 PM**

### Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present
2. How was the sample delivered? Client

### Log In

3. Coolers are present? Yes  No  NA
4. Shipping container/cooler in good condition? Yes  No
5. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact) Yes  No  Not Required
6. Was an attempt made to cool the samples? Yes  No  NA
7. Were all items received at a temperature of >0°C to 10.0°C\* Yes  No  NA
8. Sample(s) in proper container(s)? Yes  No
9. Sufficient sample volume for indicated test(s)? Yes  No
10. Are samples properly preserved? Yes  No
11. Was preservative added to bottles? Yes  No  NA
12. Is there headspace in the VOA vials? Yes  No  NA
13. Did all samples containers arrive in good condition(unbroken)? Yes  No
14. Does paperwork match bottle labels? Yes  No
15. Are matrices correctly identified on Chain of Custody? Yes  No
16. Is it clear what analyses were requested? Yes  No
17. Were all holding times able to be met? Yes  No

### Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

### Item Information

Item #	Temp °C
Cooler	6.6
Sample	6.1

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C





3600 Fremont Ave. N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

### Chain of Custody Record & Laboratory Services Agreement

Date: 4/25/18 Page: 1 of 1

Project Name: City of Bothell - Wexlar

Project No: 82305

Collected by: Nate Evenson

Location: 18125 Bothell Wayne, Bothell

Report To (PM): Nate Evenson

PM Email: nevenson@keane-environmental.com

Laboratory Project No (Internal): ~~180440~~ 1804430

Special Remarks: Hold - will call analytical order in.

Sample Disposal:  Return to client  Disposal by lab (after 30 days)

Client: Keane Environmental  
Address: 3815 Woodland Park Ave N, Ste 102  
City, State, Zip: Seattle, WA 98103  
Telephone: (206) 691-0476  
Fax: (206) 675-0650

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DH)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) / Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1 S-KSB-10: 2.75ft	4/25/18	6848	S														
2 S-KSB-10: 3.75ft		0953															
3 S-KSB-11: 3.5ft		0905															
4 S-KSB-11: 10ft		0915															
5 S-KSB-11: 15ft		0925															
6 S-KSB-12: 3.75ft		1135															
7 S-KSB-12: 8ft		1280															
8 S-KSB-12: 15ft		1245															
9																	
10																	

\*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

\*\*Metals (Circle): MTC-A-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Tl U V Zn

\*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide Iodide O-Phosphate Fluoride Nitrate-Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished: *[Signature]* Date/Time: 4/25/18 1640  
Received: *[Signature]* Date/Time: 4/25/18 1640

Turn-around Time:  Standard  3 Day  2 Day  Next Day  Same Day (specify)





3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

### Chain of Custody Record & Laboratory Services Agreement

Date: 4/25/18 Page: 1 of: 1

Project Name: City of Botwell - Wexlar

Project No: 82305

Collected by: Nate Evenson

Location: 18125 Botwell Wayne, Botwell

Report To (PM): Nate Evenson

PM Email: n.evenson@kame-environmental.com

Laboratory Project No (Internal): 18044730

Special Remarks: Hold - will call analytical order in.   
 ~~order NE 4/20/18 eq~~

Sample Disposal:  Return to client  Disposal by lab (after 30 days)

City, State, Zip: Seattle, WA 98103

Address: 3815 Woodland Park Ave N, Ste 102

Telephone: (206) 691-0476

Fax: (206) 675-0650

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HX)	Diesel/Heavy Oil Range Organics (HX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - 625)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T)   Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1 S-KSB-10: 2.75ft	4/25/18	6848	S														
2 S-KSB-10: 3.75ft		0953															
3 S-KSB-11: 3.5ft		0905															
4 S-KSB-11: 10ft		0915															
5 S-KSB-11: 15ft		0925															
6 S-KSB-12: 3.75ft		1135															
7 S-KSB-12: 8ft		1280															
8 S-KSB-12: 15ft		1245															
9																	
10																	

\*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water  
 \*\*Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Tl U V Zn  
 \*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished Mate Date/Time 4/25/18 1640 Received Mate Date/Time 4/25/18 1640  
 Relinquished x Received x





3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

### Chain of Custody Record & Laboratory Services Agreement

Client: **Kave Environmental**

Address: **3815 Woodland Park Ave N, Ste 102**

City, State, Zip: **Seattle, WA 98103**

Telephone: **(206) 691-0476**

Fax: **(206) 675-0650**

Date: **4/25/18**

Project Name: **City of Botwell - Wexlar**

Project No.: **82305**

Collected by: **Nate Everson**

Location: **18725 Botwell Way NE, Botwell**

Report To (PM): **Nate Everson**

PM Email: **n.everson@kave-environmental.com**

Laboratory Project No (Internal): **1904430**

Special Remarks: **Hold - will call analytical order**

**W: 4/20/18 copy  
DUE 5/15  
DUE 5/15  
WTD**

Sample Disposal:  Return to client  Disposal by lab (after 30 days)

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)	YOCS (EPA 8260/624)	GV/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HICID)	Diesel/heavy Oil Range Organics (DYO)	SVOCs (EPA 8270/625)	PAHs (EPA 8270-SIM)	PCBs (EPA 8082/608)	Metals** (EPA 8000/200.9)	Total (T)   Dissolved (D)	Anions (IC)**	EDS (8011)	EDS (MTE)	EDS (Bridgman 8260)	Comments
1 S-KSB-10: 2.75ft	4/25/18	6848	S	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
2 S-KSB-10: 3.75ft		0953		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
3 S-KSB-11: 3.5ft		0905		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
4 S-KSB-11: 10ft		0915		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
5 S-KSB-11: 15ft		0925		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
6 S-KSB-12: 3.75ft		1135		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
7 S-KSB-12: 8ft		1280		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
8 S-KSB-12: 15ft		1245		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
9																			
10																			

Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

\*\*Metals (Circle): MTCA-5 RCRA-8 TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni **Pb** Sb Se Sr Sn Tl Ti U V Zn

\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate-Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Requisitioned: **Mason** Date/Time: **4/25/18 1640**

Received: **Mason** Date/Time: **4/25/18 1640**

Requisitioned: **Mason** Date/Time: **4/25/18 1640**

Received: **Mason** Date/Time: **4/25/18 1640**



3600 Fremont Ave. N.  
Seattle, WA 98103  
T: (206) 352-3790  
F: (206) 352-7178  
info@fremontanalytical.com

**Kane Environmental, Inc.**  
Nate Evenson  
3815 Woodland Park Ave N, Ste. 102  
Seattle, WA 98103

**RE: City of Bothell - Wexler**  
**Work Order Number: 1804394**

May 02, 2018

**Attention Nate Evenson:**

Fremont Analytical, Inc. received 2 sample(s) on 4/25/2018 for the analyses presented in the following report.

***1,2-Dibromoethane (EDB) by EPA Method 8011***  
***Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.***  
***Dissolved Metals by EPA Method 200.8***  
***Gasoline by NWTPH-Gx***  
***Total Metals by EPA Method 200.8***  
***Volatile Organic Compounds by EPA Method 8260C***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Chelsea Ward  
Project Manager

DoD/ELAP Certification #L17-135, ISO/IEC 17025:2005  
ORELAP Certification: WA 100009-007 (NELAP Recognized)



Date: 05/02/2018

---

**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler  
**Work Order:** 1804394

## Work Order Sample Summary

---

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1804394-001	S-KSB-12:W	04/25/2018 10:45 AM	04/25/2018 4:40 PM
1804394-002	S-KSB-11:W	04/25/2018 1:03 PM	04/25/2018 4:40 PM

**CLIENT:** Kane Environmental, Inc.

**Project:** City of Bothell - Wexler

---

**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate





**Client:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler  
**Lab ID:** 1804394-002  
**Client Sample ID:** S-KSB-11:W

**Collection Date:** 4/25/2018 1:03:00 PM  
**Matrix:** Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>1,2-Dibromoethane (EDB) by EPA Method 8011</u></b>					Batch ID: 20542	Analyst: SB
1,2-Dibromoethane (EDB)	ND	0.00990		µg/L	1	5/1/2018 5:13:57 AM
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>					Batch ID: 20520	Analyst: SB
Diesel (Fuel Oil)	ND	49.8		µg/L	1	4/27/2018 1:05:12 PM
Heavy Oil	ND	99.7		µg/L	1	4/27/2018 1:05:12 PM
Surr: 2-Fluorobiphenyl	86.9	50 - 150		%Rec	1	4/27/2018 1:05:12 PM
Surr: o-Terphenyl	91.8	50 - 150		%Rec	1	4/27/2018 1:05:12 PM
<b><u>Gasoline by NWTPH-Gx</u></b>					Batch ID: 20551	Analyst: MW
Gasoline	985	50.0		µg/L	1	4/30/2018 6:46:40 PM
Surr: Toluene-d8	100	65 - 135		%Rec	1	4/30/2018 6:46:40 PM
Surr: 4-Bromofluorobenzene	105	65 - 135		%Rec	1	4/30/2018 6:46:40 PM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>					Batch ID: 20551	Analyst: MW
Vinyl chloride	ND	0.200		µg/L	1	4/30/2018 6:46:40 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	4/30/2018 6:46:40 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	4/30/2018 6:46:40 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	4/30/2018 6:46:40 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	4/30/2018 6:46:40 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	4/30/2018 6:46:40 PM
Benzene	ND	1.00		µg/L	1	4/30/2018 6:46:40 PM
Trichloroethene (TCE)	4.58	0.500		µg/L	1	4/30/2018 6:46:40 PM
Toluene	ND	1.00		µg/L	1	4/30/2018 6:46:40 PM
Tetrachloroethene (PCE)	1.79	1.00		µg/L	1	4/30/2018 6:46:40 PM
Ethylbenzene	1.21	1.00		µg/L	1	4/30/2018 6:46:40 PM
m,p-Xylene	ND	1.00		µg/L	1	4/30/2018 6:46:40 PM
o-Xylene	ND	1.00		µg/L	1	4/30/2018 6:46:40 PM
Naphthalene	ND	1.00		µg/L	1	4/30/2018 6:46:40 PM
Surr: Dibromofluoromethane	104	45.4 - 152		%Rec	1	4/30/2018 6:46:40 PM
Surr: Toluene-d8	103	40.1 - 139		%Rec	1	4/30/2018 6:46:40 PM
Surr: 1-Bromo-4-fluorobenzene	105	64.2 - 128		%Rec	1	4/30/2018 6:46:40 PM
<b><u>Dissolved Metals by EPA Method 200.8</u></b>					Batch ID: 20524	Analyst: TN
Lead	ND	0.500		µg/L	1	4/27/2018 10:20:27 AM



**Client:** Kane Environmental, Inc.

**Collection Date:** 4/25/2018 1:03:00 PM

**Project:** City of Bothell - Wexler

**Lab ID:** 1804394-002

**Matrix:** Groundwater

**Client Sample ID:** S-KSB-11:W

**Analyses**

**Result**

**RL**

**Qual**

**Units**

**DF**

**Date Analyzed**

**Total Metals by EPA Method 200.8**

Batch ID: 20513

Analyst: WC

Lead

ND

0.500

µg/L

1

4/26/2018 5:02:17 PM

**Work Order:** 1804394  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**1,2-Dibromoethane (EDB) by EPA Method 8011**

Sample ID <b>MB-20542</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>4/30/2018</b>	RunNo: <b>43204</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>20542</b>		Analysis Date: <b>5/1/2018</b>	SeqNo: <b>835062</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2-Dibromoethane (EDB) ND 0.0101

Sample ID <b>LCS-20542</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>	Prep Date: <b>4/30/2018</b>	RunNo: <b>43204</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>20542</b>		Analysis Date: <b>5/1/2018</b>	SeqNo: <b>835063</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2-Dibromoethane (EDB) 1.02 0.0101 1.008 0 101 60 140

Sample ID <b>1804394-002EDUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>4/30/2018</b>	RunNo: <b>43204</b>							
Client ID: <b>S-KSB-11:W</b>	Batch ID: <b>20542</b>		Analysis Date: <b>5/1/2018</b>	SeqNo: <b>835065</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2-Dibromoethane (EDB) ND 0.00990 0 30

Sample ID <b>1804389-006EMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>	Prep Date: <b>4/30/2018</b>	RunNo: <b>43204</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20542</b>		Analysis Date: <b>5/1/2018</b>	SeqNo: <b>835067</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2-Dibromoethane (EDB) 1.02 0.0101 1.012 0 101 60 140

Sample ID <b>1804389-006EMSD</b>	SampType: <b>MSD</b>	Units: <b>µg/L</b>	Prep Date: <b>4/30/2018</b>	RunNo: <b>43204</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20542</b>		Analysis Date: <b>5/1/2018</b>	SeqNo: <b>835068</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2-Dibromoethane (EDB) 0.918 0.00977 0.9771 0 93.9 60 140 1.023 10.8 30



**Work Order:** 1804394  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID <b>MB-20520</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>			Prep Date: <b>4/26/2018</b>	RunNo: <b>43151</b>					
Client ID: <b>MBLKW</b>	Batch ID: <b>20520</b>				Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834142</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	50.0									
Heavy Oil	ND	100									
Surr: 2-Fluorobiphenyl	64.6		80.00		80.8	50	150				
Surr: o-Terphenyl	75.3		80.00		94.1	50	150				

Sample ID <b>LCS-20520</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>			Prep Date: <b>4/26/2018</b>	RunNo: <b>43151</b>					
Client ID: <b>LCSW</b>	Batch ID: <b>20520</b>				Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834143</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	860	50.0	1,000	0	86.0	65	135				
Surr: 2-Fluorobiphenyl	73.9		80.00		92.4	50	150				
Surr: o-Terphenyl	77.0		80.00		96.3	50	150				

Sample ID <b>1804394-002BDUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>			Prep Date: <b>4/26/2018</b>	RunNo: <b>43151</b>					
Client ID: <b>S-KSB-11:W</b>	Batch ID: <b>20520</b>				Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834922</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	49.8						0		30	
Heavy Oil	ND	99.6						0		30	
Surr: 2-Fluorobiphenyl	59.6		79.65		74.8	50	150		0		
Surr: o-Terphenyl	61.1		79.65		76.7	50	150		0		

Sample ID <b>1804394-002BMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>			Prep Date: <b>4/26/2018</b>	RunNo: <b>43151</b>					
Client ID: <b>S-KSB-11:W</b>	Batch ID: <b>20520</b>				Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834923</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	901	50.0	999.1	18.72	88.3	65	135				
Surr: 2-Fluorobiphenyl	71.5		79.93		89.4	50	150				
Surr: o-Terphenyl	64.8		79.93		81.1	50	150				

**Work Order:** 1804394  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID <b>1804394-002BMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>	Prep Date: <b>4/26/2018</b>	RunNo: <b>43151</b>							
Client ID: <b>S-KSB-11:W</b>	Batch ID: <b>20520</b>	Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834923</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID <b>1804394-002BMSD</b>	SampType: <b>MSD</b>	Units: <b>µg/L</b>	Prep Date: <b>4/26/2018</b>	RunNo: <b>43151</b>							
Client ID: <b>S-KSB-11:W</b>	Batch ID: <b>20520</b>	Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834924</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	936	49.9	998.8	18.72	91.8	65	135	900.8	3.81	30	
Surr: 2-Fluorobiphenyl	73.3		79.90		91.7	50	150		0		
Surr: o-Terphenyl	63.2		79.90		79.1	50	150		0		

**Work Order:** 1804394  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Dissolved Metals by EPA Method 200.8**

Sample ID <b>MB-20524</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>4/27/2018</b>	RunNo: <b>43145</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>20524</b>	Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834047</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead ND 0.500

Sample ID <b>LCS-20524</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>	Prep Date: <b>4/27/2018</b>	RunNo: <b>43145</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>20524</b>	Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834048</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 52.8 0.500 50.00 0 106 85 115

Sample ID <b>1804389-002DMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>	Prep Date: <b>4/27/2018</b>	RunNo: <b>43145</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20524</b>	Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834050</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 252 0.500 250.0 0.3110 101 70 130

Sample ID <b>1804389-002DMSD</b>	SampType: <b>MSD</b>	Units: <b>µg/L</b>	Prep Date: <b>4/27/2018</b>	RunNo: <b>43145</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20524</b>	Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834051</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 270 0.500 250.0 0.3110 108 70 130 251.6 6.88 30

Sample ID <b>1804389-002DDUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>4/27/2018</b>	RunNo: <b>43145</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20524</b>	Analysis Date: <b>4/27/2018</b>	SeqNo: <b>834052</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead ND 0.500 0 30

**Work Order:** 1804394  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID <b>LCS-20551</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>				Prep Date: <b>4/30/2018</b>	RunNo: <b>43206</b>				
Client ID: <b>LCSW</b>	Batch ID: <b>20551</b>					Analysis Date: <b>4/30/2018</b>	SeqNo: <b>835163</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	539	50.0	500.0	0	108	65	135				
Surr: Toluene-d8	25.2		25.00		101	65	135				
Surr: 4-Bromofluorobenzene	25.4		25.00		102	65	135				

Sample ID <b>MB-20551</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>				Prep Date: <b>4/30/2018</b>	RunNo: <b>43206</b>				
Client ID: <b>MBLKW</b>	Batch ID: <b>20551</b>					Analysis Date: <b>4/30/2018</b>	SeqNo: <b>835164</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	50.0									
Surr: Toluene-d8	24.8		25.00		99.0	65	135				
Surr: 4-Bromofluorobenzene	24.8		25.00		99.1	65	135				

Sample ID <b>1804408-005ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>				Prep Date: <b>4/30/2018</b>	RunNo: <b>43206</b>				
Client ID: <b>BATCH</b>	Batch ID: <b>20551</b>					Analysis Date: <b>4/30/2018</b>	SeqNo: <b>835153</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	50.0						0		30	
Surr: Toluene-d8	25.0		25.00		99.9	65	135		0		
Surr: 4-Bromofluorobenzene	25.0		25.00		100	65	135		0		

Sample ID <b>1804389-008AMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>				Prep Date: <b>4/30/2018</b>	RunNo: <b>43206</b>				
Client ID: <b>BATCH</b>	Batch ID: <b>20551</b>					Analysis Date: <b>4/30/2018</b>	SeqNo: <b>835149</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	566	50.0	500.0	0	113	65	135				
Surr: Toluene-d8	25.0		25.00		100	65	135				
Surr: 4-Bromofluorobenzene	25.5		25.00		102	65	135				

**Work Order:** 1804394  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID <b>1804389-008AMSD</b>	SampType: <b>MSD</b>	Units: <b>µg/L</b>			Prep Date: <b>4/30/2018</b>	RunNo: <b>43206</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>20551</b>				Analysis Date: <b>4/30/2018</b>	SeqNo: <b>835150</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	556	50.0	500.0	0	111	65	135	565.7	1.76	30
Surr: Toluene-d8	25.2		25.00		101	65	135		0	
Surr: 4-Bromofluorobenzene	25.2		25.00		101	65	135		0	

Sample ID <b>1804411-013ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>			Prep Date: <b>4/30/2018</b>	RunNo: <b>43206</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>20551</b>				Analysis Date: <b>5/1/2018</b>	SeqNo: <b>835157</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	50.0						0		30
Surr: Toluene-d8	24.6		25.00		98.3	65	135		0	
Surr: 4-Bromofluorobenzene	25.4		25.00		101	65	135		0	

**Work Order:** 1804394  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Total Metals by EPA Method 200.8**

Sample ID <b>MB-20513</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>4/26/2018</b>	RunNo: <b>43133</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>20513</b>		Analysis Date: <b>4/26/2018</b>	SeqNo: <b>833751</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead ND 0.500

Sample ID <b>LCS-20513</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>	Prep Date: <b>4/26/2018</b>	RunNo: <b>43133</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>20513</b>		Analysis Date: <b>4/26/2018</b>	SeqNo: <b>833752</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 51.1 0.500 50.00 0 102 85 115

Sample ID <b>1804363-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>4/26/2018</b>	RunNo: <b>43133</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20513</b>		Analysis Date: <b>4/26/2018</b>	SeqNo: <b>833754</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead ND 0.500 0 30

Sample ID <b>1804363-001AMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>	Prep Date: <b>4/26/2018</b>	RunNo: <b>43133</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20513</b>		Analysis Date: <b>4/26/2018</b>	SeqNo: <b>833755</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 250 0.500 250.0 0.4045 99.7 70 130

Sample ID <b>1804363-001AMSD</b>	SampType: <b>MSD</b>	Units: <b>µg/L</b>	Prep Date: <b>4/26/2018</b>	RunNo: <b>43133</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20513</b>		Analysis Date: <b>4/26/2018</b>	SeqNo: <b>833756</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 245 0.500 250.0 0.4045 97.9 70 130 249.8 1.82 30

**Work Order:** 1804394  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	LCS-20551	SampType:	LCS	Units:	µg/L	Prep Date:	4/30/2018	RunNo:	43179		
Client ID:	LCSW	Batch ID:	20551	Analysis Date:	4/30/2018	SeqNo:	834590				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	20.2	0.200	20.00	0	101	48	145				
1,1-Dichloroethene	19.1	1.00	20.00	0	95.3	57.5	150				
trans-1,2-Dichloroethene	20.0	1.00	20.00	0	100	71.7	129				
Methyl tert-butyl ether (MTBE)	20.4	1.00	20.00	0	102	58	138				
cis-1,2-Dichloroethene	19.9	1.00	20.00	0	99.3	70.2	139				
1,2-Dichloroethane (EDC)	19.8	1.00	20.00	0	98.8	67	126				
Benzene	20.3	1.00	20.00	0	101	69.3	132				
Trichloroethene (TCE)	19.5	0.500	20.00	0	97.5	65.2	136				
Toluene	19.9	1.00	20.00	0	99.7	61.3	145				
Tetrachloroethene (PCE)	19.4	1.00	20.00	0	97.2	47.5	147				
Ethylbenzene	19.9	1.00	20.00	0	99.3	72	130				
m,p-Xylene	40.5	1.00	40.00	0	101	70.3	134				
o-Xylene	20.0	1.00	20.00	0	99.9	72.1	131				
Naphthalene	21.5	1.00	20.00	0	107	41.8	165				
Surr: Dibromofluoromethane	27.1		25.00		109	45.4	152				
Surr: Toluene-d8	24.7		25.00		98.8	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	25.7		25.00		103	64.2	128				

Sample ID	MB-20551	SampType:	MBLK	Units:	µg/L	Prep Date:	4/30/2018	RunNo:	43179		
Client ID:	MBLKW	Batch ID:	20551	Analysis Date:	4/30/2018	SeqNo:	834591				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.200									
1,1-Dichloroethene	ND	1.00									
trans-1,2-Dichloroethene	ND	1.00									
Methyl tert-butyl ether (MTBE)	ND	1.00									
cis-1,2-Dichloroethene	ND	1.00									
1,2-Dichloroethane (EDC)	ND	1.00									
Benzene	ND	1.00									
Trichloroethene (TCE)	ND	0.500									

**Work Order:** 1804394  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>MB-20551</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>4/30/2018</b>	RunNo: <b>43179</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>20551</b>		Analysis Date: <b>4/30/2018</b>	SeqNo: <b>834591</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Toluene	ND	1.00									
Tetrachloroethene (PCE)	ND	1.00									
Ethylbenzene	ND	1.00									
m,p-Xylene	ND	1.00									
o-Xylene	ND	1.00									
Naphthalene	ND	1.00									

Surr: Dibromofluoromethane	24.7		25.00		99.0	45.4	152				
Surr: Toluene-d8	24.7		25.00		98.7	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	24.8		25.00		99.1	64.2	128				

Sample ID <b>1804408-005ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>4/30/2018</b>	RunNo: <b>43179</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20551</b>		Analysis Date: <b>4/30/2018</b>	SeqNo: <b>834588</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Vinyl chloride	ND	0.200						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
Toluene	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Ethylbenzene	ND	1.00						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	1.00						0		30	
Naphthalene	ND	1.00						0		30	

Surr: Dibromofluoromethane	26.0		25.00		104	45.4	152		0		
Surr: Toluene-d8	24.7		25.00		98.7	40.1	139		0		



**Work Order:** 1804394  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>1804408-005ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>				Prep Date: <b>4/30/2018</b>	RunNo: <b>43179</b>				
Client ID: <b>BATCH</b>	Batch ID: <b>20551</b>					Analysis Date: <b>4/30/2018</b>	SeqNo: <b>834588</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1-Bromo-4-fluorobenzene	24.9		25.00		99.7	64.2	128		0		

Sample ID <b>1804389-008AMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>				Prep Date: <b>4/30/2018</b>	RunNo: <b>43179</b>				
Client ID: <b>BATCH</b>	Batch ID: <b>20551</b>					Analysis Date: <b>4/30/2018</b>	SeqNo: <b>835090</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	23.3	0.200	20.00	0	117	41	165				
1,1-Dichloroethene	22.4	1.00	20.00	0	112	51.6	164				
trans-1,2-Dichloroethene	21.8	1.00	20.00	0	109	63.5	138				
Methyl tert-butyl ether (MTBE)	20.8	1.00	20.00	0	104	60.9	132				
cis-1,2-Dichloroethene	23.5	1.00	20.00	2.412	106	60	154				
1,2-Dichloroethane (EDC)	19.8	1.00	20.00	0	98.8	63.4	137				
Benzene	21.3	1.00	20.00	0	106	65.4	138				
Trichloroethene (TCE)	21.3	0.500	20.00	0	107	60.4	134				
Toluene	20.9	1.00	20.00	0	105	52	147				
Tetrachloroethene (PCE)	26.0	1.00	20.00	4.256	109	50.3	133				
Ethylbenzene	21.3	1.00	20.00	0	106	64.5	136				
m,p-Xylene	41.8	1.00	40.00	0	105	63.3	135				
o-Xylene	21.0	1.00	20.00	0	105	64.8	150				
Naphthalene	20.8	1.00	20.00	0	104	50.7	154				
Surr: Dibromofluoromethane	27.1		25.00		108	45.4	152				
Surr: Toluene-d8	25.0		25.00		100	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	25.2		25.00		101	64.2	128				

Sample ID <b>1804389-008AMSD</b>	SampType: <b>MSD</b>	Units: <b>µg/L</b>				Prep Date: <b>4/30/2018</b>	RunNo: <b>43179</b>				
Client ID: <b>BATCH</b>	Batch ID: <b>20551</b>					Analysis Date: <b>4/30/2018</b>	SeqNo: <b>835091</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	23.6	0.200	20.00	0	118	41	165	23.32	1.39	30	
1,1-Dichloroethene	22.2	1.00	20.00	0	111	51.6	164	22.37	0.531	30	

**Work Order:** 1804394  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1804389-008AMSD	SampType:	MSD	Units:	µg/L	Prep Date:	4/30/2018	RunNo:	43179		
Client ID:	BATCH	Batch ID:	20551	Analysis Date:	4/30/2018	SeqNo:	835091				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,2-Dichloroethene	21.5	1.00	20.00	0	107	63.5	138	21.78	1.53	30	
Methyl tert-butyl ether (MTBE)	20.6	1.00	20.00	0	103	60.9	132	20.82	1.17	30	
cis-1,2-Dichloroethene	23.7	1.00	20.00	2.412	107	60	154	23.53	0.817	30	
1,2-Dichloroethane (EDC)	19.5	1.00	20.00	0	97.6	63.4	137	19.76	1.17	30	
Benzene	21.0	1.00	20.00	0	105	65.4	138	21.26	1.08	30	
Trichloroethene (TCE)	20.9	0.500	20.00	0	105	60.4	134	21.31	1.68	30	
Toluene	20.8	1.00	20.00	0	104	52	147	20.93	0.549	30	
Tetrachloroethene (PCE)	25.9	1.00	20.00	4.256	108	50.3	133	26.01	0.280	30	
Ethylbenzene	21.3	1.00	20.00	0	106	64.5	136	21.29	0.0396	30	
m,p-Xylene	42.2	1.00	40.00	0	105	63.3	135	41.82	0.842	30	
o-Xylene	20.8	1.00	20.00	0	104	64.8	150	21.01	0.786	30	
Naphthalene	22.9	1.00	20.00	0	115	50.7	154	20.80	9.81	30	
Surr: Dibromofluoromethane	26.8		25.00		107	45.4	152		0		
Surr: Toluene-d8	24.6		25.00		98.4	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	25.3		25.00		101	64.2	128		0		

Sample ID	1804411-013ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	4/30/2018	RunNo:	43179		
Client ID:	BATCH	Batch ID:	20551	Analysis Date:	5/1/2018	SeqNo:	835097				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.200						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
Toluene	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	

**Work Order:** 1804394  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>1804411-013ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>4/30/2018</b>	RunNo: <b>43179</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20551</b>		Analysis Date: <b>5/1/2018</b>	SeqNo: <b>835097</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Ethylbenzene	ND	1.00						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	1.00						0		30	
Naphthalene	ND	1.00						0		30	
Surr: Dibromofluoromethane	26.5		25.00		106	45.4	152		0		
Surr: Toluene-d8	24.8		25.00		99.2	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	25.3		25.00		101	64.2	128		0		

Client Name: **KANE**

 Work Order Number: **1804394**

 Logged by: **Brianna Barnes**

 Date Received: **4/25/2018 4:40:00 PM**

### Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present
2. How was the sample delivered? Client

### Log In

3. Coolers are present? Yes  No  NA
4. Shipping container/cooler in good condition? Yes  No
5. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact) Yes  No  Not Required
6. Was an attempt made to cool the samples? Yes  No  NA
7. Were all items received at a temperature of >0°C to 10.0°C\* Yes  No  NA
8. Sample(s) in proper container(s)? Yes  No
9. Sufficient sample volume for indicated test(s)? Yes  No
10. Are samples properly preserved? Yes  No
11. Was preservative added to bottles? Yes  No  NA
12. Is there headspace in the VOA vials? Yes  No  NA
13. Did all samples containers arrive in good condition(unbroken)? Yes  No
14. Does paperwork match bottle labels? Yes  No
15. Are matrices correctly identified on Chain of Custody? Yes  No
16. Is it clear what analyses were requested? Yes  No
17. Were all holding times able to be met? Yes  No

### Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text" value="Nate Evenson"/>	Date:	<input type="text" value="4/25/2018"/>
By Whom:	<input type="text" value="Brianna Barnes"/>	Via:	<input checked="" type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text" value="Confirming metals selection."/>		
Client Instructions:	<input type="text" value="Total and dissolved Pb."/>		

19. Additional remarks:

### Item Information

Item #	Temp °C
Cooler	6.6
Sample	6.1

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

### Chain of Custody Record & Laboratory Services Agreement

Date: 4/25/18 Page: 1 of 1

Project Name: City of Botwell - Wexler

Project No: 82305

Collected by: Nate Evenson

Location: 18125 Botwell Way NE, Botwell

Report To (PM): Nate Evenson

PM Email: nvenson@kare-environmental.com

Laboratory Project No (Internal): 18043914

Special Remarks:

Sample Disposal:  Return to client  Disposal by lab (after 30 days)

Client: Kare Environmental  
Address: 3815 Woodland Park Ave N, Sk 102  
City, State, Zip: Seattle, WA 98103  
Telephone: (206) 691-0476  
Fax: (206) 675-0650

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DH)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T)   Dissolved (D)	Anions (IC)**	EDB (8011)	PCP, MTBE, Napthalene (8260)	PCE & Breakdowns (8260)	Comments
1 S-KSB-11; W	4/25/18	1045	GW	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	6 VOCs, 1 amber of 4 filtered H2O's poly 10 VOCs, 2 amber of 4 filtered H2O's poly, 1 filtered H2O's poly
2 S-KSB-12; W	4/25/18	1303	GW	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

\*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water  
 \*\*Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Tl U V Zn  
 \*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished: *Nate Evenson* Date/Time: 4/25/18 1640  
 Received: *Nate Evenson* Date/Time: 4/25/18 1640







3600 Fremont Ave. N.  
Seattle, WA 98103  
T: (206) 352-3790  
F: (206) 352-7178  
info@fremontanalytical.com

**Kane Environmental, Inc.**  
Nate Evenson  
3815 Woodland Park Ave N, Ste. 102  
Seattle, WA 98103

**RE: City of Bothell - Wexler**  
**Work Order Number: 1805112**

May 16, 2018

**Attention Nate Evenson:**

Fremont Analytical, Inc. received 7 sample(s) on 5/8/2018 for the analyses presented in the following report.

***Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.***  
***Gasoline by NWTPH-Gx***  
***Sample Moisture (Percent Moisture)***  
***Total Metals by EPA Method 6020***  
***Volatile Organic Compounds by EPA Method 8260C***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

A handwritten signature in black ink, appearing to read "Chelsea Ward".

Chelsea Ward  
Project Manager

DoD/ELAP Certification #L17-135, ISO/IEC 17025:2005  
ORELAP Certification: WA 100009-007 (NELAP Recognized)



Date: 05/16/2018

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**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler  
**Work Order:** 1805112

## Work Order Sample Summary

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Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1805112-001	S-MW-7:3.75ft	05/08/2018 9:18 AM	05/08/2018 5:25 PM
1805112-002	S-MW-8:4ft	05/08/2018 10:25 AM	05/08/2018 5:25 PM
1805112-003	S-MW-8:4.5ft	05/08/2018 10:28 AM	05/08/2018 5:25 PM
1805112-004	S-MW-9:3.5ft	05/08/2018 11:12 AM	05/08/2018 5:25 PM
1805112-005	S-MW-7:10.5ft	05/08/2018 11:22 AM	05/08/2018 5:25 PM
1805112-006	S-MW-10:4.25ft	05/08/2018 11:40 AM	05/08/2018 5:25 PM
1805112-007	S-MW-11:3.75ft	05/08/2018 1:24 PM	05/08/2018 5:25 PM



**CLIENT:** Kane Environmental, Inc.

**Project:** City of Bothell - Wexler

---

**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.



Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



**Client:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler  
**Lab ID:** 1805112-001  
**Client Sample ID:** S-MW-7:3.75ft

**Collection Date:** 5/8/2018 9:18:00 AM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 20665 Analyst: SB

Diesel (Fuel Oil)	ND	24.1		mg/Kg-dry	1	5/15/2018 12:27:21 PM
Heavy Oil	ND	60.2		mg/Kg-dry	1	5/15/2018 12:27:21 PM
Surr: 2-Fluorobiphenyl	74.4	50 - 150		%Rec	1	5/15/2018 12:27:21 PM
Surr: o-Terphenyl	88.9	50 - 150		%Rec	1	5/15/2018 12:27:21 PM

**Gasoline by NWTPH-Gx**

Batch ID: 20650 Analyst: MW

Gasoline	ND	6.66		mg/Kg-dry	1	5/11/2018 1:22:11 AM
Gasoline Range Organics (C6-C12)	17.4	6.66		mg/Kg-dry	1	5/11/2018 1:22:11 AM
Surr: Toluene-d8	99.3	65 - 135		%Rec	1	5/11/2018 1:22:11 AM
Surr: 4-Bromofluorobenzene	92.1	65 - 135		%Rec	1	5/11/2018 1:22:11 AM

**NOTES:**

GRO - Indicates the presence of unresolved compounds eluting from toluene to dodecane (~C6-C12).

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 20650 Analyst: MW

Vinyl chloride	ND	0.0333		mg/Kg-dry	1	5/11/2018 1:22:11 AM
1,1-Dichloroethene	ND	0.0266	Q*	mg/Kg-dry	1	5/11/2018 1:22:11 AM
trans-1,2-Dichloroethene	ND	0.0266		mg/Kg-dry	1	5/11/2018 1:22:11 AM
Methyl tert-butyl ether (MTBE)	ND	0.0666		mg/Kg-dry	1	5/11/2018 1:22:11 AM
cis-1,2-Dichloroethene	ND	0.0266		mg/Kg-dry	1	5/11/2018 1:22:11 AM
1,2-Dichloroethane (EDC)	ND	0.0266		mg/Kg-dry	1	5/11/2018 1:22:11 AM
Benzene	ND	0.0266		mg/Kg-dry	1	5/11/2018 1:22:11 AM
Trichloroethene (TCE)	ND	0.0266		mg/Kg-dry	1	5/11/2018 1:22:11 AM
Toluene	ND	0.0266		mg/Kg-dry	1	5/11/2018 1:22:11 AM
Tetrachloroethene (PCE)	ND	0.0333		mg/Kg-dry	1	5/11/2018 1:22:11 AM
1,2-Dibromoethane (EDB)	ND	0.00666		mg/Kg-dry	1	5/11/2018 1:22:11 AM
Ethylbenzene	ND	0.0333		mg/Kg-dry	1	5/11/2018 1:22:11 AM
m,p-Xylene	ND	0.0666		mg/Kg-dry	1	5/11/2018 1:22:11 AM
o-Xylene	ND	0.0333		mg/Kg-dry	1	5/11/2018 1:22:11 AM
Naphthalene	ND	0.0666		mg/Kg-dry	1	5/11/2018 1:22:11 AM
Surr: Dibromofluoromethane	92.3	56.5 - 129		%Rec	1	5/11/2018 1:22:11 AM
Surr: Toluene-d8	101	64.5 - 151		%Rec	1	5/11/2018 1:22:11 AM
Surr: 1-Bromo-4-fluorobenzene	93.5	43.2 - 143		%Rec	1	5/11/2018 1:22:11 AM

**NOTES:**

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift)

\* - Flagged value is not within established control limits.



**Client:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler  
**Lab ID:** 1805112-001  
**Client Sample ID:** S-MW-7:3.75ft

**Collection Date:** 5/8/2018 9:18:00 AM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Total Metals by EPA Method 6020</u></b>				Batch ID: 20631		Analyst: WC
Lead	3.19	0.208		mg/Kg-dry	1	5/10/2018 4:23:26 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>				Batch ID: R43450		Analyst: CG
Percent Moisture	23.8	0.500		wt%	1	5/14/2018 1:06:17 PM



**Client:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler  
**Lab ID:** 1805112-003  
**Client Sample ID:** S-MW-8:4.5ft

**Collection Date:** 5/8/2018 10:28:00 AM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 20665 Analyst: SB

Diesel (Fuel Oil)	ND	24.8		mg/Kg-dry	1	5/15/2018 2:27:42 PM
Heavy Oil	ND	62.0		mg/Kg-dry	1	5/15/2018 2:27:42 PM
Surr: 2-Fluorobiphenyl	64.5	50 - 150		%Rec	1	5/15/2018 2:27:42 PM
Surr: o-Terphenyl	80.1	50 - 150		%Rec	1	5/15/2018 2:27:42 PM

**Gasoline by NWTPH-Gx**

Batch ID: 20650 Analyst: MW

Gasoline	ND	5.24		mg/Kg-dry	1	5/11/2018 1:52:28 AM
Surr: Toluene-d8	104	65 - 135		%Rec	1	5/11/2018 1:52:28 AM
Surr: 4-Bromofluorobenzene	92.2	65 - 135		%Rec	1	5/11/2018 1:52:28 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 20650 Analyst: MW

Vinyl chloride	ND	0.0262		mg/Kg-dry	1	5/11/2018 1:52:28 AM
1,1-Dichloroethene	ND	0.0210	Q*	mg/Kg-dry	1	5/11/2018 1:52:28 AM
trans-1,2-Dichloroethene	ND	0.0210		mg/Kg-dry	1	5/11/2018 1:52:28 AM
Methyl tert-butyl ether (MTBE)	ND	0.0524		mg/Kg-dry	1	5/11/2018 1:52:28 AM
cis-1,2-Dichloroethene	ND	0.0210		mg/Kg-dry	1	5/11/2018 1:52:28 AM
1,2-Dichloroethane (EDC)	ND	0.0210		mg/Kg-dry	1	5/11/2018 1:52:28 AM
Benzene	ND	0.0210		mg/Kg-dry	1	5/11/2018 1:52:28 AM
Trichloroethene (TCE)	ND	0.0210		mg/Kg-dry	1	5/11/2018 1:52:28 AM
Toluene	ND	0.0210		mg/Kg-dry	1	5/11/2018 1:52:28 AM
Tetrachloroethene (PCE)	ND	0.0262		mg/Kg-dry	1	5/11/2018 1:52:28 AM
1,2-Dibromoethane (EDB)	ND	0.00524		mg/Kg-dry	1	5/11/2018 1:52:28 AM
Ethylbenzene	ND	0.0262		mg/Kg-dry	1	5/11/2018 1:52:28 AM
m,p-Xylene	ND	0.0524		mg/Kg-dry	1	5/11/2018 1:52:28 AM
o-Xylene	ND	0.0262		mg/Kg-dry	1	5/11/2018 1:52:28 AM
Naphthalene	ND	0.0524		mg/Kg-dry	1	5/11/2018 1:52:28 AM
Surr: Dibromofluoromethane	93.1	56.5 - 129		%Rec	1	5/11/2018 1:52:28 AM
Surr: Toluene-d8	99.8	64.5 - 151		%Rec	1	5/11/2018 1:52:28 AM
Surr: 1-Bromo-4-fluorobenzene	93.2	43.2 - 143		%Rec	1	5/11/2018 1:52:28 AM

**NOTES:**

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift)

\* - Flagged value is not within established control limits.

**Total Metals by EPA Method 6020**

Batch ID: 20631 Analyst: WC

Lead	2.64	0.193		mg/Kg-dry	1	5/10/2018 4:27:27 PM
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**Client:** Kane Environmental, Inc.

**Collection Date:** 5/8/2018 10:28:00 AM

**Project:** City of Bothell - Wexler

**Lab ID:** 1805112-003

**Matrix:** Soil

**Client Sample ID:** S-MW-8:4.5ft

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Sample Moisture (Percent Moisture)**

Batch ID: R43450     Analyst: CG

Percent Moisture	20.8	0.500		wt%	1	5/14/2018 1:06:17 PM
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**Client:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler  
**Lab ID:** 1805112-004  
**Client Sample ID:** S-MW-9:3.5ft

**Collection Date:** 5/8/2018 11:12:00 AM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 20665 Analyst: SB

Diesel (Fuel Oil)	ND	20.2		mg/Kg-dry	1	5/15/2018 2:57:55 PM
Heavy Oil	ND	50.6		mg/Kg-dry	1	5/15/2018 2:57:55 PM
Surr: 2-Fluorobiphenyl	101	50 - 150		%Rec	1	5/15/2018 2:57:55 PM
Surr: o-Terphenyl	120	50 - 150		%Rec	1	5/15/2018 2:57:55 PM

**Gasoline by NWTPH-Gx**

Batch ID: 20650 Analyst: MW

Gasoline	ND	5.48		mg/Kg-dry	1	5/11/2018 2:22:44 AM
Surr: Toluene-d8	105	65 - 135		%Rec	1	5/11/2018 2:22:44 AM
Surr: 4-Bromofluorobenzene	92.3	65 - 135		%Rec	1	5/11/2018 2:22:44 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 20650 Analyst: MW

Vinyl chloride	ND	0.0274		mg/Kg-dry	1	5/11/2018 2:22:44 AM
1,1-Dichloroethene	ND	0.0219	Q*	mg/Kg-dry	1	5/11/2018 2:22:44 AM
trans-1,2-Dichloroethene	ND	0.0219		mg/Kg-dry	1	5/11/2018 2:22:44 AM
Methyl tert-butyl ether (MTBE)	ND	0.0548		mg/Kg-dry	1	5/11/2018 2:22:44 AM
cis-1,2-Dichloroethene	ND	0.0219		mg/Kg-dry	1	5/11/2018 2:22:44 AM
1,2-Dichloroethane (EDC)	ND	0.0219		mg/Kg-dry	1	5/11/2018 2:22:44 AM
Benzene	ND	0.0219		mg/Kg-dry	1	5/11/2018 2:22:44 AM
Trichloroethene (TCE)	0.0391	0.0219		mg/Kg-dry	1	5/11/2018 2:22:44 AM
Toluene	ND	0.0219		mg/Kg-dry	1	5/11/2018 2:22:44 AM
Tetrachloroethene (PCE)	0.171	0.0274		mg/Kg-dry	1	5/11/2018 2:22:44 AM
1,2-Dibromoethane (EDB)	ND	0.00548		mg/Kg-dry	1	5/11/2018 2:22:44 AM
Ethylbenzene	ND	0.0274		mg/Kg-dry	1	5/11/2018 2:22:44 AM
m,p-Xylene	ND	0.0548		mg/Kg-dry	1	5/11/2018 2:22:44 AM
o-Xylene	ND	0.0274		mg/Kg-dry	1	5/11/2018 2:22:44 AM
Naphthalene	ND	0.0548		mg/Kg-dry	1	5/11/2018 2:22:44 AM
Surr: Dibromofluoromethane	92.4	56.5 - 129		%Rec	1	5/11/2018 2:22:44 AM
Surr: Toluene-d8	100	64.5 - 151		%Rec	1	5/11/2018 2:22:44 AM
Surr: 1-Bromo-4-fluorobenzene	94.0	43.2 - 143		%Rec	1	5/11/2018 2:22:44 AM

**NOTES:**

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift)

\* - Flagged value is not within established control limits.

**Total Metals by EPA Method 6020**

Batch ID: 20631 Analyst: WC

Lead	1.82	0.169		mg/Kg-dry	1	5/10/2018 4:31:30 PM
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**Client:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler  
**Lab ID:** 1805112-004  
**Client Sample ID:** S-MW-9:3.5ft

**Collection Date:** 5/8/2018 11:12:00 AM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Sample Moisture (Percent Moisture)**

Batch ID: R43450 Analyst: CG

Percent Moisture	5.10	0.500		wt%	1	5/14/2018 1:06:17 PM
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**Client:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler  
**Lab ID:** 1805112-007  
**Client Sample ID:** S-MW-11:3.75ft

**Collection Date:** 5/8/2018 1:24:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 20665 Analyst: SB

Diesel (Fuel Oil)	ND	21.5		mg/Kg-dry	1	5/15/2018 3:28:09 PM
Heavy Oil	ND	53.8		mg/Kg-dry	1	5/15/2018 3:28:09 PM
Surr: 2-Fluorobiphenyl	67.0	50 - 150		%Rec	1	5/15/2018 3:28:09 PM
Surr: o-Terphenyl	77.7	50 - 150		%Rec	1	5/15/2018 3:28:09 PM

**Gasoline by NWTPH-Gx**

Batch ID: 20650 Analyst: MW

Gasoline	ND	6.54		mg/Kg-dry	1	5/11/2018 2:53:00 AM
Surr: Toluene-d8	103	65 - 135		%Rec	1	5/11/2018 2:53:00 AM
Surr: 4-Bromofluorobenzene	93.7	65 - 135		%Rec	1	5/11/2018 2:53:00 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 20650 Analyst: MW

Vinyl chloride	ND	0.0327		mg/Kg-dry	1	5/11/2018 2:53:00 AM
1,1-Dichloroethene	ND	0.0262	Q*	mg/Kg-dry	1	5/11/2018 2:53:00 AM
trans-1,2-Dichloroethene	ND	0.0262		mg/Kg-dry	1	5/11/2018 2:53:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0654		mg/Kg-dry	1	5/11/2018 2:53:00 AM
cis-1,2-Dichloroethene	ND	0.0262		mg/Kg-dry	1	5/11/2018 2:53:00 AM
1,2-Dichloroethane (EDC)	ND	0.0262		mg/Kg-dry	1	5/11/2018 2:53:00 AM
Benzene	ND	0.0262		mg/Kg-dry	1	5/11/2018 2:53:00 AM
Trichloroethene (TCE)	ND	0.0262		mg/Kg-dry	1	5/11/2018 2:53:00 AM
Toluene	ND	0.0262		mg/Kg-dry	1	5/11/2018 2:53:00 AM
Tetrachloroethene (PCE)	ND	0.0327		mg/Kg-dry	1	5/11/2018 2:53:00 AM
1,2-Dibromoethane (EDB)	ND	0.00654		mg/Kg-dry	1	5/11/2018 2:53:00 AM
Ethylbenzene	ND	0.0327		mg/Kg-dry	1	5/11/2018 2:53:00 AM
m,p-Xylene	ND	0.0654		mg/Kg-dry	1	5/11/2018 2:53:00 AM
o-Xylene	ND	0.0327		mg/Kg-dry	1	5/11/2018 2:53:00 AM
Naphthalene	ND	0.0654		mg/Kg-dry	1	5/11/2018 2:53:00 AM
Surr: Dibromofluoromethane	93.5	56.5 - 129		%Rec	1	5/11/2018 2:53:00 AM
Surr: Toluene-d8	101	64.5 - 151		%Rec	1	5/11/2018 2:53:00 AM
Surr: 1-Bromo-4-fluorobenzene	95.3	43.2 - 143		%Rec	1	5/11/2018 2:53:00 AM

**NOTES:**

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift)

\* - Flagged value is not within established control limits.

**Total Metals by EPA Method 6020**

Batch ID: 20631 Analyst: WC

Lead	2.66	0.185		mg/Kg-dry	1	5/10/2018 4:43:37 PM
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**Client:** Kane Environmental, Inc.

**Collection Date:** 5/8/2018 1:24:00 PM

**Project:** City of Bothell - Wexler

**Lab ID:** 1805112-007

**Matrix:** Soil

**Client Sample ID:** S-MW-11:3.75ft

<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
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**Sample Moisture (Percent Moisture)**

Batch ID: R43450 Analyst: CG

Percent Moisture	21.7	0.500		wt%	1	5/14/2018 1:06:17 PM
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**Work Order:** 1805112  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID <b>1805134-005ADUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>			Prep Date: <b>5/14/2018</b>	RunNo: <b>43476</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>20665</b>				Analysis Date: <b>5/15/2018</b>	SeqNo: <b>840414</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	25.0						0		30	
Heavy Oil	ND	62.6						0		30	
Surr: 2-Fluorobiphenyl	18.5		25.03		74.1	50	150		0		
Surr: o-Terphenyl	22.1		25.03		88.1	50	150		0		

Sample ID <b>MB-20665</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>			Prep Date: <b>5/14/2018</b>	RunNo: <b>43476</b>					
Client ID: <b>MBLKS</b>	Batch ID: <b>20665</b>				Analysis Date: <b>5/15/2018</b>	SeqNo: <b>840426</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	19.3		20.00		96.6	50	150				
Surr: o-Terphenyl	22.6		20.00		113	50	150				

Sample ID <b>LCS-20665</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>			Prep Date: <b>5/14/2018</b>	RunNo: <b>43476</b>					
Client ID: <b>LCSS</b>	Batch ID: <b>20665</b>				Analysis Date: <b>5/15/2018</b>	SeqNo: <b>840428</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	570	20.0	500.0	0	114	65	135				
Surr: 2-Fluorobiphenyl	22.0		20.00		110	50	150				
Surr: o-Terphenyl	25.8		20.00		129	50	150				

Sample ID <b>1805112-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>			Prep Date: <b>5/14/2018</b>	RunNo: <b>43476</b>					
Client ID: <b>S-MW-7:3.75ft</b>	Batch ID: <b>20665</b>				Analysis Date: <b>5/15/2018</b>	SeqNo: <b>840435</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	23.0						0		30	
Heavy Oil	ND	57.5						0		30	
Surr: 2-Fluorobiphenyl	36.5		23.01		158	50	150		0		S

**Work Order:** 1805112  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID <b>1805112-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>5/14/2018</b>	RunNo: <b>43476</b>							
Client ID: <b>S-MW-7:3.75ft</b>	Batch ID: <b>20665</b>	Analysis Date: <b>5/15/2018</b>	SeqNo: <b>840435</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: o-Terphenyl	43.7		23.01		190	50	150		0		S
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**NOTES:**  
S - Outlying surrogate recovery(ies) observed (high bias). Sample is non-detect; no further action required.

Sample ID <b>1805112-001AMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>5/14/2018</b>	RunNo: <b>43476</b>							
Client ID: <b>S-MW-7:3.75ft</b>	Batch ID: <b>20665</b>	Analysis Date: <b>5/15/2018</b>	SeqNo: <b>840437</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	522	22.5	562.4	0	92.8	65	135				
Surr: 2-Fluorobiphenyl	9.18		22.50		40.8	50	150				S
Surr: o-Terphenyl	11.8		22.50		52.5	50	150				

**NOTES:**  
S - Outlying surrogate recovery(ies) observed. A duplicate analysis was performed and recovered within range.

Sample ID <b>1805112-001AMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>5/14/2018</b>	RunNo: <b>43476</b>							
Client ID: <b>S-MW-7:3.75ft</b>	Batch ID: <b>20665</b>	Analysis Date: <b>5/15/2018</b>	SeqNo: <b>840438</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	618	22.8	570.3	0	108	65	135	521.9	16.8	30	
Surr: 2-Fluorobiphenyl	17.7		22.81		77.4	50	150		0		
Surr: o-Terphenyl	21.3		22.81		93.5	50	150		0		

**Work Order:** 1805112  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID <b>LCS-20650</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>			Prep Date: <b>5/10/2018</b>	RunNo: <b>43424</b>					
Client ID: <b>LCSS</b>	Batch ID: <b>20650</b>				Analysis Date: <b>5/10/2018</b>	SeqNo: <b>839470</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	29.1	5.00	25.00	0	116	65	135				
Surr: Toluene-d8	1.23		1.250		98.4	65	135				
Surr: 4-Bromofluorobenzene	1.15		1.250		92.0	65	135				

Sample ID <b>MB-20650</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>			Prep Date: <b>5/10/2018</b>	RunNo: <b>43424</b>					
Client ID: <b>MBLKS</b>	Batch ID: <b>20650</b>				Analysis Date: <b>5/10/2018</b>	SeqNo: <b>839471</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	5.00									
Surr: Toluene-d8	1.25		1.250		99.8	65	135				
Surr: 4-Bromofluorobenzene	1.18		1.250		94.6	65	135				

Sample ID <b>1805112-007BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>			Prep Date: <b>5/10/2018</b>	RunNo: <b>43424</b>					
Client ID: <b>S-MW-11:3.75ft</b>	Batch ID: <b>20650</b>				Analysis Date: <b>5/11/2018</b>	SeqNo: <b>839467</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	6.54						0		30	
Surr: Toluene-d8	1.61		1.635		98.6	65	135		0		
Surr: 4-Bromofluorobenzene	1.45		1.635		88.6	65	135		0		

Sample ID <b>1805112-001BMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>			Prep Date: <b>5/10/2018</b>	RunNo: <b>43424</b>					
Client ID: <b>S-MW-7:3.75ft</b>	Batch ID: <b>20650</b>				Analysis Date: <b>5/11/2018</b>	SeqNo: <b>839462</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	66.7	6.66	33.28	0	200	65	135				S
Surr: Toluene-d8	1.69		1.664		102	65	135				
Surr: 4-Bromofluorobenzene	1.65		1.664		99.2	65	135				

**NOTES:**

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

**Work Order:** 1805112  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID <b>1805112-001BMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>		Prep Date: <b>5/10/2018</b>	RunNo: <b>43424</b>						
Client ID: <b>S-MW-7:3.75ft</b>	Batch ID: <b>20650</b>			Analysis Date: <b>5/11/2018</b>	SeqNo: <b>839463</b>						
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	60.6	6.66	33.28	0	182	65	135	66.71	9.56	30	S
Surr: Toluene-d8	1.71		1.664		103	65	135		0		
Surr: 4-Bromofluorobenzene	1.65		1.664		99.2	65	135		0		

**NOTES:**

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID <b>1805111-002BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>		Prep Date: <b>5/10/2018</b>	RunNo: <b>43424</b>						
Client ID: <b>BATCH</b>	Batch ID: <b>20650</b>			Analysis Date: <b>5/11/2018</b>	SeqNo: <b>839460</b>						
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	3.86						0		30	
Surr: Toluene-d8	1.01		0.9648		105	65	135		0		
Surr: 4-Bromofluorobenzene	0.897		0.9648		93.0	65	135		0		

**Work Order:** 1805112  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Sample Moisture (Percent Moisture)**

Sample ID <b>1805112-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>wt%</b>	Prep Date: <b>5/14/2018</b>	RunNo: <b>43450</b>							
Client ID: <b>S-MW-7:3.75ft</b>	Batch ID: <b>R43450</b>	Analysis Date: <b>5/14/2018</b>	SeqNo: <b>839981</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	23.2	0.500						23.77	2.30	20	

Sample ID <b>1805134-008ADUP</b>	SampType: <b>DUP</b>	Units: <b>wt%</b>	Prep Date: <b>5/14/2018</b>	RunNo: <b>43450</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>R43450</b>	Analysis Date: <b>5/14/2018</b>	SeqNo: <b>839994</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	5.76	0.500						5.556	3.68	20	



**Work Order:** 1805112  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Total Metals by EPA Method 6020**

Sample ID	<b>MB-20631</b>	SampType:	<b>MBLK</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>5/9/2018</b>	RunNo:	<b>43408</b>			
Client ID:	<b>MBLKS</b>	Batch ID:	<b>20631</b>			Analysis Date:	<b>5/10/2018</b>	SeqNo:	<b>839232</b>			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead ND 0.146

Sample ID	<b>LCS-20631</b>	SampType:	<b>LCS</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>5/9/2018</b>	RunNo:	<b>43408</b>			
Client ID:	<b>LCSS</b>	Batch ID:	<b>20631</b>			Analysis Date:	<b>5/10/2018</b>	SeqNo:	<b>839233</b>			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 20.3 0.156 19.53 0 104 80 120

Sample ID	<b>1805080-001ADUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>5/9/2018</b>	RunNo:	<b>43408</b>			
Client ID:	<b>BATCH</b>	Batch ID:	<b>20631</b>			Analysis Date:	<b>5/10/2018</b>	SeqNo:	<b>839235</b>			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 7.34 0.168 10.07 31.3 20 R

**NOTES:**

R - High RPD observed. The method is in control as indicated by the LCS.

Sample ID	<b>1805080-001AMS</b>	SampType:	<b>MS</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>5/9/2018</b>	RunNo:	<b>43408</b>			
Client ID:	<b>BATCH</b>	Batch ID:	<b>20631</b>			Analysis Date:	<b>5/10/2018</b>	SeqNo:	<b>839239</b>			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 26.6 0.168 21.06 10.07 78.5 75 125

Sample ID	<b>1805080-001AMSD</b>	SampType:	<b>MSD</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>5/9/2018</b>	RunNo:	<b>43408</b>			
Client ID:	<b>BATCH</b>	Batch ID:	<b>20631</b>			Analysis Date:	<b>5/10/2018</b>	SeqNo:	<b>839240</b>			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 27.5 0.170 21.22 10.07 82.2 75 125 26.61 3.30 20



**Work Order:** 1805112  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	<b>LCS-20650</b>	SampType:	<b>LCS</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>5/10/2018</b>	RunNo:	<b>43423</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>20650</b>			Analysis Date:	<b>5/10/2018</b>	SeqNo:	<b>839447</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	0.884	0.0250	1.000	0	88.4	43.4	151				
1,1-Dichloroethene	0.272	0.0200	1.000	0	27.2	39	144				S
trans-1,2-Dichloroethene	1.04	0.0200	1.000	0	104	68	130				
Methyl tert-butyl ether (MTBE)	1.06	0.0500	1.000	0	106	44.1	152				
cis-1,2-Dichloroethene	1.04	0.0200	1.000	0	104	71.3	135				
1,2-Dichloroethane (EDC)	1.06	0.0200	1.000	0	106	50.9	162				
Benzene	1.05	0.0200	1.000	0	105	64.3	133				
Trichloroethene (TCE)	1.05	0.0200	1.000	0	105	65.5	137				
Toluene	1.05	0.0200	1.000	0	105	67.3	138				
Tetrachloroethene (PCE)	1.05	0.0250	1.000	0	105	52.7	150				
1,2-Dibromoethane (EDB)	1.07	0.00500	1.000	0	107	50.5	154				
Ethylbenzene	1.10	0.0250	1.000	0	110	74	129				
m,p-Xylene	2.15	0.0500	2.000	0	107	70	124				
o-Xylene	1.07	0.0250	1.000	0	107	68.1	139				
Naphthalene	1.08	0.0500	1.000	0	108	46.5	167				
Surr: Dibromofluoromethane	1.30		1.250		104	56.5	129				
Surr: Toluene-d8	1.25		1.250		100	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.21		1.250		96.8	43.2	143				

**NOTES:**

S - Outlying spike recovery observed (low bias). Samples will be qualified with a \*.

Sample ID	<b>MB-20650</b>	SampType:	<b>MBLK</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>5/10/2018</b>	RunNo:	<b>43423</b>
Client ID:	<b>MBLKS</b>	Batch ID:	<b>20650</b>			Analysis Date:	<b>5/10/2018</b>	SeqNo:	<b>839448</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.0250									
1,1-Dichloroethene	ND	0.0200									Q*
trans-1,2-Dichloroethene	ND	0.0200									
Methyl tert-butyl ether (MTBE)	ND	0.0500									
cis-1,2-Dichloroethene	ND	0.0200									
1,2-Dichloroethane (EDC)	ND	0.0200									

**Work Order:** 1805112  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>MB-20650</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>5/10/2018</b>	RunNo: <b>43423</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>20650</b>		Analysis Date: <b>5/10/2018</b>	SeqNo: <b>839448</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	ND	0.0200									
Trichloroethene (TCE)	ND	0.0200									
Toluene	ND	0.0200									
Tetrachloroethene (PCE)	ND	0.0250									
1,2-Dibromoethane (EDB)	ND	0.00500									
Ethylbenzene	ND	0.0250									
m,p-Xylene	ND	0.0500									
o-Xylene	ND	0.0250									
Naphthalene	ND	0.0500									
Surr: Dibromofluoromethane	1.14		1.250		91.5	56.5	129				
Surr: Toluene-d8	1.23		1.250		98.5	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.21		1.250		96.4	43.2	143				

**NOTES:**

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift)  
 \* - Flagged value is not within established control limits.

Sample ID <b>1805112-007BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>5/10/2018</b>	RunNo: <b>43423</b>							
Client ID: <b>S-MW-11:3.75ft</b>	Batch ID: <b>20650</b>		Analysis Date: <b>5/11/2018</b>	SeqNo: <b>839440</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Vinyl chloride	ND	0.0327						0		30	
1,1-Dichloroethene	ND	0.0262						0		30	Q*
trans-1,2-Dichloroethene	ND	0.0262						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0654						0		30	
cis-1,2-Dichloroethene	ND	0.0262						0		30	
1,2-Dichloroethane (EDC)	ND	0.0262						0		30	
Benzene	ND	0.0262						0		30	
Trichloroethene (TCE)	ND	0.0262						0		30	
Toluene	ND	0.0262						0		30	
Tetrachloroethene (PCE)	ND	0.0327						0		30	
1,2-Dibromoethane (EDB)	ND	0.00654						0		30	

**Work Order:** 1805112  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>1805112-007BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>5/10/2018</b>	RunNo: <b>43423</b>							
Client ID: <b>S-MW-11:3.75ft</b>	Batch ID: <b>20650</b>		Analysis Date: <b>5/11/2018</b>	SeqNo: <b>839440</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Ethylbenzene	ND	0.0327						0		30	
m,p-Xylene	ND	0.0654						0		30	
o-Xylene	ND	0.0327						0		30	
Naphthalene	ND	0.0654						0		30	
Surr: Dibromofluoromethane	1.52		1.635		92.9	56.5	129		0		
Surr: Toluene-d8	1.64		1.635		101	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.47		1.635		90.2	43.2	143		0		

**NOTES:**

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift)  
\* - Flagged value is not within established control limits.

Sample ID <b>1805111-002BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>5/10/2018</b>	RunNo: <b>43423</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20650</b>		Analysis Date: <b>5/11/2018</b>	SeqNo: <b>839433</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Vinyl chloride	ND	0.0193						0		30	
1,1-Dichloroethene	ND	0.0154						0		30	*
trans-1,2-Dichloroethene	ND	0.0154						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0386						0		30	
cis-1,2-Dichloroethene	ND	0.0154						0		30	
1,2-Dichloroethane (EDC)	ND	0.0154						0		30	
Benzene	ND	0.0154						0		30	
Trichloroethene (TCE)	ND	0.0154						0		30	
Toluene	ND	0.0154						0		30	
Tetrachloroethene (PCE)	0.0459	0.0193						0.04360	5.20	30	
1,2-Dibromoethane (EDB)	ND	0.00386						0		30	
Ethylbenzene	ND	0.0193						0		30	
m,p-Xylene	ND	0.0386						0		30	
o-Xylene	ND	0.0193						0		30	
Naphthalene	ND	0.0386						0		30	
Surr: Dibromofluoromethane	0.906		0.9648		93.9	56.5	129		0		

**Work Order:** 1805112  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**

**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>1805111-002BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>5/10/2018</b>	RunNo: <b>43423</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20650</b>		Analysis Date: <b>5/11/2018</b>	SeqNo: <b>839433</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: Toluene-d8	0.982		0.9648		102	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	0.915		0.9648		94.8	43.2	143		0		

**NOTES:**  
 \* - Flagged value is not within established control limits.

Sample ID <b>1805111-005BMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>5/10/2018</b>	RunNo: <b>43423</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>20650</b>		Analysis Date: <b>5/11/2018</b>	SeqNo: <b>839804</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Vinyl chloride	1.12	0.0332	1.328	0	84.3	43.6	150				
1,1-Dichloroethene	1.21	0.0266	1.328	0	91.0	47.3	147				
trans-1,2-Dichloroethene	1.25	0.0266	1.328	0	94.2	52	136				
Methyl tert-butyl ether (MTBE)	1.27	0.0664	1.328	0	95.5	58.5	167				
cis-1,2-Dichloroethene	1.26	0.0266	1.328	0	95.0	58.6	136				
1,2-Dichloroethane (EDC)	1.28	0.0266	1.328	0	96.7	51.3	139				
Benzene	1.29	0.0266	1.328	0	96.8	63.5	133				
Trichloroethene (TCE)	1.29	0.0266	1.328	0	96.8	61.6	147				
Toluene	1.33	0.0266	1.328	0.03055	97.9	63.4	132				
Tetrachloroethene (PCE)	1.29	0.0332	1.328	0	97.3	35.6	158				
1,2-Dibromoethane (EDB)	1.23	0.00664	1.328	0	92.6	50.4	136				
Ethylbenzene	1.34	0.0332	1.328	0	101	54.5	134				
m,p-Xylene	2.62	0.0664	2.656	0	98.8	53.1	132				
o-Xylene	1.29	0.0332	1.328	0	97.2	53.3	139				
Naphthalene	1.22	0.0664	1.328	0	92.1	52.3	124				
Surr: Dibromofluoromethane	1.74		1.660		105	56.5	129				
Surr: Toluene-d8	1.69		1.660		102	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.71		1.660		103	43.2	143				

**Work Order:** 1805112  
**CLIENT:** Kane Environmental, Inc.  
**Project:** City of Bothell - Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>1805111-005BMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>5/10/2018</b>	RunNo: <b>43423</b>
Client ID: <b>BATCH</b>	Batch ID: <b>20650</b>		Analysis Date: <b>5/11/2018</b>	SeqNo: <b>839805</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	1.17	0.0332	1.328	0	88.2	43.6	150	1.119	4.49	30	
1,1-Dichloroethene	1.23	0.0266	1.328	0	92.6	47.3	147	1.209	1.68	30	
trans-1,2-Dichloroethene	1.27	0.0266	1.328	0	95.5	52	136	1.250	1.45	30	
Methyl tert-butyl ether (MTBE)	1.32	0.0664	1.328	0	99.4	58.5	167	1.268	3.98	30	
cis-1,2-Dichloroethene	1.28	0.0266	1.328	0	96.7	58.6	136	1.261	1.81	30	
1,2-Dichloroethane (EDC)	1.32	0.0266	1.328	0	99.8	51.3	139	1.284	3.12	30	
Benzene	1.30	0.0266	1.328	0	97.8	63.5	133	1.286	1.01	30	
Trichloroethene (TCE)	1.28	0.0266	1.328	0	96.6	61.6	147	1.285	0.158	30	
Toluene	1.34	0.0266	1.328	0.03055	99.0	63.4	132	1.330	1.08	30	
Tetrachloroethene (PCE)	1.29	0.0332	1.328	0	96.9	35.6	158	1.292	0.405	30	
1,2-Dibromoethane (EDB)	1.28	0.00664	1.328	0	96.1	50.4	136	1.229	3.71	30	
Ethylbenzene	1.34	0.0332	1.328	0	101	54.5	134	1.335	0.319	30	
m,p-Xylene	2.65	0.0664	2.656	0	99.6	53.1	132	2.624	0.830	30	
o-Xylene	1.31	0.0332	1.328	0	99.0	53.3	139	1.290	1.84	30	
Naphthalene	1.31	0.0664	1.328	0	98.6	52.3	124	1.223	6.87	30	
Surr: Dibromofluoromethane	1.77		1.660		107	56.5	129		0		
Surr: Toluene-d8	1.70		1.660		103	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.71		1.660		103	43.2	143		0		

Client Name: **KANE**  
 Logged by: **Clare Griggs**

Work Order Number: **1805112**  
 Date Received: **5/8/2018 5:25:00 PM**

### Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present   
 2. How was the sample delivered? Client

### Log In

3. Coolers are present? Yes  No  NA   
 4. Shipping container/cooler in good condition? Yes  No   
 5. Custody Seals present on shipping container/cooler?  
 (Refer to comments for Custody Seals not intact) Yes  No  Not Required   
 6. Was an attempt made to cool the samples? Yes  No  NA   
 7. Were all items received at a temperature of >0°C to 10.0°C \* Yes  No  NA   
 8. Sample(s) in proper container(s)? Yes  No   
 9. Sufficient sample volume for indicated test(s)? Yes  No   
 10. Are samples properly preserved? Yes  No   
 11. Was preservative added to bottles? Yes  No  NA   
 12. Is there headspace in the VOA vials? Yes  No  NA   
 13. Did all samples containers arrive in good condition(unbroken)? Yes  No   
 14. Does paperwork match bottle labels? Yes  No   
 15. Are matrices correctly identified on Chain of Custody? Yes  No   
 16. Is it clear what analyses were requested? Yes  No   
 17. Were all holding times able to be met? Yes  No

### Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text" value="Nate Evenson"/>	Date	<input type="text" value="5/9/2018"/>
By Whom:	<input type="text" value="Clare Griggs"/>	Via:	<input checked="" type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text" value="Confirming metals."/>		
Client Instructions:	<input type="text" value="Pb"/>		

19. Additional remarks:

### Item Information

Item #	Temp °C
Cooler	2.1
Sample	3.6

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C





# Fremont

ANALYTICAL

3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

## Chain of Custody Record & Laboratory Services Agreement

Client: Kane Environmental

Address: 3815 Woodland Park Ave N, Skid

City, State, zip: Seattle, WA 98103

Telephone: (206)691-0476

Fax: (206)675-0650

Date: 5/7/18 Page: 1 of 1  
Project Name: City of Bothell - Wexler  
Project No: 42305

Collected by: Nate Evenson

Location: 19125 Bothell Way NE, Bothell, WA

Report to (PM): Nate Evenson

PM Email: nvenson@kane-environmental.com

Laboratory Project No (Internal): 1905112  
Special Remarks:

Sample Disposal:  Return to client  Disposal by lab (after 30 days)

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	Analytes													Comments	
				VOCs (EPA 8260 / 624)	GW/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T)   Dissolved (D)	Anions (IC)***	EDB (8011)		PEE, EDC, Naphthalene, MTBE, PCE & TCE (8260)
1 S-MW-7:3.75ft	5/7/18	0918	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	hold
2 S-MW-8:4ft		1025		X	X	X	X	X	X	X	X	X	X	X	X	X	X	hold
3 S-MW-8:4.5ft		1029		X	X	X	X	X	X	X	X	X	X	X	X	X	X	hold
4 S-MW-9:3.5ft		1112		X	X	X	X	X	X	X	X	X	X	X	X	X	X	hold
5 S-MW-7', 10.5ft		1122		X	X	X	X	X	X	X	X	X	X	X	X	X	X	hold
6 S-MW-10:4.25ft		1140		X	X	X	X	X	X	X	X	X	X	X	X	X	X	hold
7 S-MW-11:3.75ft		1324		X	X	X	X	X	X	X	X	X	X	X	X	X	X	hold
8																		
9																		
10																		

\*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

\*\*Metals (Circle): MTCA-5 RCA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Tl Ti U V Zn

\*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate-Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Retinquished [Signature] Date/Time 5/8/18 1725

Retinquished [Signature] Date/Time 5/8/18 1725

Received [Signature] Date/Time 5/8/18 1725

Received [Signature] Date/Time 5/8/18 1725



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

June 5, 2018

Nate Evenson  
Kane Environmental, Inc.  
3815 Woodland Park Avenue N., Suite 102  
Seattle, WA 98103

Re: Analytical Data for Project 82305  
Laboratory Reference No. 1805-224

Dear Nate:

Enclosed are the analytical results and associated quality control data for samples submitted on May 22, 2018.

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister  
Project Manager

Enclosures



---

OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.



Date of Report: June 5, 2018  
Samples Submitted: May 22, 2018  
Laboratory Reference: 1805-224  
Project: 82305

### Case Narrative

Samples were collected on May 22, 2018 and received by the laboratory on May 22, 2018. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

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



Date of Report: June 5, 2018  
 Samples Submitted: May 22, 2018  
 Laboratory Reference: 1805-224  
 Project: 82305

### NWTPH-Gx

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-9:W-052218</b>					
Laboratory ID:	05-224-01					
Gasoline	<b>ND</b>	100	NWTPH-Gx	5-23-18	5-23-18	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	81	66-117				
<b>Client ID:</b>	<b>S-MW-10:W-052218</b>					
Laboratory ID:	05-224-02					
Gasoline	<b>ND</b>	100	NWTPH-Gx	5-23-18	5-23-18	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	83	66-117				
<b>Client ID:</b>	<b>S-MW-11:W-052218</b>					
Laboratory ID:	05-224-03					
Gasoline	<b>ND</b>	100	NWTPH-Gx	5-23-18	5-23-18	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	82	66-117				
<b>Client ID:</b>	<b>S-MW-7:W-052218</b>					
Laboratory ID:	05-224-04					
Gasoline	<b>880</b>	100	NWTPH-Gx	5-23-18	5-23-18	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	75	66-117				
<b>Client ID:</b>	<b>S-MW-8:W-052218</b>					
Laboratory ID:	05-224-06					
Gasoline	<b>ND</b>	100	NWTPH-Gx	5-23-18	5-23-18	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	82	66-117				



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**NWTPH-Gx  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0523W2					
Gasoline	<b>ND</b>	100	NWTPH-Gx	5-23-18	5-23-18	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	85	66-117				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-224-03							
	ORIG	DUP						
Gasoline	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				82	82	66-117		



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### NWTPH-Dx

Matrix: Water  
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-9:W-052218</b>					
Laboratory ID:	05-224-01					
Diesel Range Organics	ND	0.25	NWTPH-Dx	5-24-18	5-25-18	
Lube Oil Range Organics	ND	0.40	NWTPH-Dx	5-24-18	5-25-18	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	95	50-150				
<b>Client ID:</b>	<b>S-MW-10:W-052218</b>					
Laboratory ID:	05-224-02					
Diesel Range Organics	ND	0.26	NWTPH-Dx	5-24-18	5-25-18	
Lube Oil Range Organics	ND	0.41	NWTPH-Dx	5-24-18	5-25-18	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	98	50-150				
<b>Client ID:</b>	<b>S-MW-11:W-052218</b>					
Laboratory ID:	05-224-03					
Diesel Range Organics	ND	0.26	NWTPH-Dx	5-24-18	5-25-18	
Lube Oil Range Organics	ND	0.41	NWTPH-Dx	5-24-18	5-25-18	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	89	50-150				
<b>Client ID:</b>	<b>S-MW-7:W-052218</b>					
Laboratory ID:	05-224-04					
Diesel Range Organics	ND	0.31	NWTPH-Dx	5-24-18	5-25-18	U1,M1
Lube Oil Range Organics	ND	0.41	NWTPH-Dx	5-24-18	5-25-18	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	95	50-150				
<b>Client ID:</b>	<b>S-MW-8:W-052218</b>					
Laboratory ID:	05-224-06					
Diesel Range Organics	ND	0.26	NWTPH-Dx	5-24-18	5-25-18	
Lube Oil Range Organics	ND	0.42	NWTPH-Dx	5-24-18	5-25-18	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	96	50-150				



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**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0524W1					
Diesel Range Organics	<b>ND</b>	0.25	NWTPH-Dx	5-24-18	5-25-18	
Lube Oil Range Organics	<b>ND</b>	0.40	NWTPH-Dx	5-24-18	5-25-18	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	<i>87</i>	<i>50-150</i>				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-224-03							
	ORIG	DUP						
Diesel Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
Lube Oil Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				<i>89</i>	<i>94</i>	<i>50-150</i>		



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**1,2-DIBROMOETHANE (EDB)  
 EPA 8011**

Matrix: Water  
 Units: ug/L (ppb)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>S-MW-9:W-052218</b>					
Laboratory ID:	05-224-01					
EDB	<b>ND</b>	0.0097	EPA 8011	6-3-18	6-3-18	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
TCMX	64	25-143				
<b>Client ID:</b>	<b>S-MW-10:W-052218</b>					
Laboratory ID:	05-224-02					
EDB	<b>ND</b>	0.0096	EPA 8011	6-3-18	6-3-18	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
TCMX	72	25-143				
<b>Client ID:</b>	<b>S-MW-11:W-052218</b>					
Laboratory ID:	05-224-03					
EDB	<b>ND</b>	0.0096	EPA 8011	6-3-18	6-3-18	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
TCMX	78	25-143				
<b>Client ID:</b>	<b>S-MW-7:W-052218</b>					
Laboratory ID:	05-224-04					
EDB	<b>ND</b>	0.0097	EPA 8011	6-3-18	6-3-18	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
TCMX	86	25-143				
<b>Client ID:</b>	<b>S-MW-8:W-052218</b>					
Laboratory ID:	05-224-06					
EDB	<b>ND</b>	0.0096	EPA 8011	6-3-18	6-3-18	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
TCMX	90	25-143				



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**1,2-DIBROMOETHANE (EDB)  
 EPA 8011  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0603W1					
EDB	<b>ND</b>	0.010	EPA 8011	6-3-18	6-3-18	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
TCMX	92	25-143				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
<b>MATRIX SPIKES</b>											
Laboratory ID:	05-224-03										
	MS	MSD	MS	MSD		MS	MSD				
EDB	<b>0.0651</b>	<b>0.0581</b>	0.0969	0.0966	ND	<b>67</b>	<b>60</b>	60-140	11	20	
<i>Surrogate:</i>											
TCMX						76	76	25-143			



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### VOLATILES EPA 8260C

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-9:W-052218</b>					
Laboratory ID:	05-224-01					
Vinyl Chloride	ND	0.20	EPA 8260C	5-24-18	5-24-18	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-24-18	5-24-18	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-24-18	5-24-18	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	5-24-18	5-24-18	
(cis) 1,2-Dichloroethene	1.1	0.20	EPA 8260C	5-24-18	5-24-18	
Benzene	ND	0.20	EPA 8260C	5-24-18	5-24-18	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-24-18	5-24-18	
Trichloroethene	1.8	0.20	EPA 8260C	5-24-18	5-24-18	
Toluene	ND	1.0	EPA 8260C	5-24-18	5-24-18	
Tetrachloroethene	19	0.20	EPA 8260C	5-24-18	5-24-18	
Ethylbenzene	ND	0.20	EPA 8260C	5-24-18	5-24-18	
m,p-Xylene	ND	0.40	EPA 8260C	5-24-18	5-24-18	
o-Xylene	ND	0.20	EPA 8260C	5-24-18	5-24-18	
Naphthalene	ND	1.0	EPA 8260C	5-24-18	5-24-18	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>95</i>	<i>78-125</i>				





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### VOLATILES EPA 8260C

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-10:W-052218</b>					
Laboratory ID:	05-224-02					
Vinyl Chloride	ND	0.20	EPA 8260C	5-24-18	5-24-18	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-24-18	5-24-18	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-24-18	5-24-18	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	5-24-18	5-24-18	
(cis) 1,2-Dichloroethene	2.4	0.20	EPA 8260C	5-24-18	5-24-18	
Benzene	ND	0.20	EPA 8260C	5-24-18	5-24-18	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-24-18	5-24-18	
Trichloroethene	4.4	0.20	EPA 8260C	5-24-18	5-24-18	
Toluene	ND	1.0	EPA 8260C	5-24-18	5-24-18	
Tetrachloroethene	10	0.20	EPA 8260C	5-24-18	5-24-18	
Ethylbenzene	ND	0.20	EPA 8260C	5-24-18	5-24-18	
m,p-Xylene	ND	0.40	EPA 8260C	5-24-18	5-24-18	
o-Xylene	ND	0.20	EPA 8260C	5-24-18	5-24-18	
Naphthalene	ND	1.0	EPA 8260C	5-24-18	5-24-18	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>78-125</i>				



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### VOLATILES EPA 8260C

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-11:W-052218</b>					
Laboratory ID:	05-224-03					
Vinyl Chloride	ND	0.20	EPA 8260C	5-24-18	5-24-18	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-24-18	5-24-18	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-24-18	5-24-18	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	5-24-18	5-24-18	
(cis) 1,2-Dichloroethene	1.4	0.20	EPA 8260C	5-24-18	5-24-18	
Benzene	ND	0.20	EPA 8260C	5-24-18	5-24-18	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-24-18	5-24-18	
Trichloroethene	2.2	0.20	EPA 8260C	5-24-18	5-24-18	
Toluene	ND	1.0	EPA 8260C	5-24-18	5-24-18	
Tetrachloroethene	3.8	0.20	EPA 8260C	5-24-18	5-24-18	
Ethylbenzene	ND	0.20	EPA 8260C	5-24-18	5-24-18	
m,p-Xylene	ND	0.40	EPA 8260C	5-24-18	5-24-18	
o-Xylene	ND	0.20	EPA 8260C	5-24-18	5-24-18	
Naphthalene	ND	1.0	EPA 8260C	5-24-18	5-24-18	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>97</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>96</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>96</i>	<i>78-125</i>				



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### VOLATILES EPA 8260C

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-7:W-052218</b>					
Laboratory ID:	05-224-04					
Vinyl Chloride	ND	0.20	EPA 8260C	5-24-18	5-24-18	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-24-18	5-24-18	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-24-18	5-24-18	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	5-24-18	5-24-18	
(cis) 1,2-Dichloroethene	2.4	0.20	EPA 8260C	5-24-18	5-24-18	
Benzene	ND	0.20	EPA 8260C	5-24-18	5-24-18	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-24-18	5-24-18	
Trichloroethene	3.4	0.20	EPA 8260C	5-24-18	5-24-18	
Toluene	ND	1.0	EPA 8260C	5-24-18	5-24-18	
Tetrachloroethene	1.8	0.20	EPA 8260C	5-24-18	5-24-18	
Ethylbenzene	10	0.20	EPA 8260C	5-24-18	5-24-18	
m,p-Xylene	31	0.40	EPA 8260C	5-24-18	5-24-18	
o-Xylene	6.4	0.20	EPA 8260C	5-24-18	5-24-18	
Naphthalene	11	1.0	EPA 8260C	5-24-18	5-24-18	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	98	75-127				
<i>Toluene-d8</i>	98	80-127				
<i>4-Bromofluorobenzene</i>	97	78-125				



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### VOLATILES EPA 8260C

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>S-MW-8:W-052218</b>					
<b>Laboratory ID:</b>	<b>05-224-06</b>					
Vinyl Chloride	ND	0.20	EPA 8260C	5-24-18	5-24-18	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-24-18	5-24-18	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-24-18	5-24-18	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	5-24-18	5-24-18	
(cis) 1,2-Dichloroethene	1.4	0.20	EPA 8260C	5-24-18	5-24-18	
Benzene	ND	0.20	EPA 8260C	5-24-18	5-24-18	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-24-18	5-24-18	
Trichloroethene	2.9	0.20	EPA 8260C	5-24-18	5-24-18	
Toluene	ND	1.0	EPA 8260C	5-24-18	5-24-18	
Tetrachloroethene	6.0	0.20	EPA 8260C	5-24-18	5-24-18	
Ethylbenzene	ND	0.20	EPA 8260C	5-24-18	5-24-18	
m,p-Xylene	ND	0.40	EPA 8260C	5-24-18	5-24-18	
o-Xylene	ND	0.20	EPA 8260C	5-24-18	5-24-18	
Naphthalene	ND	1.0	EPA 8260C	5-24-18	5-24-18	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>97</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>96</i>	<i>78-125</i>				



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**VOLATILES EPA 8260C  
 METHOD BLANK QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Laboratory ID:	MB0524W1					
Vinyl Chloride	ND	0.20	EPA 8260C	5-24-18	5-24-18	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-24-18	5-24-18	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-24-18	5-24-18	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	5-24-18	5-24-18	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-24-18	5-24-18	
Benzene	ND	0.20	EPA 8260C	5-24-18	5-24-18	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-24-18	5-24-18	
Trichloroethene	ND	0.20	EPA 8260C	5-24-18	5-24-18	
Toluene	ND	1.0	EPA 8260C	5-24-18	5-24-18	
Tetrachloroethene	ND	0.20	EPA 8260C	5-24-18	5-24-18	
Ethylbenzene	ND	0.20	EPA 8260C	5-24-18	5-24-18	
m,p-Xylene	ND	0.40	EPA 8260C	5-24-18	5-24-18	
o-Xylene	ND	0.20	EPA 8260C	5-24-18	5-24-18	
Naphthalene	ND	1.0	EPA 8260C	5-24-18	5-24-18	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>103</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>99</i>	<i>78-125</i>				



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**VOLATILES EPA 8260C  
 MS/MSD QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Source	Percent		Recovery	RPD		Flags
					Result	Recovery	Limits	RPD	Limit		
<b>MATRIX SPIKES</b>											
Laboratory ID:	05-224-03										
	MS	MSD	MS	MSD		MS	MSD				
1,1-Dichloroethene	<b>7.25</b>	<b>6.91</b>	10.0	10.0	ND	73	69	60-124	5	17	
Benzene	<b>8.95</b>	<b>8.62</b>	10.0	10.0	ND	90	86	67-130	4	22	
Trichloroethene	<b>11.3</b>	<b>10.9</b>	10.0	10.0	2.19	91	87	71-120	4	15	
Toluene	<b>9.35</b>	<b>9.07</b>	10.0	10.0	ND	94	91	79-118	3	24	
Chlorobenzene	<b>9.08</b>	<b>9.07</b>	10.0	10.0	ND	91	91	74-120	0	17	
<i>Surrogate:</i>											
<i>Dibromofluoromethane</i>						103	100	75-127			
<i>Toluene-d8</i>						100	99	80-127			
<i>4-Bromofluorobenzene</i>						99	99	78-125			



Date of Report: June 5, 2018  
 Samples Submitted: May 22, 2018  
 Laboratory Reference: 1805-224  
 Project: 82305

**TOTAL LEAD**  
**EPA 200.8**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	05-224-01					
<b>Client ID:</b>	<b>S-MW-9:W-052218</b>					
Lead	ND	1.1	200.8	5-24-18	5-24-18	
Lab ID:	05-224-02					
<b>Client ID:</b>	<b>S-MW-10:W-052218</b>					
Lead	ND	1.1	200.8	5-24-18	5-24-18	
Lab ID:	05-224-03					
<b>Client ID:</b>	<b>S-MW-11:W-052218</b>					
Lead	ND	1.1	200.8	5-24-18	5-24-18	
Lab ID:	05-224-04					
<b>Client ID:</b>	<b>S-MW-7:W-052218</b>					
Lead	ND	1.1	200.8	5-24-18	5-24-18	
Lab ID:	05-224-05					
<b>Client ID:</b>	<b>HZ-MW-16:W-052218</b>					
Lead	ND	1.1	200.8	5-24-18	5-24-18	
Lab ID:	05-224-06					
<b>Client ID:</b>	<b>S-MW-8:W-052218</b>					
Lead	ND	1.1	200.8	5-24-18	5-24-18	



Date of Report: June 5, 2018  
Samples Submitted: May 22, 2018  
Laboratory Reference: 1805-224  
Project: 82305

**TOTAL LEAD  
EPA 200.8  
METHOD BLANK QUALITY CONTROL**

Date Extracted: 5-24-18  
Date Analyzed: 5-24-18  
  
Matrix: Water  
Units: ug/L (ppb)  
  
Lab ID: MB0524WM3

Analyte	Method	Result	PQL
Lead	200.8	<b>ND</b>	1.1





Date of Report: June 5, 2018  
Samples Submitted: May 22, 2018  
Laboratory Reference: 1805-224  
Project: 82305

**TOTAL LEAD  
EPA 200.8  
DUPLICATE QUALITY CONTROL**

Date Extracted: 5-24-18

Date Analyzed: 5-24-18

Matrix: Water

Units: ug/L (ppb)

Lab ID: 05-224-03

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Lead	ND	ND	NA	1.1	



Date of Report: June 5, 2018  
Samples Submitted: May 22, 2018  
Laboratory Reference: 1805-224  
Project: 82305

**TOTAL LEAD  
EPA 200.8  
MS/MSD QUALITY CONTROL**

Date Extracted: 5-24-18

Date Analyzed: 5-24-18

Matrix: Water

Units: ug/L (ppb)

Lab ID: 05-224-03

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Lead	222	<b>219</b>	99	<b>230</b>	104	5	





### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference





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

# Chain of Custody

Turnaround Request  
 (in working days)  
 (Check One)

Laboratory Number: **05-224**

Company: **Kane Environmental**  
 Project Number: **82305**

Same Day  1 Day  
 2 Days  3 Days  
 Standard (7 Days)  
 (TPH analysis 5 Days)

Project Name: **City of Bethell - Wexler**

\_\_\_\_\_ (other)

Project Manager: **Nate Evenson**

Sampled by: **Nate Evenson**

Lab ID

Date Sampled

Time Sampled

Matrix

Number of Containers

NWTPH-HCID  
 NWTPH-Gx/BTEX  
 NWTPH-Gx  
 NWTPH-Dx (  Acid / SG Clean-up)  
 Volatiles 8260C  
 Halogenated Volatiles 8260C  
 EDB EPA 8011 (Waters Only)  
 Semivolatiles 8270D/SIM (with low-level PAHs)  
 PAHs 8270D/SIM (low-level)  
 PCBs 8082A  
 Organochlorine Pesticides 8081B  
 Organophosphorus Pesticides 8270D/SIM  
 Chlorinated Acid Herbicides 8151A  
 Total RCRA Metals  
 Total MTCA Metals  
 TCLP Metals  
 HEM (oil and grease) 1664A  
 BTEX, EDC, Naphthalene, PCE, MTBE, TCE, cis/trans-1,2-DCE, 1,1-DCE, Vinyl chloride by 8260C  
 Total Pb  
 % Moisture

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	S-MW-9:W-052218	5/22/19	0928	GW	11
2	S-MW-10:W-052218		1032		11
3	S-MW-11:W-052218		1128		22
4	S-MW-7:W-052218		1237		11
5	HZ-MW-16:W-052218		1348		10
6	S-MW-8:W-052218		1453		11

Signature	Company	Date	Time	Comments/Special Instructions
<i>Nate Evenson</i>	Kane Environmental	5/22/18	1606	Filter unpreserved polys and hold for future analysis. Extra sample volume on S-MW-10-052218 for MS/MSD and other QC analysis.

Relinquished

Received

Relinquished

Received

Relinquished

Received

Reviewed/Date

Reviewed/Date

Reviewed/Date

Chromatograms with final report  Electronic Data Deliverables (EDDs)

Data Package: Standard  Level III  Level IV



3600 Fremont Ave. N.  
Seattle, WA 98103  
T: (206) 352-3790  
F: (206) 352-7178  
info@fremontanalytical.com

**Kane Environmental, Inc.**  
Nate Evenson  
4015 13th Ave W.  
Seattle, WA 98103

**RE: Wexler - 82305**  
**Work Order Number: 1810362**

October 25, 2018

**Attention Nate Evenson:**

Fremont Analytical, Inc. received 24 sample(s) on 10/23/2018 for the analyses presented in the following report.

***Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.***  
***Gasoline by NWTPH-Gx***  
***Sample Moisture (Percent Moisture)***  
***Total Metals by EPA Method 6020***  
***Volatile Organic Compounds by EPA Method 8260C***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Chelsea Ward  
Project Manager

DoD/ELAP Certification #L 17-135, ISO/IEC 17025:2005  
ORELAP Certification: WA 100009-007 (NELAP Recognized)



Date: 10/25/2018

**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Work Order:** 1810362

## Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1810362-001	S-KSB-12: 7ft	10/22/2018 10:45 AM	10/23/2018 11:11 AM
1810362-002	S-KSB-12: 14.5ft	10/22/2018 10:56 AM	10/23/2018 11:11 AM
1810362-003	S-KSB-12: 20ft	10/22/2018 11:04 AM	10/23/2018 11:11 AM
1810362-004	S-KSB-13: 3.5ft	10/22/2018 11:19 AM	10/23/2018 11:11 AM
1810362-005	S-KSB-13: 6ft	10/22/2018 11:25 AM	10/23/2018 11:11 AM
1810362-006	S-KSB-13: 9ft	10/22/2018 11:30 AM	10/23/2018 11:11 AM
1810362-007	S-KSB-13: 14ft	10/22/2018 11:42 AM	10/23/2018 11:11 AM
1810362-008	S-KSB-13: 20ft	10/22/2018 11:50 AM	10/23/2018 11:11 AM
1810362-009	S-KSB-14: 5ft	10/22/2018 12:42 PM	10/23/2018 11:11 AM
1810362-010	S-KSB-14: 8ft	10/22/2018 12:46 PM	10/23/2018 11:11 AM
1810362-011	S-KSB-14: 14ft	10/22/2018 12:58 PM	10/23/2018 11:11 AM
1810362-012	S-KSB-14: 19ft	10/22/2018 1:04 PM	10/23/2018 11:11 AM
1810362-013	S-KSB-15: 3.5ft	10/22/2018 2:53 PM	10/23/2018 11:11 AM
1810362-014	S-KSB-15: 6ft	10/22/2018 3:00 PM	10/23/2018 11:11 AM
1810362-015	S-KSB-15: 9ft	10/22/2018 3:04 PM	10/23/2018 11:11 AM
1810362-016	S-KSB-15: 14ft	10/22/2018 3:08 PM	10/23/2018 11:11 AM
1810362-017	S-KSB-16: 1.5ft	10/22/2018 3:31 PM	10/23/2018 11:11 AM
1810362-018	S-KSB-16: 5.5ft	10/22/2018 3:36 PM	10/23/2018 11:11 AM
1810362-019	S-KSB-16: 8ft	10/22/2018 3:43 PM	10/23/2018 11:11 AM
1810362-020	S-KSB-16: 12.5ft	10/22/2018 3:52 PM	10/23/2018 11:11 AM
1810362-021	S-KSB-16: 19ft	10/22/2018 4:02 PM	10/23/2018 11:11 AM
1810362-022	S-KSB-17: 5ft	10/22/2018 4:28 PM	10/23/2018 11:11 AM
1810362-023	S-KSB-17: 13ft	10/22/2018 4:37 PM	10/23/2018 11:11 AM
1810362-024	S-KSB-17: 20ft	10/22/2018 4:49 PM	10/23/2018 11:11 AM



**CLIENT:** Kane Environmental, Inc.

**Project:** Wexler - 82305

---

**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate





**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810362-001  
**Client Sample ID:** S-KSB-12: 7ft

**Collection Date:** 10/22/2018 10:45:00 AM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22366 Analyst: SB			
Diesel (Fuel Oil)	ND	21.3		mg/Kg-dry	1	10/23/2018 9:35:47 PM
Heavy Oil	ND	53.2		mg/Kg-dry	1	10/23/2018 9:35:47 PM
Surr: 2-Fluorobiphenyl	94.2	50 - 150		%Rec	1	10/23/2018 9:35:47 PM
Surr: o-Terphenyl	92.8	50 - 150		%Rec	1	10/23/2018 9:35:47 PM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22372 Analyst: CR			
Gasoline	ND	5.28		mg/Kg-dry	1	10/23/2018 10:02:08 PM
Surr: 4-Bromofluorobenzene	104	65 - 135		%Rec	1	10/23/2018 10:02:08 PM
Surr: Toluene-d8	96.1	65 - 135		%Rec	1	10/23/2018 10:02:08 PM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22372 Analyst: CR			
Methyl tert-butyl ether (MTBE)	ND	0.0528		mg/Kg-dry	1	10/23/2018 10:02:08 PM
1,2-Dichloroethane	ND	0.0211		mg/Kg-dry	1	10/23/2018 10:02:08 PM
Benzene	ND	0.0211		mg/Kg-dry	1	10/23/2018 10:02:08 PM
Toluene	ND	0.0211		mg/Kg-dry	1	10/23/2018 10:02:08 PM
1,2-Dibromoethane (EDB)	ND	0.00528		mg/Kg-dry	1	10/23/2018 10:02:08 PM
Ethylbenzene	ND	0.0264		mg/Kg-dry	1	10/23/2018 10:02:08 PM
m,p-Xylene	ND	0.0528		mg/Kg-dry	1	10/23/2018 10:02:08 PM
o-Xylene	ND	0.0264		mg/Kg-dry	1	10/23/2018 10:02:08 PM
Naphthalene	ND	0.0528		mg/Kg-dry	1	10/23/2018 10:02:08 PM
Surr: Dibromofluoromethane	88.7	56.5 - 129		%Rec	1	10/23/2018 10:02:08 PM
Surr: Toluene-d8	99.8	64.5 - 151		%Rec	1	10/23/2018 10:02:08 PM
Surr: 1-Bromo-4-fluorobenzene	98.1	54.8 - 168		%Rec	1	10/23/2018 10:02:08 PM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22369 Analyst: WC			
Lead	1.96	0.194		mg/Kg-dry	1	10/24/2018 11:59:55 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47074 Analyst: CJ			
Percent Moisture	18.7	0.500		wt%	1	10/23/2018 2:23:40 PM



**Client:** Kane Environmental, Inc.

**Collection Date:** 10/22/2018 10:56:00 AM

**Project:** Wexler - 82305

**Lab ID:** 1810362-002

**Matrix:** Soil

**Client Sample ID:** S-KSB-12: 14.5ft

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22366 Analyst: SB

Diesel (Fuel Oil)	ND	24.0		mg/Kg-dry	1	10/23/2018 10:05:28 PM
Heavy Oil	ND	60.0		mg/Kg-dry	1	10/23/2018 10:05:28 PM
Surr: 2-Fluorobiphenyl	88.4	50 - 150		%Rec	1	10/23/2018 10:05:28 PM
Surr: o-Terphenyl	89.0	50 - 150		%Rec	1	10/23/2018 10:05:28 PM

**Gasoline by NWTPH-Gx**

Batch ID: 22372 Analyst: CR

Gasoline	ND	4.70		mg/Kg-dry	1	10/23/2018 10:32:59 PM
Surr: 4-Bromofluorobenzene	103	65 - 135		%Rec	1	10/23/2018 10:32:59 PM
Surr: Toluene-d8	106	65 - 135		%Rec	1	10/23/2018 10:32:59 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22372 Analyst: CR

Methyl tert-butyl ether (MTBE)	ND	0.0470		mg/Kg-dry	1	10/23/2018 10:32:59 PM
1,2-Dichloroethane	ND	0.0188		mg/Kg-dry	1	10/23/2018 10:32:59 PM
Benzene	ND	0.0188		mg/Kg-dry	1	10/23/2018 10:32:59 PM
Toluene	ND	0.0188		mg/Kg-dry	1	10/23/2018 10:32:59 PM
1,2-Dibromoethane (EDB)	ND	0.00470		mg/Kg-dry	1	10/23/2018 10:32:59 PM
Ethylbenzene	ND	0.0235		mg/Kg-dry	1	10/23/2018 10:32:59 PM
m,p-Xylene	ND	0.0470		mg/Kg-dry	1	10/23/2018 10:32:59 PM
o-Xylene	ND	0.0235		mg/Kg-dry	1	10/23/2018 10:32:59 PM
Naphthalene	ND	0.0470		mg/Kg-dry	1	10/23/2018 10:32:59 PM
Surr: Dibromofluoromethane	89.2	56.5 - 129		%Rec	1	10/23/2018 10:32:59 PM
Surr: Toluene-d8	109	64.5 - 151		%Rec	1	10/23/2018 10:32:59 PM
Surr: 1-Bromo-4-fluorobenzene	96.7	54.8 - 168		%Rec	1	10/23/2018 10:32:59 PM

**Total Metals by EPA Method 6020**

Batch ID: 22369 Analyst: WC

Lead	2.80	0.182		mg/Kg-dry	1	10/25/2018 12:04:28 AM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47074 Analyst: CJ

Percent Moisture	22.1	0.500		wt%	1	10/23/2018 2:23:40 PM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810362-003  
**Client Sample ID:** S-KSB-12: 20ft

**Collection Date:** 10/22/2018 11:04:00 AM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22366		Analyst: SB	
Diesel (Fuel Oil)	ND	23.2		mg/Kg-dry	1	10/23/2018 10:35:07 PM
Heavy Oil	ND	57.9		mg/Kg-dry	1	10/23/2018 10:35:07 PM
Surr: 2-Fluorobiphenyl	97.0	50 - 150		%Rec	1	10/23/2018 10:35:07 PM
Surr: o-Terphenyl	95.1	50 - 150		%Rec	1	10/23/2018 10:35:07 PM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22372		Analyst: CR	
Gasoline	13.9	6.15		mg/Kg-dry	1	10/23/2018 11:03:51 PM
Surr: 4-Bromofluorobenzene	114	65 - 135		%Rec	1	10/23/2018 11:03:51 PM
Surr: Toluene-d8	95.1	65 - 135		%Rec	1	10/23/2018 11:03:51 PM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22372		Analyst: CR	
Methyl tert-butyl ether (MTBE)	ND	0.0615		mg/Kg-dry	1	10/23/2018 11:03:51 PM
1,2-Dichloroethane	ND	0.0246		mg/Kg-dry	1	10/23/2018 11:03:51 PM
Benzene	ND	0.0246		mg/Kg-dry	1	10/23/2018 11:03:51 PM
Toluene	ND	0.0246		mg/Kg-dry	1	10/23/2018 11:03:51 PM
1,2-Dibromoethane (EDB)	ND	0.00615		mg/Kg-dry	1	10/23/2018 11:03:51 PM
Ethylbenzene	ND	0.0307		mg/Kg-dry	1	10/23/2018 11:03:51 PM
m,p-Xylene	ND	0.0615		mg/Kg-dry	1	10/23/2018 11:03:51 PM
o-Xylene	ND	0.0307		mg/Kg-dry	1	10/23/2018 11:03:51 PM
Naphthalene	ND	0.0615		mg/Kg-dry	1	10/23/2018 11:03:51 PM
Surr: Dibromofluoromethane	93.8	56.5 - 129		%Rec	1	10/23/2018 11:03:51 PM
Surr: Toluene-d8	98.2	64.5 - 151		%Rec	1	10/23/2018 11:03:51 PM
Surr: 1-Bromo-4-fluorobenzene	108	54.8 - 168		%Rec	1	10/23/2018 11:03:51 PM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22369		Analyst: WC	
Lead	2.76	0.185		mg/Kg-dry	1	10/25/2018 12:09:01 AM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47074		Analyst: CJ	
Percent Moisture	23.7	0.500		wt%	1	10/23/2018 2:23:40 PM



**Client:** Kane Environmental, Inc.

**Collection Date:** 10/22/2018 11:19:00 AM

**Project:** Wexler - 82305

**Lab ID:** 1810362-004

**Matrix:** Soil

**Client Sample ID:** S-KSB-13: 3.5ft

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22366 Analyst: SB

Diesel (Fuel Oil)	ND	21.6		mg/Kg-dry	1	10/23/2018 11:04:45 PM
Heavy Oil	ND	53.9		mg/Kg-dry	1	10/23/2018 11:04:45 PM
Surr: 2-Fluorobiphenyl	101	50 - 150		%Rec	1	10/23/2018 11:04:45 PM
Surr: o-Terphenyl	99.2	50 - 150		%Rec	1	10/23/2018 11:04:45 PM

**Gasoline by NWTPH-Gx**

Batch ID: 22372 Analyst: CR

Gasoline	2,500	930	D	mg/Kg-dry	200	10/24/2018 10:19:57 AM
Surr: 4-Bromofluorobenzene	101	65 - 135	D	%Rec	200	10/24/2018 10:19:57 AM
Surr: Toluene-d8	97.0	65 - 135	D	%Rec	200	10/24/2018 10:19:57 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22372 Analyst: CR

Methyl tert-butyl ether (MTBE)	ND	0.0465		mg/Kg-dry	1	10/24/2018 3:10:23 AM
1,2-Dichloroethane	ND	0.0186		mg/Kg-dry	1	10/24/2018 3:10:23 AM
Benzene	ND	0.0186		mg/Kg-dry	1	10/24/2018 3:10:23 AM
Toluene	ND	0.0186		mg/Kg-dry	1	10/24/2018 3:10:23 AM
1,2-Dibromoethane (EDB)	ND	0.00465		mg/Kg-dry	1	10/24/2018 3:10:23 AM
Ethylbenzene	ND	0.0232		mg/Kg-dry	1	10/24/2018 3:10:23 AM
m,p-Xylene	0.663	0.0465		mg/Kg-dry	1	10/24/2018 3:10:23 AM
o-Xylene	ND	0.0232		mg/Kg-dry	1	10/24/2018 3:10:23 AM
Naphthalene	0.619	0.0465		mg/Kg-dry	1	10/24/2018 3:10:23 AM
Surr: Dibromofluoromethane	88.9	56.5 - 129		%Rec	1	10/24/2018 3:10:23 AM
Surr: Toluene-d8	301	64.5 - 151	S	%Rec	1	10/24/2018 3:10:23 AM
Surr: 1-Bromo-4-fluorobenzene	92.8	54.8 - 168		%Rec	1	10/24/2018 3:10:23 AM

**NOTES:**

S - Outlying surrogate recovery attributed to TPH interference. The method is in control as indicated by the Method Blank (MB) & Laboratory Control Sample (LCS).

**Total Metals by EPA Method 6020**

Batch ID: 22369 Analyst: WC

Lead	3.82	0.183		mg/Kg-dry	1	10/25/2018 12:13:34 AM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47074 Analyst: CJ

Percent Moisture	20.4	0.500		wt%	1	10/23/2018 2:23:40 PM
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**Client:** Kane Environmental, Inc.

**Collection Date:** 10/22/2018 11:25:00 AM

**Project:** Wexler - 82305

**Lab ID:** 1810362-005

**Matrix:** Soil

**Client Sample ID:** S-KSB-13: 6ft

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22366 Analyst: SB			
Diesel (Fuel Oil)	ND	20.8		mg/Kg-dry	1	10/23/2018 11:34:27 PM
Heavy Oil	ND	52.1		mg/Kg-dry	1	10/23/2018 11:34:27 PM
Surr: 2-Fluorobiphenyl	53.5	50 - 150		%Rec	1	10/23/2018 11:34:27 PM
Surr: o-Terphenyl	52.3	50 - 150		%Rec	1	10/23/2018 11:34:27 PM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22372 Analyst: CR			
Gasoline	ND	3.83		mg/Kg-dry	1	10/23/2018 11:34:38 PM
Surr: 4-Bromofluorobenzene	99.8	65 - 135		%Rec	1	10/23/2018 11:34:38 PM
Surr: Toluene-d8	92.3	65 - 135		%Rec	1	10/23/2018 11:34:38 PM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22372 Analyst: CR			
Methyl tert-butyl ether (MTBE)	ND	0.0383		mg/Kg-dry	1	10/23/2018 11:34:38 PM
1,2-Dichloroethane	ND	0.0153		mg/Kg-dry	1	10/23/2018 11:34:38 PM
Benzene	ND	0.0153		mg/Kg-dry	1	10/23/2018 11:34:38 PM
Toluene	ND	0.0153		mg/Kg-dry	1	10/23/2018 11:34:38 PM
1,2-Dibromoethane (EDB)	ND	0.00383		mg/Kg-dry	1	10/23/2018 11:34:38 PM
Ethylbenzene	ND	0.0192		mg/Kg-dry	1	10/23/2018 11:34:38 PM
m,p-Xylene	ND	0.0383		mg/Kg-dry	1	10/23/2018 11:34:38 PM
o-Xylene	ND	0.0192		mg/Kg-dry	1	10/23/2018 11:34:38 PM
Naphthalene	ND	0.0383		mg/Kg-dry	1	10/23/2018 11:34:38 PM
Surr: Dibromofluoromethane	89.3	56.5 - 129		%Rec	1	10/23/2018 11:34:38 PM
Surr: Toluene-d8	99.0	64.5 - 151		%Rec	1	10/23/2018 11:34:38 PM
Surr: 1-Bromo-4-fluorobenzene	94.1	54.8 - 168		%Rec	1	10/23/2018 11:34:38 PM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22369 Analyst: WC			
Lead	2.14	0.191		mg/Kg-dry	1	10/25/2018 12:18:08 AM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47074 Analyst: CJ			
Percent Moisture	19.0	0.500		wt%	1	10/23/2018 2:23:40 PM



**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810362-006  
**Client Sample ID:** S-KSB-13: 9ft

**Collection Date:** 10/22/2018 11:30:00 AM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22366 Analyst: SB

Diesel (Fuel Oil)	ND	21.6		mg/Kg-dry	1	10/24/2018 12:04:05 AM
Heavy Oil	ND	54.1		mg/Kg-dry	1	10/24/2018 12:04:05 AM
Surr: 2-Fluorobiphenyl	91.7	50 - 150		%Rec	1	10/24/2018 12:04:05 AM
Surr: o-Terphenyl	90.6	50 - 150		%Rec	1	10/24/2018 12:04:05 AM

**Gasoline by NWTPH-Gx**

Batch ID: 22372 Analyst: CR

Gasoline	ND	5.87		mg/Kg-dry	1	10/24/2018 12:05:29 AM
Surr: 4-Bromofluorobenzene	104	65 - 135		%Rec	1	10/24/2018 12:05:29 AM
Surr: Toluene-d8	96.2	65 - 135		%Rec	1	10/24/2018 12:05:29 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22372 Analyst: CR

Methyl tert-butyl ether (MTBE)	ND	0.0587		mg/Kg-dry	1	10/24/2018 12:05:29 AM
1,2-Dichloroethane	ND	0.0235		mg/Kg-dry	1	10/24/2018 12:05:29 AM
Benzene	ND	0.0235		mg/Kg-dry	1	10/24/2018 12:05:29 AM
Toluene	ND	0.0235		mg/Kg-dry	1	10/24/2018 12:05:29 AM
1,2-Dibromoethane (EDB)	ND	0.00587		mg/Kg-dry	1	10/24/2018 12:05:29 AM
Ethylbenzene	ND	0.0293		mg/Kg-dry	1	10/24/2018 12:05:29 AM
m,p-Xylene	ND	0.0587		mg/Kg-dry	1	10/24/2018 12:05:29 AM
o-Xylene	ND	0.0293		mg/Kg-dry	1	10/24/2018 12:05:29 AM
Naphthalene	ND	0.0587		mg/Kg-dry	1	10/24/2018 12:05:29 AM
Surr: Dibromofluoromethane	89.1	56.5 - 129		%Rec	1	10/24/2018 12:05:29 AM
Surr: Toluene-d8	98.7	64.5 - 151		%Rec	1	10/24/2018 12:05:29 AM
Surr: 1-Bromo-4-fluorobenzene	97.9	54.8 - 168		%Rec	1	10/24/2018 12:05:29 AM

**Total Metals by EPA Method 6020**

Batch ID: 22369 Analyst: WC

Lead	2.97	0.188		mg/Kg-dry	1	10/25/2018 12:22:41 AM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47074 Analyst: CJ

Percent Moisture	21.6	0.500		wt%	1	10/23/2018 2:23:40 PM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810362-007  
**Client Sample ID:** S-KSB-13: 14ft

**Collection Date:** 10/22/2018 11:42:00 AM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22366		Analyst: SB	
Diesel (Fuel Oil)	ND	22.8		mg/Kg-dry	1	10/24/2018 12:33:45 AM
Heavy Oil	ND	57.1		mg/Kg-dry	1	10/24/2018 12:33:45 AM
Surr: 2-Fluorobiphenyl	81.4	50 - 150		%Rec	1	10/24/2018 12:33:45 AM
Surr: o-Terphenyl	79.3	50 - 150		%Rec	1	10/24/2018 12:33:45 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22372		Analyst: CR	
Gasoline	ND	4.27		mg/Kg-dry	1	10/24/2018 12:36:15 AM
Surr: 4-Bromofluorobenzene	103	65 - 135		%Rec	1	10/24/2018 12:36:15 AM
Surr: Toluene-d8	96.3	65 - 135		%Rec	1	10/24/2018 12:36:15 AM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22372		Analyst: CR	
Methyl tert-butyl ether (MTBE)	ND	0.0427		mg/Kg-dry	1	10/24/2018 12:36:15 AM
1,2-Dichloroethane	ND	0.0171		mg/Kg-dry	1	10/24/2018 12:36:15 AM
Benzene	ND	0.0171		mg/Kg-dry	1	10/24/2018 12:36:15 AM
Toluene	ND	0.0171		mg/Kg-dry	1	10/24/2018 12:36:15 AM
1,2-Dibromoethane (EDB)	ND	0.00427		mg/Kg-dry	1	10/24/2018 12:36:15 AM
Ethylbenzene	ND	0.0214		mg/Kg-dry	1	10/24/2018 12:36:15 AM
m,p-Xylene	ND	0.0427		mg/Kg-dry	1	10/24/2018 12:36:15 AM
o-Xylene	ND	0.0214		mg/Kg-dry	1	10/24/2018 12:36:15 AM
Naphthalene	ND	0.0427		mg/Kg-dry	1	10/24/2018 12:36:15 AM
Surr: Dibromofluoromethane	85.5	56.5 - 129		%Rec	1	10/24/2018 12:36:15 AM
Surr: Toluene-d8	99.6	64.5 - 151		%Rec	1	10/24/2018 12:36:15 AM
Surr: 1-Bromo-4-fluorobenzene	97.1	54.8 - 168		%Rec	1	10/24/2018 12:36:15 AM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22369		Analyst: WC	
Lead	1.68	0.188		mg/Kg-dry	1	10/25/2018 12:27:14 AM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47074		Analyst: CJ	
Percent Moisture	16.9	0.500		wt%	1	10/23/2018 2:23:40 PM





**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810362-008  
**Client Sample ID:** S-KSB-13: 20ft

**Collection Date:** 10/22/2018 11:50:00 AM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22366 Analyst: SB			
Diesel (Fuel Oil)	ND	23.2		mg/Kg-dry	1	10/24/2018 3:02:09 AM
Heavy Oil	ND	57.9		mg/Kg-dry	1	10/24/2018 3:02:09 AM
Surr: 2-Fluorobiphenyl	80.8	50 - 150		%Rec	1	10/24/2018 3:02:09 AM
Surr: o-Terphenyl	81.1	50 - 150		%Rec	1	10/24/2018 3:02:09 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22372 Analyst: CR			
Gasoline	ND	7.79		mg/Kg-dry	1	10/24/2018 1:07:07 AM
Surr: 4-Bromofluorobenzene	104	65 - 135		%Rec	1	10/24/2018 1:07:07 AM
Surr: Toluene-d8	96.4	65 - 135		%Rec	1	10/24/2018 1:07:07 AM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22372 Analyst: CR			
Methyl tert-butyl ether (MTBE)	ND	0.0779		mg/Kg-dry	1	10/24/2018 1:07:07 AM
1,2-Dichloroethane	ND	0.0312		mg/Kg-dry	1	10/24/2018 1:07:07 AM
Benzene	ND	0.0312		mg/Kg-dry	1	10/24/2018 1:07:07 AM
Toluene	ND	0.0312		mg/Kg-dry	1	10/24/2018 1:07:07 AM
1,2-Dibromoethane (EDB)	ND	0.00779		mg/Kg-dry	1	10/24/2018 1:07:07 AM
Ethylbenzene	ND	0.0390		mg/Kg-dry	1	10/24/2018 1:07:07 AM
m,p-Xylene	ND	0.0779		mg/Kg-dry	1	10/24/2018 1:07:07 AM
o-Xylene	ND	0.0390		mg/Kg-dry	1	10/24/2018 1:07:07 AM
Naphthalene	ND	0.0779		mg/Kg-dry	1	10/24/2018 1:07:07 AM
Surr: Dibromofluoromethane	92.0	56.5 - 129		%Rec	1	10/24/2018 1:07:07 AM
Surr: Toluene-d8	97.8	64.5 - 151		%Rec	1	10/24/2018 1:07:07 AM
Surr: 1-Bromo-4-fluorobenzene	97.8	54.8 - 168		%Rec	1	10/24/2018 1:07:07 AM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22376 Analyst: WC			
Lead	3.34	0.192		mg/Kg-dry	1	10/25/2018 12:54:38 AM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47074 Analyst: CJ			
Percent Moisture	22.1	0.500		wt%	1	10/23/2018 2:23:40 PM





**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810362-009  
**Client Sample ID:** S-KSB-14: 5ft

**Collection Date:** 10/22/2018 12:42:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22366 Analyst: SB			
Diesel (Fuel Oil)	ND	22.3		mg/Kg-dry	1	10/24/2018 3:31:53 AM
Heavy Oil	ND	55.8		mg/Kg-dry	1	10/24/2018 3:31:53 AM
Surr: 2-Fluorobiphenyl	60.5	50 - 150		%Rec	1	10/24/2018 3:31:53 AM
Surr: o-Terphenyl	60.5	50 - 150		%Rec	1	10/24/2018 3:31:53 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22372 Analyst: CR			
Gasoline	ND	5.50		mg/Kg-dry	1	10/24/2018 1:37:58 AM
Surr: 4-Bromofluorobenzene	97.3	65 - 135		%Rec	1	10/24/2018 1:37:58 AM
Surr: Toluene-d8	90.6	65 - 135		%Rec	1	10/24/2018 1:37:58 AM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22372 Analyst: CR			
Methyl tert-butyl ether (MTBE)	ND	0.0550		mg/Kg-dry	1	10/24/2018 1:37:58 AM
1,2-Dichloroethane	ND	0.0220		mg/Kg-dry	1	10/24/2018 1:37:58 AM
Benzene	ND	0.0220		mg/Kg-dry	1	10/24/2018 1:37:58 AM
Toluene	ND	0.0220		mg/Kg-dry	1	10/24/2018 1:37:58 AM
1,2-Dibromoethane (EDB)	ND	0.00550		mg/Kg-dry	1	10/24/2018 1:37:58 AM
Ethylbenzene	ND	0.0275		mg/Kg-dry	1	10/24/2018 1:37:58 AM
m,p-Xylene	ND	0.0550		mg/Kg-dry	1	10/24/2018 1:37:58 AM
o-Xylene	ND	0.0275		mg/Kg-dry	1	10/24/2018 1:37:58 AM
Naphthalene	ND	0.0550		mg/Kg-dry	1	10/24/2018 1:37:58 AM
Surr: Dibromofluoromethane	90.4	56.5 - 129		%Rec	1	10/24/2018 1:37:58 AM
Surr: Toluene-d8	97.9	64.5 - 151		%Rec	1	10/24/2018 1:37:58 AM
Surr: 1-Bromo-4-fluorobenzene	91.4	54.8 - 168		%Rec	1	10/24/2018 1:37:58 AM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22376 Analyst: WC			
Lead	1.75	0.179		mg/Kg-dry	1	10/25/2018 1:21:58 AM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47074 Analyst: CJ			
Percent Moisture	22.0	0.500		wt%	1	10/23/2018 2:23:40 PM



**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810362-010  
**Client Sample ID:** S-KSB-14: 8ft

**Collection Date:** 10/22/2018 12:46:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22366		Analyst: SB	
Diesel (Fuel Oil)	ND	21.5		mg/Kg-dry	1	10/24/2018 4:01:36 AM
Heavy Oil	ND	53.6		mg/Kg-dry	1	10/24/2018 4:01:36 AM
Surr: 2-Fluorobiphenyl	91.0	50 - 150		%Rec	1	10/24/2018 4:01:36 AM
Surr: o-Terphenyl	90.0	50 - 150		%Rec	1	10/24/2018 4:01:36 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22379		Analyst: TN	
Gasoline	ND	5.40		mg/Kg-dry	1	10/23/2018 4:56:00 PM
Surr: 4-Bromofluorobenzene	117	65 - 135		%Rec	1	10/23/2018 4:56:00 PM
Surr: Toluene-d8	97.5	65 - 135		%Rec	1	10/23/2018 4:56:00 PM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22379		Analyst: TN	
Methyl tert-butyl ether (MTBE)	ND	0.0540		mg/Kg-dry	1	10/23/2018 4:56:00 PM
1,2-Dichloroethane	ND	0.0216		mg/Kg-dry	1	10/23/2018 4:56:00 PM
Benzene	ND	0.0216		mg/Kg-dry	1	10/23/2018 4:56:00 PM
Toluene	ND	0.0216		mg/Kg-dry	1	10/23/2018 4:56:00 PM
1,2-Dibromoethane (EDB)	ND	0.00540		mg/Kg-dry	1	10/23/2018 4:56:00 PM
Ethylbenzene	ND	0.0270		mg/Kg-dry	1	10/23/2018 4:56:00 PM
m,p-Xylene	ND	0.0540		mg/Kg-dry	1	10/23/2018 4:56:00 PM
o-Xylene	ND	0.0270		mg/Kg-dry	1	10/23/2018 4:56:00 PM
Naphthalene	ND	0.0540		mg/Kg-dry	1	10/23/2018 4:56:00 PM
Surr: Dibromofluoromethane	100	56.5 - 129		%Rec	1	10/23/2018 4:56:00 PM
Surr: Toluene-d8	101	64.5 - 151		%Rec	1	10/23/2018 4:56:00 PM
Surr: 1-Bromo-4-fluorobenzene	113	54.8 - 168		%Rec	1	10/23/2018 4:56:00 PM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22376		Analyst: WC	
Lead	2.53	0.200		mg/Kg-dry	1	10/25/2018 1:26:32 AM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47074		Analyst: CJ	
Percent Moisture	22.3	0.500		wt%	1	10/23/2018 2:23:40 PM



**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810362-011  
**Client Sample ID:** S-KSB-14: 14ft

**Collection Date:** 10/22/2018 12:58:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22366		Analyst: SB	
Diesel (Fuel Oil)	ND	23.3		mg/Kg-dry	1	10/24/2018 4:31:16 AM
Heavy Oil	ND	58.4		mg/Kg-dry	1	10/24/2018 4:31:16 AM
Surr: 2-Fluorobiphenyl	108	50 - 150		%Rec	1	10/24/2018 4:31:16 AM
Surr: o-Terphenyl	106	50 - 150		%Rec	1	10/24/2018 4:31:16 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22379		Analyst: TN	
Gasoline	ND	4.36		mg/Kg-dry	1	10/23/2018 5:28:00 PM
Surr: 4-Bromofluorobenzene	116	65 - 135		%Rec	1	10/23/2018 5:28:00 PM
Surr: Toluene-d8	96.2	65 - 135		%Rec	1	10/23/2018 5:28:00 PM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22379		Analyst: TN	
Methyl tert-butyl ether (MTBE)	ND	0.0436		mg/Kg-dry	1	10/23/2018 5:28:00 PM
1,2-Dichloroethane	ND	0.0174		mg/Kg-dry	1	10/23/2018 5:28:00 PM
Benzene	ND	0.0174		mg/Kg-dry	1	10/23/2018 5:28:00 PM
Toluene	ND	0.0174		mg/Kg-dry	1	10/23/2018 5:28:00 PM
1,2-Dibromoethane (EDB)	ND	0.00436		mg/Kg-dry	1	10/23/2018 5:28:00 PM
Ethylbenzene	ND	0.0218		mg/Kg-dry	1	10/23/2018 5:28:00 PM
m,p-Xylene	ND	0.0436		mg/Kg-dry	1	10/23/2018 5:28:00 PM
o-Xylene	ND	0.0218		mg/Kg-dry	1	10/23/2018 5:28:00 PM
Naphthalene	ND	0.0436		mg/Kg-dry	1	10/23/2018 5:28:00 PM
Surr: Dibromofluoromethane	92.8	56.5 - 129		%Rec	1	10/23/2018 5:28:00 PM
Surr: Toluene-d8	95.0	64.5 - 151		%Rec	1	10/23/2018 5:28:00 PM
Surr: 1-Bromo-4-fluorobenzene	116	54.8 - 168		%Rec	1	10/23/2018 5:28:00 PM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22376		Analyst: WC	
Lead	1.55	0.170		mg/Kg-dry	1	10/25/2018 1:31:05 AM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47074		Analyst: CJ	
Percent Moisture	16.1	0.500		wt%	1	10/23/2018 2:23:40 PM



**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810362-012  
**Client Sample ID:** S-KSB-14: 19ft

**Collection Date:** 10/22/2018 1:04:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22366		Analyst: SB	
Diesel (Fuel Oil)	ND	23.6		mg/Kg-dry	1	10/24/2018 5:01:14 AM
Heavy Oil	ND	59.0		mg/Kg-dry	1	10/24/2018 5:01:14 AM
Surr: 2-Fluorobiphenyl	86.9	50 - 150		%Rec	1	10/24/2018 5:01:14 AM
Surr: o-Terphenyl	84.4	50 - 150		%Rec	1	10/24/2018 5:01:14 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22379		Analyst: TN	
Gasoline	ND	6.12		mg/Kg-dry	1	10/23/2018 6:00:00 PM
Surr: 4-Bromofluorobenzene	118	65 - 135		%Rec	1	10/23/2018 6:00:00 PM
Surr: Toluene-d8	101	65 - 135		%Rec	1	10/23/2018 6:00:00 PM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22379		Analyst: TN	
Methyl tert-butyl ether (MTBE)	ND	0.0612		mg/Kg-dry	1	10/23/2018 6:00:00 PM
1,2-Dichloroethane	ND	0.0245		mg/Kg-dry	1	10/23/2018 6:00:00 PM
Benzene	ND	0.0245		mg/Kg-dry	1	10/23/2018 6:00:00 PM
Toluene	ND	0.0245		mg/Kg-dry	1	10/23/2018 6:00:00 PM
1,2-Dibromoethane (EDB)	ND	0.00612		mg/Kg-dry	1	10/23/2018 6:00:00 PM
Ethylbenzene	ND	0.0306		mg/Kg-dry	1	10/23/2018 6:00:00 PM
m,p-Xylene	ND	0.0612		mg/Kg-dry	1	10/23/2018 6:00:00 PM
o-Xylene	ND	0.0306		mg/Kg-dry	1	10/23/2018 6:00:00 PM
Naphthalene	ND	0.0612		mg/Kg-dry	1	10/23/2018 6:00:00 PM
Surr: Dibromofluoromethane	90.6	56.5 - 129		%Rec	1	10/23/2018 6:00:00 PM
Surr: Toluene-d8	96.1	64.5 - 151		%Rec	1	10/23/2018 6:00:00 PM
Surr: 1-Bromo-4-fluorobenzene	119	54.8 - 168		%Rec	1	10/23/2018 6:00:00 PM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22376		Analyst: WC	
Lead	2.27	0.178		mg/Kg-dry	1	10/25/2018 1:35:38 AM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47074		Analyst: CJ	
Percent Moisture	19.2	0.500		wt%	1	10/23/2018 2:23:40 PM



**Client:** Kane Environmental, Inc.

**Collection Date:** 10/22/2018 2:53:00 PM

**Project:** Wexler - 82305

**Lab ID:** 1810362-013

**Matrix:** Soil

**Client Sample ID:** S-KSB-15: 3.5ft

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22380 Analyst: SB

Diesel (Fuel Oil)	ND	23.3		mg/Kg-dry	1	10/24/2018 3:31:53 AM
Heavy Oil	ND	58.2		mg/Kg-dry	1	10/24/2018 3:31:53 AM
Surr: 2-Fluorobiphenyl	94.1	50 - 150		%Rec	1	10/24/2018 3:31:53 AM
Surr: o-Terphenyl	102	50 - 150		%Rec	1	10/24/2018 3:31:53 AM

**Gasoline by NWTPH-Gx**

Batch ID: 22379 Analyst: TN

Gasoline	26.8	5.76		mg/Kg-dry	1	10/23/2018 6:32:00 PM
Surr: 4-Bromofluorobenzene	122	65 - 135		%Rec	1	10/23/2018 6:32:00 PM
Surr: Toluene-d8	98.3	65 - 135		%Rec	1	10/23/2018 6:32:00 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22379 Analyst: TN

Methyl tert-butyl ether (MTBE)	ND	0.0576		mg/Kg-dry	1	10/23/2018 6:32:00 PM
1,2-Dichloroethane	ND	0.0230		mg/Kg-dry	1	10/23/2018 6:32:00 PM
Benzene	ND	0.0230		mg/Kg-dry	1	10/23/2018 6:32:00 PM
Toluene	ND	0.0230		mg/Kg-dry	1	10/23/2018 6:32:00 PM
1,2-Dibromoethane (EDB)	ND	0.00576		mg/Kg-dry	1	10/23/2018 6:32:00 PM
Ethylbenzene	ND	0.0288		mg/Kg-dry	1	10/23/2018 6:32:00 PM
m,p-Xylene	ND	0.0576		mg/Kg-dry	1	10/23/2018 6:32:00 PM
o-Xylene	ND	0.0288		mg/Kg-dry	1	10/23/2018 6:32:00 PM
Naphthalene	ND	0.0576		mg/Kg-dry	1	10/23/2018 6:32:00 PM
Surr: Dibromofluoromethane	90.5	56.5 - 129		%Rec	1	10/23/2018 6:32:00 PM
Surr: Toluene-d8	96.4	64.5 - 151		%Rec	1	10/23/2018 6:32:00 PM
Surr: 1-Bromo-4-fluorobenzene	118	54.8 - 168		%Rec	1	10/23/2018 6:32:00 PM

**Total Metals by EPA Method 6020**

Batch ID: 22376 Analyst: WC

Lead	2.05	0.186		mg/Kg-dry	1	10/25/2018 1:49:21 AM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47091 Analyst: CG

Percent Moisture	17.8	0.500		wt%	1	10/24/2018 8:07:11 AM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810362-014  
**Client Sample ID:** S-KSB-15: 6ft

**Collection Date:** 10/22/2018 3:00:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22380		Analyst: SB	
Diesel (Fuel Oil)	ND	21.5		mg/Kg-dry	1	10/24/2018 5:30:53 AM
Heavy Oil	ND	53.9		mg/Kg-dry	1	10/24/2018 5:30:53 AM
Surr: 2-Fluorobiphenyl	88.1	50 - 150		%Rec	1	10/24/2018 5:30:53 AM
Surr: o-Terphenyl	97.6	50 - 150		%Rec	1	10/24/2018 5:30:53 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22379		Analyst: TN	
Gasoline	ND	4.45		mg/Kg-dry	1	10/23/2018 7:04:00 PM
Surr: 4-Bromofluorobenzene	116	65 - 135		%Rec	1	10/23/2018 7:04:00 PM
Surr: Toluene-d8	98.2	65 - 135		%Rec	1	10/23/2018 7:04:00 PM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22379		Analyst: TN	
Methyl tert-butyl ether (MTBE)	ND	0.0445		mg/Kg-dry	1	10/23/2018 7:04:00 PM
1,2-Dichloroethane	ND	0.0178		mg/Kg-dry	1	10/23/2018 7:04:00 PM
Benzene	ND	0.0178		mg/Kg-dry	1	10/23/2018 7:04:00 PM
Toluene	ND	0.0178		mg/Kg-dry	1	10/23/2018 7:04:00 PM
1,2-Dibromoethane (EDB)	ND	0.00445		mg/Kg-dry	1	10/23/2018 7:04:00 PM
Ethylbenzene	0.0450	0.0223		mg/Kg-dry	1	10/23/2018 7:04:00 PM
m,p-Xylene	0.105	0.0445		mg/Kg-dry	1	10/23/2018 7:04:00 PM
o-Xylene	ND	0.0223		mg/Kg-dry	1	10/23/2018 7:04:00 PM
Naphthalene	ND	0.0445		mg/Kg-dry	1	10/23/2018 7:04:00 PM
Surr: Dibromofluoromethane	93.4	56.5 - 129		%Rec	1	10/23/2018 7:04:00 PM
Surr: Toluene-d8	96.5	64.5 - 151		%Rec	1	10/23/2018 7:04:00 PM
Surr: 1-Bromo-4-fluorobenzene	111	54.8 - 168		%Rec	1	10/23/2018 7:04:00 PM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22376		Analyst: WC	
Lead	1.87	0.178		mg/Kg-dry	1	10/25/2018 1:53:55 AM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47091		Analyst: CG	
Percent Moisture	15.7	0.500		wt%	1	10/24/2018 8:07:11 AM



**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810362-015  
**Client Sample ID:** S-KSB-15: 9ft

**Collection Date:** 10/22/2018 3:04:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22380 Analyst: SB			
Diesel (Fuel Oil)	ND	22.7		mg/Kg-dry	1	10/24/2018 6:00:33 AM
Heavy Oil	ND	56.7		mg/Kg-dry	1	10/24/2018 6:00:33 AM
Surr: 2-Fluorobiphenyl	62.6	50 - 150		%Rec	1	10/24/2018 6:00:33 AM
Surr: o-Terphenyl	71.4	50 - 150		%Rec	1	10/24/2018 6:00:33 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22379 Analyst: TN			
Gasoline	ND	3.64		mg/Kg-dry	1	10/23/2018 7:36:00 PM
Surr: 4-Bromofluorobenzene	115	65 - 135		%Rec	1	10/23/2018 7:36:00 PM
Surr: Toluene-d8	96.4	65 - 135		%Rec	1	10/23/2018 7:36:00 PM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22379 Analyst: TN			
Methyl tert-butyl ether (MTBE)	ND	0.0364		mg/Kg-dry	1	10/23/2018 7:36:00 PM
1,2-Dichloroethane	ND	0.0146		mg/Kg-dry	1	10/23/2018 7:36:00 PM
Benzene	ND	0.0146		mg/Kg-dry	1	10/23/2018 7:36:00 PM
Toluene	ND	0.0146		mg/Kg-dry	1	10/23/2018 7:36:00 PM
1,2-Dibromoethane (EDB)	ND	0.00364		mg/Kg-dry	1	10/23/2018 7:36:00 PM
Ethylbenzene	ND	0.0182		mg/Kg-dry	1	10/23/2018 7:36:00 PM
m,p-Xylene	ND	0.0364		mg/Kg-dry	1	10/23/2018 7:36:00 PM
o-Xylene	ND	0.0182		mg/Kg-dry	1	10/23/2018 7:36:00 PM
Naphthalene	ND	0.0364		mg/Kg-dry	1	10/23/2018 7:36:00 PM
Surr: Dibromofluoromethane	96.2	56.5 - 129		%Rec	1	10/23/2018 7:36:00 PM
Surr: Toluene-d8	99.8	64.5 - 151		%Rec	1	10/23/2018 7:36:00 PM
Surr: 1-Bromo-4-fluorobenzene	110	54.8 - 168		%Rec	1	10/23/2018 7:36:00 PM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22376 Analyst: WC			
Lead	2.86	0.195		mg/Kg-dry	1	10/25/2018 1:58:28 AM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47091 Analyst: CG			
Percent Moisture	18.5	0.500		wt%	1	10/24/2018 8:07:11 AM





**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810362-016  
**Client Sample ID:** S-KSB-15: 14ft

**Collection Date:** 10/22/2018 3:08:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22380 Analyst: SB

Diesel (Fuel Oil)	ND	22.9		mg/Kg-dry	1	10/24/2018 6:30:15 AM
Heavy Oil	ND	57.1		mg/Kg-dry	1	10/24/2018 6:30:15 AM
Surr: 2-Fluorobiphenyl	92.5	50 - 150		%Rec	1	10/24/2018 6:30:15 AM
Surr: o-Terphenyl	101	50 - 150		%Rec	1	10/24/2018 6:30:15 AM

**Gasoline by NWTPH-Gx**

Batch ID: 22379 Analyst: TN

Gasoline	ND	4.56		mg/Kg-dry	1	10/23/2018 8:07:00 PM
Surr: 4-Bromofluorobenzene	115	65 - 135		%Rec	1	10/23/2018 8:07:00 PM
Surr: Toluene-d8	97.3	65 - 135		%Rec	1	10/23/2018 8:07:00 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22379 Analyst: TN

Methyl tert-butyl ether (MTBE)	ND	0.0456		mg/Kg-dry	1	10/23/2018 8:07:00 PM
1,2-Dichloroethane	ND	0.0182		mg/Kg-dry	1	10/23/2018 8:07:00 PM
Benzene	ND	0.0182		mg/Kg-dry	1	10/23/2018 8:07:00 PM
Toluene	ND	0.0182		mg/Kg-dry	1	10/23/2018 8:07:00 PM
1,2-Dibromoethane (EDB)	ND	0.00456		mg/Kg-dry	1	10/23/2018 8:07:00 PM
Ethylbenzene	ND	0.0228		mg/Kg-dry	1	10/23/2018 8:07:00 PM
m,p-Xylene	ND	0.0456		mg/Kg-dry	1	10/23/2018 8:07:00 PM
o-Xylene	ND	0.0228		mg/Kg-dry	1	10/23/2018 8:07:00 PM
Naphthalene	ND	0.0456		mg/Kg-dry	1	10/23/2018 8:07:00 PM
Surr: Dibromofluoromethane	93.0	56.5 - 129		%Rec	1	10/23/2018 8:07:00 PM
Surr: Toluene-d8	95.5	64.5 - 151		%Rec	1	10/23/2018 8:07:00 PM
Surr: 1-Bromo-4-fluorobenzene	116	54.8 - 168		%Rec	1	10/23/2018 8:07:00 PM

**Total Metals by EPA Method 6020**

Batch ID: 22376 Analyst: WC

Lead	1.47	0.170		mg/Kg-dry	1	10/25/2018 2:03:01 AM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47091 Analyst: CG

Percent Moisture	15.2	0.500		wt%	1	10/24/2018 8:07:11 AM
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**Client:** Kane Environmental, Inc.

**Collection Date:** 10/22/2018 3:31:00 PM

**Project:** Wexler - 82305

**Lab ID:** 1810362-017

**Matrix:** Soil

**Client Sample ID:** S-KSB-16: 1.5ft

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22380 Analyst: SB

Diesel (Fuel Oil)	ND	19.8		mg/Kg-dry	1	10/24/2018 7:00:06 AM
Heavy Oil	ND	49.5		mg/Kg-dry	1	10/24/2018 7:00:06 AM
Surr: 2-Fluorobiphenyl	88.1	50 - 150		%Rec	1	10/24/2018 7:00:06 AM
Surr: o-Terphenyl	93.6	50 - 150		%Rec	1	10/24/2018 7:00:06 AM

**Gasoline by NWTPH-Gx**

Batch ID: 22379 Analyst: KT

Gasoline	170	34.1	D	mg/Kg-dry	10	10/24/2018 9:49:01 AM
Surr: 4-Bromofluorobenzene	95.9	65 - 135	D	%Rec	10	10/24/2018 9:49:01 AM
Surr: Toluene-d8	93.0	65 - 135	D	%Rec	10	10/24/2018 9:49:01 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22379 Analyst: TN

Methyl tert-butyl ether (MTBE)	ND	0.0341		mg/Kg-dry	1	10/23/2018 8:39:00 PM
1,2-Dichloroethane	ND	0.0136		mg/Kg-dry	1	10/23/2018 8:39:00 PM
Benzene	ND	0.0136		mg/Kg-dry	1	10/23/2018 8:39:00 PM
Toluene	ND	0.0136		mg/Kg-dry	1	10/23/2018 8:39:00 PM
1,2-Dibromoethane (EDB)	ND	0.00341		mg/Kg-dry	1	10/23/2018 8:39:00 PM
Ethylbenzene	ND	0.0170		mg/Kg-dry	1	10/23/2018 8:39:00 PM
m,p-Xylene	ND	0.0341		mg/Kg-dry	1	10/23/2018 8:39:00 PM
o-Xylene	ND	0.0170		mg/Kg-dry	1	10/23/2018 8:39:00 PM
Naphthalene	ND	0.0341		mg/Kg-dry	1	10/23/2018 8:39:00 PM
Surr: Dibromofluoromethane	89.4	56.5 - 129		%Rec	1	10/23/2018 8:39:00 PM
Surr: Toluene-d8	103	64.5 - 151		%Rec	1	10/23/2018 8:39:00 PM
Surr: 1-Bromo-4-fluorobenzene	114	54.8 - 168		%Rec	1	10/23/2018 8:39:00 PM

**Total Metals by EPA Method 6020**

Batch ID: 22376 Analyst: WC

Lead	3.90	0.163		mg/Kg-dry	1	10/25/2018 2:07:35 AM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47091 Analyst: CG

Percent Moisture	8.59	0.500		wt%	1	10/24/2018 8:07:11 AM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810362-018  
**Client Sample ID:** S-KSB-16: 5.5ft

**Collection Date:** 10/22/2018 3:36:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22380 Analyst: SB

Diesel (Fuel Oil)	ND	20.7		mg/Kg-dry	1	10/24/2018 7:29:53 AM
Diesel Range Organics (C12-C24)	27.8	20.7		mg/Kg-dry	1	10/24/2018 7:29:53 AM
Heavy Oil	ND	51.7		mg/Kg-dry	1	10/24/2018 7:29:53 AM
Surr: 2-Fluorobiphenyl	66.5	50 - 150		%Rec	1	10/24/2018 7:29:53 AM
Surr: o-Terphenyl	68.3	50 - 150		%Rec	1	10/24/2018 7:29:53 AM

**NOTES:**

DRO - Indicates the presence of unresolved compounds eluting from dodecane through tetracosane (~C12-C24). Chromatographic pattern demonstrates a continuation of Gasoline.

**Gasoline by NWTPH-Gx**

Batch ID: 22379 Analyst: KT

Gasoline	6,330	661	D	mg/Kg-dry	200	10/24/2018 10:50:49 AM
Surr: 4-Bromofluorobenzene	101	65 - 135	D	%Rec	200	10/24/2018 10:50:49 AM
Surr: Toluene-d8	97.0	65 - 135	D	%Rec	200	10/24/2018 10:50:49 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22379 Analyst: KT

Methyl tert-butyl ether (MTBE)	ND	6.61	D	mg/Kg-dry	200	10/24/2018 10:50:49 AM
1,2-Dichloroethane	ND	2.65	D	mg/Kg-dry	200	10/24/2018 10:50:49 AM
Benzene	ND	2.65	D	mg/Kg-dry	200	10/24/2018 10:50:49 AM
Toluene	ND	2.65	D	mg/Kg-dry	200	10/24/2018 10:50:49 AM
1,2-Dibromoethane (EDB)	ND	0.661	D	mg/Kg-dry	200	10/24/2018 10:50:49 AM
Ethylbenzene	10.4	3.31	D	mg/Kg-dry	200	10/24/2018 10:50:49 AM
m,p-Xylene	49.6	6.61	D	mg/Kg-dry	200	10/24/2018 10:50:49 AM
o-Xylene	9.17	3.31	D	mg/Kg-dry	200	10/24/2018 10:50:49 AM
Naphthalene	30.0	6.61	D	mg/Kg-dry	200	10/24/2018 10:50:49 AM
Surr: Dibromofluoromethane	94.7	56.5 - 129	D	%Rec	200	10/24/2018 10:50:49 AM
Surr: Toluene-d8	98.9	64.5 - 151	D	%Rec	200	10/24/2018 10:50:49 AM
Surr: 1-Bromo-4-fluorobenzene	94.8	54.8 - 168	D	%Rec	200	10/24/2018 10:50:49 AM

**NOTES:**

Diluted due to matrix.

**Total Metals by EPA Method 6020**

Batch ID: 22376 Analyst: WC

Lead	4.73	0.174		mg/Kg-dry	1	10/25/2018 2:12:08 AM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47091 Analyst: CG

Percent Moisture	18.9	0.500		wt%	1	10/24/2018 8:07:11 AM
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**Client:** Kane Environmental, Inc.

**Collection Date:** 10/22/2018 3:43:00 PM

**Project:** Wexler - 82305

**Lab ID:** 1810362-019

**Matrix:** Soil

**Client Sample ID:** S-KSB-16: 8ft

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22380		Analyst: SB	
Diesel (Fuel Oil)	ND	21.3		mg/Kg-dry	1	10/24/2018 10:29:36 AM
Heavy Oil	ND	53.2		mg/Kg-dry	1	10/24/2018 10:29:36 AM
Surr: 2-Fluorobiphenyl	79.3	50 - 150		%Rec	1	10/24/2018 10:29:36 AM
Surr: o-Terphenyl	91.3	50 - 150		%Rec	1	10/24/2018 10:29:36 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22379		Analyst: TN	
Gasoline	ND	6.65		mg/Kg-dry	1	10/23/2018 9:11:00 PM
Surr: 4-Bromofluorobenzene	119	65 - 135		%Rec	1	10/23/2018 9:11:00 PM
Surr: Toluene-d8	97.8	65 - 135		%Rec	1	10/23/2018 9:11:00 PM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22379		Analyst: TN	
Methyl tert-butyl ether (MTBE)	ND	0.0665		mg/Kg-dry	1	10/23/2018 9:11:00 PM
1,2-Dichloroethane	ND	0.0266		mg/Kg-dry	1	10/23/2018 9:11:00 PM
Benzene	ND	0.0266		mg/Kg-dry	1	10/23/2018 9:11:00 PM
Toluene	ND	0.0266		mg/Kg-dry	1	10/23/2018 9:11:00 PM
1,2-Dibromoethane (EDB)	ND	0.00665		mg/Kg-dry	1	10/23/2018 9:11:00 PM
Ethylbenzene	ND	0.0333		mg/Kg-dry	1	10/23/2018 9:11:00 PM
m,p-Xylene	ND	0.0665		mg/Kg-dry	1	10/23/2018 9:11:00 PM
o-Xylene	ND	0.0333		mg/Kg-dry	1	10/23/2018 9:11:00 PM
Naphthalene	ND	0.0665		mg/Kg-dry	1	10/23/2018 9:11:00 PM
Surr: Dibromofluoromethane	92.0	56.5 - 129		%Rec	1	10/23/2018 9:11:00 PM
Surr: Toluene-d8	96.7	64.5 - 151		%Rec	1	10/23/2018 9:11:00 PM
Surr: 1-Bromo-4-fluorobenzene	118	54.8 - 168		%Rec	1	10/23/2018 9:11:00 PM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22376		Analyst: WC	
Lead	2.03	0.189		mg/Kg-dry	1	10/25/2018 2:16:42 AM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47091		Analyst: CG	
Percent Moisture	18.8	0.500		wt%	1	10/24/2018 8:07:11 AM



**Client:** Kane Environmental, Inc.

**Collection Date:** 10/22/2018 3:52:00 PM

**Project:** Wexler - 82305

**Lab ID:** 1810362-020

**Matrix:** Soil

**Client Sample ID:** S-KSB-16: 12.5ft

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22380 Analyst: SB

Diesel (Fuel Oil)	ND	24.2		mg/Kg-dry	1	10/24/2018 7:59:47 AM
Heavy Oil	ND	60.5		mg/Kg-dry	1	10/24/2018 7:59:47 AM
Surr: 2-Fluorobiphenyl	57.9	50 - 150		%Rec	1	10/24/2018 7:59:47 AM
Surr: o-Terphenyl	63.7	50 - 150		%Rec	1	10/24/2018 7:59:47 AM

**Gasoline by NWTPH-Gx**

Batch ID: 22379 Analyst: TN

Gasoline	ND	5.22		mg/Kg-dry	1	10/23/2018 9:43:00 PM
Surr: 4-Bromofluorobenzene	117	65 - 135		%Rec	1	10/23/2018 9:43:00 PM
Surr: Toluene-d8	102	65 - 135		%Rec	1	10/23/2018 9:43:00 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22379 Analyst: TN

Methyl tert-butyl ether (MTBE)	ND	0.0522		mg/Kg-dry	1	10/23/2018 9:43:00 PM
1,2-Dichloroethane	ND	0.0209		mg/Kg-dry	1	10/23/2018 9:43:00 PM
Benzene	ND	0.0209		mg/Kg-dry	1	10/23/2018 9:43:00 PM
Toluene	ND	0.0209		mg/Kg-dry	1	10/23/2018 9:43:00 PM
1,2-Dibromoethane (EDB)	ND	0.00522		mg/Kg-dry	1	10/23/2018 9:43:00 PM
Ethylbenzene	ND	0.0261		mg/Kg-dry	1	10/23/2018 9:43:00 PM
m,p-Xylene	0.0871	0.0522		mg/Kg-dry	1	10/23/2018 9:43:00 PM
o-Xylene	ND	0.0261		mg/Kg-dry	1	10/23/2018 9:43:00 PM
Naphthalene	ND	0.0522		mg/Kg-dry	1	10/23/2018 9:43:00 PM
Surr: Dibromofluoromethane	91.0	56.5 - 129		%Rec	1	10/23/2018 9:43:00 PM
Surr: Toluene-d8	94.4	64.5 - 151		%Rec	1	10/23/2018 9:43:00 PM
Surr: 1-Bromo-4-fluorobenzene	118	54.8 - 168		%Rec	1	10/23/2018 9:43:00 PM

**Total Metals by EPA Method 6020**

Batch ID: 22376 Analyst: WC

Lead	1.81	0.193		mg/Kg-dry	1	10/25/2018 2:21:16 AM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47091 Analyst: CG

Percent Moisture	19.0	0.500		wt%	1	10/24/2018 8:07:11 AM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810362-021  
**Client Sample ID:** S-KSB-16: 19ft

**Collection Date:** 10/22/2018 4:02:00 PM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22380		Analyst: SB	
Diesel (Fuel Oil)	ND	25.0		mg/Kg-dry	1	10/24/2018 8:29:38 AM
Heavy Oil	ND	62.4		mg/Kg-dry	1	10/24/2018 8:29:38 AM
Surr: 2-Fluorobiphenyl	87.7	50 - 150		%Rec	1	10/24/2018 8:29:38 AM
Surr: o-Terphenyl	97.3	50 - 150		%Rec	1	10/24/2018 8:29:38 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22379		Analyst: TN	
Gasoline	ND	5.53		mg/Kg-dry	1	10/23/2018 10:14:00 PM
Surr: 4-Bromofluorobenzene	118	65 - 135		%Rec	1	10/23/2018 10:14:00 PM
Surr: Toluene-d8	99.0	65 - 135		%Rec	1	10/23/2018 10:14:00 PM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22379		Analyst: TN	
Methyl tert-butyl ether (MTBE)	ND	0.0553		mg/Kg-dry	1	10/23/2018 10:14:00 PM
1,2-Dichloroethane	ND	0.0221		mg/Kg-dry	1	10/23/2018 10:14:00 PM
Benzene	ND	0.0221		mg/Kg-dry	1	10/23/2018 10:14:00 PM
Toluene	ND	0.0221		mg/Kg-dry	1	10/23/2018 10:14:00 PM
1,2-Dibromoethane (EDB)	ND	0.00553		mg/Kg-dry	1	10/23/2018 10:14:00 PM
Ethylbenzene	ND	0.0277		mg/Kg-dry	1	10/23/2018 10:14:00 PM
m,p-Xylene	ND	0.0553		mg/Kg-dry	1	10/23/2018 10:14:00 PM
o-Xylene	ND	0.0277		mg/Kg-dry	1	10/23/2018 10:14:00 PM
Naphthalene	ND	0.0553		mg/Kg-dry	1	10/23/2018 10:14:00 PM
Surr: Dibromofluoromethane	93.4	56.5 - 129		%Rec	1	10/23/2018 10:14:00 PM
Surr: Toluene-d8	97.1	64.5 - 151		%Rec	1	10/23/2018 10:14:00 PM
Surr: 1-Bromo-4-fluorobenzene	111	54.8 - 168		%Rec	1	10/23/2018 10:14:00 PM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22376		Analyst: WC	
Lead	3.94	0.206		mg/Kg-dry	1	10/25/2018 2:25:49 AM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47091		Analyst: CG	
Percent Moisture	22.8	0.500		wt%	1	10/24/2018 8:07:11 AM



**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810362-022  
**Client Sample ID:** S-KSB-17: 5ft

**Collection Date:** 10/22/2018 4:28:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22380		Analyst: SB	
Diesel (Fuel Oil)	ND	24.5		mg/Kg-dry	1	10/24/2018 8:59:34 AM
Heavy Oil	ND	61.3		mg/Kg-dry	1	10/24/2018 8:59:34 AM
Surr: 2-Fluorobiphenyl	78.5	50 - 150		%Rec	1	10/24/2018 8:59:34 AM
Surr: o-Terphenyl	86.8	50 - 150		%Rec	1	10/24/2018 8:59:34 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22379		Analyst: TN	
Gasoline	ND	4.66		mg/Kg-dry	1	10/23/2018 10:46:00 PM
Surr: 4-Bromofluorobenzene	120	65 - 135		%Rec	1	10/23/2018 10:46:00 PM
Surr: Toluene-d8	99.7	65 - 135		%Rec	1	10/23/2018 10:46:00 PM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22379		Analyst: TN	
Methyl tert-butyl ether (MTBE)	ND	0.0466		mg/Kg-dry	1	10/23/2018 10:46:00 PM
1,2-Dichloroethane	ND	0.0186		mg/Kg-dry	1	10/23/2018 10:46:00 PM
Benzene	ND	0.0186		mg/Kg-dry	1	10/23/2018 10:46:00 PM
Toluene	ND	0.0186		mg/Kg-dry	1	10/23/2018 10:46:00 PM
1,2-Dibromoethane (EDB)	ND	0.00466		mg/Kg-dry	1	10/23/2018 10:46:00 PM
Ethylbenzene	ND	0.0233		mg/Kg-dry	1	10/23/2018 10:46:00 PM
m,p-Xylene	ND	0.0466		mg/Kg-dry	1	10/23/2018 10:46:00 PM
o-Xylene	ND	0.0233		mg/Kg-dry	1	10/23/2018 10:46:00 PM
Naphthalene	ND	0.0466		mg/Kg-dry	1	10/23/2018 10:46:00 PM
Surr: Dibromofluoromethane	91.5	56.5 - 129		%Rec	1	10/23/2018 10:46:00 PM
Surr: Toluene-d8	95.6	64.5 - 151		%Rec	1	10/23/2018 10:46:00 PM
Surr: 1-Bromo-4-fluorobenzene	111	54.8 - 168		%Rec	1	10/23/2018 10:46:00 PM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22376		Analyst: WC	
Lead	2.23	0.185		mg/Kg-dry	1	10/25/2018 2:30:22 AM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47091		Analyst: CG	
Percent Moisture	20.7	0.500		wt%	1	10/24/2018 8:07:11 AM



**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810362-023  
**Client Sample ID:** S-KSB-17: 13ft

**Collection Date:** 10/22/2018 4:37:00 PM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22380		Analyst: SB	
Diesel (Fuel Oil)	ND	23.8		mg/Kg-dry	1	10/24/2018 9:29:32 AM
Heavy Oil	96.5	59.6		mg/Kg-dry	1	10/24/2018 9:29:32 AM
Surr: 2-Fluorobiphenyl	86.9	50 - 150		%Rec	1	10/24/2018 9:29:32 AM
Surr: o-Terphenyl	93.5	50 - 150		%Rec	1	10/24/2018 9:29:32 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22379		Analyst: TN	
Gasoline	ND	4.50		mg/Kg-dry	1	10/23/2018 11:18:00 PM
Surr: 4-Bromofluorobenzene	115	65 - 135		%Rec	1	10/23/2018 11:18:00 PM
Surr: Toluene-d8	96.2	65 - 135		%Rec	1	10/23/2018 11:18:00 PM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22379		Analyst: TN	
Methyl tert-butyl ether (MTBE)	ND	0.0450		mg/Kg-dry	1	10/23/2018 11:18:00 PM
1,2-Dichloroethane	ND	0.0180		mg/Kg-dry	1	10/23/2018 11:18:00 PM
Benzene	ND	0.0180		mg/Kg-dry	1	10/23/2018 11:18:00 PM
Toluene	ND	0.0180		mg/Kg-dry	1	10/23/2018 11:18:00 PM
1,2-Dibromoethane (EDB)	ND	0.00450		mg/Kg-dry	1	10/23/2018 11:18:00 PM
Ethylbenzene	ND	0.0225		mg/Kg-dry	1	10/23/2018 11:18:00 PM
m,p-Xylene	0.0630	0.0450		mg/Kg-dry	1	10/23/2018 11:18:00 PM
o-Xylene	ND	0.0225		mg/Kg-dry	1	10/23/2018 11:18:00 PM
Naphthalene	ND	0.0450		mg/Kg-dry	1	10/23/2018 11:18:00 PM
Surr: Dibromofluoromethane	91.9	56.5 - 129		%Rec	1	10/23/2018 11:18:00 PM
Surr: Toluene-d8	95.2	64.5 - 151		%Rec	1	10/23/2018 11:18:00 PM
Surr: 1-Bromo-4-fluorobenzene	107	54.8 - 168		%Rec	1	10/23/2018 11:18:00 PM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22376		Analyst: WC	
Lead	1.58	0.182		mg/Kg-dry	1	10/25/2018 2:44:06 AM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47091		Analyst: CG	
Percent Moisture	18.6	0.500		wt%	1	10/24/2018 8:07:11 AM





**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810362-024  
**Client Sample ID:** S-KSB-17: 20ft

**Collection Date:** 10/22/2018 4:49:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22380		Analyst: SB	
Diesel (Fuel Oil)	ND	20.7		mg/Kg-dry	1	10/24/2018 9:59:35 AM
Heavy Oil	ND	51.7		mg/Kg-dry	1	10/24/2018 9:59:35 AM
Surr: 2-Fluorobiphenyl	78.9	50 - 150		%Rec	1	10/24/2018 9:59:35 AM
Surr: o-Terphenyl	84.9	50 - 150		%Rec	1	10/24/2018 9:59:35 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22379		Analyst: TN	
Gasoline	ND	5.81		mg/Kg-dry	1	10/23/2018 11:50:00 PM
Surr: 4-Bromofluorobenzene	121	65 - 135		%Rec	1	10/23/2018 11:50:00 PM
Surr: Toluene-d8	94.4	65 - 135		%Rec	1	10/23/2018 11:50:00 PM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22379		Analyst: TN	
Methyl tert-butyl ether (MTBE)	ND	0.0581		mg/Kg-dry	1	10/23/2018 11:50:00 PM
1,2-Dichloroethane	ND	0.0232		mg/Kg-dry	1	10/23/2018 11:50:00 PM
Benzene	ND	0.0232		mg/Kg-dry	1	10/23/2018 11:50:00 PM
Toluene	ND	0.0232		mg/Kg-dry	1	10/23/2018 11:50:00 PM
1,2-Dibromoethane (EDB)	ND	0.00581		mg/Kg-dry	1	10/23/2018 11:50:00 PM
Ethylbenzene	ND	0.0290		mg/Kg-dry	1	10/23/2018 11:50:00 PM
m,p-Xylene	ND	0.0581		mg/Kg-dry	1	10/23/2018 11:50:00 PM
o-Xylene	ND	0.0290		mg/Kg-dry	1	10/23/2018 11:50:00 PM
Naphthalene	ND	0.0581		mg/Kg-dry	1	10/23/2018 11:50:00 PM
Surr: Dibromofluoromethane	97.9	56.5 - 129		%Rec	1	10/23/2018 11:50:00 PM
Surr: Toluene-d8	102	64.5 - 151		%Rec	1	10/23/2018 11:50:00 PM
Surr: 1-Bromo-4-fluorobenzene	121	54.8 - 168		%Rec	1	10/23/2018 11:50:00 PM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22376		Analyst: WC	
Lead	2.13	0.191		mg/Kg-dry	1	10/25/2018 2:48:40 AM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47091		Analyst: CG	
Percent Moisture	18.1	0.500		wt%	1	10/24/2018 8:07:11 AM





Date: 10/25/2018

**Work Order:** 1810362  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Total Metals by EPA Method 6020**

Sample ID <b>MB-22369</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>10/23/2018</b>	RunNo: <b>47132</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>22369</b>	Analysis Date: <b>10/24/2018</b>	SeqNo: <b>916919</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead ND 0.160

Sample ID <b>LCS-22369</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>	Prep Date: <b>10/23/2018</b>	RunNo: <b>47132</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>22369</b>	Analysis Date: <b>10/24/2018</b>	SeqNo: <b>916920</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 21.3 0.155 19.38 0 110 80 120

Sample ID <b>1810287-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>10/23/2018</b>	RunNo: <b>47132</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>22369</b>	Analysis Date: <b>10/24/2018</b>	SeqNo: <b>916922</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 2.09 0.176 2.152 2.78 20

**NOTES:**

R - High RPD observed. The method is in control as indicated by the LCS.

Sample ID <b>1810287-001AMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>10/23/2018</b>	RunNo: <b>47132</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>22369</b>	Analysis Date: <b>10/24/2018</b>	SeqNo: <b>916924</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 24.8 0.174 21.78 2.152 104 75 125

Sample ID <b>1810287-001AMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>10/23/2018</b>	RunNo: <b>47132</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>22369</b>	Analysis Date: <b>10/24/2018</b>	SeqNo: <b>916925</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 24.0 0.176 21.95 2.152 99.5 75 125 24.78 3.20 20

**Work Order:** 1810362  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Total Metals by EPA Method 6020**

Sample ID <b>MB-22376</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>10/23/2018</b>	RunNo: <b>47143</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>22376</b>	Analysis Date: <b>10/25/2018</b>	SeqNo: <b>917111</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead ND 0.157

Sample ID <b>LCS-22376</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>	Prep Date: <b>10/23/2018</b>	RunNo: <b>47143</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>22376</b>	Analysis Date: <b>10/25/2018</b>	SeqNo: <b>917112</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 22.4 0.159 19.84 0 113 80 120

Sample ID <b>1810362-008ADUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>10/23/2018</b>	RunNo: <b>47143</b>							
Client ID: <b>S-KSB-13: 20ft</b>	Batch ID: <b>22376</b>	Analysis Date: <b>10/25/2018</b>	SeqNo: <b>917116</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 3.71 0.193 3.341 10.4 20

Sample ID <b>1810362-008AMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>10/23/2018</b>	RunNo: <b>47143</b>							
Client ID: <b>S-KSB-13: 20ft</b>	Batch ID: <b>22376</b>	Analysis Date: <b>10/25/2018</b>	SeqNo: <b>917118</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 25.6 0.192 23.94 3.341 93.0 75 125

Sample ID <b>1810362-008AMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>10/23/2018</b>	RunNo: <b>47143</b>							
Client ID: <b>S-KSB-13: 20ft</b>	Batch ID: <b>22376</b>	Analysis Date: <b>10/25/2018</b>	SeqNo: <b>917119</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 25.9 0.190 23.76 3.341 94.8 75 125 25.61 1.01 20

**Work Order:** 1810362  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID <b>MB-22366</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>			Prep Date: <b>10/23/2018</b>	RunNo: <b>47105</b>					
Client ID: <b>MBLKS</b>	Batch ID: <b>22366</b>				Analysis Date: <b>10/23/2018</b>	SeqNo: <b>916306</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	20.1		20.00		100	50	150				
Surr: o-Terphenyl	19.2		20.00		96.0	50	150				

Sample ID <b>LCS-22366</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>			Prep Date: <b>10/23/2018</b>	RunNo: <b>47105</b>					
Client ID: <b>LCSS</b>	Batch ID: <b>22366</b>				Analysis Date: <b>10/23/2018</b>	SeqNo: <b>916307</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	514	20.0	500.0	0	103	65	135				
Surr: 2-Fluorobiphenyl	20.7		20.00		104	50	150				
Surr: o-Terphenyl	19.0		20.00		95.0	50	150				

Sample ID <b>MB-22380</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>			Prep Date: <b>10/23/2018</b>	RunNo: <b>47106</b>					
Client ID: <b>MBLKS</b>	Batch ID: <b>22380</b>				Analysis Date: <b>10/24/2018</b>	SeqNo: <b>916341</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	18.2		20.00		91.0	50	150				
Surr: o-Terphenyl	19.1		20.00		95.7	50	150				

Sample ID <b>LCS-22380</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>			Prep Date: <b>10/23/2018</b>	RunNo: <b>47106</b>					
Client ID: <b>LCSS</b>	Batch ID: <b>22380</b>				Analysis Date: <b>10/24/2018</b>	SeqNo: <b>916342</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	487	20.0	500.0	0	97.5	65	135				
Surr: 2-Fluorobiphenyl	36.6		40.00		91.4	50	150				
Surr: o-Terphenyl	38.9		40.00		97.3	50	150				

Work Order: 1810362  
 CLIENT: Kane Environmental, Inc.  
 Project: Wexler - 82305

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID	<b>LCS-22380</b>	SampType:	<b>LCS</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>10/23/2018</b>	RunNo:	<b>47106</b>		
Client ID:	<b>LCSS</b>	Batch ID:	<b>22380</b>			Analysis Date:	<b>10/24/2018</b>	SeqNo:	<b>916342</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID	<b>1810362-013ADUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/23/2018</b>	RunNo:	<b>47106</b>		
Client ID:	<b>S-KSB-15: 3.5ft</b>	Batch ID:	<b>22380</b>			Analysis Date:	<b>10/24/2018</b>	SeqNo:	<b>916344</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	24.2						0		30	
Heavy Oil	ND	60.5						0		30	
Surr: 2-Fluorobiphenyl	22.3		24.21		92.2	50	150		0		
Surr: o-Terphenyl	23.9		24.21		98.9	50	150		0		

Sample ID	<b>1810362-013AMS</b>	SampType:	<b>MS</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/23/2018</b>	RunNo:	<b>47106</b>		
Client ID:	<b>S-KSB-15: 3.5ft</b>	Batch ID:	<b>22380</b>			Analysis Date:	<b>10/24/2018</b>	SeqNo:	<b>916345</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	588	20.7	518.6	0	113	65	135				
Surr: 2-Fluorobiphenyl	30.6		41.49		73.7	50	150				
Surr: o-Terphenyl	34.4		41.49		83.0	50	150				

Sample ID	<b>1810362-013AMSD</b>	SampType:	<b>MSD</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/23/2018</b>	RunNo:	<b>47106</b>		
Client ID:	<b>S-KSB-15: 3.5ft</b>	Batch ID:	<b>22380</b>			Analysis Date:	<b>10/24/2018</b>	SeqNo:	<b>916346</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	449	21.9	547.0	0	82.2	65	135	588.3	26.8	30	
Surr: 2-Fluorobiphenyl	16.3		21.88		74.7	50	150		0		
Surr: o-Terphenyl	18.7		21.88		85.6	50	150		0		

**Work Order:** 1810362  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID <b>1810362-012ADUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>			Prep Date: <b>10/23/2018</b>	RunNo: <b>47105</b>					
Client ID: <b>S-KSB-14: 19ft</b>	Batch ID: <b>22366</b>				Analysis Date: <b>10/24/2018</b>	SeqNo: <b>916323</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	23.2						0		30	
Heavy Oil	ND	58.0						0		30	
Surr: 2-Fluorobiphenyl	19.4		23.22		83.5	50	150		0		
Surr: o-Terphenyl	18.6		23.22		80.2	50	150		0		

Sample ID <b>1810342-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>			Prep Date: <b>10/23/2018</b>	RunNo: <b>47105</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>22366</b>				Analysis Date: <b>10/24/2018</b>	SeqNo: <b>916325</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	22.3						0		30	
Heavy Oil	ND	55.7						0		30	
Surr: 2-Fluorobiphenyl	20.3		22.26		91.0	50	150		0		
Surr: o-Terphenyl	19.4		22.26		86.9	50	150		0		

Sample ID <b>1810342-001AMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>			Prep Date: <b>10/23/2018</b>	RunNo: <b>47105</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>22366</b>				Analysis Date: <b>10/24/2018</b>	SeqNo: <b>916326</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	518	20.5	511.4	4.748	100	65	135				
Surr: 2-Fluorobiphenyl	20.4		20.46		99.6	50	150				
Surr: o-Terphenyl	18.6		20.46		91.1	50	150				

Sample ID <b>1810342-001AMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>			Prep Date: <b>10/23/2018</b>	RunNo: <b>47105</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>22366</b>				Analysis Date: <b>10/24/2018</b>	SeqNo: <b>916327</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	532	21.0	524.6	4.748	101	65	135	518.2	2.67	30	
Surr: 2-Fluorobiphenyl	20.7		20.98		98.6	50	150		0		
Surr: o-Terphenyl	19.2		20.98		91.7	50	150		0		



**Work Order:** 1810362  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID	<b>1810342-001AMSD</b>	SampType:	<b>MSD</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/23/2018</b>	RunNo:	<b>47105</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>22366</b>			Analysis Date:	<b>10/24/2018</b>	SeqNo:	<b>916327</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**Work Order:** 1810362  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID	<b>LCS-22372</b>	SampType:	<b>LCS</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>10/23/2018</b>	RunNo:	<b>47085</b>		
Client ID:	<b>LCSS</b>	Batch ID:	<b>22372</b>			Analysis Date:	<b>10/23/2018</b>	SeqNo:	<b>915900</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	26.3	5.00	25.00	0	105	65	135				
Surr: Toluene-d8	1.21		1.250		97.1	65	135				
Surr: 4-Bromofluorobenzene	1.28		1.250		102	65	135				

Sample ID	<b>MB-22372</b>	SampType:	<b>MBLK</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>10/23/2018</b>	RunNo:	<b>47085</b>		
Client ID:	<b>MBLKS</b>	Batch ID:	<b>22372</b>			Analysis Date:	<b>10/23/2018</b>	SeqNo:	<b>915908</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	5.00									
Surr: Toluene-d8	1.22		1.250		97.4	65	135				
Surr: 4-Bromofluorobenzene	1.27		1.250		102	65	135				

Sample ID	<b>1810318-001BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/23/2018</b>	RunNo:	<b>47085</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>22372</b>			Analysis Date:	<b>10/23/2018</b>	SeqNo:	<b>915903</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	5.81						0		30	
Surr: Toluene-d8	1.56		1.453		107	65	135		0		
Surr: 4-Bromofluorobenzene	1.53		1.453		105	65	135		0		

Sample ID	<b>1810342-001BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/23/2018</b>	RunNo:	<b>47085</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>22372</b>			Analysis Date:	<b>10/23/2018</b>	SeqNo:	<b>915907</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	4.30						0		30	
Surr: Toluene-d8	1.04		1.076		96.9	65	135		0		
Surr: 4-Bromofluorobenzene	1.12		1.076		104	65	135		0		

**Work Order:** 1810362  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID	<b>LCS-22379</b>	SampType:	<b>LCS</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>10/23/2018</b>	RunNo:	<b>47092</b>		
Client ID:	<b>LCSS</b>	Batch ID:	<b>22379</b>			Analysis Date:	<b>10/23/2018</b>	SeqNo:	<b>916174</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	23.8	5.00	25.00	0	95.1	65	135				
Surr: Toluene-d8	1.26		1.250		101	65	135				
Surr: 4-Bromofluorobenzene	1.53		1.250		122	65	135				

Sample ID	<b>MB-22379</b>	SampType:	<b>MBLK</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>10/23/2018</b>	RunNo:	<b>47092</b>		
Client ID:	<b>MBLKS</b>	Batch ID:	<b>22379</b>			Analysis Date:	<b>10/23/2018</b>	SeqNo:	<b>916175</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	5.00									
Surr: Toluene-d8	1.19		1.250		95.5	65	135				
Surr: 4-Bromofluorobenzene	1.43		1.250		115	65	135				

Sample ID	<b>1810342-002BMS</b>	SampType:	<b>MS</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/23/2018</b>	RunNo:	<b>47085</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>22372</b>			Analysis Date:	<b>10/24/2018</b>	SeqNo:	<b>916030</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	31.2	5.07	25.35	0	123	65	135				
Surr: Toluene-d8	1.36		1.267		107	65	135				
Surr: 4-Bromofluorobenzene	1.36		1.267		107	65	135				

Sample ID	<b>1810342-002BMSD</b>	SampType:	<b>MSD</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/23/2018</b>	RunNo:	<b>47085</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>22372</b>			Analysis Date:	<b>10/24/2018</b>	SeqNo:	<b>916031</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	28.6	5.07	25.35	0	113	65	135	31.24	8.98	30	
Surr: Toluene-d8	1.23		1.267		97.2	65	135		0		
Surr: 4-Bromofluorobenzene	1.49		1.267		118	65	135		0		



**Work Order:** 1810362  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID	<b>1810362-011BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/23/2018</b>	RunNo:	<b>47099</b>		
Client ID:	<b>S-KSB-14: 14ft</b>	Batch ID:	<b>22379</b>			Analysis Date:	<b>10/24/2018</b>	SeqNo:	<b>916402</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	5.96						0		30	
Surr: Toluene-d8	1.42		1.490		95.3	65	135		0		
Surr: 4-Bromofluorobenzene	1.54		1.490		104	65	135		0		

Sample ID	<b>1810362-023BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/23/2018</b>	RunNo:	<b>47099</b>		
Client ID:	<b>S-KSB-17: 13ft</b>	Batch ID:	<b>22379</b>			Analysis Date:	<b>10/24/2018</b>	SeqNo:	<b>916403</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	4.50						0		30	
Surr: Toluene-d8	1.14		1.126		101	65	135		0		
Surr: 4-Bromofluorobenzene	1.22		1.126		108	65	135		0		

Sample ID	<b>1810362-024BMS</b>	SampType:	<b>MS</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/23/2018</b>	RunNo:	<b>47099</b>		
Client ID:	<b>S-KSB-17: 20ft</b>	Batch ID:	<b>22379</b>			Analysis Date:	<b>10/24/2018</b>	SeqNo:	<b>916404</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	29.0	5.81	29.05	0	99.7	65	135				
Surr: Toluene-d8	1.39		1.452		96.0	65	135				
Surr: 4-Bromofluorobenzene	1.52		1.452		105	65	135				

Sample ID	<b>1810362-024BMSD</b>	SampType:	<b>MSD</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/23/2018</b>	RunNo:	<b>47099</b>		
Client ID:	<b>S-KSB-17: 20ft</b>	Batch ID:	<b>22379</b>			Analysis Date:	<b>10/24/2018</b>	SeqNo:	<b>916405</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	27.4	5.81	29.05	0	94.5	65	135	28.96	5.42	30	
Surr: Toluene-d8	1.41		1.452		96.8	65	135		0		
Surr: 4-Bromofluorobenzene	1.52		1.452		104	65	135		0		

Work Order: 1810362  
 CLIENT: Kane Environmental, Inc.  
 Project: Wexler - 82305

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	LCS-22372	SampType:	LCS	Units:	mg/Kg	Prep Date:	10/23/2018	RunNo:	47084		
Client ID:	LCSS	Batch ID:	22372	Analysis Date:	10/23/2018	SeqNo:	915867				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.02	0.0500	1.000	0	102	44.1	152				
1,2-Dichloroethane	1.09	0.0200	1.000	0	109	50.9	162				
Benzene	1.07	0.0200	1.000	0	107	64.3	133				
Toluene	1.02	0.0200	1.000	0	102	67.3	138				
1,2-Dibromoethane (EDB)	1.00	0.00500	1.000	0	100	50.5	154				
Ethylbenzene	1.02	0.0250	1.000	0	102	74	129				
m,p-Xylene	2.04	0.0500	2.000	0	102	70	124				
o-Xylene	0.946	0.0250	1.000	0	94.6	68.1	139				
Naphthalene	0.998	0.0500	1.000	0	99.8	46.5	167				
Surr: Dibromofluoromethane	0.838		1.250		67.0	56.5	129				
Surr: Toluene-d8	1.25		1.250		99.7	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.21		1.250		97.2	54.8	168				

Sample ID	MB-22372	SampType:	MBLK	Units:	mg/Kg	Prep Date:	10/23/2018	RunNo:	47084		
Client ID:	MBLKS	Batch ID:	22372	Analysis Date:	10/23/2018	SeqNo:	915868				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.0500									
1,2-Dichloroethane	ND	0.0200									
Benzene	ND	0.0200									
Toluene	ND	0.0200									
1,2-Dibromoethane (EDB)	ND	0.00500									
Ethylbenzene	ND	0.0250									
m,p-Xylene	ND	0.0500									
o-Xylene	ND	0.0250									
Naphthalene	ND	0.0500									
Surr: Dibromofluoromethane	1.00		1.250		80.2	56.5	129				
Surr: Toluene-d8	1.22		1.250		97.7	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.20		1.250		95.9	54.8	168				

**Work Order:** 1810362  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	<b>1810318-001BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/23/2018</b>	RunNo:	<b>47084</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>22372</b>			Analysis Date:	<b>10/23/2018</b>	SeqNo:	<b>915865</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.0581						0		30	
1,2-Dichloroethane	ND	0.0233						0		30	
Benzene	ND	0.0233						0		30	
Toluene	ND	0.0233						0		30	
1,2-Dibromoethane (EDB)	ND	0.00581						0		30	
Ethylbenzene	ND	0.0291						0		30	
m,p-Xylene	ND	0.0581						0		30	
o-Xylene	ND	0.0291						0		30	
Naphthalene	0.0895	0.0581						0.07869	12.9	30	
Surr: Dibromofluoromethane	1.24		1.453		85.6	56.5	129		0		
Surr: Toluene-d8	1.57		1.453		108	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.44		1.453		99.3	54.8	168		0		

Sample ID	<b>LCS-22379</b>	SampType:	<b>LCS</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>10/23/2018</b>	RunNo:	<b>47093</b>		
Client ID:	<b>LCSS</b>	Batch ID:	<b>22379</b>			Analysis Date:	<b>10/23/2018</b>	SeqNo:	<b>916105</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.14	0.0500	1.000	0	114	44.1	152				
1,2-Dichloroethane	0.908	0.0200	1.000	0	90.8	50.9	162				
Benzene	1.00	0.0200	1.000	0	100	64.3	133				
Toluene	0.943	0.0200	1.000	0	94.3	67.3	138				
1,2-Dibromoethane (EDB)	0.951	0.00500	1.000	0	95.1	50.5	154				
Ethylbenzene	1.01	0.0250	1.000	0	101	74	129				
m,p-Xylene	1.93	0.0500	2.000	0	96.6	70	124				
o-Xylene	1.01	0.0250	1.000	0	101	68.1	139				
Naphthalene	1.45	0.0500	1.000	0	145	46.5	167				
Surr: Dibromofluoromethane	1.10		1.250		88.3	56.5	129				
Surr: Toluene-d8	1.19		1.250		95.4	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.55		1.250		124	54.8	168				

**Work Order:** 1810362  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>1810342-001BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>10/23/2018</b>	RunNo: <b>47084</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>22372</b>		Analysis Date: <b>10/23/2018</b>	SeqNo: <b>916073</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.0430						0		30	
1,2-Dichloroethane	ND	0.0172						0		30	
Benzene	ND	0.0172						0		30	
Toluene	ND	0.0172						0		30	
1,2-Dibromoethane (EDB)	ND	0.00430						0		30	
Ethylbenzene	ND	0.0215						0		30	
m,p-Xylene	ND	0.0430						0		30	
o-Xylene	ND	0.0215						0		30	
Naphthalene	ND	0.0430						0		30	
Surr: Dibromofluoromethane	0.919		1.076		85.4	56.5	129		0		
Surr: Toluene-d8	1.06		1.076		98.5	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.05		1.076		98.0	54.8	168		0		

Sample ID <b>MB-22379</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>10/23/2018</b>	RunNo: <b>47093</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>22379</b>		Analysis Date: <b>10/23/2018</b>	SeqNo: <b>916106</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.0500									
1,2-Dichloroethane	ND	0.0200									
Benzene	ND	0.0200									
Toluene	ND	0.0200									
1,2-Dibromoethane (EDB)	ND	0.00500									
Ethylbenzene	ND	0.0250									
m,p-Xylene	ND	0.0500									
o-Xylene	ND	0.0250									
Naphthalene	ND	0.0500									
Surr: Dibromofluoromethane	1.22		1.250		97.7	56.5	129				
Surr: Toluene-d8	1.23		1.250		98.7	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.43		1.250		115	54.8	168				

**Work Order:** 1810362  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1810318-002BMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	10/23/2018	RunNo:	47084		
Client ID:	BATCH	Batch ID:	22372	Analysis Date:	10/23/2018	SeqNo:	916070				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.967	0.0477	0.9538	0	101	58.5	167				
1,2-Dichloroethane	0.929	0.0191	0.9538	0	97.4	51.3	139				
Benzene	0.927	0.0191	0.9538	0	97.2	63.5	133				
Toluene	1.08	0.0191	0.9538	0	113	63.4	132				
1,2-Dibromoethane (EDB)	0.922	0.00477	0.9538	0	96.6	50.4	136				
Ethylbenzene	0.967	0.0238	0.9538	0	101	54.5	134				
m,p-Xylene	1.91	0.0477	1.908	0.005604	99.7	53.1	132				
o-Xylene	0.883	0.0238	0.9538	0	92.6	53.3	139				
Naphthalene	1.02	0.0477	0.9538	0.09396	97.1	52.3	124				
Surr: Dibromofluoromethane	0.826		1.192		69.3	56.5	129				
Surr: Toluene-d8	1.33		1.192		111	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.23		1.192		103	54.8	168				

Sample ID	1810318-002BMSD	SampType:	MSD	Units:	mg/Kg-dry	Prep Date:	10/23/2018	RunNo:	47084		
Client ID:	BATCH	Batch ID:	22372	Analysis Date:	10/23/2018	SeqNo:	916071				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.05	0.0477	0.9538	0	110	58.5	167	0.9675	8.39	30	
1,2-Dichloroethane	0.976	0.0191	0.9538	0	102	51.3	139	0.9286	4.93	30	
Benzene	0.982	0.0191	0.9538	0	103	63.5	133	0.9273	5.73	30	
Toluene	1.08	0.0191	0.9538	0	114	63.4	132	1.076	0.717	30	
1,2-Dibromoethane (EDB)	0.977	0.00477	0.9538	0	102	50.4	136	0.9218	5.81	30	
Ethylbenzene	1.03	0.0238	0.9538	0	108	54.5	134	0.9675	6.36	30	
m,p-Xylene	2.04	0.0477	1.908	0.005604	107	53.1	132	1.908	6.63	30	
o-Xylene	0.940	0.0238	0.9538	0	98.5	53.3	139	0.8833	6.20	30	
Naphthalene	1.17	0.0477	0.9538	0.09396	113	52.3	124	1.020	13.9	30	
Surr: Dibromofluoromethane	0.804		1.192		67.4	56.5	129		0		
Surr: Toluene-d8	1.24		1.192		104	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.18		1.192		99.4	54.8	168		0		

**Work Order:** 1810362  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	<b>1810362-011BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/23/2018</b>	RunNo:	<b>47100</b>			
Client ID:	<b>S-KSB-14: 14ft</b>	Batch ID:	<b>22379</b>			Analysis Date:	<b>10/24/2018</b>	SeqNo:	<b>916337</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Methyl tert-butyl ether (MTBE)	ND	0.0596						0		30		
1,2-Dichloroethane	ND	0.0238						0		30		
Benzene	ND	0.0238						0		30		
Toluene	ND	0.0238						0		30		
1,2-Dibromoethane (EDB)	ND	0.00596						0		30		
Ethylbenzene	ND	0.0298						0		30		
m,p-Xylene	ND	0.0596						0		30		
o-Xylene	ND	0.0298						0		30		
Naphthalene	0.0625	0.0596						0	200	30		
Surr: Dibromofluoromethane	1.40		1.490		93.7	56.5	129		0			
Surr: Toluene-d8	1.42		1.490		95.6	64.5	151		0			
Surr: 1-Bromo-4-fluorobenzene	1.46		1.490		97.7	54.8	168		0			

Sample ID	<b>1810362-023BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/23/2018</b>	RunNo:	<b>47100</b>			
Client ID:	<b>S-KSB-17: 13ft</b>	Batch ID:	<b>22379</b>			Analysis Date:	<b>10/24/2018</b>	SeqNo:	<b>916338</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Methyl tert-butyl ether (MTBE)	ND	0.0450						0		30		
1,2-Dichloroethane	ND	0.0180						0		30		
Benzene	ND	0.0180						0		30		
Toluene	ND	0.0180						0		30		
1,2-Dibromoethane (EDB)	ND	0.00450						0		30		
Ethylbenzene	ND	0.0225						0		30		
m,p-Xylene	ND	0.0450						0.06305	200	30	R	
o-Xylene	ND	0.0225						0		30		
Naphthalene	ND	0.0450						0		30		
Surr: Dibromofluoromethane	0.929		1.126		82.5	56.5	129		0			
Surr: Toluene-d8	1.23		1.126		109	64.5	151		0			
Surr: 1-Bromo-4-fluorobenzene	1.15		1.126		102	54.8	168		0			

**Work Order:** 1810362  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	<b>1810362-023BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/23/2018</b>	RunNo:	<b>47100</b>		
Client ID:	<b>S-KSB-17: 13ft</b>	Batch ID:	<b>22379</b>			Analysis Date:	<b>10/24/2018</b>	SeqNo:	<b>916338</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**NOTES:**

R - High RPD observed. The method is in control as indicated by the LCS.

Sample ID	<b>1810362-010BMS</b>	SampType:	<b>MS</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/23/2018</b>	RunNo:	<b>47100</b>		
Client ID:	<b>S-KSB-14: 8ft</b>	Batch ID:	<b>22379</b>			Analysis Date:	<b>10/24/2018</b>	SeqNo:	<b>916338</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.31	0.0644	1.287	0	102	58.5	167				
1,2-Dichloroethane	1.26	0.0257	1.287	0	97.7	51.3	139				
Benzene	1.21	0.0257	1.287	0	94.0	63.5	133				
Toluene	1.27	0.0257	1.287	0	98.3	63.4	132				
1,2-Dibromoethane (EDB)	1.28	0.00644	1.287	0	99.7	50.4	136				
Ethylbenzene	1.29	0.0322	1.287	0	100	54.5	134				
m,p-Xylene	2.55	0.0644	2.575	0	99.1	53.1	132				
o-Xylene	1.19	0.0322	1.287	0	92.8	53.3	139				
Naphthalene	1.31	0.0644	1.287	0	102	52.3	124				
Surr: Dibromofluoromethane	1.07		1.609		66.4	56.5	129				
Surr: Toluene-d8	1.61		1.609		100	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.61		1.609		99.7	54.8	168				

Sample ID	<b>1810362-010BMSD</b>	SampType:	<b>MSD</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/23/2018</b>	RunNo:	<b>47100</b>		
Client ID:	<b>S-KSB-14: 8ft</b>	Batch ID:	<b>22379</b>			Analysis Date:	<b>10/24/2018</b>	SeqNo:	<b>916338</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.37	0.0644	1.287	0	107	58.5	167	1.314	4.32	30	
1,2-Dichloroethane	1.29	0.0257	1.287	0	100	51.3	139	1.258	2.32	30	
Benzene	1.31	0.0257	1.287	0	101	63.5	133	1.210	7.55	30	
Toluene	1.37	0.0257	1.287	0	106	63.4	132	1.266	7.59	30	
1,2-Dibromoethane (EDB)	1.32	0.00644	1.287	0	102	50.4	136	1.284	2.59	30	
Ethylbenzene	1.40	0.0322	1.287	0	109	54.5	134	1.291	8.00	30	
m,p-Xylene	2.77	0.0644	2.575	0	108	53.1	132	2.552	8.19	30	

**Work Order:** 1810362  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	<b>1810362-010BMSD</b>	SampType:	<b>MSD</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/23/2018</b>	RunNo:	<b>47100</b>		
Client ID:	<b>S-KSB-14: 8ft</b>	Batch ID:	<b>22379</b>			Analysis Date:	<b>10/24/2018</b>	SeqNo:	<b>916336</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-Xylene	1.28	0.0322	1.287	0	99.6	53.3	139	1.195	7.07	30	
Naphthalene	1.39	0.0644	1.287	0	108	52.3	124	1.309	6.15	30	
Surr: Dibromofluoromethane	1.09		1.609		67.7	56.5	129		0		
Surr: Toluene-d8	1.60		1.609		99.4	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.62		1.609		101	54.8	168		0		





Date: 10/25/2018

Work Order: 1810362  
 CLIENT: Kane Environmental, Inc.  
 Project: Wexler - 82305

**QC SUMMARY REPORT**  
**Sample Moisture (Percent Moisture)**

Sample ID	<b>1810287-001ADUP</b>	SampType:	<b>DUP</b>	Units:	<b>wt%</b>	Prep Date:	<b>10/23/2018</b>	RunNo:	<b>47074</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>R47074</b>			Analysis Date:	<b>10/23/2018</b>	SeqNo:	<b>915760</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Percent Moisture 12.7 0.500 13.06 2.66 20

Sample ID	<b>1810362-005ADUP</b>	SampType:	<b>DUP</b>	Units:	<b>wt%</b>	Prep Date:	<b>10/23/2018</b>	RunNo:	<b>47074</b>		
Client ID:	<b>S-KSB-13: 6ft</b>	Batch ID:	<b>R47074</b>			Analysis Date:	<b>10/23/2018</b>	SeqNo:	<b>915772</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Percent Moisture 20.5 0.500 18.96 7.54 20

Sample ID	<b>1810362-015ADUP</b>	SampType:	<b>DUP</b>	Units:	<b>wt%</b>	Prep Date:	<b>10/24/2018</b>	RunNo:	<b>47091</b>		
Client ID:	<b>S-KSB-15: 9ft</b>	Batch ID:	<b>R47091</b>			Analysis Date:	<b>10/24/2018</b>	SeqNo:	<b>916051</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Percent Moisture 19.2 0.500 18.50 3.58 20

Sample ID	<b>1810342-006ADUP</b>	SampType:	<b>DUP</b>	Units:	<b>wt%</b>	Prep Date:	<b>10/24/2018</b>	RunNo:	<b>47091</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>R47091</b>			Analysis Date:	<b>10/24/2018</b>	SeqNo:	<b>916067</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Percent Moisture 9.15 0.500 9.795 6.81 20

Client Name: **KANE**

 Work Order Number: **1810362**

 Logged by: **Brianna Barnes**

 Date Received: **10/23/2018 11:11:27 AM**

### Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present
2. How was the sample delivered? Client

### Log In

3. Coolers are present? Yes  No  NA
4. Shipping container/cooler in good condition? Yes  No
5. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact) Yes  No  Not Required
6. Was an attempt made to cool the samples? Yes  No  NA
7. Were all items received at a temperature of >0°C to 10.0°C \* Yes  No  NA
8. Sample(s) in proper container(s)? Yes  No
9. Sufficient sample volume for indicated test(s)? Yes  No
10. Are samples properly preserved? Yes  No
11. Was preservative added to bottles? Yes  No  NA
12. Is there headspace in the VOA vials? Yes  No  NA
13. Did all samples containers arrive in good condition(unbroken)? Yes  No
14. Does paperwork match bottle labels? Yes  No
15. Are matrices correctly identified on Chain of Custody? Yes  No
16. Is it clear what analyses were requested? Yes  No
17. Were all holding times able to be met? Yes  No

### Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

### Item Information

Item #	Temp °C
Cooler	3.9
Sample	3.8

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

# Chain of Custody Record & Laboratory Services Agreement

Date: 10/22/18 Page: 1 of 3

Project Name: Wexler - 82305

Project No: 82305-2

Collected by: Nate Evenson, Kave Env.

Address: 4015 13th Ave W  
City, State, Zip: Seattle, WA 98119

Telephone: (206) 691-0476  
Report To (PM): Nate Evenson

Fax: (206) 675-0650  
PM Email: nevenson@kave-environmental.com

Laboratory Project No (Internal): 196103602  
Special Remarks: EDB target RL = 0.005 mg/kg

Sample Disposal:  Return to client  Disposal by lab (after 30 days)

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX, EDB, EKC, MTBE, Naph	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8270 - SIM)	Metals** (EPA 8082 / 608)	Total (T) / Dissolved (D)	Anions (C)***	EDB (8011)	Comments
1 S-KSB-12: 7ft	10/22/18	1045	S	X	X	X	X	X	X	X	X	X	X	X	X	X	
2 S-KSB-12: 14.5ft		1056	S	X	X	X	X	X	X	X	X	X	X	X	X	X	
3 S-KSB-12: 20ft		1104	S	X	X	X	X	X	X	X	X	X	X	X	X	X	
4 S-KSB-13: 3.5ft		1119	S	X	X	X	X	X	X	X	X	X	X	X	X	X	
5 S-KSB-13: 6ft		1125	S	X	X	X	X	X	X	X	X	X	X	X	X	X	
6 S-KSB-13: 9ft		1130	S	X	X	X	X	X	X	X	X	X	X	X	X	X	
7 S-KSB-13: 14ft		1142	S	X	X	X	X	X	X	X	X	X	X	X	X	X	
8 S-KSB-13: 20ft		1150	S	X	X	X	X	X	X	X	X	X	X	X	X	X	
9 S-KSB-14: 5ft		1242	S	X	X	X	X	X	X	X	X	X	X	X	X	X	
10 S-KSB-14: 8ft		1246	S	X	X	X	X	X	X	X	X	X	X	X	X	X	

\*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

\*\*Metals (Circle): MTCAS RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Tl U V Zn  
\*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished Date/Time: 10-23-18 11:17  
Received Date/Time: 10/23/2018 1117  
Relinquished Date/Time: \_\_\_\_\_  
Received Date/Time: \_\_\_\_\_





3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

### Chain of Custody Record & Laboratory Services Agreement

Client: **Kare Environmental**

Address: **4015 13th Ave W**

City, State, zip: **Seattle, WA 98119**

Telephone: **(206) 691-0476**

Fax: **(206) 675-0650**

Date: **10/22/18** Page: **2** of **3**  
Project Name: **Wexler - 82305**  
Project No: **82305-2**  
Collected by: **Nate Evenson, Kare Env.**  
Location: **18125 Bothell Way NE, Bothell, WA**  
Report To (PM): **Nate Evenson**

Laboratory Project No (Internal): **1910312**  
Special Remarks: **EDB target RL=0.005 mg/kg**

PM Email: **nevenson@kare-environmental.com**

Sample Disposal:  Return to client  Disposal by lab (after 30 days)

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX <b>EDB, PCB, MIB, PPA</b>	Gasoline Range Organics (GX)	Hydrocarbon Identification (HClD)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1 S-KSB-14: 14ft	10/22/18	1258	S	X	X	X	X	X	X	X	X	X	X	X	X	X	
2 S-KSB-14: 19ft		1304		X	X	X	X	X	X	X	X	X	X	X	X	X	
3 S-KSB-15: 3.5ft		1453		X	X	X	X	X	X	X	X	X	X	X	X	X	
4 S-KSB-15: 6ft		1500		X	X	X	X	X	X	X	X	X	X	X	X	X	
5 S-KSB-15: 9ft		1504		X	X	X	X	X	X	X	X	X	X	X	X	X	
6 S-KSB-15: 14ft		1508		X	X	X	X	X	X	X	X	X	X	X	X	X	
7 S-KSB-16: 1.5ft		1531		X	X	X	X	X	X	X	X	X	X	X	X	X	
8 S-KSB-16: 5.5ft		1536		X	X	X	X	X	X	X	X	X	X	X	X	X	
9 S-KSB-16: 8ft		1543		X	X	X	X	X	X	X	X	X	X	X	X	X	
10 S-KSB-16: 12.5ft		1552		X	X	X	X	X	X	X	X	X	X	X	X	X	

\*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

\*\*Metals (Circle): MTCAS RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni **Pb** Sb Se Sr Sn Tl U V Zn

\*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished  Date/Time: **10-23-18 11:17**

Received  Date/Time: **10/23/2018 1117**

Same Day  Standard  3 Day  2 Day  Next Day  (Specify)





3600 Fremont Ave. N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

### Chain of Custody Record & Laboratory Services Agreement

Date: 10/22/18 Page: 3 of 3

Project Name: Wexler - 82305

Project No: 82305-2

Collected by: Nate Evenson, Kare ENU.

Location: 18125 Botwell Way NE, Botwell, WA

Report to (PM): Nbt Evenson

PM Email: nevenson@kare-environmental.com

Laboratory Project No (Internal): 18103102  
Special Remarks: EDB target RL = 0.005 mg/kg

Sample Disposal:  Return to client  Disposal by lab (after 30 days)

Client: Kare Environmental  
Address: 4015 13th Ave W  
City, State, Zip: Seattle, WA 98119  
Telephone: (206)691-0476  
Fax: (206)675-0650

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX, EDB, ER, MIB, Naph	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DW)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T)   Dissolved (D)	Arenes (IC)***	EDB (8011)	Comments
1 S-KSB-16: 19ft	10/22/18	1602	S														
2 S-KSB-17: 5ft		1628															
3 S-KSB-17: 13ft		1637															
4 S-KSB-17: 20ft		1649															
5																	
6																	
7																	
8																	
9																	
10																	

\*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water  
 \*\*Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni **Pb** Sb Se Sr Sn Tl U V Zn  
 \*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate/Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Retrieved: 10-23-18 11:17  
 Date/Time: 10/23/18 11:17  
 Date/Time: 10/23/18 11:17

Turn-around Time:  Standard  3 Day  2 Day  Next Day  Same Day (specify)



3600 Fremont Ave. N.  
Seattle, WA 98103  
T: (206) 352-3790  
F: (206) 352-7178  
info@fremontanalytical.com

**Kane Environmental, Inc.**  
Nate Evenson  
4015 13th Ave W.  
Seattle, WA 98103

**RE: Wexler - 82305**  
**Work Order Number: 1810381**

October 26, 2018

**Attention Nate Evenson:**

Fremont Analytical, Inc. received 38 sample(s) on 10/24/2018 for the analyses presented in the following report.

***Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.***  
***Gasoline by NWTPH-Gx***  
***Sample Moisture (Percent Moisture)***  
***Total Metals by EPA Method 6020***  
***Volatile Organic Compounds by EPA Method 8260C***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

A handwritten signature in black ink, appearing to read "Chelsea Ward".

Chelsea Ward  
Project Manager

DoD/ELAP Certification #L 17-135, ISO/IEC 17025:2005  
ORELAP Certification: WA 100009-007 (NELAP Recognized)

**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Work Order:** 1810381

## Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1810381-001	S-KSB-18: 8ft	10/23/2018 7:43 AM	10/24/2018 11:23 AM
1810381-002	S-KSB-18: 12.5ft	10/23/2018 7:48 AM	10/24/2018 11:23 AM
1810381-003	S-KSB-18: 18.5ft	10/23/2018 7:55 AM	10/24/2018 11:23 AM
1810381-004	S-KSB-18: 24ft	10/23/2018 8:03 AM	10/24/2018 11:23 AM
1810381-005	S-KSB-19: 5.5ft	10/23/2018 8:32 AM	10/24/2018 11:23 AM
1810381-006	S-KSB-19: 8ft	10/23/2018 8:27 AM	10/24/2018 11:23 AM
1810381-007	S-KSB-19: 12.5ft	10/23/2018 8:44 AM	10/24/2018 11:23 AM
1810381-008	S-KSB-19: 17ft	10/23/2018 8:51 AM	10/24/2018 11:23 AM
1810381-009	S-KSB-19: 24ft	10/23/2018 8:53 AM	10/24/2018 11:23 AM
1810381-010	S-KSB-20: 6.5ft	10/23/2018 9:39 AM	10/24/2018 11:23 AM
1810381-011	S-KSB-20: 11ft	10/23/2018 9:48 AM	10/24/2018 11:23 AM
1810381-012	S-KSB-20: 17.5ft	10/23/2018 9:53 AM	10/24/2018 11:23 AM
1810381-013	S-KSB-21: 6.5ft	10/23/2018 9:28 AM	10/24/2018 11:23 AM
1810381-014	S-KSB-21: 10ft	10/23/2018 10:22 AM	10/24/2018 11:23 AM
1810381-015	S-KSB-21: 12.5ft	10/23/2018 10:29 AM	10/24/2018 11:23 AM
1810381-016	S-KSB-21: 18ft	10/23/2018 10:40 AM	10/24/2018 11:23 AM
1810381-017	S-KSB-22: 7.5ft	10/23/2018 11:20 AM	10/24/2018 11:23 AM
1810381-018	S-KSB-22: 10ft	10/23/2018 11:31 AM	10/24/2018 11:23 AM
1810381-019	S-KSB-22: 12.5ft	10/23/2018 11:37 AM	10/24/2018 11:23 AM
1810381-020	S-KSB-22: 20ft	10/23/2018 11:45 AM	10/24/2018 11:23 AM
1810381-021	S-KSB-23: 5ft	10/23/2018 12:57 PM	10/24/2018 11:23 AM
1810381-022	S-KSB-23: 9ft	10/23/2018 1:02 PM	10/24/2018 11:23 AM
1810381-023	S-KSB-23: 14ft	10/23/2018 1:10 PM	10/24/2018 11:23 AM
1810381-024	S-KSB-23: 18ft	10/23/2018 1:15 PM	10/24/2018 11:23 AM
1810381-025	S-KSB-24: 5.5ft	10/23/2018 1:24 PM	10/24/2018 11:23 AM
1810381-026	S-KSB-24: 13.5ft	10/23/2018 1:31 PM	10/24/2018 11:23 AM
1810381-027	S-KSB-24: 19ft	10/23/2018 1:41 PM	10/24/2018 11:23 AM
1810381-028	S-KSB-25: 6ft	10/23/2018 1:57 PM	10/24/2018 11:23 AM
1810381-029	S-KSB-25: 14ft	10/23/2018 2:03 PM	10/24/2018 11:23 AM
1810381-030	S-KSB-25: 20ft	10/23/2018 2:12 PM	10/24/2018 11:23 AM
1810381-031	S-KSB-26: 5.5ft	10/23/2018 2:40 PM	10/24/2018 11:23 AM
1810381-032	S-KSB-26: 10.5ft	10/23/2018 2:48 PM	10/24/2018 11:23 AM
1810381-033	S-KSB-26: 14.5ft	10/23/2018 2:53 PM	10/24/2018 11:23 AM
1810381-034	S-KSB-26: 19ft	10/23/2018 3:02 PM	10/24/2018 11:23 AM
1810381-035	S-KSB-27: 5.5ft	10/23/2018 3:27 PM	10/24/2018 11:23 AM
1810381-036	S-KSB-27: 9ft	10/23/2018 3:41 PM	10/24/2018 11:23 AM

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**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Work Order:** 1810381

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## Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1810381-037	S-KSB-27: 15ft	10/23/2018 3:47 PM	10/24/2018 11:23 AM
1810381-038	S-KSB-27: 20ft	10/23/2018 3:55 PM	10/24/2018 11:23 AM



**CLIENT:** Kane Environmental, Inc.

**Project:** Wexler - 82305

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**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810381-001  
**Client Sample ID:** S-KSB-18: 8ft

**Collection Date:** 10/23/2018 7:43:00 AM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22389		Analyst: SB	
Diesel (Fuel Oil)	ND	21.7		mg/Kg-dry	1	10/24/2018 8:03:05 PM
Heavy Oil	ND	54.3		mg/Kg-dry	1	10/24/2018 8:03:05 PM
Surr: 2-Fluorobiphenyl	92.6	50 - 150		%Rec	1	10/24/2018 8:03:05 PM
Surr: o-Terphenyl	96.2	50 - 150		%Rec	1	10/24/2018 8:03:05 PM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22402		Analyst: KT	
Gasoline	175	94.8	D	mg/Kg-dry	20	10/26/2018 11:41:26 AM
Surr: 4-Bromofluorobenzene	101	65 - 135	D	%Rec	20	10/26/2018 11:41:26 AM
Surr: Toluene-d8	104	65 - 135	D	%Rec	20	10/26/2018 11:41:26 AM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22401		Analyst: CR	
Methyl tert-butyl ether (MTBE)	ND	0.0474		mg/Kg-dry	1	10/25/2018 8:43:24 PM
1,2-Dichloroethane	ND	0.0190		mg/Kg-dry	1	10/25/2018 8:43:24 PM
Benzene	ND	0.0190		mg/Kg-dry	1	10/25/2018 8:43:24 PM
Toluene	ND	0.0190		mg/Kg-dry	1	10/25/2018 8:43:24 PM
1,2-Dibromoethane (EDB)	ND	0.00474		mg/Kg-dry	1	10/25/2018 8:43:24 PM
Ethylbenzene	ND	0.0237		mg/Kg-dry	1	10/25/2018 8:43:24 PM
m,p-Xylene	ND	0.0474		mg/Kg-dry	1	10/25/2018 8:43:24 PM
o-Xylene	ND	0.0237		mg/Kg-dry	1	10/25/2018 8:43:24 PM
Naphthalene	ND	0.0474		mg/Kg-dry	1	10/25/2018 8:43:24 PM
Surr: Dibromofluoromethane	94.1	56.5 - 129		%Rec	1	10/25/2018 8:43:24 PM
Surr: Toluene-d8	104	64.5 - 151		%Rec	1	10/25/2018 8:43:24 PM
Surr: 1-Bromo-4-fluorobenzene	112	54.8 - 168		%Rec	1	10/25/2018 8:43:24 PM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22392		Analyst: WC	
Lead	3.91	0.185		mg/Kg-dry	1	10/25/2018 3:17:27 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47107		Analyst: NG	
Percent Moisture	14.7	0.500		wt%	1	10/24/2018 1:45:32 PM



**Client:** Kane Environmental, Inc.

**Collection Date:** 10/23/2018 7:48:00 AM

**Project:** Wexler - 82305

**Lab ID:** 1810381-002

**Matrix:** Soil

**Client Sample ID:** S-KSB-18: 12.5ft

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22389 Analyst: SB

Diesel (Fuel Oil)	ND	22.5		mg/Kg-dry	1	10/24/2018 7:33:12 PM
Heavy Oil	ND	56.2		mg/Kg-dry	1	10/24/2018 7:33:12 PM
Surr: 2-Fluorobiphenyl	103	50 - 150		%Rec	1	10/24/2018 7:33:12 PM
Surr: o-Terphenyl	109	50 - 150		%Rec	1	10/24/2018 7:33:12 PM

**Gasoline by NWTPH-Gx**

Batch ID: 22401 Analyst: CR

Gasoline	ND	5.45		mg/Kg-dry	1	10/26/2018 12:11:06 PM
Surr: 4-Bromofluorobenzene	102	65 - 135		%Rec	1	10/26/2018 12:11:06 PM
Surr: Toluene-d8	105	65 - 135		%Rec	1	10/26/2018 12:11:06 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22401 Analyst: CR

Methyl tert-butyl ether (MTBE)	ND	0.0545		mg/Kg-dry	1	10/25/2018 9:14:10 PM
1,2-Dichloroethane	ND	0.0218		mg/Kg-dry	1	10/25/2018 9:14:10 PM
Benzene	ND	0.0218		mg/Kg-dry	1	10/25/2018 9:14:10 PM
Toluene	ND	0.0218		mg/Kg-dry	1	10/25/2018 9:14:10 PM
1,2-Dibromoethane (EDB)	ND	0.00326	MDL	mg/Kg-dry	1	10/25/2018 9:14:10 PM
Ethylbenzene	ND	0.0273		mg/Kg-dry	1	10/25/2018 9:14:10 PM
m,p-Xylene	ND	0.0545		mg/Kg-dry	1	10/25/2018 9:14:10 PM
o-Xylene	ND	0.0273		mg/Kg-dry	1	10/25/2018 9:14:10 PM
Naphthalene	ND	0.0545		mg/Kg-dry	1	10/25/2018 9:14:10 PM
Surr: Dibromofluoromethane	92.6	56.5 - 129		%Rec	1	10/25/2018 9:14:10 PM
Surr: Toluene-d8	98.9	64.5 - 151		%Rec	1	10/25/2018 9:14:10 PM
Surr: 1-Bromo-4-fluorobenzene	97.8	54.8 - 168		%Rec	1	10/25/2018 9:14:10 PM

**NOTES:**

MDL - Analyte reported to Method Detection Limit (MDL)

**Total Metals by EPA Method 6020**

Batch ID: 22392 Analyst: WC

Lead	1.49	0.183		mg/Kg-dry	1	10/25/2018 3:50:03 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47107 Analyst: NG

Percent Moisture	17.6	0.500		wt%	1	10/24/2018 1:45:32 PM
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**Client:** Kane Environmental, Inc.

**Collection Date:** 10/23/2018 7:55:00 AM

**Project:** Wexler - 82305

**Lab ID:** 1810381-003

**Matrix:** Soil

**Client Sample ID:** S-KSB-18: 18.5ft

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22389 Analyst: SB

Diesel (Fuel Oil)	ND	22.8		mg/Kg-dry	1	10/24/2018 8:32:50 PM
Heavy Oil	ND	57.0		mg/Kg-dry	1	10/24/2018 8:32:50 PM
Surr: 2-Fluorobiphenyl	87.2	50 - 150		%Rec	1	10/24/2018 8:32:50 PM
Surr: o-Terphenyl	93.0	50 - 150		%Rec	1	10/24/2018 8:32:50 PM

**Gasoline by NWTPH-Gx**

Batch ID: 22401 Analyst: CR

Gasoline	ND	4.70		mg/Kg-dry	1	10/26/2018 12:42:07 PM
Surr: 4-Bromofluorobenzene	98.7	65 - 135		%Rec	1	10/26/2018 12:42:07 PM
Surr: Toluene-d8	104	65 - 135		%Rec	1	10/26/2018 12:42:07 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22401 Analyst: CR

Methyl tert-butyl ether (MTBE)	ND	0.0470		mg/Kg-dry	1	10/25/2018 9:45:01 PM
1,2-Dichloroethane	ND	0.0188		mg/Kg-dry	1	10/25/2018 9:45:01 PM
Benzene	ND	0.0188		mg/Kg-dry	1	10/25/2018 9:45:01 PM
Toluene	ND	0.0188		mg/Kg-dry	1	10/25/2018 9:45:01 PM
1,2-Dibromoethane (EDB)	ND	0.00470		mg/Kg-dry	1	10/25/2018 9:45:01 PM
Ethylbenzene	ND	0.0235		mg/Kg-dry	1	10/25/2018 9:45:01 PM
m,p-Xylene	ND	0.0470		mg/Kg-dry	1	10/25/2018 9:45:01 PM
o-Xylene	ND	0.0235		mg/Kg-dry	1	10/25/2018 9:45:01 PM
Naphthalene	ND	0.0470		mg/Kg-dry	1	10/25/2018 9:45:01 PM
Surr: Dibromofluoromethane	91.4	56.5 - 129		%Rec	1	10/25/2018 9:45:01 PM
Surr: Toluene-d8	97.8	64.5 - 151		%Rec	1	10/25/2018 9:45:01 PM
Surr: 1-Bromo-4-fluorobenzene	97.9	54.8 - 168		%Rec	1	10/25/2018 9:45:01 PM

**Total Metals by EPA Method 6020**

Batch ID: 22392 Analyst: WC

Lead	1.62	0.191		mg/Kg-dry	1	10/25/2018 3:54:07 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47107 Analyst: NG

Percent Moisture	16.4	0.500		wt%	1	10/24/2018 1:45:32 PM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810381-004  
**Client Sample ID:** S-KSB-18: 24ft

**Collection Date:** 10/23/2018 8:03:00 AM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22389 Analyst: SB

Diesel (Fuel Oil)	ND	21.7		mg/Kg-dry	1	10/24/2018 9:02:35 PM
Heavy Oil	ND	54.2		mg/Kg-dry	1	10/24/2018 9:02:35 PM
Surr: 2-Fluorobiphenyl	90.1	50 - 150		%Rec	1	10/24/2018 9:02:35 PM
Surr: o-Terphenyl	96.7	50 - 150		%Rec	1	10/24/2018 9:02:35 PM

**Gasoline by NWTPH-Gx**

Batch ID: 22401 Analyst: CR

Gasoline	ND	5.82		mg/Kg-dry	1	10/25/2018 10:15:58 PM
Surr: 4-Bromofluorobenzene	101	65 - 135		%Rec	1	10/25/2018 10:15:58 PM
Surr: Toluene-d8	105	65 - 135		%Rec	1	10/25/2018 10:15:58 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22401 Analyst: CR

Methyl tert-butyl ether (MTBE)	ND	0.0582		mg/Kg-dry	1	10/25/2018 10:15:58 PM
1,2-Dichloroethane	ND	0.0233		mg/Kg-dry	1	10/25/2018 10:15:58 PM
Benzene	ND	0.0233		mg/Kg-dry	1	10/25/2018 10:15:58 PM
Toluene	ND	0.0233		mg/Kg-dry	1	10/25/2018 10:15:58 PM
1,2-Dibromoethane (EDB)	ND	0.00348	MDL	mg/Kg-dry	1	10/25/2018 10:15:58 PM
Ethylbenzene	ND	0.0291		mg/Kg-dry	1	10/25/2018 10:15:58 PM
m,p-Xylene	ND	0.0582		mg/Kg-dry	1	10/25/2018 10:15:58 PM
o-Xylene	ND	0.0291		mg/Kg-dry	1	10/25/2018 10:15:58 PM
Naphthalene	ND	0.0582		mg/Kg-dry	1	10/25/2018 10:15:58 PM
Surr: Dibromofluoromethane	91.0	56.5 - 129		%Rec	1	10/25/2018 10:15:58 PM
Surr: Toluene-d8	97.9	64.5 - 151		%Rec	1	10/25/2018 10:15:58 PM
Surr: 1-Bromo-4-fluorobenzene	99.8	54.8 - 168		%Rec	1	10/25/2018 10:15:58 PM

**NOTES:**

MDL - Analyte reported to Method Detection Limit (MDL)

**Total Metals by EPA Method 6020**

Batch ID: 22392 Analyst: WC

Lead	1.35	0.175		mg/Kg-dry	1	10/25/2018 3:58:10 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47107 Analyst: NG

Percent Moisture	17.8	0.500		wt%	1	10/24/2018 1:45:32 PM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810381-005  
**Client Sample ID:** S-KSB-19: 5.5ft

**Collection Date:** 10/23/2018 8:32:00 AM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22389 Analyst: SB			
Diesel (Fuel Oil)	ND	20.1		mg/Kg-dry	1	10/24/2018 9:32:21 PM
Heavy Oil	ND	50.3		mg/Kg-dry	1	10/24/2018 9:32:21 PM
Surr: 2-Fluorobiphenyl	82.9	50 - 150		%Rec	1	10/24/2018 9:32:21 PM
Surr: o-Terphenyl	89.8	50 - 150		%Rec	1	10/24/2018 9:32:21 PM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22401 Analyst: CR			
Gasoline	ND	4.38		mg/Kg-dry	1	10/25/2018 11:17:40 PM
Surr: 4-Bromofluorobenzene	99.4	65 - 135		%Rec	1	10/25/2018 11:17:40 PM
Surr: Toluene-d8	104	65 - 135		%Rec	1	10/25/2018 11:17:40 PM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22401 Analyst: CR			
Methyl tert-butyl ether (MTBE)	ND	0.0438		mg/Kg-dry	1	10/25/2018 11:17:40 PM
1,2-Dichloroethane	ND	0.0175		mg/Kg-dry	1	10/25/2018 11:17:40 PM
Benzene	ND	0.0175		mg/Kg-dry	1	10/25/2018 11:17:40 PM
Toluene	ND	0.0175		mg/Kg-dry	1	10/25/2018 11:17:40 PM
1,2-Dibromoethane (EDB)	ND	0.00438		mg/Kg-dry	1	10/25/2018 11:17:40 PM
Ethylbenzene	ND	0.0219		mg/Kg-dry	1	10/25/2018 11:17:40 PM
m,p-Xylene	ND	0.0438		mg/Kg-dry	1	10/25/2018 11:17:40 PM
o-Xylene	ND	0.0219		mg/Kg-dry	1	10/25/2018 11:17:40 PM
Naphthalene	ND	0.0438		mg/Kg-dry	1	10/25/2018 11:17:40 PM
Surr: Dibromofluoromethane	91.9	56.5 - 129		%Rec	1	10/25/2018 11:17:40 PM
Surr: Toluene-d8	99.7	64.5 - 151		%Rec	1	10/25/2018 11:17:40 PM
Surr: 1-Bromo-4-fluorobenzene	94.6	54.8 - 168		%Rec	1	10/25/2018 11:17:40 PM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22392 Analyst: WC			
Lead	2.00	0.173		mg/Kg-dry	1	10/25/2018 4:02:14 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47107 Analyst: NG			
Percent Moisture	9.75	0.500		wt%	1	10/24/2018 1:45:32 PM



**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810381-006  
**Client Sample ID:** S-KSB-19: 8ft

**Collection Date:** 10/23/2018 8:27:00 AM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22389 Analyst: SB

Diesel (Fuel Oil)	ND	23.6		mg/Kg-dry	1	10/24/2018 10:02:05 PM
Heavy Oil	ND	59.0		mg/Kg-dry	1	10/24/2018 10:02:05 PM
Surr: 2-Fluorobiphenyl	77.3	50 - 150		%Rec	1	10/24/2018 10:02:05 PM
Surr: o-Terphenyl	83.9	50 - 150		%Rec	1	10/24/2018 10:02:05 PM

**Gasoline by NWTPH-Gx**

Batch ID: 22401 Analyst: CR

Gasoline	5.96	5.18		mg/Kg-dry	1	10/26/2018 1:13:03 PM
Surr: 4-Bromofluorobenzene	106	65 - 135		%Rec	1	10/26/2018 1:13:03 PM
Surr: Toluene-d8	105	65 - 135		%Rec	1	10/26/2018 1:13:03 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22401 Analyst: CR

Methyl tert-butyl ether (MTBE)	ND	0.0518		mg/Kg-dry	1	10/25/2018 11:48:23 PM
1,2-Dichloroethane	ND	0.0207		mg/Kg-dry	1	10/25/2018 11:48:23 PM
Benzene	ND	0.0207		mg/Kg-dry	1	10/25/2018 11:48:23 PM
Toluene	ND	0.0207		mg/Kg-dry	1	10/25/2018 11:48:23 PM
1,2-Dibromoethane (EDB)	ND	0.00310	MDL	mg/Kg-dry	1	10/25/2018 11:48:23 PM
Ethylbenzene	ND	0.0259		mg/Kg-dry	1	10/25/2018 11:48:23 PM
m,p-Xylene	ND	0.0518		mg/Kg-dry	1	10/25/2018 11:48:23 PM
o-Xylene	ND	0.0259		mg/Kg-dry	1	10/25/2018 11:48:23 PM
Naphthalene	ND	0.0518		mg/Kg-dry	1	10/25/2018 11:48:23 PM
Surr: Dibromofluoromethane	92.5	56.5 - 129		%Rec	1	10/25/2018 11:48:23 PM
Surr: Toluene-d8	100	64.5 - 151		%Rec	1	10/25/2018 11:48:23 PM
Surr: 1-Bromo-4-fluorobenzene	102	54.8 - 168		%Rec	1	10/25/2018 11:48:23 PM

**NOTES:**

MDL - Analyte reported to Method Detection Limit (MDL)

**Total Metals by EPA Method 6020**

Batch ID: 22392 Analyst: WC

Lead	3.47	0.189		mg/Kg-dry	1	10/25/2018 4:06:18 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47107 Analyst: NG

Percent Moisture	18.5	0.500		wt%	1	10/24/2018 1:45:32 PM
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**Client:** Kane Environmental, Inc.

**Collection Date:** 10/23/2018 8:44:00 AM

**Project:** Wexler - 82305

**Lab ID:** 1810381-007

**Matrix:** Soil

**Client Sample ID:** S-KSB-19: 12.5ft

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22389 Analyst: SB

Diesel (Fuel Oil)	ND	23.3		mg/Kg-dry	1	10/24/2018 10:31:48 PM
Heavy Oil	ND	58.1		mg/Kg-dry	1	10/24/2018 10:31:48 PM
Surr: 2-Fluorobiphenyl	72.8	50 - 150		%Rec	1	10/24/2018 10:31:48 PM
Surr: o-Terphenyl	79.7	50 - 150		%Rec	1	10/24/2018 10:31:48 PM

**Gasoline by NWTPH-Gx**

Batch ID: 22401 Analyst: CR

Gasoline	ND	5.36		mg/Kg-dry	1	10/26/2018 12:19:14 AM
Surr: 4-Bromofluorobenzene	102	65 - 135		%Rec	1	10/26/2018 12:19:14 AM
Surr: Toluene-d8	104	65 - 135		%Rec	1	10/26/2018 12:19:14 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22401 Analyst: CR

Methyl tert-butyl ether (MTBE)	ND	0.0536		mg/Kg-dry	1	10/26/2018 12:19:14 AM
1,2-Dichloroethane	ND	0.0215		mg/Kg-dry	1	10/26/2018 12:19:14 AM
Benzene	ND	0.0215		mg/Kg-dry	1	10/26/2018 12:19:14 AM
Toluene	ND	0.0215		mg/Kg-dry	1	10/26/2018 12:19:14 AM
1,2-Dibromoethane (EDB)	ND	0.00320	MDL	mg/Kg-dry	1	10/26/2018 12:19:14 AM
Ethylbenzene	ND	0.0268		mg/Kg-dry	1	10/26/2018 12:19:14 AM
m,p-Xylene	ND	0.0536		mg/Kg-dry	1	10/26/2018 12:19:14 AM
o-Xylene	ND	0.0268		mg/Kg-dry	1	10/26/2018 12:19:14 AM
Naphthalene	ND	0.0536		mg/Kg-dry	1	10/26/2018 12:19:14 AM
Surr: Dibromofluoromethane	93.0	56.5 - 129		%Rec	1	10/26/2018 12:19:14 AM
Surr: Toluene-d8	100	64.5 - 151		%Rec	1	10/26/2018 12:19:14 AM
Surr: 1-Bromo-4-fluorobenzene	99.0	54.8 - 168		%Rec	1	10/26/2018 12:19:14 AM

**NOTES:**

MDL - Analyte reported to Method Detection Limit (MDL)

**Total Metals by EPA Method 6020**

Batch ID: 22392 Analyst: WC

Lead	1.79	0.188		mg/Kg-dry	1	10/25/2018 4:10:22 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47107 Analyst: NG

Percent Moisture	19.5	0.500		wt%	1	10/24/2018 1:45:32 PM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810381-008  
**Client Sample ID:** S-KSB-19: 17ft

**Collection Date:** 10/23/2018 8:51:00 AM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22389 Analyst: SB

Diesel (Fuel Oil)	ND	23.8		mg/Kg-dry	1	10/24/2018 11:01:32 PM
Heavy Oil	ND	59.5		mg/Kg-dry	1	10/24/2018 11:01:32 PM
Surr: 2-Fluorobiphenyl	89.4	50 - 150		%Rec	1	10/24/2018 11:01:32 PM
Surr: o-Terphenyl	96.4	50 - 150		%Rec	1	10/24/2018 11:01:32 PM

**Gasoline by NWTPH-Gx**

Batch ID: 22401 Analyst: CR

Gasoline	ND	4.59		mg/Kg-dry	1	10/26/2018 12:49:57 AM
Surr: 4-Bromofluorobenzene	101	65 - 135		%Rec	1	10/26/2018 12:49:57 AM
Surr: Toluene-d8	104	65 - 135		%Rec	1	10/26/2018 12:49:57 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22401 Analyst: CR

Methyl tert-butyl ether (MTBE)	ND	0.0459		mg/Kg-dry	1	10/26/2018 12:49:57 AM
1,2-Dichloroethane	ND	0.0184		mg/Kg-dry	1	10/26/2018 12:49:57 AM
Benzene	ND	0.0184		mg/Kg-dry	1	10/26/2018 12:49:57 AM
Toluene	ND	0.0184		mg/Kg-dry	1	10/26/2018 12:49:57 AM
1,2-Dibromoethane (EDB)	ND	0.00459		mg/Kg-dry	1	10/26/2018 12:49:57 AM
Ethylbenzene	ND	0.0230		mg/Kg-dry	1	10/26/2018 12:49:57 AM
m,p-Xylene	ND	0.0459		mg/Kg-dry	1	10/26/2018 12:49:57 AM
o-Xylene	ND	0.0230		mg/Kg-dry	1	10/26/2018 12:49:57 AM
Naphthalene	ND	0.0459		mg/Kg-dry	1	10/26/2018 12:49:57 AM
Surr: Dibromofluoromethane	92.9	56.5 - 129		%Rec	1	10/26/2018 12:49:57 AM
Surr: Toluene-d8	101	64.5 - 151		%Rec	1	10/26/2018 12:49:57 AM
Surr: 1-Bromo-4-fluorobenzene	99.4	54.8 - 168		%Rec	1	10/26/2018 12:49:57 AM

**Total Metals by EPA Method 6020**

Batch ID: 22392 Analyst: WC

Lead	1.86	0.177		mg/Kg-dry	1	10/25/2018 4:14:26 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47107 Analyst: NG

Percent Moisture	18.8	0.500		wt%	1	10/24/2018 1:45:32 PM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810381-009  
**Client Sample ID:** S-KSB-19: 24ft

**Collection Date:** 10/23/2018 8:53:00 AM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22389 Analyst: SB			
Diesel (Fuel Oil)	ND	20.3		mg/Kg-dry	1	10/24/2018 11:31:14 PM
Heavy Oil	ND	50.7		mg/Kg-dry	1	10/24/2018 11:31:14 PM
Surr: 2-Fluorobiphenyl	90.2	50 - 150		%Rec	1	10/24/2018 11:31:14 PM
Surr: o-Terphenyl	97.9	50 - 150		%Rec	1	10/24/2018 11:31:14 PM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22401 Analyst: CR			
Gasoline	ND	4.43		mg/Kg-dry	1	10/26/2018 1:20:52 AM
Surr: 4-Bromofluorobenzene	104	65 - 135		%Rec	1	10/26/2018 1:20:52 AM
Surr: Toluene-d8	104	65 - 135		%Rec	1	10/26/2018 1:20:52 AM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22401 Analyst: CR			
Methyl tert-butyl ether (MTBE)	ND	0.0443		mg/Kg-dry	1	10/26/2018 1:20:52 AM
1,2-Dichloroethane	ND	0.0177		mg/Kg-dry	1	10/26/2018 1:20:52 AM
Benzene	ND	0.0177		mg/Kg-dry	1	10/26/2018 1:20:52 AM
Toluene	ND	0.0177		mg/Kg-dry	1	10/26/2018 1:20:52 AM
1,2-Dibromoethane (EDB)	ND	0.00443		mg/Kg-dry	1	10/26/2018 1:20:52 AM
Ethylbenzene	ND	0.0221		mg/Kg-dry	1	10/26/2018 1:20:52 AM
m,p-Xylene	ND	0.0443		mg/Kg-dry	1	10/26/2018 1:20:52 AM
o-Xylene	ND	0.0221		mg/Kg-dry	1	10/26/2018 1:20:52 AM
Naphthalene	ND	0.0443		mg/Kg-dry	1	10/26/2018 1:20:52 AM
Surr: Dibromofluoromethane	91.9	56.5 - 129		%Rec	1	10/26/2018 1:20:52 AM
Surr: Toluene-d8	100	64.5 - 151		%Rec	1	10/26/2018 1:20:52 AM
Surr: 1-Bromo-4-fluorobenzene	104	54.8 - 168		%Rec	1	10/26/2018 1:20:52 AM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22392 Analyst: WC			
Lead	1.07	0.163		mg/Kg-dry	1	10/25/2018 4:18:30 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47107 Analyst: NG			
Percent Moisture	11.3	0.500		wt%	1	10/24/2018 1:45:32 PM



**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810381-010  
**Client Sample ID:** S-KSB-20: 6.5ft

**Collection Date:** 10/23/2018 9:39:00 AM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22389 Analyst: SB

Diesel (Fuel Oil)	ND	23.7		mg/Kg-dry	1	10/25/2018 12:01:01 AM
Heavy Oil	ND	59.2		mg/Kg-dry	1	10/25/2018 12:01:01 AM
Surr: 2-Fluorobiphenyl	84.8	50 - 150		%Rec	1	10/25/2018 12:01:01 AM
Surr: o-Terphenyl	91.8	50 - 150		%Rec	1	10/25/2018 12:01:01 AM

**Gasoline by NWTPH-Gx**

Batch ID: 22401 Analyst: CR

Gasoline	ND	5.59		mg/Kg-dry	1	10/26/2018 5:59:06 AM
Surr: 4-Bromofluorobenzene	98.4	65 - 135		%Rec	1	10/26/2018 5:59:06 AM
Surr: Toluene-d8	104	65 - 135		%Rec	1	10/26/2018 5:59:06 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22401 Analyst: CR

Methyl tert-butyl ether (MTBE)	ND	0.0559		mg/Kg-dry	1	10/26/2018 5:59:06 AM
1,2-Dichloroethane	ND	0.0224		mg/Kg-dry	1	10/26/2018 5:59:06 AM
Benzene	ND	0.0224		mg/Kg-dry	1	10/26/2018 5:59:06 AM
Toluene	ND	0.0224		mg/Kg-dry	1	10/26/2018 5:59:06 AM
1,2-Dibromoethane (EDB)	ND	0.00334	MDL	mg/Kg-dry	1	10/26/2018 5:59:06 AM
Ethylbenzene	ND	0.0279		mg/Kg-dry	1	10/26/2018 5:59:06 AM
m,p-Xylene	ND	0.0559		mg/Kg-dry	1	10/26/2018 5:59:06 AM
o-Xylene	ND	0.0279		mg/Kg-dry	1	10/26/2018 5:59:06 AM
Naphthalene	ND	0.0559		mg/Kg-dry	1	10/26/2018 5:59:06 AM
Surr: Dibromofluoromethane	93.6	56.5 - 129		%Rec	1	10/26/2018 5:59:06 AM
Surr: Toluene-d8	99.8	64.5 - 151		%Rec	1	10/26/2018 5:59:06 AM
Surr: 1-Bromo-4-fluorobenzene	94.4	54.8 - 168		%Rec	1	10/26/2018 5:59:06 AM

**NOTES:**

MDL - Analyte reported to Method Detection Limit (MDL)

**Total Metals by EPA Method 6020**

Batch ID: 22392 Analyst: WC

Lead	2.45	0.185		mg/Kg-dry	1	10/25/2018 4:30:44 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47107 Analyst: NG

Percent Moisture	20.6	0.500		wt%	1	10/24/2018 1:45:32 PM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810381-011  
**Client Sample ID:** S-KSB-20: 11ft

**Collection Date:** 10/23/2018 9:48:00 AM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22389		Analyst: SB	
Diesel (Fuel Oil)	ND	21.6		mg/Kg-dry	1	10/25/2018 2:00:06 AM
Heavy Oil	ND	54.1		mg/Kg-dry	1	10/25/2018 2:00:06 AM
Surr: 2-Fluorobiphenyl	82.9	50 - 150		%Rec	1	10/25/2018 2:00:06 AM
Surr: o-Terphenyl	91.3	50 - 150		%Rec	1	10/25/2018 2:00:06 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22401		Analyst: CR	
Gasoline	ND	4.91		mg/Kg-dry	1	10/26/2018 6:30:11 AM
Surr: 4-Bromofluorobenzene	98.9	65 - 135		%Rec	1	10/26/2018 6:30:11 AM
Surr: Toluene-d8	103	65 - 135		%Rec	1	10/26/2018 6:30:11 AM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22401		Analyst: CR	
Methyl tert-butyl ether (MTBE)	ND	0.0491		mg/Kg-dry	1	10/26/2018 6:30:11 AM
1,2-Dichloroethane	ND	0.0197		mg/Kg-dry	1	10/26/2018 6:30:11 AM
Benzene	ND	0.0197		mg/Kg-dry	1	10/26/2018 6:30:11 AM
Toluene	ND	0.0197		mg/Kg-dry	1	10/26/2018 6:30:11 AM
1,2-Dibromoethane (EDB)	ND	0.00491		mg/Kg-dry	1	10/26/2018 6:30:11 AM
Ethylbenzene	ND	0.0246		mg/Kg-dry	1	10/26/2018 6:30:11 AM
m,p-Xylene	ND	0.0491		mg/Kg-dry	1	10/26/2018 6:30:11 AM
o-Xylene	ND	0.0246		mg/Kg-dry	1	10/26/2018 6:30:11 AM
Naphthalene	ND	0.0491		mg/Kg-dry	1	10/26/2018 6:30:11 AM
Surr: Dibromofluoromethane	92.9	56.5 - 129		%Rec	1	10/26/2018 6:30:11 AM
Surr: Toluene-d8	99.6	64.5 - 151		%Rec	1	10/26/2018 6:30:11 AM
Surr: 1-Bromo-4-fluorobenzene	96.5	54.8 - 168		%Rec	1	10/26/2018 6:30:11 AM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22392		Analyst: WC	
Lead	1.88	0.171		mg/Kg-dry	1	10/25/2018 4:34:48 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47107		Analyst: NG	
Percent Moisture	17.7	0.500		wt%	1	10/24/2018 1:45:32 PM



**Client:** Kane Environmental, Inc.

**Collection Date:** 10/23/2018 9:53:00 AM

**Project:** Wexler - 82305

**Lab ID:** 1810381-012

**Matrix:** Soil

**Client Sample ID:** S-KSB-20: 17.5ft

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22389 Analyst: SB

Diesel (Fuel Oil)	ND	20.8		mg/Kg-dry	1	10/25/2018 2:29:48 AM
Heavy Oil	ND	52.0		mg/Kg-dry	1	10/25/2018 2:29:48 AM
Surr: 2-Fluorobiphenyl	87.9	50 - 150		%Rec	1	10/25/2018 2:29:48 AM
Surr: o-Terphenyl	94.9	50 - 150		%Rec	1	10/25/2018 2:29:48 AM

**Gasoline by NWTPH-Gx**

Batch ID: 22401 Analyst: CR

Gasoline	ND	4.62		mg/Kg-dry	1	10/26/2018 7:01:04 AM
Surr: 4-Bromofluorobenzene	99.8	65 - 135		%Rec	1	10/26/2018 7:01:04 AM
Surr: Toluene-d8	103	65 - 135		%Rec	1	10/26/2018 7:01:04 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22401 Analyst: CR

Methyl tert-butyl ether (MTBE)	ND	0.0462		mg/Kg-dry	1	10/26/2018 7:01:04 AM
1,2-Dichloroethane	ND	0.0185		mg/Kg-dry	1	10/26/2018 7:01:04 AM
Benzene	ND	0.0185		mg/Kg-dry	1	10/26/2018 7:01:04 AM
Toluene	ND	0.0185		mg/Kg-dry	1	10/26/2018 7:01:04 AM
1,2-Dibromoethane (EDB)	ND	0.00462		mg/Kg-dry	1	10/26/2018 7:01:04 AM
Ethylbenzene	ND	0.0231		mg/Kg-dry	1	10/26/2018 7:01:04 AM
m,p-Xylene	ND	0.0462		mg/Kg-dry	1	10/26/2018 7:01:04 AM
o-Xylene	ND	0.0231		mg/Kg-dry	1	10/26/2018 7:01:04 AM
Naphthalene	ND	0.0462		mg/Kg-dry	1	10/26/2018 7:01:04 AM
Surr: Dibromofluoromethane	93.4	56.5 - 129		%Rec	1	10/26/2018 7:01:04 AM
Surr: Toluene-d8	100	64.5 - 151		%Rec	1	10/26/2018 7:01:04 AM
Surr: 1-Bromo-4-fluorobenzene	95.5	54.8 - 168		%Rec	1	10/26/2018 7:01:04 AM

**Total Metals by EPA Method 6020**

Batch ID: 22392 Analyst: WC

Lead	1.78	0.185		mg/Kg-dry	1	10/25/2018 4:38:52 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47107 Analyst: NG

Percent Moisture	15.1	0.500		wt%	1	10/24/2018 1:45:32 PM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810381-013  
**Client Sample ID:** S-KSB-21: 6.5ft

**Collection Date:** 10/23/2018 9:28:00 AM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22389 Analyst: SB

Diesel (Fuel Oil)	ND	23.5		mg/Kg-dry	1	10/25/2018 2:59:29 AM
Heavy Oil	ND	58.9		mg/Kg-dry	1	10/25/2018 2:59:29 AM
Surr: 2-Fluorobiphenyl	77.3	50 - 150		%Rec	1	10/25/2018 2:59:29 AM
Surr: o-Terphenyl	83.9	50 - 150		%Rec	1	10/25/2018 2:59:29 AM

**Gasoline by NWTPH-Gx**

Batch ID: 22401 Analyst: CR

Gasoline	ND	4.23		mg/Kg-dry	1	10/26/2018 7:32:01 AM
Surr: 4-Bromofluorobenzene	101	65 - 135		%Rec	1	10/26/2018 7:32:01 AM
Surr: Toluene-d8	105	65 - 135		%Rec	1	10/26/2018 7:32:01 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22401 Analyst: CR

Methyl tert-butyl ether (MTBE)	ND	0.0423		mg/Kg-dry	1	10/26/2018 7:32:01 AM
1,2-Dichloroethane	ND	0.0169		mg/Kg-dry	1	10/26/2018 7:32:01 AM
Benzene	ND	0.0169		mg/Kg-dry	1	10/26/2018 7:32:01 AM
Toluene	ND	0.0169		mg/Kg-dry	1	10/26/2018 7:32:01 AM
1,2-Dibromoethane (EDB)	ND	0.00423		mg/Kg-dry	1	10/26/2018 7:32:01 AM
Ethylbenzene	ND	0.0211		mg/Kg-dry	1	10/26/2018 7:32:01 AM
m,p-Xylene	ND	0.0423		mg/Kg-dry	1	10/26/2018 7:32:01 AM
o-Xylene	ND	0.0211		mg/Kg-dry	1	10/26/2018 7:32:01 AM
Naphthalene	ND	0.0423		mg/Kg-dry	1	10/26/2018 7:32:01 AM
Surr: Dibromofluoromethane	92.3	56.5 - 129		%Rec	1	10/26/2018 7:32:01 AM
Surr: Toluene-d8	101	64.5 - 151		%Rec	1	10/26/2018 7:32:01 AM
Surr: 1-Bromo-4-fluorobenzene	100	54.8 - 168		%Rec	1	10/26/2018 7:32:01 AM

**Total Metals by EPA Method 6020**

Batch ID: 22392 Analyst: WC

Lead	1.54	0.179		mg/Kg-dry	1	10/25/2018 4:42:56 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47107 Analyst: NG

Percent Moisture	18.4	0.500		wt%	1	10/24/2018 1:45:32 PM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810381-014  
**Client Sample ID:** S-KSB-21: 10ft

**Collection Date:** 10/23/2018 10:22:00 AM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22389		Analyst: SB	
Diesel (Fuel Oil)	ND	21.1		mg/Kg-dry	1	10/25/2018 3:29:12 AM
Heavy Oil	ND	52.9		mg/Kg-dry	1	10/25/2018 3:29:12 AM
Surr: 2-Fluorobiphenyl	86.9	50 - 150		%Rec	1	10/25/2018 3:29:12 AM
Surr: o-Terphenyl	95.2	50 - 150		%Rec	1	10/25/2018 3:29:12 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22401		Analyst: CR	
Gasoline	ND	4.96		mg/Kg-dry	1	10/26/2018 8:03:03 AM
Surr: 4-Bromofluorobenzene	102	65 - 135		%Rec	1	10/26/2018 8:03:03 AM
Surr: Toluene-d8	104	65 - 135		%Rec	1	10/26/2018 8:03:03 AM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22401		Analyst: CR	
Methyl tert-butyl ether (MTBE)	ND	0.0496		mg/Kg-dry	1	10/26/2018 8:03:03 AM
1,2-Dichloroethane	ND	0.0198		mg/Kg-dry	1	10/26/2018 8:03:03 AM
Benzene	ND	0.0198		mg/Kg-dry	1	10/26/2018 8:03:03 AM
Toluene	ND	0.0198		mg/Kg-dry	1	10/26/2018 8:03:03 AM
1,2-Dibromoethane (EDB)	ND	0.00496		mg/Kg-dry	1	10/26/2018 8:03:03 AM
Ethylbenzene	ND	0.0248		mg/Kg-dry	1	10/26/2018 8:03:03 AM
m,p-Xylene	ND	0.0496		mg/Kg-dry	1	10/26/2018 8:03:03 AM
o-Xylene	ND	0.0248		mg/Kg-dry	1	10/26/2018 8:03:03 AM
Naphthalene	ND	0.0496		mg/Kg-dry	1	10/26/2018 8:03:03 AM
Surr: Dibromofluoromethane	92.6	56.5 - 129		%Rec	1	10/26/2018 8:03:03 AM
Surr: Toluene-d8	100	64.5 - 151		%Rec	1	10/26/2018 8:03:03 AM
Surr: 1-Bromo-4-fluorobenzene	99.5	54.8 - 168		%Rec	1	10/26/2018 8:03:03 AM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22392		Analyst: WC	
Lead	1.79	0.199		mg/Kg-dry	1	10/25/2018 4:47:00 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47107		Analyst: NG	
Percent Moisture	20.9	0.500		wt%	1	10/24/2018 1:45:32 PM





**Client:** Kane Environmental, Inc.

**Collection Date:** 10/23/2018 10:29:00 AM

**Project:** Wexler - 82305

**Lab ID:** 1810381-015

**Matrix:** Soil

**Client Sample ID:** S-KSB-21: 12.5ft

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22389 Analyst: SB

Diesel (Fuel Oil)	ND	21.6		mg/Kg-dry	1	10/25/2018 4:28:34 AM
Heavy Oil	ND	54.1		mg/Kg-dry	1	10/25/2018 4:28:34 AM
Surr: 2-Fluorobiphenyl	82.3	50 - 150		%Rec	1	10/25/2018 4:28:34 AM
Surr: o-Terphenyl	92.5	50 - 150		%Rec	1	10/25/2018 4:28:34 AM

**Gasoline by NWTPH-Gx**

Batch ID: 22401 Analyst: CR

Gasoline	ND	5.42		mg/Kg-dry	1	10/26/2018 9:05:06 AM
Surr: 4-Bromofluorobenzene	100	65 - 135		%Rec	1	10/26/2018 9:05:06 AM
Surr: Toluene-d8	105	65 - 135		%Rec	1	10/26/2018 9:05:06 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22401 Analyst: CR

Methyl tert-butyl ether (MTBE)	ND	0.0542		mg/Kg-dry	1	10/26/2018 9:05:06 AM
1,2-Dichloroethane	ND	0.0217		mg/Kg-dry	1	10/26/2018 9:05:06 AM
Benzene	ND	0.0217		mg/Kg-dry	1	10/26/2018 9:05:06 AM
Toluene	ND	0.0217		mg/Kg-dry	1	10/26/2018 9:05:06 AM
1,2-Dibromoethane (EDB)	ND	0.00324	MDL	mg/Kg-dry	1	10/26/2018 9:05:06 AM
Ethylbenzene	ND	0.0271		mg/Kg-dry	1	10/26/2018 9:05:06 AM
m,p-Xylene	ND	0.0542		mg/Kg-dry	1	10/26/2018 9:05:06 AM
o-Xylene	ND	0.0271		mg/Kg-dry	1	10/26/2018 9:05:06 AM
Naphthalene	ND	0.0542		mg/Kg-dry	1	10/26/2018 9:05:06 AM
Surr: Dibromofluoromethane	92.9	56.5 - 129		%Rec	1	10/26/2018 9:05:06 AM
Surr: Toluene-d8	101	64.5 - 151		%Rec	1	10/26/2018 9:05:06 AM
Surr: 1-Bromo-4-fluorobenzene	95.8	54.8 - 168		%Rec	1	10/26/2018 9:05:06 AM

**NOTES:**

MDL - Analyte reported to Method Detection Limit (MDL)

**Total Metals by EPA Method 6020**

Batch ID: 22392 Analyst: WC

Lead	1.72	0.187		mg/Kg-dry	1	10/25/2018 4:51:03 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47107 Analyst: NG

Percent Moisture	20.1	0.500		wt%	1	10/24/2018 1:45:32 PM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810381-016  
**Client Sample ID:** S-KSB-21: 18ft

**Collection Date:** 10/23/2018 10:40:00 AM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22389 Analyst: SB

Diesel (Fuel Oil)	ND	23.7		mg/Kg-dry	1	10/25/2018 4:58:16 AM
Heavy Oil	ND	59.3		mg/Kg-dry	1	10/25/2018 4:58:16 AM
Surr: 2-Fluorobiphenyl	86.4	50 - 150		%Rec	1	10/25/2018 4:58:16 AM
Surr: o-Terphenyl	94.9	50 - 150		%Rec	1	10/25/2018 4:58:16 AM

**Gasoline by NWTPH-Gx**

Batch ID: 22401 Analyst: CR

Gasoline	ND	7.11		mg/Kg-dry	1	10/26/2018 9:36:04 AM
Surr: 4-Bromofluorobenzene	103	65 - 135		%Rec	1	10/26/2018 9:36:04 AM
Surr: Toluene-d8	104	65 - 135		%Rec	1	10/26/2018 9:36:04 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22401 Analyst: CR

Methyl tert-butyl ether (MTBE)	ND	0.0711		mg/Kg-dry	1	10/26/2018 9:36:04 AM
1,2-Dichloroethane	ND	0.0284		mg/Kg-dry	1	10/26/2018 9:36:04 AM
Benzene	ND	0.0284		mg/Kg-dry	1	10/26/2018 9:36:04 AM
Toluene	ND	0.0284		mg/Kg-dry	1	10/26/2018 9:36:04 AM
1,2-Dibromoethane (EDB)	ND	0.00424	MDL	mg/Kg-dry	1	10/26/2018 9:36:04 AM
Ethylbenzene	ND	0.0355		mg/Kg-dry	1	10/26/2018 9:36:04 AM
m,p-Xylene	ND	0.0711		mg/Kg-dry	1	10/26/2018 9:36:04 AM
o-Xylene	ND	0.0355		mg/Kg-dry	1	10/26/2018 9:36:04 AM
Naphthalene	ND	0.0711		mg/Kg-dry	1	10/26/2018 9:36:04 AM
Surr: Dibromofluoromethane	91.7	56.5 - 129		%Rec	1	10/26/2018 9:36:04 AM
Surr: Toluene-d8	99.6	64.5 - 151		%Rec	1	10/26/2018 9:36:04 AM
Surr: 1-Bromo-4-fluorobenzene	99.1	54.8 - 168		%Rec	1	10/26/2018 9:36:04 AM

**NOTES:**

MDL - Analyte reported to Method Detection Limit (MDL)

**Total Metals by EPA Method 6020**

Batch ID: 22392 Analyst: WC

Lead	1.64	0.192		mg/Kg-dry	1	10/25/2018 4:55:07 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47107 Analyst: NG

Percent Moisture	20.1	0.500		wt%	1	10/24/2018 1:45:32 PM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810381-017  
**Client Sample ID:** S-KSB-22: 7.5ft

**Collection Date:** 10/23/2018 11:20:00 AM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22389 Analyst: SB

Diesel (Fuel Oil)	ND	22.5		mg/Kg-dry	1	10/25/2018 5:28:15 AM
Heavy Oil	ND	56.3		mg/Kg-dry	1	10/25/2018 5:28:15 AM
Surr: 2-Fluorobiphenyl	87.3	50 - 150		%Rec	1	10/25/2018 5:28:15 AM
Surr: o-Terphenyl	99.7	50 - 150		%Rec	1	10/25/2018 5:28:15 AM

**Gasoline by NWTPH-Gx**

Batch ID: 22401 Analyst: CR

Gasoline	ND	5.03		mg/Kg-dry	1	10/26/2018 10:07:09 AM
Surr: 4-Bromofluorobenzene	99.7	65 - 135		%Rec	1	10/26/2018 10:07:09 AM
Surr: Toluene-d8	105	65 - 135		%Rec	1	10/26/2018 10:07:09 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22401 Analyst: CR

Methyl tert-butyl ether (MTBE)	ND	0.0503		mg/Kg-dry	1	10/26/2018 10:07:09 AM
1,2-Dichloroethane	ND	0.0201		mg/Kg-dry	1	10/26/2018 10:07:09 AM
Benzene	ND	0.0201		mg/Kg-dry	1	10/26/2018 10:07:09 AM
Toluene	ND	0.0201		mg/Kg-dry	1	10/26/2018 10:07:09 AM
1,2-Dibromoethane (EDB)	ND	0.00301	MDL	mg/Kg-dry	1	10/26/2018 10:07:09 AM
Ethylbenzene	ND	0.0252		mg/Kg-dry	1	10/26/2018 10:07:09 AM
m,p-Xylene	ND	0.0503		mg/Kg-dry	1	10/26/2018 10:07:09 AM
o-Xylene	ND	0.0252		mg/Kg-dry	1	10/26/2018 10:07:09 AM
Naphthalene	ND	0.0503		mg/Kg-dry	1	10/26/2018 10:07:09 AM
Surr: Dibromofluoromethane	92.3	56.5 - 129		%Rec	1	10/26/2018 10:07:09 AM
Surr: Toluene-d8	100	64.5 - 151		%Rec	1	10/26/2018 10:07:09 AM
Surr: 1-Bromo-4-fluorobenzene	95.4	54.8 - 168		%Rec	1	10/26/2018 10:07:09 AM

**NOTES:**

MDL - Analyte reported to Method Detection Limit (MDL)

**Total Metals by EPA Method 6020**

Batch ID: 22392 Analyst: WC

Lead	1.65	0.182		mg/Kg-dry	1	10/25/2018 4:59:11 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47107 Analyst: NG

Percent Moisture	20.2	0.500		wt%	1	10/24/2018 1:45:32 PM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810381-018  
**Client Sample ID:** S-KSB-22: 10ft

**Collection Date:** 10/23/2018 11:31:00 AM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22389 Analyst: SB

Diesel (Fuel Oil)	ND	24.8		mg/Kg-dry	1	10/25/2018 5:57:59 AM
Heavy Oil	ND	62.0		mg/Kg-dry	1	10/25/2018 5:57:59 AM
Surr: 2-Fluorobiphenyl	86.4	50 - 150		%Rec	1	10/25/2018 5:57:59 AM
Surr: o-Terphenyl	98.0	50 - 150		%Rec	1	10/25/2018 5:57:59 AM

**Gasoline by NWTPH-Gx**

Batch ID: 22401 Analyst: CR

Gasoline	ND	7.30		mg/Kg-dry	1	10/26/2018 10:38:11 AM
Surr: 4-Bromofluorobenzene	101	65 - 135		%Rec	1	10/26/2018 10:38:11 AM
Surr: Toluene-d8	105	65 - 135		%Rec	1	10/26/2018 10:38:11 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22401 Analyst: CR

Methyl tert-butyl ether (MTBE)	ND	0.0730		mg/Kg-dry	1	10/26/2018 10:38:11 AM
1,2-Dichloroethane	ND	0.0292		mg/Kg-dry	1	10/26/2018 10:38:11 AM
Benzene	ND	0.0292		mg/Kg-dry	1	10/26/2018 10:38:11 AM
Toluene	ND	0.0292		mg/Kg-dry	1	10/26/2018 10:38:11 AM
1,2-Dibromoethane (EDB)	ND	0.00436	MDL	mg/Kg-dry	1	10/26/2018 10:38:11 AM
Ethylbenzene	ND	0.0365		mg/Kg-dry	1	10/26/2018 10:38:11 AM
m,p-Xylene	ND	0.0730		mg/Kg-dry	1	10/26/2018 10:38:11 AM
o-Xylene	ND	0.0365		mg/Kg-dry	1	10/26/2018 10:38:11 AM
Naphthalene	ND	0.0730		mg/Kg-dry	1	10/26/2018 10:38:11 AM
Surr: Dibromofluoromethane	91.9	56.5 - 129		%Rec	1	10/26/2018 10:38:11 AM
Surr: Toluene-d8	100	64.5 - 151		%Rec	1	10/26/2018 10:38:11 AM
Surr: 1-Bromo-4-fluorobenzene	99.3	54.8 - 168		%Rec	1	10/26/2018 10:38:11 AM

**NOTES:**

MDL - Analyte reported to Method Detection Limit (MDL)

**Total Metals by EPA Method 6020**

Batch ID: 22392 Analyst: WC

Lead	1.98	0.205		mg/Kg-dry	1	10/25/2018 5:03:15 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47107 Analyst: NG

Percent Moisture	24.5	0.500		wt%	1	10/24/2018 1:45:32 PM
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**Client:** Kane Environmental, Inc.

**Collection Date:** 10/23/2018 11:37:00 AM

**Project:** Wexler - 82305

**Lab ID:** 1810381-019

**Matrix:** Soil

**Client Sample ID:** S-KSB-22: 12.5ft

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22389 Analyst: SB

Diesel (Fuel Oil)	ND	21.4		mg/Kg-dry	1	10/25/2018 6:27:57 AM
Heavy Oil	ND	53.4		mg/Kg-dry	1	10/25/2018 6:27:57 AM
Surr: 2-Fluorobiphenyl	62.7	50 - 150		%Rec	1	10/25/2018 6:27:57 AM
Surr: o-Terphenyl	69.9	50 - 150		%Rec	1	10/25/2018 6:27:57 AM

**Gasoline by NWTPH-Gx**

Batch ID: 22401 Analyst: CR

Gasoline	ND	5.81		mg/Kg-dry	1	10/26/2018 11:09:14 AM
Surr: 4-Bromofluorobenzene	99.1	65 - 135		%Rec	1	10/26/2018 11:09:14 AM
Surr: Toluene-d8	104	65 - 135		%Rec	1	10/26/2018 11:09:14 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22401 Analyst: CR

Methyl tert-butyl ether (MTBE)	ND	0.0581		mg/Kg-dry	1	10/26/2018 11:09:14 AM
1,2-Dichloroethane	ND	0.0232		mg/Kg-dry	1	10/26/2018 11:09:14 AM
Benzene	ND	0.0232		mg/Kg-dry	1	10/26/2018 11:09:14 AM
Toluene	ND	0.0232		mg/Kg-dry	1	10/26/2018 11:09:14 AM
1,2-Dibromoethane (EDB)	ND	0.00347	MDL	mg/Kg-dry	1	10/26/2018 11:09:14 AM
Ethylbenzene	ND	0.0291		mg/Kg-dry	1	10/26/2018 11:09:14 AM
m,p-Xylene	ND	0.0581		mg/Kg-dry	1	10/26/2018 11:09:14 AM
o-Xylene	ND	0.0291		mg/Kg-dry	1	10/26/2018 11:09:14 AM
Naphthalene	ND	0.0581		mg/Kg-dry	1	10/26/2018 11:09:14 AM
Surr: Dibromofluoromethane	92.4	56.5 - 129		%Rec	1	10/26/2018 11:09:14 AM
Surr: Toluene-d8	101	64.5 - 151		%Rec	1	10/26/2018 11:09:14 AM
Surr: 1-Bromo-4-fluorobenzene	96.5	54.8 - 168		%Rec	1	10/26/2018 11:09:14 AM

**NOTES:**

MDL - Analyte reported to Method Detection Limit (MDL)

**Total Metals by EPA Method 6020**

Batch ID: 22392 Analyst: WC

Lead	1.88	0.195		mg/Kg-dry	1	10/25/2018 5:07:18 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47107 Analyst: NG

Percent Moisture	19.8	0.500		wt%	1	10/24/2018 1:45:32 PM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810381-020  
**Client Sample ID:** S-KSB-22: 20ft

**Collection Date:** 10/23/2018 11:45:00 AM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22389 Analyst: SB

Diesel (Fuel Oil)	ND	24.6		mg/Kg-dry	1	10/25/2018 6:58:08 AM
Heavy Oil	ND	61.5		mg/Kg-dry	1	10/25/2018 6:58:08 AM
Surr: 2-Fluorobiphenyl	74.9	50 - 150		%Rec	1	10/25/2018 6:58:08 AM
Surr: o-Terphenyl	85.2	50 - 150		%Rec	1	10/25/2018 6:58:08 AM

**Gasoline by NWTPH-Gx**

Batch ID: 22401 Analyst: CR

Gasoline	ND	5.31		mg/Kg-dry	1	10/26/2018 11:40:14 AM
Surr: 4-Bromofluorobenzene	101	65 - 135		%Rec	1	10/26/2018 11:40:14 AM
Surr: Toluene-d8	104	65 - 135		%Rec	1	10/26/2018 11:40:14 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22401 Analyst: CR

Methyl tert-butyl ether (MTBE)	ND	0.0531		mg/Kg-dry	1	10/26/2018 11:40:14 AM
1,2-Dichloroethane	ND	0.0212		mg/Kg-dry	1	10/26/2018 11:40:14 AM
Benzene	ND	0.0212		mg/Kg-dry	1	10/26/2018 11:40:14 AM
Toluene	ND	0.0212		mg/Kg-dry	1	10/26/2018 11:40:14 AM
1,2-Dibromoethane (EDB)	ND	0.00317	MDL	mg/Kg-dry	1	10/26/2018 11:40:14 AM
Ethylbenzene	ND	0.0265		mg/Kg-dry	1	10/26/2018 11:40:14 AM
m,p-Xylene	ND	0.0531		mg/Kg-dry	1	10/26/2018 11:40:14 AM
o-Xylene	ND	0.0265		mg/Kg-dry	1	10/26/2018 11:40:14 AM
Naphthalene	ND	0.0531		mg/Kg-dry	1	10/26/2018 11:40:14 AM
Surr: Dibromofluoromethane	91.4	56.5 - 129		%Rec	1	10/26/2018 11:40:14 AM
Surr: Toluene-d8	99.5	64.5 - 151		%Rec	1	10/26/2018 11:40:14 AM
Surr: 1-Bromo-4-fluorobenzene	98.3	54.8 - 168		%Rec	1	10/26/2018 11:40:14 AM

**NOTES:**

MDL - Analyte reported to Method Detection Limit (MDL)

**Total Metals by EPA Method 6020**

Batch ID: 22392 Analyst: WC

Lead	2.26	0.181		mg/Kg-dry	1	10/25/2018 5:19:30 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47107 Analyst: NG

Percent Moisture	19.9	0.500		wt%	1	10/24/2018 1:45:32 PM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810381-021  
**Client Sample ID:** S-KSB-23: 5ft

**Collection Date:** 10/23/2018 12:57:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22390 Analyst: SB

Diesel (Fuel Oil)	ND	23.4		mg/Kg-dry	1	10/24/2018 8:32:50 PM
Heavy Oil	ND	58.5		mg/Kg-dry	1	10/24/2018 8:32:50 PM
Surr: 2-Fluorobiphenyl	96.5	50 - 150		%Rec	1	10/24/2018 8:32:50 PM
Surr: o-Terphenyl	94.2	50 - 150		%Rec	1	10/24/2018 8:32:50 PM

**Gasoline by NWTPH-Gx**

Batch ID: 22402 Analyst: KT

Gasoline	ND	5.31		mg/Kg-dry	1	10/25/2018 9:16:43 PM
Surr: 4-Bromofluorobenzene	104	65 - 135		%Rec	1	10/25/2018 9:16:43 PM
Surr: Toluene-d8	104	65 - 135		%Rec	1	10/25/2018 9:16:43 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22402 Analyst: KT

Methyl tert-butyl ether (MTBE)	ND	0.0531		mg/Kg-dry	1	10/25/2018 9:16:43 PM
1,2-Dichloroethane	ND	0.0213		mg/Kg-dry	1	10/25/2018 9:16:43 PM
Benzene	ND	0.0213		mg/Kg-dry	1	10/25/2018 9:16:43 PM
Toluene	ND	0.0213		mg/Kg-dry	1	10/25/2018 9:16:43 PM
1,2-Dibromoethane (EDB)	ND	0.00317	MDL	mg/Kg-dry	1	10/25/2018 9:16:43 PM
Ethylbenzene	ND	0.0266		mg/Kg-dry	1	10/25/2018 9:16:43 PM
m,p-Xylene	ND	0.0531		mg/Kg-dry	1	10/25/2018 9:16:43 PM
o-Xylene	ND	0.0266		mg/Kg-dry	1	10/25/2018 9:16:43 PM
Naphthalene	ND	0.0531		mg/Kg-dry	1	10/25/2018 9:16:43 PM
Surr: Dibromofluoromethane	83.9	56.5 - 129		%Rec	1	10/25/2018 9:16:43 PM
Surr: Toluene-d8	107	64.5 - 151		%Rec	1	10/25/2018 9:16:43 PM
Surr: 1-Bromo-4-fluorobenzene	97.6	54.8 - 168		%Rec	1	10/25/2018 9:16:43 PM

**NOTES:**

MDL - Analyte reported to Method Detection Limit (MDL)

**Total Metals by EPA Method 6020**

Batch ID: 22393 Analyst: WC

Lead	1.53	0.184		mg/Kg-dry	1	10/25/2018 5:35:46 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47108 Analyst: NG

Percent Moisture	15.7	0.500		wt%	1	10/24/2018 1:45:38 PM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810381-022  
**Client Sample ID:** S-KSB-23: 9ft

**Collection Date:** 10/23/2018 1:02:00 PM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22390 Analyst: SB

Diesel (Fuel Oil)	ND	21.6		mg/Kg-dry	1	10/24/2018 9:32:21 PM
Heavy Oil	ND	54.0		mg/Kg-dry	1	10/24/2018 9:32:21 PM
Surr: 2-Fluorobiphenyl	83.3	50 - 150		%Rec	1	10/24/2018 9:32:21 PM
Surr: o-Terphenyl	79.4	50 - 150		%Rec	1	10/24/2018 9:32:21 PM

**Gasoline by NWTPH-Gx**

Batch ID: 22402 Analyst: KT

Gasoline	ND	6.84		mg/Kg-dry	1	10/25/2018 9:47:35 PM
Surr: 4-Bromofluorobenzene	103	65 - 135		%Rec	1	10/25/2018 9:47:35 PM
Surr: Toluene-d8	97.3	65 - 135		%Rec	1	10/25/2018 9:47:35 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22402 Analyst: KT

Methyl tert-butyl ether (MTBE)	ND	0.0684		mg/Kg-dry	1	10/25/2018 9:47:35 PM
1,2-Dichloroethane	ND	0.0274		mg/Kg-dry	1	10/25/2018 9:47:35 PM
Benzene	ND	0.0274		mg/Kg-dry	1	10/25/2018 9:47:35 PM
Toluene	ND	0.0274		mg/Kg-dry	1	10/25/2018 9:47:35 PM
1,2-Dibromoethane (EDB)	ND	0.00409	MDL	mg/Kg-dry	1	10/25/2018 9:47:35 PM
Ethylbenzene	ND	0.0342		mg/Kg-dry	1	10/25/2018 9:47:35 PM
m,p-Xylene	ND	0.0684		mg/Kg-dry	1	10/25/2018 9:47:35 PM
o-Xylene	ND	0.0342		mg/Kg-dry	1	10/25/2018 9:47:35 PM
Naphthalene	ND	0.0684		mg/Kg-dry	1	10/25/2018 9:47:35 PM
Surr: Dibromofluoromethane	82.1	56.5 - 129		%Rec	1	10/25/2018 9:47:35 PM
Surr: Toluene-d8	98.8	64.5 - 151		%Rec	1	10/25/2018 9:47:35 PM
Surr: 1-Bromo-4-fluorobenzene	97.5	54.8 - 168		%Rec	1	10/25/2018 9:47:35 PM

**NOTES:**

MDL - Analyte reported to Method Detection Limit (MDL)

**Total Metals by EPA Method 6020**

Batch ID: 22393 Analyst: WC

Lead	1.72	0.198		mg/Kg-dry	1	10/25/2018 6:08:16 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47108 Analyst: NG

Percent Moisture	20.9	0.500		wt%	1	10/24/2018 1:45:38 PM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810381-023  
**Client Sample ID:** S-KSB-23: 14ft

**Collection Date:** 10/23/2018 1:10:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22390 Analyst: SB			
Diesel (Fuel Oil)	ND	21.7		mg/Kg-dry	1	10/24/2018 10:02:05 PM
Heavy Oil	ND	54.3		mg/Kg-dry	1	10/24/2018 10:02:05 PM
Surr: 2-Fluorobiphenyl	100	50 - 150		%Rec	1	10/24/2018 10:02:05 PM
Surr: o-Terphenyl	96.9	50 - 150		%Rec	1	10/24/2018 10:02:05 PM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22402 Analyst: KT			
Gasoline	ND	4.76		mg/Kg-dry	1	10/25/2018 10:18:21 PM
Surr: 4-Bromofluorobenzene	104	65 - 135		%Rec	1	10/25/2018 10:18:21 PM
Surr: Toluene-d8	96.3	65 - 135		%Rec	1	10/25/2018 10:18:21 PM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22402 Analyst: KT			
Methyl tert-butyl ether (MTBE)	ND	0.0476		mg/Kg-dry	1	10/25/2018 10:18:21 PM
1,2-Dichloroethane	ND	0.0190		mg/Kg-dry	1	10/25/2018 10:18:21 PM
Benzene	ND	0.0190		mg/Kg-dry	1	10/25/2018 10:18:21 PM
Toluene	ND	0.0190		mg/Kg-dry	1	10/25/2018 10:18:21 PM
1,2-Dibromoethane (EDB)	ND	0.00476		mg/Kg-dry	1	10/25/2018 10:18:21 PM
Ethylbenzene	ND	0.0238		mg/Kg-dry	1	10/25/2018 10:18:21 PM
m,p-Xylene	ND	0.0476		mg/Kg-dry	1	10/25/2018 10:18:21 PM
o-Xylene	ND	0.0238		mg/Kg-dry	1	10/25/2018 10:18:21 PM
Naphthalene	ND	0.0476		mg/Kg-dry	1	10/25/2018 10:18:21 PM
Surr: Dibromofluoromethane	86.1	56.5 - 129		%Rec	1	10/25/2018 10:18:21 PM
Surr: Toluene-d8	98.7	64.5 - 151		%Rec	1	10/25/2018 10:18:21 PM
Surr: 1-Bromo-4-fluorobenzene	97.9	54.8 - 168		%Rec	1	10/25/2018 10:18:21 PM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22393 Analyst: WC			
Lead	1.35	0.187		mg/Kg-dry	1	10/25/2018 6:12:19 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47108 Analyst: NG			
Percent Moisture	16.0	0.500		wt%	1	10/24/2018 1:45:38 PM



**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810381-024  
**Client Sample ID:** S-KSB-23: 18ft

**Collection Date:** 10/23/2018 1:15:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22390 Analyst: SB

Diesel (Fuel Oil)	ND	21.6		mg/Kg-dry	1	10/24/2018 10:31:48 PM
Heavy Oil	ND	54.0		mg/Kg-dry	1	10/24/2018 10:31:48 PM
Surr: 2-Fluorobiphenyl	94.0	50 - 150		%Rec	1	10/24/2018 10:31:48 PM
Surr: o-Terphenyl	90.6	50 - 150		%Rec	1	10/24/2018 10:31:48 PM

**Gasoline by NWTPH-Gx**

Batch ID: 22402 Analyst: KT

Gasoline	ND	6.89		mg/Kg-dry	1	10/25/2018 11:20:00 PM
Surr: 4-Bromofluorobenzene	104	65 - 135		%Rec	1	10/25/2018 11:20:00 PM
Surr: Toluene-d8	96.3	65 - 135		%Rec	1	10/25/2018 11:20:00 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22402 Analyst: KT

Methyl tert-butyl ether (MTBE)	ND	0.0689		mg/Kg-dry	1	10/25/2018 11:20:00 PM
1,2-Dichloroethane	ND	0.0275		mg/Kg-dry	1	10/25/2018 11:20:00 PM
Benzene	ND	0.0275		mg/Kg-dry	1	10/25/2018 11:20:00 PM
Toluene	ND	0.0275		mg/Kg-dry	1	10/25/2018 11:20:00 PM
1,2-Dibromoethane (EDB)	ND	0.00411	MDL	mg/Kg-dry	1	10/25/2018 11:20:00 PM
Ethylbenzene	ND	0.0344		mg/Kg-dry	1	10/25/2018 11:20:00 PM
m,p-Xylene	ND	0.0689		mg/Kg-dry	1	10/25/2018 11:20:00 PM
o-Xylene	ND	0.0344		mg/Kg-dry	1	10/25/2018 11:20:00 PM
Naphthalene	ND	0.0689		mg/Kg-dry	1	10/25/2018 11:20:00 PM
Surr: Dibromofluoromethane	81.2	56.5 - 129		%Rec	1	10/25/2018 11:20:00 PM
Surr: Toluene-d8	99.2	64.5 - 151		%Rec	1	10/25/2018 11:20:00 PM
Surr: 1-Bromo-4-fluorobenzene	97.7	54.8 - 168		%Rec	1	10/25/2018 11:20:00 PM

**NOTES:**

MDL - Analyte reported to Method Detection Limit (MDL)

**Total Metals by EPA Method 6020**

Batch ID: 22393 Analyst: WC

Lead	1.50	0.182		mg/Kg-dry	1	10/25/2018 6:16:23 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47108 Analyst: NG

Percent Moisture	19.4	0.500		wt%	1	10/24/2018 1:45:38 PM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810381-025  
**Client Sample ID:** S-KSB-24: 5.5ft

**Collection Date:** 10/23/2018 1:24:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22390 Analyst: SB

Diesel (Fuel Oil)	ND	22.0		mg/Kg-dry	1	10/24/2018 11:01:32 PM
Heavy Oil	ND	55.0		mg/Kg-dry	1	10/24/2018 11:01:32 PM
Surr: 2-Fluorobiphenyl	97.6	50 - 150		%Rec	1	10/24/2018 11:01:32 PM
Surr: o-Terphenyl	94.3	50 - 150		%Rec	1	10/24/2018 11:01:32 PM

**Gasoline by NWTPH-Gx**

Batch ID: 22402 Analyst: KT

Gasoline	ND	5.87		mg/Kg-dry	1	10/25/2018 11:50:42 PM
Surr: 4-Bromofluorobenzene	107	65 - 135		%Rec	1	10/25/2018 11:50:42 PM
Surr: Toluene-d8	93.1	65 - 135		%Rec	1	10/25/2018 11:50:42 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22402 Analyst: KT

Methyl tert-butyl ether (MTBE)	ND	0.0587		mg/Kg-dry	1	10/25/2018 11:50:42 PM
1,2-Dichloroethane	ND	0.0235		mg/Kg-dry	1	10/25/2018 11:50:42 PM
Benzene	ND	0.0235		mg/Kg-dry	1	10/25/2018 11:50:42 PM
Toluene	ND	0.0235		mg/Kg-dry	1	10/25/2018 11:50:42 PM
1,2-Dibromoethane (EDB)	ND	0.00350	MDL	mg/Kg-dry	1	10/25/2018 11:50:42 PM
Ethylbenzene	ND	0.0293		mg/Kg-dry	1	10/25/2018 11:50:42 PM
m,p-Xylene	ND	0.0587		mg/Kg-dry	1	10/25/2018 11:50:42 PM
o-Xylene	ND	0.0293		mg/Kg-dry	1	10/25/2018 11:50:42 PM
Naphthalene	ND	0.0587		mg/Kg-dry	1	10/25/2018 11:50:42 PM
Surr: Dibromofluoromethane	79.9	56.5 - 129		%Rec	1	10/25/2018 11:50:42 PM
Surr: Toluene-d8	99.1	64.5 - 151		%Rec	1	10/25/2018 11:50:42 PM
Surr: 1-Bromo-4-fluorobenzene	101	54.8 - 168		%Rec	1	10/25/2018 11:50:42 PM

**NOTES:**

MDL - Analyte reported to Method Detection Limit (MDL)

**Total Metals by EPA Method 6020**

Batch ID: 22393 Analyst: WC

Lead	1.74	0.198		mg/Kg-dry	1	10/25/2018 6:20:27 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47108 Analyst: NG

Percent Moisture	19.3	0.500		wt%	1	10/24/2018 1:45:38 PM
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**Client:** Kane Environmental, Inc.

**Collection Date:** 10/23/2018 1:31:00 PM

**Project:** Wexler - 82305

**Lab ID:** 1810381-026

**Matrix:** Soil

**Client Sample ID:** S-KSB-24: 13.5ft

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22390 Analyst: SB

Diesel (Fuel Oil)	ND	21.9		mg/Kg-dry	1	10/24/2018 11:31:14 PM
Heavy Oil	ND	54.8		mg/Kg-dry	1	10/24/2018 11:31:14 PM
Surr: 2-Fluorobiphenyl	102	50 - 150		%Rec	1	10/24/2018 11:31:14 PM
Surr: o-Terphenyl	98.6	50 - 150		%Rec	1	10/24/2018 11:31:14 PM

**Gasoline by NWTPH-Gx**

Batch ID: 22402 Analyst: KT

Gasoline	ND	5.03		mg/Kg-dry	1	10/26/2018 12:21:33 AM
Surr: 4-Bromofluorobenzene	103	65 - 135		%Rec	1	10/26/2018 12:21:33 AM
Surr: Toluene-d8	101	65 - 135		%Rec	1	10/26/2018 12:21:33 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22402 Analyst: KT

Methyl tert-butyl ether (MTBE)	ND	0.0503		mg/Kg-dry	1	10/26/2018 12:21:33 AM
1,2-Dichloroethane	ND	0.0201		mg/Kg-dry	1	10/26/2018 12:21:33 AM
Benzene	ND	0.0201		mg/Kg-dry	1	10/26/2018 12:21:33 AM
Toluene	ND	0.0201		mg/Kg-dry	1	10/26/2018 12:21:33 AM
1,2-Dibromoethane (EDB)	ND	0.00300	MDL	mg/Kg-dry	1	10/26/2018 12:21:33 AM
Ethylbenzene	ND	0.0252		mg/Kg-dry	1	10/26/2018 12:21:33 AM
m,p-Xylene	ND	0.0503		mg/Kg-dry	1	10/26/2018 12:21:33 AM
o-Xylene	ND	0.0252		mg/Kg-dry	1	10/26/2018 12:21:33 AM
Naphthalene	ND	0.0503		mg/Kg-dry	1	10/26/2018 12:21:33 AM
Surr: Dibromofluoromethane	76.9	56.5 - 129		%Rec	1	10/26/2018 12:21:33 AM
Surr: Toluene-d8	103	64.5 - 151		%Rec	1	10/26/2018 12:21:33 AM
Surr: 1-Bromo-4-fluorobenzene	97.2	54.8 - 168		%Rec	1	10/26/2018 12:21:33 AM

**NOTES:**

MDL - Analyte reported to Method Detection Limit (MDL)

**Total Metals by EPA Method 6020**

Batch ID: 22393 Analyst: WC

Lead	1.32	0.183		mg/Kg-dry	1	10/25/2018 6:24:31 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47108 Analyst: NG

Percent Moisture	16.1	0.500		wt%	1	10/24/2018 1:45:38 PM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810381-027  
**Client Sample ID:** S-KSB-24: 19ft

**Collection Date:** 10/23/2018 1:41:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22390 Analyst: SB

Diesel (Fuel Oil)	ND	19.9		mg/Kg-dry	1	10/25/2018 12:01:01 AM
Heavy Oil	ND	49.8		mg/Kg-dry	1	10/25/2018 12:01:01 AM
Surr: 2-Fluorobiphenyl	91.4	50 - 150		%Rec	1	10/25/2018 12:01:01 AM
Surr: o-Terphenyl	87.9	50 - 150		%Rec	1	10/25/2018 12:01:01 AM

**Gasoline by NWTPH-Gx**

Batch ID: 22402 Analyst: KT

Gasoline	12.1	5.03		mg/Kg-dry	1	10/26/2018 12:52:19 AM
Surr: 4-Bromofluorobenzene	103	65 - 135		%Rec	1	10/26/2018 12:52:19 AM
Surr: Toluene-d8	100	65 - 135		%Rec	1	10/26/2018 12:52:19 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22402 Analyst: KT

Methyl tert-butyl ether (MTBE)	ND	0.0503		mg/Kg-dry	1	10/26/2018 12:52:19 AM
1,2-Dichloroethane	ND	0.0201		mg/Kg-dry	1	10/26/2018 12:52:19 AM
Benzene	ND	0.0201		mg/Kg-dry	1	10/26/2018 12:52:19 AM
Toluene	ND	0.0201		mg/Kg-dry	1	10/26/2018 12:52:19 AM
1,2-Dibromoethane (EDB)	ND	0.00301	MDL	mg/Kg-dry	1	10/26/2018 12:52:19 AM
Ethylbenzene	ND	0.0252		mg/Kg-dry	1	10/26/2018 12:52:19 AM
m,p-Xylene	ND	0.0503		mg/Kg-dry	1	10/26/2018 12:52:19 AM
o-Xylene	ND	0.0252		mg/Kg-dry	1	10/26/2018 12:52:19 AM
Naphthalene	ND	0.0503		mg/Kg-dry	1	10/26/2018 12:52:19 AM
Surr: Dibromofluoromethane	80.4	56.5 - 129		%Rec	1	10/26/2018 12:52:19 AM
Surr: Toluene-d8	104	64.5 - 151		%Rec	1	10/26/2018 12:52:19 AM
Surr: 1-Bromo-4-fluorobenzene	96.6	54.8 - 168		%Rec	1	10/26/2018 12:52:19 AM

**NOTES:**

MDL - Analyte reported to Method Detection Limit (MDL)

**Total Metals by EPA Method 6020**

Batch ID: 22393 Analyst: WC

Lead	1.57	0.188		mg/Kg-dry	1	10/25/2018 6:28:34 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47108 Analyst: NG

Percent Moisture	15.4	0.500		wt%	1	10/24/2018 1:45:38 PM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810381-028  
**Client Sample ID:** S-KSB-25: 6ft

**Collection Date:** 10/23/2018 1:57:00 PM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22390 Analyst: SB

Diesel (Fuel Oil)	ND	22.2		mg/Kg-dry	1	10/25/2018 2:29:48 AM
Heavy Oil	ND	55.6		mg/Kg-dry	1	10/25/2018 2:29:48 AM
Surr: 2-Fluorobiphenyl	114	50 - 150		%Rec	1	10/25/2018 2:29:48 AM
Surr: o-Terphenyl	111	50 - 150		%Rec	1	10/25/2018 2:29:48 AM

**Gasoline by NWTPH-Gx**

Batch ID: 22402 Analyst: KT

Gasoline	ND	5.39		mg/Kg-dry	1	10/26/2018 1:23:11 AM
Surr: 4-Bromofluorobenzene	98.2	65 - 135		%Rec	1	10/26/2018 1:23:11 AM
Surr: Toluene-d8	93.1	65 - 135		%Rec	1	10/26/2018 1:23:11 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22402 Analyst: KT

Methyl tert-butyl ether (MTBE)	ND	0.0539		mg/Kg-dry	1	10/26/2018 1:23:11 AM
1,2-Dichloroethane	ND	0.0216		mg/Kg-dry	1	10/26/2018 1:23:11 AM
Benzene	ND	0.0216		mg/Kg-dry	1	10/26/2018 1:23:11 AM
Toluene	ND	0.0216		mg/Kg-dry	1	10/26/2018 1:23:11 AM
1,2-Dibromoethane (EDB)	ND	0.00322	MDL	mg/Kg-dry	1	10/26/2018 1:23:11 AM
Ethylbenzene	ND	0.0270		mg/Kg-dry	1	10/26/2018 1:23:11 AM
m,p-Xylene	ND	0.0539		mg/Kg-dry	1	10/26/2018 1:23:11 AM
o-Xylene	ND	0.0270		mg/Kg-dry	1	10/26/2018 1:23:11 AM
Naphthalene	ND	0.0539		mg/Kg-dry	1	10/26/2018 1:23:11 AM
Surr: Dibromofluoromethane	79.2	56.5 - 129		%Rec	1	10/26/2018 1:23:11 AM
Surr: Toluene-d8	99.2	64.5 - 151		%Rec	1	10/26/2018 1:23:11 AM
Surr: 1-Bromo-4-fluorobenzene	92.4	54.8 - 168		%Rec	1	10/26/2018 1:23:11 AM

**NOTES:**

MDL - Analyte reported to Method Detection Limit (MDL)

**Total Metals by EPA Method 6020**

Batch ID: 22393 Analyst: WC

Lead	1.70	0.185		mg/Kg-dry	1	10/25/2018 6:33:38 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47108 Analyst: NG

Percent Moisture	18.6	0.500		wt%	1	10/24/2018 1:45:38 PM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810381-029  
**Client Sample ID:** S-KSB-25: 14ft

**Collection Date:** 10/23/2018 2:03:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22390 Analyst: SB

Diesel (Fuel Oil)	ND	20.4		mg/Kg-dry	1	10/25/2018 2:59:29 AM
Heavy Oil	ND	51.1		mg/Kg-dry	1	10/25/2018 2:59:29 AM
Surr: 2-Fluorobiphenyl	97.9	50 - 150		%Rec	1	10/25/2018 2:59:29 AM
Surr: o-Terphenyl	95.0	50 - 150		%Rec	1	10/25/2018 2:59:29 AM

**Gasoline by NWTPH-Gx**

Batch ID: 22402 Analyst: KT

Gasoline	ND	5.69		mg/Kg-dry	1	10/26/2018 1:53:58 AM
Surr: 4-Bromofluorobenzene	103	65 - 135		%Rec	1	10/26/2018 1:53:58 AM
Surr: Toluene-d8	97.2	65 - 135		%Rec	1	10/26/2018 1:53:58 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22402 Analyst: KT

Methyl tert-butyl ether (MTBE)	ND	0.0569		mg/Kg-dry	1	10/26/2018 1:53:58 AM
1,2-Dichloroethane	ND	0.0228		mg/Kg-dry	1	10/26/2018 1:53:58 AM
Benzene	ND	0.0228		mg/Kg-dry	1	10/26/2018 1:53:58 AM
Toluene	ND	0.0228		mg/Kg-dry	1	10/26/2018 1:53:58 AM
1,2-Dibromoethane (EDB)	ND	0.00340	MDL	mg/Kg-dry	1	10/26/2018 1:53:58 AM
Ethylbenzene	ND	0.0285		mg/Kg-dry	1	10/26/2018 1:53:58 AM
m,p-Xylene	ND	0.0569		mg/Kg-dry	1	10/26/2018 1:53:58 AM
o-Xylene	ND	0.0285		mg/Kg-dry	1	10/26/2018 1:53:58 AM
Naphthalene	ND	0.0569		mg/Kg-dry	1	10/26/2018 1:53:58 AM
Surr: Dibromofluoromethane	75.8	56.5 - 129		%Rec	1	10/26/2018 1:53:58 AM
Surr: Toluene-d8	99.4	64.5 - 151		%Rec	1	10/26/2018 1:53:58 AM
Surr: 1-Bromo-4-fluorobenzene	97.2	54.8 - 168		%Rec	1	10/26/2018 1:53:58 AM

**NOTES:**

MDL - Analyte reported to Method Detection Limit (MDL)

**Total Metals by EPA Method 6020**

Batch ID: 22393 Analyst: WC

Lead	1.40	0.172		mg/Kg-dry	1	10/25/2018 6:38:43 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47108 Analyst: NG

Percent Moisture	17.0	0.500		wt%	1	10/24/2018 1:45:38 PM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810381-030  
**Client Sample ID:** S-KSB-25: 20ft

**Collection Date:** 10/23/2018 2:12:00 PM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22390 Analyst: SB

Diesel (Fuel Oil)	ND	21.1		mg/Kg-dry	1	10/25/2018 3:29:12 AM
Heavy Oil	ND	52.6		mg/Kg-dry	1	10/25/2018 3:29:12 AM
Surr: 2-Fluorobiphenyl	99.8	50 - 150		%Rec	1	10/25/2018 3:29:12 AM
Surr: o-Terphenyl	95.7	50 - 150		%Rec	1	10/25/2018 3:29:12 AM

**Gasoline by NWTPH-Gx**

Batch ID: 22402 Analyst: KT

Gasoline	ND	5.65		mg/Kg-dry	1	10/26/2018 6:31:34 AM
Surr: 4-Bromofluorobenzene	102	65 - 135		%Rec	1	10/26/2018 6:31:34 AM
Surr: Toluene-d8	96.2	65 - 135		%Rec	1	10/26/2018 6:31:34 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22402 Analyst: KT

Methyl tert-butyl ether (MTBE)	ND	0.0565		mg/Kg-dry	1	10/26/2018 6:31:34 AM
1,2-Dichloroethane	ND	0.0226		mg/Kg-dry	1	10/26/2018 6:31:34 AM
Benzene	ND	0.0226		mg/Kg-dry	1	10/26/2018 6:31:34 AM
Toluene	ND	0.0226		mg/Kg-dry	1	10/26/2018 6:31:34 AM
1,2-Dibromoethane (EDB)	ND	0.00337	MDL	mg/Kg-dry	1	10/26/2018 6:31:34 AM
Ethylbenzene	ND	0.0282		mg/Kg-dry	1	10/26/2018 6:31:34 AM
m,p-Xylene	ND	0.0565		mg/Kg-dry	1	10/26/2018 6:31:34 AM
o-Xylene	ND	0.0282		mg/Kg-dry	1	10/26/2018 6:31:34 AM
Naphthalene	0.0711	0.0565		mg/Kg-dry	1	10/26/2018 6:31:34 AM
Surr: Dibromofluoromethane	79.0	56.5 - 129		%Rec	1	10/26/2018 6:31:34 AM
Surr: Toluene-d8	99.0	64.5 - 151		%Rec	1	10/26/2018 6:31:34 AM
Surr: 1-Bromo-4-fluorobenzene	96.5	54.8 - 168		%Rec	1	10/26/2018 6:31:34 AM

**NOTES:**

MDL - Analyte reported to Method Detection Limit (MDL)

**Total Metals by EPA Method 6020**

Batch ID: 22393 Analyst: WC

Lead	1.74	0.177		mg/Kg-dry	1	10/25/2018 6:43:47 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47108 Analyst: NG

Percent Moisture	19.5	0.500		wt%	1	10/24/2018 1:45:38 PM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810381-031  
**Client Sample ID:** S-KSB-26: 5.5ft

**Collection Date:** 10/23/2018 2:40:00 PM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22390 Analyst: SB

Diesel (Fuel Oil)	ND	22.4		mg/Kg-dry	1	10/25/2018 3:58:53 AM
Heavy Oil	ND	56.1		mg/Kg-dry	1	10/25/2018 3:58:53 AM
Surr: 2-Fluorobiphenyl	95.4	50 - 150		%Rec	1	10/25/2018 3:58:53 AM
Surr: o-Terphenyl	91.3	50 - 150		%Rec	1	10/25/2018 3:58:53 AM

**Gasoline by NWTPH-Gx**

Batch ID: 22402 Analyst: KT

Gasoline	ND	5.22		mg/Kg-dry	1	10/26/2018 7:02:30 AM
Surr: 4-Bromofluorobenzene	103	65 - 135		%Rec	1	10/26/2018 7:02:30 AM
Surr: Toluene-d8	97.1	65 - 135		%Rec	1	10/26/2018 7:02:30 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22402 Analyst: KT

Methyl tert-butyl ether (MTBE)	ND	0.0522		mg/Kg-dry	1	10/26/2018 7:02:30 AM
1,2-Dichloroethane	ND	0.0209		mg/Kg-dry	1	10/26/2018 7:02:30 AM
Benzene	ND	0.0209		mg/Kg-dry	1	10/26/2018 7:02:30 AM
Toluene	ND	0.0209		mg/Kg-dry	1	10/26/2018 7:02:30 AM
1,2-Dibromoethane (EDB)	ND	0.00312	MDL	mg/Kg-dry	1	10/26/2018 7:02:30 AM
Ethylbenzene	ND	0.0261		mg/Kg-dry	1	10/26/2018 7:02:30 AM
m,p-Xylene	ND	0.0522		mg/Kg-dry	1	10/26/2018 7:02:30 AM
o-Xylene	ND	0.0261		mg/Kg-dry	1	10/26/2018 7:02:30 AM
Naphthalene	ND	0.0522		mg/Kg-dry	1	10/26/2018 7:02:30 AM
Surr: Dibromofluoromethane	76.3	56.5 - 129		%Rec	1	10/26/2018 7:02:30 AM
Surr: Toluene-d8	99.3	64.5 - 151		%Rec	1	10/26/2018 7:02:30 AM
Surr: 1-Bromo-4-fluorobenzene	96.7	54.8 - 168		%Rec	1	10/26/2018 7:02:30 AM

**NOTES:**

MDL - Analyte reported to Method Detection Limit (MDL)

**Total Metals by EPA Method 6020**

Batch ID: 22393 Analyst: WC

Lead	1.62	0.186		mg/Kg-dry	1	10/25/2018 6:48:51 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47108 Analyst: NG

Percent Moisture	17.9	0.500		wt%	1	10/24/2018 1:45:38 PM
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**Client:** Kane Environmental, Inc.

**Collection Date:** 10/23/2018 2:48:00 PM

**Project:** Wexler - 82305

**Lab ID:** 1810381-032

**Matrix:** Soil

**Client Sample ID:** S-KSB-26: 10.5ft

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22390 Analyst: SB

Diesel (Fuel Oil)	ND	22.8		mg/Kg-dry	1	10/25/2018 4:28:34 AM
Heavy Oil	ND	57.1		mg/Kg-dry	1	10/25/2018 4:28:34 AM
Surr: 2-Fluorobiphenyl	102	50 - 150		%Rec	1	10/25/2018 4:28:34 AM
Surr: o-Terphenyl	99.3	50 - 150		%Rec	1	10/25/2018 4:28:34 AM

**Gasoline by NWTPH-Gx**

Batch ID: 22402 Analyst: KT

Gasoline	ND	5.74		mg/Kg-dry	1	10/26/2018 8:04:28 AM
Surr: 4-Bromofluorobenzene	112	65 - 135		%Rec	1	10/26/2018 8:04:28 AM
Surr: Toluene-d8	97.0	65 - 135		%Rec	1	10/26/2018 8:04:28 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22402 Analyst: KT

Methyl tert-butyl ether (MTBE)	ND	0.0574		mg/Kg-dry	1	10/26/2018 8:04:28 AM
1,2-Dichloroethane	ND	0.0230		mg/Kg-dry	1	10/26/2018 8:04:28 AM
Benzene	ND	0.0230		mg/Kg-dry	1	10/26/2018 8:04:28 AM
Toluene	ND	0.0230		mg/Kg-dry	1	10/26/2018 8:04:28 AM
1,2-Dibromoethane (EDB)	ND	0.00343	MDL	mg/Kg-dry	1	10/26/2018 8:04:28 AM
Ethylbenzene	ND	0.0287		mg/Kg-dry	1	10/26/2018 8:04:28 AM
m,p-Xylene	ND	0.0574		mg/Kg-dry	1	10/26/2018 8:04:28 AM
o-Xylene	ND	0.0287		mg/Kg-dry	1	10/26/2018 8:04:28 AM
Naphthalene	ND	0.0574		mg/Kg-dry	1	10/26/2018 8:04:28 AM
Surr: Dibromofluoromethane	74.6	56.5 - 129		%Rec	1	10/26/2018 8:04:28 AM
Surr: Toluene-d8	99.8	64.5 - 151		%Rec	1	10/26/2018 8:04:28 AM
Surr: 1-Bromo-4-fluorobenzene	105	54.8 - 168		%Rec	1	10/26/2018 8:04:28 AM

**NOTES:**

MDL - Analyte reported to Method Detection Limit (MDL)

**Total Metals by EPA Method 6020**

Batch ID: 22393 Analyst: WC

Lead	1.87	0.188		mg/Kg-dry	1	10/25/2018 7:04:06 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47108 Analyst: NG

Percent Moisture	21.4	0.500		wt%	1	10/24/2018 1:45:38 PM
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**Client:** Kane Environmental, Inc.

**Collection Date:** 10/23/2018 2:53:00 PM

**Project:** Wexler - 82305

**Lab ID:** 1810381-033

**Matrix:** Soil

**Client Sample ID: S-KSB-26: 14.5ft**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22390 Analyst: SB

Diesel (Fuel Oil)	ND	21.1		mg/Kg-dry	1	10/25/2018 4:58:16 AM
Heavy Oil	ND	52.7		mg/Kg-dry	1	10/25/2018 4:58:16 AM
Surr: 2-Fluorobiphenyl	108	50 - 150		%Rec	1	10/25/2018 4:58:16 AM
Surr: o-Terphenyl	103	50 - 150		%Rec	1	10/25/2018 4:58:16 AM

**Gasoline by NWTPH-Gx**

Batch ID: 22402 Analyst: KT

Gasoline	ND	5.26		mg/Kg-dry	1	10/26/2018 8:35:21 AM
Surr: 4-Bromofluorobenzene	102	65 - 135		%Rec	1	10/26/2018 8:35:21 AM
Surr: Toluene-d8	97.6	65 - 135		%Rec	1	10/26/2018 8:35:21 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22402 Analyst: KT

Methyl tert-butyl ether (MTBE)	ND	0.0526		mg/Kg-dry	1	10/26/2018 8:35:21 AM
1,2-Dichloroethane	ND	0.0211		mg/Kg-dry	1	10/26/2018 8:35:21 AM
Benzene	ND	0.0211		mg/Kg-dry	1	10/26/2018 8:35:21 AM
Toluene	ND	0.0211		mg/Kg-dry	1	10/26/2018 8:35:21 AM
1,2-Dibromoethane (EDB)	ND	0.00314	MDL	mg/Kg-dry	1	10/26/2018 8:35:21 AM
Ethylbenzene	ND	0.0263		mg/Kg-dry	1	10/26/2018 8:35:21 AM
m,p-Xylene	ND	0.0526		mg/Kg-dry	1	10/26/2018 8:35:21 AM
o-Xylene	ND	0.0263		mg/Kg-dry	1	10/26/2018 8:35:21 AM
Naphthalene	ND	0.0526		mg/Kg-dry	1	10/26/2018 8:35:21 AM
Surr: Dibromofluoromethane	72.8	56.5 - 129		%Rec	1	10/26/2018 8:35:21 AM
Surr: Toluene-d8	101	64.5 - 151		%Rec	1	10/26/2018 8:35:21 AM
Surr: 1-Bromo-4-fluorobenzene	96.2	54.8 - 168		%Rec	1	10/26/2018 8:35:21 AM

**NOTES:**

MDL - Analyte reported to Method Detection Limit (MDL)

**Total Metals by EPA Method 6020**

Batch ID: 22393 Analyst: WC

Lead	1.83	0.167		mg/Kg-dry	1	10/25/2018 7:09:10 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47108 Analyst: NG

Percent Moisture	14.4	0.500		wt%	1	10/24/2018 1:45:38 PM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810381-034  
**Client Sample ID:** S-KSB-26: 19ft

**Collection Date:** 10/23/2018 3:02:00 PM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22390 Analyst: SB

Diesel (Fuel Oil)	ND	23.3		mg/Kg-dry	1	10/25/2018 5:28:15 AM
Heavy Oil	ND	58.3		mg/Kg-dry	1	10/25/2018 5:28:15 AM
Surr: 2-Fluorobiphenyl	99.4	50 - 150		%Rec	1	10/25/2018 5:28:15 AM
Surr: o-Terphenyl	95.7	50 - 150		%Rec	1	10/25/2018 5:28:15 AM

**Gasoline by NWTPH-Gx**

Batch ID: 22402 Analyst: KT

Gasoline	ND	4.32		mg/Kg-dry	1	10/26/2018 9:06:22 AM
Surr: 4-Bromofluorobenzene	103	65 - 135		%Rec	1	10/26/2018 9:06:22 AM
Surr: Toluene-d8	105	65 - 135		%Rec	1	10/26/2018 9:06:22 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22402 Analyst: KT

Methyl tert-butyl ether (MTBE)	ND	0.0432		mg/Kg-dry	1	10/26/2018 9:06:22 AM
1,2-Dichloroethane	ND	0.0173		mg/Kg-dry	1	10/26/2018 9:06:22 AM
Benzene	ND	0.0173		mg/Kg-dry	1	10/26/2018 9:06:22 AM
Toluene	ND	0.0173		mg/Kg-dry	1	10/26/2018 9:06:22 AM
1,2-Dibromoethane (EDB)	ND	0.00432		mg/Kg-dry	1	10/26/2018 9:06:22 AM
Ethylbenzene	ND	0.0216		mg/Kg-dry	1	10/26/2018 9:06:22 AM
m,p-Xylene	ND	0.0432		mg/Kg-dry	1	10/26/2018 9:06:22 AM
o-Xylene	ND	0.0216		mg/Kg-dry	1	10/26/2018 9:06:22 AM
Naphthalene	ND	0.0432		mg/Kg-dry	1	10/26/2018 9:06:22 AM
Surr: Dibromofluoromethane	75.9	56.5 - 129		%Rec	1	10/26/2018 9:06:22 AM
Surr: Toluene-d8	109	64.5 - 151		%Rec	1	10/26/2018 9:06:22 AM
Surr: 1-Bromo-4-fluorobenzene	97.0	54.8 - 168		%Rec	1	10/26/2018 9:06:22 AM

**Total Metals by EPA Method 6020**

Batch ID: 22393 Analyst: WC

Lead	1.91	0.174		mg/Kg-dry	1	10/25/2018 7:14:14 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47108 Analyst: NG

Percent Moisture	18.1	0.500		wt%	1	10/24/2018 1:45:38 PM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810381-035  
**Client Sample ID:** S-KSB-27: 5.5ft

**Collection Date:** 10/23/2018 3:27:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22390 Analyst: SB

Diesel (Fuel Oil)	ND	22.1		mg/Kg-dry	1	10/25/2018 5:57:59 AM
Heavy Oil	ND	55.3		mg/Kg-dry	1	10/25/2018 5:57:59 AM
Surr: 2-Fluorobiphenyl	109	50 - 150		%Rec	1	10/25/2018 5:57:59 AM
Surr: o-Terphenyl	105	50 - 150		%Rec	1	10/25/2018 5:57:59 AM

**Gasoline by NWTPH-Gx**

Batch ID: 22402 Analyst: KT

Gasoline	22.5	5.96		mg/Kg-dry	1	10/26/2018 9:37:13 AM
Surr: 4-Bromofluorobenzene	99.6	65 - 135		%Rec	1	10/26/2018 9:37:13 AM
Surr: Toluene-d8	91.8	65 - 135		%Rec	1	10/26/2018 9:37:13 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22402 Analyst: KT

Methyl tert-butyl ether (MTBE)	ND	0.0596		mg/Kg-dry	1	10/26/2018 9:37:13 AM
1,2-Dichloroethane	ND	0.0239		mg/Kg-dry	1	10/26/2018 9:37:13 AM
Benzene	ND	0.0239		mg/Kg-dry	1	10/26/2018 9:37:13 AM
Toluene	ND	0.0239		mg/Kg-dry	1	10/26/2018 9:37:13 AM
1,2-Dibromoethane (EDB)	ND	0.00356	MDL	mg/Kg-dry	1	10/26/2018 9:37:13 AM
Ethylbenzene	ND	0.0298		mg/Kg-dry	1	10/26/2018 9:37:13 AM
m,p-Xylene	ND	0.0596		mg/Kg-dry	1	10/26/2018 9:37:13 AM
o-Xylene	ND	0.0298		mg/Kg-dry	1	10/26/2018 9:37:13 AM
Naphthalene	0.187	0.0596		mg/Kg-dry	1	10/26/2018 9:37:13 AM
Surr: Dibromofluoromethane	71.8	56.5 - 129		%Rec	1	10/26/2018 9:37:13 AM
Surr: Toluene-d8	100	64.5 - 151		%Rec	1	10/26/2018 9:37:13 AM
Surr: 1-Bromo-4-fluorobenzene	93.0	54.8 - 168		%Rec	1	10/26/2018 9:37:13 AM

**NOTES:**

MDL - Analyte reported to Method Detection Limit (MDL)

**Total Metals by EPA Method 6020**

Batch ID: 22393 Analyst: WC

Lead	2.03	0.194		mg/Kg-dry	1	10/25/2018 7:19:18 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47108 Analyst: NG

Percent Moisture	20.3	0.500		wt%	1	10/24/2018 1:45:38 PM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810381-036  
**Client Sample ID:** S-KSB-27: 9ft

**Collection Date:** 10/23/2018 3:41:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22390 Analyst: SB

Diesel (Fuel Oil)	ND	23.3		mg/Kg-dry	1	10/25/2018 6:27:57 AM
Heavy Oil	ND	58.2		mg/Kg-dry	1	10/25/2018 6:27:57 AM
Surr: 2-Fluorobiphenyl	87.1	50 - 150		%Rec	1	10/25/2018 6:27:57 AM
Surr: o-Terphenyl	84.6	50 - 150		%Rec	1	10/25/2018 6:27:57 AM

**Gasoline by NWTPH-Gx**

Batch ID: 22402 Analyst: KT

Gasoline	ND	5.76		mg/Kg-dry	1	10/26/2018 10:08:15 AM
Surr: 4-Bromofluorobenzene	98.8	65 - 135		%Rec	1	10/26/2018 10:08:15 AM
Surr: Toluene-d8	101	65 - 135		%Rec	1	10/26/2018 10:08:15 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22402 Analyst: KT

Methyl tert-butyl ether (MTBE)	ND	0.0576		mg/Kg-dry	1	10/26/2018 10:08:15 AM
1,2-Dichloroethane	ND	0.0230		mg/Kg-dry	1	10/26/2018 10:08:15 AM
Benzene	ND	0.0230		mg/Kg-dry	1	10/26/2018 10:08:15 AM
Toluene	ND	0.0230		mg/Kg-dry	1	10/26/2018 10:08:15 AM
1,2-Dibromoethane (EDB)	ND	0.00344	MDL	mg/Kg-dry	1	10/26/2018 10:08:15 AM
Ethylbenzene	ND	0.0288		mg/Kg-dry	1	10/26/2018 10:08:15 AM
m,p-Xylene	ND	0.0576		mg/Kg-dry	1	10/26/2018 10:08:15 AM
o-Xylene	ND	0.0288		mg/Kg-dry	1	10/26/2018 10:08:15 AM
Naphthalene	ND	0.0576		mg/Kg-dry	1	10/26/2018 10:08:15 AM
Surr: Dibromofluoromethane	77.9	56.5 - 129		%Rec	1	10/26/2018 10:08:15 AM
Surr: Toluene-d8	107	64.5 - 151		%Rec	1	10/26/2018 10:08:15 AM
Surr: 1-Bromo-4-fluorobenzene	93.1	54.8 - 168		%Rec	1	10/26/2018 10:08:15 AM

**NOTES:**

MDL - Analyte reported to Method Detection Limit (MDL)

**Total Metals by EPA Method 6020**

Batch ID: 22393 Analyst: WC

Lead	1.59	0.195		mg/Kg-dry	1	10/25/2018 7:24:22 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47108 Analyst: NG

Percent Moisture	20.3	0.500		wt%	1	10/24/2018 1:45:38 PM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810381-037  
**Client Sample ID:** S-KSB-27: 15ft

**Collection Date:** 10/23/2018 3:47:00 PM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22390 Analyst: SB			
Diesel (Fuel Oil)	ND	21.5		mg/Kg-dry	1	10/25/2018 6:58:08 AM
Heavy Oil	ND	53.8		mg/Kg-dry	1	10/25/2018 6:58:08 AM
Surr: 2-Fluorobiphenyl	78.6	50 - 150		%Rec	1	10/25/2018 6:58:08 AM
Surr: o-Terphenyl	75.3	50 - 150		%Rec	1	10/25/2018 6:58:08 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22402 Analyst: KT			
Gasoline	ND	4.66		mg/Kg-dry	1	10/26/2018 10:39:17 AM
Surr: 4-Bromofluorobenzene	105	65 - 135		%Rec	1	10/26/2018 10:39:17 AM
Surr: Toluene-d8	97.2	65 - 135		%Rec	1	10/26/2018 10:39:17 AM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22402 Analyst: KT			
Methyl tert-butyl ether (MTBE)	ND	0.0466		mg/Kg-dry	1	10/26/2018 10:39:17 AM
1,2-Dichloroethane	ND	0.0186		mg/Kg-dry	1	10/26/2018 10:39:17 AM
Benzene	ND	0.0186		mg/Kg-dry	1	10/26/2018 10:39:17 AM
Toluene	ND	0.0186		mg/Kg-dry	1	10/26/2018 10:39:17 AM
1,2-Dibromoethane (EDB)	ND	0.00466		mg/Kg-dry	1	10/26/2018 10:39:17 AM
Ethylbenzene	ND	0.0233		mg/Kg-dry	1	10/26/2018 10:39:17 AM
m,p-Xylene	ND	0.0466		mg/Kg-dry	1	10/26/2018 10:39:17 AM
o-Xylene	ND	0.0233		mg/Kg-dry	1	10/26/2018 10:39:17 AM
Naphthalene	ND	0.0466		mg/Kg-dry	1	10/26/2018 10:39:17 AM
Surr: Dibromofluoromethane	72.2	56.5 - 129		%Rec	1	10/26/2018 10:39:17 AM
Surr: Toluene-d8	98.7	64.5 - 151		%Rec	1	10/26/2018 10:39:17 AM
Surr: 1-Bromo-4-fluorobenzene	98.6	54.8 - 168		%Rec	1	10/26/2018 10:39:17 AM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22393 Analyst: WC			
Lead	1.49	0.179		mg/Kg-dry	1	10/25/2018 7:29:27 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47108 Analyst: NG			
Percent Moisture	15.8	0.500		wt%	1	10/24/2018 1:45:38 PM





**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810381-038  
**Client Sample ID:** S-KSB-27: 20ft

**Collection Date:** 10/23/2018 3:55:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22390 Analyst: SB

Diesel (Fuel Oil)	ND	22.5		mg/Kg-dry	1	10/25/2018 7:28:23 AM
Heavy Oil	ND	56.2		mg/Kg-dry	1	10/25/2018 7:28:23 AM
Surr: 2-Fluorobiphenyl	112	50 - 150		%Rec	1	10/25/2018 7:28:23 AM
Surr: o-Terphenyl	108	50 - 150		%Rec	1	10/25/2018 7:28:23 AM

**Gasoline by NWTPH-Gx**

Batch ID: 22402 Analyst: KT

Gasoline	ND	5.72		mg/Kg-dry	1	10/26/2018 11:10:19 AM
Surr: 4-Bromofluorobenzene	98.5	65 - 135		%Rec	1	10/26/2018 11:10:19 AM
Surr: Toluene-d8	101	65 - 135		%Rec	1	10/26/2018 11:10:19 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22402 Analyst: KT

Methyl tert-butyl ether (MTBE)	ND	0.0572		mg/Kg-dry	1	10/26/2018 11:10:19 AM
1,2-Dichloroethane	ND	0.0229		mg/Kg-dry	1	10/26/2018 11:10:19 AM
Benzene	ND	0.0229		mg/Kg-dry	1	10/26/2018 11:10:19 AM
Toluene	ND	0.0229		mg/Kg-dry	1	10/26/2018 11:10:19 AM
1,2-Dibromoethane (EDB)	ND	0.00342	MDL	mg/Kg-dry	1	10/26/2018 11:10:19 AM
Ethylbenzene	ND	0.0286		mg/Kg-dry	1	10/26/2018 11:10:19 AM
m,p-Xylene	ND	0.0572		mg/Kg-dry	1	10/26/2018 11:10:19 AM
o-Xylene	ND	0.0286		mg/Kg-dry	1	10/26/2018 11:10:19 AM
Naphthalene	ND	0.0572		mg/Kg-dry	1	10/26/2018 11:10:19 AM
Surr: Dibromofluoromethane	73.6	56.5 - 129		%Rec	1	10/26/2018 11:10:19 AM
Surr: Toluene-d8	109	64.5 - 151		%Rec	1	10/26/2018 11:10:19 AM
Surr: 1-Bromo-4-fluorobenzene	92.8	54.8 - 168		%Rec	1	10/26/2018 11:10:19 AM

**NOTES:**

MDL - Analyte reported to Method Detection Limit (MDL)

**Total Metals by EPA Method 6020**

Batch ID: 22393 Analyst: WC

Lead	1.16	0.185		mg/Kg-dry	1	10/25/2018 7:34:31 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47108 Analyst: NG

Percent Moisture	16.3	0.500		wt%	1	10/24/2018 1:45:38 PM
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**Work Order:** 1810381  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Total Metals by EPA Method 6020**

Sample ID <b>MB-22392</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>10/24/2018</b>	RunNo: <b>47176</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>22392</b>	Analysis Date: <b>10/25/2018</b>	SeqNo: <b>917883</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead ND 0.159

Sample ID <b>LCS-22392</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>	Prep Date: <b>10/24/2018</b>	RunNo: <b>47176</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>22392</b>	Analysis Date: <b>10/25/2018</b>	SeqNo: <b>917884</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 20.3 0.155 19.38 0 105 80 120

Sample ID <b>1810381-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>10/24/2018</b>	RunNo: <b>47176</b>							
Client ID: <b>S-KSB-18: 8ft</b>	Batch ID: <b>22392</b>	Analysis Date: <b>10/25/2018</b>	SeqNo: <b>917886</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 4.35 0.185 3.909 10.6 20

Sample ID <b>1810381-001AMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>10/24/2018</b>	RunNo: <b>47176</b>							
Client ID: <b>S-KSB-18: 8ft</b>	Batch ID: <b>22392</b>	Analysis Date: <b>10/25/2018</b>	SeqNo: <b>917888</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 22.7 0.186 23.27 3.909 80.7 75 125

Sample ID <b>1810381-001AMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>10/24/2018</b>	RunNo: <b>47176</b>							
Client ID: <b>S-KSB-18: 8ft</b>	Batch ID: <b>22392</b>	Analysis Date: <b>10/25/2018</b>	SeqNo: <b>917891</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 22.8 0.185 23.08 3.909 82.0 75 125 22.68 0.633 20



Date: 10/26/2018

**Work Order:** 1810381  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Total Metals by EPA Method 6020**

Sample ID <b>MB-22393</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>10/24/2018</b>	RunNo: <b>47178</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>22393</b>	Analysis Date: <b>10/25/2018</b>	SeqNo: <b>917937</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead ND 0.150

Sample ID <b>LCS-22393</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>	Prep Date: <b>10/24/2018</b>	RunNo: <b>47178</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>22393</b>	Analysis Date: <b>10/25/2018</b>	SeqNo: <b>917938</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 19.2 0.145 18.12 0 106 80 120

Sample ID <b>1810381-021ADUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>10/24/2018</b>	RunNo: <b>47178</b>							
Client ID: <b>S-KSB-23: 5ft</b>	Batch ID: <b>22393</b>	Analysis Date: <b>10/25/2018</b>	SeqNo: <b>917940</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 1.77 0.185 1.535 14.5 20

Sample ID <b>1810381-021AMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>10/24/2018</b>	RunNo: <b>47178</b>							
Client ID: <b>S-KSB-23: 5ft</b>	Batch ID: <b>22393</b>	Analysis Date: <b>10/25/2018</b>	SeqNo: <b>917942</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 22.5 0.185 23.18 1.535 90.3 75 125

Sample ID <b>1810381-021AMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>10/24/2018</b>	RunNo: <b>47178</b>							
Client ID: <b>S-KSB-23: 5ft</b>	Batch ID: <b>22393</b>	Analysis Date: <b>10/25/2018</b>	SeqNo: <b>917943</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 22.8 0.185 23.18 1.535 91.6 75 125 22.46 1.38 20

**Work Order:** 1810381  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID <b>MB-22389</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>10/24/2018</b>	RunNo: <b>47140</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>22389</b>		Analysis Date: <b>10/24/2018</b>	SeqNo: <b>917006</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	18.7		20.00		93.5	50	150				
Surr: o-Terphenyl	19.5		20.00		97.4	50	150				

Sample ID <b>LCS-22389</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>	Prep Date: <b>10/24/2018</b>	RunNo: <b>47140</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>22389</b>		Analysis Date: <b>10/24/2018</b>	SeqNo: <b>917007</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	532	20.0	500.0	0	106	65	135				
Surr: 2-Fluorobiphenyl	18.6		20.00		92.9	50	150				
Surr: o-Terphenyl	21.1		20.00		105	50	150				

Sample ID <b>MB-22390</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>10/24/2018</b>	RunNo: <b>47144</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>22390</b>		Analysis Date: <b>10/24/2018</b>	SeqNo: <b>917180</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	20.2		20.00		101	50	150				
Surr: o-Terphenyl	19.2		20.00		96.2	50	150				

Sample ID <b>LCS-22390</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>	Prep Date: <b>10/24/2018</b>	RunNo: <b>47144</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>22390</b>		Analysis Date: <b>10/24/2018</b>	SeqNo: <b>917181</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	488	20.0	500.0	0	97.7	65	135				
Surr: 2-Fluorobiphenyl	20.4		20.00		102	50	150				
Surr: o-Terphenyl	19.2		20.00		96.0	50	150				



**Work Order:** 1810381  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID	<b>LCS-22390</b>	SampType:	<b>LCS</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>10/24/2018</b>	RunNo:	<b>47144</b>		
Client ID:	<b>LCSS</b>	Batch ID:	<b>22390</b>			Analysis Date:	<b>10/24/2018</b>	SeqNo:	<b>917181</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID	<b>1810381-021ADUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/24/2018</b>	RunNo:	<b>47144</b>		
Client ID:	<b>S-KSB-23: 5ft</b>	Batch ID:	<b>22390</b>			Analysis Date:	<b>10/24/2018</b>	SeqNo:	<b>917183</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	22.2						0		30	
Heavy Oil	ND	55.5						0		30	
Surr: 2-Fluorobiphenyl	19.8		22.18		89.1	50	150		0		
Surr: o-Terphenyl	18.9		22.18		85.4	50	150		0		

Sample ID	<b>1810381-014ADUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/24/2018</b>	RunNo:	<b>47140</b>		
Client ID:	<b>S-KSB-21: 10ft</b>	Batch ID:	<b>22389</b>			Analysis Date:	<b>10/25/2018</b>	SeqNo:	<b>917024</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	21.7						0		30	
Heavy Oil	ND	54.4						0		30	
Surr: 2-Fluorobiphenyl	17.7		21.75		81.2	50	150		0		
Surr: o-Terphenyl	19.5		21.75		89.8	50	150		0		

Sample ID	<b>1810381-002ADUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/24/2018</b>	RunNo:	<b>47140</b>		
Client ID:	<b>S-KSB-18: 12.5ft</b>	Batch ID:	<b>22389</b>			Analysis Date:	<b>10/25/2018</b>	SeqNo:	<b>917031</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	23.1						0		30	
Heavy Oil	ND	57.7						0		30	
Surr: 2-Fluorobiphenyl	21.1		23.08		91.4	50	150		0		
Surr: o-Terphenyl	22.4		23.08		97.2	50	150		0		

**Work Order:** 1810381  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID	<b>1810381-002AMS</b>	SampType:	<b>MS</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/24/2018</b>	RunNo:	<b>47140</b>		
Client ID:	<b>S-KSB-18: 12.5ft</b>	Batch ID:	<b>22389</b>			Analysis Date:	<b>10/25/2018</b>	SeqNo:	<b>917032</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	588	21.3	533.3	0	110	65	135				
Surr: 2-Fluorobiphenyl	17.9		21.33		83.9	50	150				
Surr: o-Terphenyl	20.0		21.33		93.8	50	150				

Sample ID	<b>1810381-037ADUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/24/2018</b>	RunNo:	<b>47144</b>		
Client ID:	<b>S-KSB-27: 15ft</b>	Batch ID:	<b>22390</b>			Analysis Date:	<b>10/25/2018</b>	SeqNo:	<b>917203</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	20.3						0		30	
Heavy Oil	ND	50.7						0		30	
Surr: 2-Fluorobiphenyl	24.9		20.29		123	50	150		0		
Surr: o-Terphenyl	24.1		20.29		119	50	150		0		

Sample ID	<b>1810381-002AMSD</b>	SampType:	<b>MSD</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/24/2018</b>	RunNo:	<b>47140</b>		
Client ID:	<b>S-KSB-18: 12.5ft</b>	Batch ID:	<b>22389</b>			Analysis Date:	<b>10/25/2018</b>	SeqNo:	<b>917033</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	576	21.6	540.4	0	107	65	135	588.5	2.06	30	
Surr: 2-Fluorobiphenyl	20.5		21.62		95.0	50	150		0		
Surr: o-Terphenyl	23.2		21.62		107	50	150		0		

Sample ID	<b>1810381-021AMS</b>	SampType:	<b>MS</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/24/2018</b>	RunNo:	<b>47144</b>		
Client ID:	<b>S-KSB-23: 5ft</b>	Batch ID:	<b>22390</b>			Analysis Date:	<b>10/25/2018</b>	SeqNo:	<b>917204</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	513	20.7	517.3	0	99.1	65	135				
Surr: 2-Fluorobiphenyl	19.0		20.69		91.6	50	150				
Surr: o-Terphenyl	17.5		20.69		84.5	50	150				

**Work Order:** 1810381  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID	1810381-021AMSD	SampType:	MSD	Units:	mg/Kg-dry	Prep Date:	10/24/2018	RunNo:	47144		
Client ID:	S-KSB-23: 5ft	Batch ID:	22390			Analysis Date:	10/25/2018	SeqNo:	917205		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	521	20.7	516.4	0	101	65	135	512.8	1.56	30	
Surr: 2-Fluorobiphenyl	17.8		20.66		86.0	50	150		0		
Surr: o-Terphenyl	16.0		20.66		77.3	50	150		0		

**Work Order:** 1810381  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID	<b>LCS-22401</b>	SampType:	<b>LCS</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>10/25/2018</b>	RunNo:	<b>47186</b>		
Client ID:	<b>LCSS</b>	Batch ID:	<b>22401</b>			Analysis Date:	<b>10/25/2018</b>	SeqNo:	<b>918191</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	31.9	5.00	25.00	0	128	65	135				
Surr: Toluene-d8	1.30		1.250		104	65	135				
Surr: 4-Bromofluorobenzene	1.30		1.250		104	65	135				

Sample ID	<b>LCS-22402</b>	SampType:	<b>LCS</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>10/25/2018</b>	RunNo:	<b>47162</b>		
Client ID:	<b>LCSS</b>	Batch ID:	<b>22402</b>			Analysis Date:	<b>10/25/2018</b>	SeqNo:	<b>917523</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	27.8	5.00	25.00	0	111	65	135				
Surr: Toluene-d8	1.27		1.250		101	65	135				
Surr: 4-Bromofluorobenzene	1.36		1.250		109	65	135				

Sample ID	<b>MB-22401</b>	SampType:	<b>MBLK</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>10/25/2018</b>	RunNo:	<b>47186</b>		
Client ID:	<b>MBLKS</b>	Batch ID:	<b>22401</b>			Analysis Date:	<b>10/25/2018</b>	SeqNo:	<b>918192</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	5.00									
Surr: Toluene-d8	1.32		1.250		106	65	135				
Surr: 4-Bromofluorobenzene	1.23		1.250		98.5	65	135				

Sample ID	<b>MB-22402</b>	SampType:	<b>MBLK</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>10/25/2018</b>	RunNo:	<b>47162</b>		
Client ID:	<b>MBLKS</b>	Batch ID:	<b>22402</b>			Analysis Date:	<b>10/25/2018</b>	SeqNo:	<b>917524</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	5.00									
Surr: Toluene-d8	1.21		1.250		96.7	65	135				
Surr: 4-Bromofluorobenzene	1.27		1.250		102	65	135				

**Work Order:** 1810381  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID	<b>1810381-004BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/25/2018</b>	RunNo:	<b>47186</b>		
Client ID:	<b>S-KSB-18: 24ft</b>	Batch ID:	<b>22401</b>			Analysis Date:	<b>10/25/2018</b>	SeqNo:	<b>918168</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	5.82						0		30	
Surr: Toluene-d8	1.52		1.455		105	65	135		0		
Surr: 4-Bromofluorobenzene	1.47		1.455		101	65	135		0		

Sample ID	<b>1810381-023BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/25/2018</b>	RunNo:	<b>47162</b>		
Client ID:	<b>S-KSB-23: 14ft</b>	Batch ID:	<b>22402</b>			Analysis Date:	<b>10/25/2018</b>	SeqNo:	<b>917512</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	4.76						0		30	
Surr: Toluene-d8	1.14		1.189		96.3	65	135		0		
Surr: 4-Bromofluorobenzene	1.21		1.189		102	65	135		0		

Sample ID	<b>1810381-020BMS</b>	SampType:	<b>MS</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/25/2018</b>	RunNo:	<b>47186</b>		
Client ID:	<b>S-KSB-22: 20ft</b>	Batch ID:	<b>22401</b>			Analysis Date:	<b>10/26/2018</b>	SeqNo:	<b>918186</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	31.5	5.31	26.55	0	119	65	135				
Surr: Toluene-d8	1.40		1.327		105	65	135				
Surr: 4-Bromofluorobenzene	1.38		1.327		104	65	135				

Sample ID	<b>1810381-020BMSD</b>	SampType:	<b>MSD</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/25/2018</b>	RunNo:	<b>47186</b>		
Client ID:	<b>S-KSB-22: 20ft</b>	Batch ID:	<b>22401</b>			Analysis Date:	<b>10/26/2018</b>	SeqNo:	<b>918187</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	32.6	5.31	26.55	0	123	65	135	31.50	3.34	30	
Surr: Toluene-d8	1.39		1.327		104	65	135		0		
Surr: 4-Bromofluorobenzene	1.37		1.327		103	65	135		0		



**Work Order:** 1810381  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID	<b>1810381-034BMS</b>	SampType:	<b>MS</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/25/2018</b>	RunNo:	<b>47162</b>		
Client ID:	<b>S-KSB-26: 19ft</b>	Batch ID:	<b>22402</b>			Analysis Date:	<b>10/26/2018</b>	SeqNo:	<b>917519</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	24.1	4.32	21.61	0	112	65	135				
Surr: Toluene-d8	0.981		1.081		90.8	65	135				
Surr: 4-Bromofluorobenzene	1.18		1.081		109	65	135				

Sample ID	<b>1810381-034BMSD</b>	SampType:	<b>MSD</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/25/2018</b>	RunNo:	<b>47162</b>		
Client ID:	<b>S-KSB-26: 19ft</b>	Batch ID:	<b>22402</b>			Analysis Date:	<b>10/26/2018</b>	SeqNo:	<b>917520</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	23.2	4.32	21.61	0	107	65	135	24.11	4.01	30
Surr: Toluene-d8	1.03		1.081		95.4	65	135		0	
Surr: 4-Bromofluorobenzene	1.18		1.081		109	65	135		0	

Sample ID	<b>1810381-031BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/25/2018</b>	RunNo:	<b>47162</b>		
Client ID:	<b>S-KSB-26: 5.5ft</b>	Batch ID:	<b>22402</b>			Analysis Date:	<b>10/26/2018</b>	SeqNo:	<b>917810</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	5.22						0		30
Surr: Toluene-d8	1.26		1.304		96.9	65	135		0	
Surr: 4-Bromofluorobenzene	1.35		1.304		103	65	135		0	

Sample ID	<b>1810381-014BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/25/2018</b>	RunNo:	<b>47186</b>		
Client ID:	<b>S-KSB-21: 10ft</b>	Batch ID:	<b>22401</b>			Analysis Date:	<b>10/26/2018</b>	SeqNo:	<b>918179</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	4.96						0		30
Surr: Toluene-d8	1.28		1.239		103	65	135		0	
Surr: 4-Bromofluorobenzene	1.25		1.239		101	65	135		0	

**Work Order:** 1810381  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	LCS-22401	SampType:	LCS	Units:	mg/Kg	Prep Date:	10/25/2018	RunNo:	47185		
Client ID:	LCSS	Batch ID:	22401	Analysis Date:	10/25/2018	SeqNo:	918131				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.21	0.0500	1.000	0	121	44.1	152				
1,2-Dichloroethane	1.18	0.0200	1.000	0	118	50.9	162				
Benzene	1.18	0.0200	1.000	0	118	64.3	133				
Toluene	1.15	0.0200	1.000	0	115	67.3	138				
1,2-Dibromoethane (EDB)	1.07	0.00500	1.000	0	107	50.5	154				
Ethylbenzene	1.17	0.0250	1.000	0	117	74	129				
m,p-Xylene	2.25	0.0500	2.000	0	113	70	124				
o-Xylene	1.14	0.0250	1.000	0	114	68.1	139				
Naphthalene	1.23	0.0500	1.000	0	123	46.5	167				
Surr: Dibromofluoromethane	1.24		1.250		98.9	56.5	129				
Surr: Toluene-d8	1.25		1.250		99.8	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.23		1.250		98.3	54.8	168				

Sample ID	LCS-22402	SampType:	LCS	Units:	mg/Kg	Prep Date:	10/25/2018	RunNo:	47163		
Client ID:	LCSS	Batch ID:	22402	Analysis Date:	10/25/2018	SeqNo:	917540				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.06	0.0500	1.000	0	106	44.1	152				
1,2-Dichloroethane	1.01	0.0200	1.000	0	101	50.9	162				
Benzene	0.975	0.0200	1.000	0	97.5	64.3	133				
Toluene	1.02	0.0200	1.000	0	102	67.3	138				
1,2-Dibromoethane (EDB)	1.02	0.00500	1.000	0	102	50.5	154				
Ethylbenzene	1.02	0.0250	1.000	0	102	74	129				
m,p-Xylene	2.01	0.0500	2.000	0	101	70	124				
o-Xylene	0.935	0.0250	1.000	0	93.5	68.1	139				
Naphthalene	1.11	0.0500	1.000	0	111	46.5	167				
Surr: Dibromofluoromethane	0.825		1.250		66.0	56.5	129				
Surr: Toluene-d8	1.24		1.250		99.4	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.23		1.250		98.6	54.8	168				

**Work Order:** 1810381  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>MB-22401</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>10/25/2018</b>	RunNo: <b>47185</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>22401</b>		Analysis Date: <b>10/25/2018</b>	SeqNo: <b>918132</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.0500									
1,2-Dichloroethane	ND	0.0200									
Benzene	ND	0.0200									
Toluene	ND	0.0200									
1,2-Dibromoethane (EDB)	ND	0.00500									
Ethylbenzene	ND	0.0250									
m,p-Xylene	ND	0.0500									
o-Xylene	ND	0.0250									
Naphthalene	ND	0.0500									
Surr: Dibromofluoromethane	1.15		1.250		91.8	56.5	129				
Surr: Toluene-d8	1.22		1.250		97.8	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.18		1.250		94.8	54.8	168				

Sample ID <b>MB-22402</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>10/25/2018</b>	RunNo: <b>47163</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>22402</b>		Analysis Date: <b>10/25/2018</b>	SeqNo: <b>917541</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.0500									
1,2-Dichloroethane	ND	0.0200									
Benzene	ND	0.0200									
Toluene	ND	0.0200									
1,2-Dibromoethane (EDB)	ND	0.00500									
Ethylbenzene	ND	0.0250									
m,p-Xylene	ND	0.0500									
o-Xylene	ND	0.0250									
Naphthalene	ND	0.0500									
Surr: Dibromofluoromethane	0.831		1.250		66.5	56.5	129				
Surr: Toluene-d8	1.24		1.250		99.2	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.20		1.250		95.8	54.8	168				

**Work Order:** 1810381  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	<b>1810381-004BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/25/2018</b>	RunNo:	<b>47185</b>		
Client ID:	<b>S-KSB-18: 24ft</b>	Batch ID:	<b>22401</b>			Analysis Date:	<b>10/25/2018</b>	SeqNo:	<b>918107</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.0582						0		30	
1,2-Dichloroethane	ND	0.0233						0		30	
Benzene	ND	0.0233						0		30	
Toluene	ND	0.0233						0		30	
1,2-Dibromoethane (EDB)	ND	0.00582						0		30	
Ethylbenzene	ND	0.0291						0		30	
m,p-Xylene	ND	0.0582						0		30	
o-Xylene	ND	0.0291						0		30	
Naphthalene	ND	0.0582						0		30	
Surr: Dibromofluoromethane	1.34		1.455		92.1	56.5	129		0		
Surr: Toluene-d8	1.44		1.455		99.0	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.46		1.455		100	54.8	168		0		

Sample ID	<b>1810381-023BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/25/2018</b>	RunNo:	<b>47163</b>		
Client ID:	<b>S-KSB-23: 14ft</b>	Batch ID:	<b>22402</b>			Analysis Date:	<b>10/25/2018</b>	SeqNo:	<b>917529</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.0476						0		30	
1,2-Dichloroethane	ND	0.0190						0		30	
Benzene	ND	0.0190						0		30	
Toluene	ND	0.0190						0		30	
1,2-Dibromoethane (EDB)	ND	0.00476						0		30	
Ethylbenzene	ND	0.0238						0		30	
m,p-Xylene	ND	0.0476						0		30	
o-Xylene	ND	0.0238						0		30	
Naphthalene	ND	0.0476						0		30	
Surr: Dibromofluoromethane	0.942		1.189		79.3	56.5	129		0		
Surr: Toluene-d8	1.17		1.189		98.8	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.14		1.189		96.3	54.8	168		0		



**Work Order:** 1810381  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1810381-007BMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	10/25/2018	RunNo:	47185		
Client ID:	S-KSB-19: 12.5ft	Batch ID:	22401	Analysis Date:	10/26/2018	SeqNo:	918111				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.31	0.0536	1.073	0	122	58.5	167				
1,2-Dichloroethane	1.26	0.0215	1.073	0	117	51.3	139				
Benzene	1.35	0.0215	1.073	0	126	63.5	133				
Toluene	1.23	0.0215	1.073	0	114	63.4	132				
1,2-Dibromoethane (EDB)	1.14	0.00536	1.073	0	107	50.4	136				
Ethylbenzene	1.28	0.0268	1.073	0	119	54.5	134				
m,p-Xylene	2.44	0.0536	2.146	0	114	53.1	132				
o-Xylene	1.24	0.0268	1.073	0	116	53.3	139				
Naphthalene	1.17	0.0536	1.073	0	109	52.3	124				
Surr: Dibromofluoromethane	1.31		1.341		97.9	56.5	129				
Surr: Toluene-d8	1.33		1.341		99.5	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.36		1.341		102	54.8	168				

Sample ID	1810381-007BMSD	SampType:	MSD	Units:	mg/Kg-dry	Prep Date:	10/25/2018	RunNo:	47185		
Client ID:	S-KSB-19: 12.5ft	Batch ID:	22401	Analysis Date:	10/26/2018	SeqNo:	918112				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.25	0.0536	1.073	0	116	58.5	167	1.312	5.24	30	
1,2-Dichloroethane	1.21	0.0215	1.073	0	113	51.3	139	1.260	3.85	30	
Benzene	1.28	0.0215	1.073	0	120	63.5	133	1.353	5.34	30	
Toluene	1.18	0.0215	1.073	0	110	63.4	132	1.225	3.49	30	
1,2-Dibromoethane (EDB)	1.11	0.00536	1.073	0	103	50.4	136	1.144	3.43	30	
Ethylbenzene	1.22	0.0268	1.073	0	114	54.5	134	1.280	4.67	30	
m,p-Xylene	2.32	0.0536	2.146	0	108	53.1	132	2.438	4.82	30	
o-Xylene	1.19	0.0268	1.073	0	111	53.3	139	1.243	3.97	30	
Naphthalene	1.19	0.0536	1.073	0	111	52.3	124	1.171	1.76	30	
Surr: Dibromofluoromethane	1.33		1.341		98.9	56.5	129		0		
Surr: Toluene-d8	1.34		1.341		100	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.34		1.341		99.9	54.8	168		0		



**Work Order:** 1810381  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1810381-028BMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	10/25/2018	RunNo:	47163		
Client ID:	S-KSB-25: 6ft	Batch ID:	22402	Analysis Date:	10/26/2018	SeqNo:	917535				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.18	0.0539	1.078	0	109	58.5	167				
1,2-Dichloroethane	1.12	0.0216	1.078	0	104	51.3	139				
Benzene	1.10	0.0216	1.078	0	102	63.5	133				
Toluene	1.27	0.0216	1.078	0	118	63.4	132				
1,2-Dibromoethane (EDB)	1.20	0.00539	1.078	0	111	50.4	136				
Ethylbenzene	1.15	0.0270	1.078	0	107	54.5	134				
m,p-Xylene	2.26	0.0539	2.156	0	105	53.1	132				
o-Xylene	1.05	0.0270	1.078	0	97.5	53.3	139				
Naphthalene	1.19	0.0539	1.078	0	110	52.3	124				
Surr: Dibromofluoromethane	0.865		1.348		64.2	56.5	129				
Surr: Toluene-d8	1.49		1.348		111	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.33		1.348		99.0	54.8	168				

Sample ID	1810381-028BMSD	SampType:	MSD	Units:	mg/Kg-dry	Prep Date:	10/25/2018	RunNo:	47163		
Client ID:	S-KSB-25: 6ft	Batch ID:	22402	Analysis Date:	10/26/2018	SeqNo:	917536				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.19	0.0539	1.078	0	111	58.5	167	1.177	1.36	30	
1,2-Dichloroethane	1.23	0.0216	1.078	0	114	51.3	139	1.125	8.61	30	
Benzene	1.12	0.0216	1.078	0	104	63.5	133	1.104	1.40	30	
Toluene	1.07	0.0216	1.078	0	99.7	63.4	132	1.267	16.4	30	
1,2-Dibromoethane (EDB)	1.21	0.00539	1.078	0	112	50.4	136	1.197	1.24	30	
Ethylbenzene	1.15	0.0270	1.078	0	107	54.5	134	1.155	0.249	30	
m,p-Xylene	2.19	0.0539	2.156	0	102	53.1	132	2.261	3.08	30	
o-Xylene	1.02	0.0270	1.078	0	94.9	53.3	139	1.051	2.64	30	
Naphthalene	1.26	0.0539	1.078	0	117	52.3	124	1.189	5.93	30	
Surr: Dibromofluoromethane	0.867		1.348		64.3	56.5	129		0		
Surr: Toluene-d8	1.34		1.348		99.3	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.40		1.348		104	54.8	168		0		



**Work Order:** 1810381  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	<b>1810381-031BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/25/2018</b>	RunNo:	<b>47163</b>		
Client ID:	<b>S-KSB-26: 5.5ft</b>	Batch ID:	<b>22402</b>			Analysis Date:	<b>10/26/2018</b>	SeqNo:	<b>917855</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.0522						0		30	
1,2-Dichloroethane	ND	0.0209						0		30	
Benzene	ND	0.0209						0		30	
Toluene	ND	0.0209						0		30	
1,2-Dibromoethane (EDB)	ND	0.00522						0		30	
Ethylbenzene	ND	0.0261						0		30	
m,p-Xylene	ND	0.0522						0		30	
o-Xylene	ND	0.0261						0		30	
Naphthalene	ND	0.0522						0		30	
Surr: Dibromofluoromethane	1.00		1.304		76.8	56.5	129		0		
Surr: Toluene-d8	1.30		1.304		99.6	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.27		1.304		97.4	54.8	168		0		

Sample ID	<b>1810381-014BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/25/2018</b>	RunNo:	<b>47185</b>		
Client ID:	<b>S-KSB-21: 10ft</b>	Batch ID:	<b>22401</b>			Analysis Date:	<b>10/26/2018</b>	SeqNo:	<b>918121</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.0496						0		30	
1,2-Dichloroethane	ND	0.0198						0		30	
Benzene	ND	0.0198						0		30	
Toluene	ND	0.0198						0		30	
1,2-Dibromoethane (EDB)	ND	0.00496						0		30	
Ethylbenzene	ND	0.0248						0		30	
m,p-Xylene	ND	0.0496						0		30	
o-Xylene	ND	0.0248						0		30	
Naphthalene	ND	0.0496						0		30	
Surr: Dibromofluoromethane	1.14		1.239		91.8	56.5	129		0		
Surr: Toluene-d8	1.23		1.239		99.5	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.19		1.239		96.1	54.8	168		0		

**Work Order:** 1810381  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Sample Moisture (Percent Moisture)**

Sample ID <b>1810381-006ADUP</b>	SampType: <b>DUP</b>	Units: <b>wt%</b>	Prep Date: <b>10/24/2018</b>	RunNo: <b>47107</b>							
Client ID: <b>S-KSB-19: 8ft</b>	Batch ID: <b>R47107</b>	Analysis Date: <b>10/24/2018</b>	SeqNo: <b>916366</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Percent Moisture	19.2	0.500						18.55	3.47	20	
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Sample ID <b>1810381-017ADUP</b>	SampType: <b>DUP</b>	Units: <b>wt%</b>	Prep Date: <b>10/24/2018</b>	RunNo: <b>47107</b>							
Client ID: <b>S-KSB-22: 7.5ft</b>	Batch ID: <b>R47107</b>	Analysis Date: <b>10/24/2018</b>	SeqNo: <b>916378</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Percent Moisture	20.5	0.500						20.19	1.49	20	
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Sample ID <b>1810381-026ADUP</b>	SampType: <b>DUP</b>	Units: <b>wt%</b>	Prep Date: <b>10/24/2018</b>	RunNo: <b>47108</b>							
Client ID: <b>S-KSB-24: 13.5ft</b>	Batch ID: <b>R47108</b>	Analysis Date: <b>10/24/2018</b>	SeqNo: <b>916388</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Percent Moisture	16.5	0.500						16.15	2.07	20	
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Sample ID <b>1810381-031ADUP</b>	SampType: <b>DUP</b>	Units: <b>wt%</b>	Prep Date: <b>10/24/2018</b>	RunNo: <b>47108</b>							
Client ID: <b>S-KSB-26: 5.5ft</b>	Batch ID: <b>R47108</b>	Analysis Date: <b>10/24/2018</b>	SeqNo: <b>916394</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Percent Moisture	17.7	0.500						17.92	1.07	20	
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Client Name: **KANE**

 Work Order Number: **1810381**

 Logged by: **Brianna Barnes**

 Date Received: **10/24/2018 11:23:00 AM**
**Chain of Custody**

1. Is Chain of Custody complete? Yes  No  Not Present
2. How was the sample delivered? Client

**Log In**

3. Coolers are present? Yes  No  NA
4. Shipping container/cooler in good condition? Yes  No
5. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact) Yes  No  Not Required
6. Was an attempt made to cool the samples? Yes  No  NA
7. Were all items received at a temperature of >0°C to 10.0°C \* Yes  No  NA
8. Sample(s) in proper container(s)? Yes  No
9. Sufficient sample volume for indicated test(s)? Yes  No
10. Are samples properly preserved? Yes  No
11. Was preservative added to bottles? Yes  No  NA
12. Is there headspace in the VOA vials? Yes  No  NA
13. Did all samples containers arrive in good condition(unbroken)? Yes  No
14. Does paperwork match bottle labels? Yes  No
15. Are matrices correctly identified on Chain of Custody? Yes  No
16. Is it clear what analyses were requested? Yes  No
17. Were all holding times able to be met? Yes  No

**Special Handling (if applicable)**

18. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

**Item Information**

Item #	Temp °C
Cooler 2	2.1
Cooler1	2.1
Sample 1	5.3
Sample 2	1.6
Temp Blank 1	0.7

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



Client Name: **KANE**

Work Order Number: **1810381**

Logged by: **Brianna Barnes**

Date Received: **10/24/2018 11:23:00 AM**

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

# Chain of Custody Record & Laboratory Services Agreement

Date: 10/23/18 Page: 1 of 4

Project Name: Wexler - 82305

Project No: 82305-2

Collected by: Nate Evenson, Kane Env.

Location: 17125 Bothell Way NE, Bothell, WA

Report To (PM): Nate Evenson

PM Email: nevenson@kane-environmental.com

Laboratory Project No (Internal): 1910501

Special Remarks:

EDB target RL = 0.005 mg/kg

Sample Disposal:  Return to client  Disposal by lab (after 30 days)

Client: Kane Environmental  
Address: 4015 13th Ave W  
City, State, zip: Seattle, WA 98119  
Telephone: (206) 691-0476  
Fax: (206) 675-0656

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GV/BTEX	BTEX (PB, EB, MTBE, NpH)	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DH)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8082 / 608)	PCBs (EPA 8020 / 200.8)	Metals** (EPA 6020 / 200.8)	Total (T)   Dissolved (D)	Anions (C)***	EDB (8011)	Comments
1 S-KSB-18: 8ft	10/23/18	0743	S	X	X	X	X	X	X	X	X	X	X	X	X	X	
2 S-KSB-18: 12.5ft		0748		X	X	X	X	X	X	X	X	X	X	X	X	X	
3 S-KSB-18: 18.5ft		0755		X	X	X	X	X	X	X	X	X	X	X	X	X	
4 S-KSB-18: 24ft		0803		X	X	X	X	X	X	X	X	X	X	X	X	X	
5 S-KSB-19: 5.5ft		0832		X	X	X	X	X	X	X	X	X	X	X	X	X	
6 S-KSB-19: 8ft		0827		X	X	X	X	X	X	X	X	X	X	X	X	X	
7 S-KSB-19: 12.5ft		0844		X	X	X	X	X	X	X	X	X	X	X	X	X	
8 S-KSB-19: 17ft		0851		X	X	X	X	X	X	X	X	X	X	X	X	X	
9 S-KSB-19: 24ft		0858		X	X	X	X	X	X	X	X	X	X	X	X	X	
10 S-KSB-20: 6.5ft		0939		X	X	X	X	X	X	X	X	X	X	X	X	X	

\*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

\*\*Metals (Circle): MTC-A-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na N Pb Sb Se Sr Sn Ti U V Zn

\*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate-Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Retinquished	Date/Time	Received	Date/Time
X	10-21-18 11:23	X	10/23/18 1123
Retinquished	Date/Time	Received	Date/Time
X		X	





3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

# Chain of Custody Record & Laboratory Services Agreement

Client: Kane Environmental

Address: 4015 13th Ave W

City, State, Zip: Seattle, WA 98119

Telephone: (206) 691-0476

Fax: (206) 675-0650

Date: 10/23/18 Page: 2 of 4  
Project Name: Wexler - 82305  
Project No: 82305-2

Collected by: Nate Euronson, Kane Env.

Location: 18125 Botell Way NE, Botell, WA

Report To (PM): Nate Euronson

PM Email: neuronson@kane-environmental.com

Laboratory Project No (Internal): 19109821

Special Remarks: EDB target RL = 0.005 mg/kg

Sample Disposal:  Return to client  Disposal by lab (after 30 days)

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX, <u>EDB, PCB, MTE, NpH</u>	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (Dx)	SVOCs (EPA 8270 / 623)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) / Dissolved (D)	Anions (IC)**	EDB (8011)	Comments
1 S-KSB-20:144	10/23/18	0948	S	X	X	X	X	X	X	X	X	X	X	X	X		
2 S-KSB-20:17.544		0953		X	X	X	X	X	X	X	X	X	X	X	X		
3 S-KSB-21:6.544		0928		X	X	X	X	X	X	X	X	X	X	X	X		
4 S-KSB-21:1044		1022		X	X	X	X	X	X	X	X	X	X	X	X		
5 S-KSB-21:12.544		1029		X	X	X	X	X	X	X	X	X	X	X	X		
6 S-KSB-21:1844		1040		X	X	X	X	X	X	X	X	X	X	X	X		
7 S-KSB-22:7.544		1120		X	X	X	X	X	X	X	X	X	X	X	X		
8 S-KSB-22:1044		1121		X	X	X	X	X	X	X	X	X	X	X	X		
9 S-KSB-22:12.544		1137		X	X	X	X	X	X	X	X	X	X	X	X		
10 S-KSB-22:2044		1145		X	X	X	X	X	X	X	X	X	X	X	X		

\*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

\*\*Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Tl U V Zn

\*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished: [Signature] Date/Time: 10-24-18 11:23

Received: [Signature] Date/Time: 10/24/18 11:23

Turn-around Time:  Same Day  2 Day  3 Day  Standard





# Fremont

Analytical

3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

## Chain of Custody Record & Laboratory Services Agreement

Date: 10/23/18 Page: 3 of 4

Project Name: Wexler - 82305

Project No: 82305-2

Collected by: Nate Eenson, Kane Env.

Location: 19125 Bothell Way NE, Bothell, WA

Report To (PM): Nate Eenson

PM Email: nateenson@kane-environmental.com

Laboratory Project No (Internal): 18109581

Special Remarks: EDB target RL = 0.005 mg/kg

Sample Disposal:  Return to client  Disposal by lab (after 30 days)

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX, EDB, EXC, MTBE, NPEL	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8270 - SIM)	Metals** (EPA 6020 / 200.8)	Total (T) / Dissolved (D)	Anions (IC)***	EDB (801)	Comments
1- K58-23: S44	10/23/18	1257	S		X	X	X						X				
2- K5B-23: 944		1302															
3- K5B-23: 1444		1310															
4- K5B-23: 1844		1315															
5- K5B-24: 5.544		1324															
6- K5B-24: 13.544		1331															
7- K5B-24: 1944		1341															
8- K5B-25: 644		1357															
9- K5B-25: 1444		1403															
10- K5B-25: 2044		1412															

Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Metals (Circle): MICA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Tl U V Zn

Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished: *[Signature]* Date/Time: 10/24/18 11:23

Received: *[Signature]* Date/Time: 10/24/18 11:23

Turn-around Time:  Standard  3 Day  2 Day  Next Day  Same Day (specify) \_\_\_\_\_





3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

# Chain of Custody Record & Laboratory Services Agreement

Client: Kane Environmental

Address: 4015 13th Ave W

City, State zip: Seattle, WA 98119

Telephone: (206) 691-0476

Fax: (206) 675-0650

Date: 10/23/18 Page: 4 of 4

Project Name: Wexler - 82305

Project No: 82305-2

Collected by: Nate Eason, Kane Env.

Location: 19125 Bethell Way NE, Bethell, WA

Report To (PM): Nate Eason

PM Email: neason@kaneenvironmental.com

Laboratory Project No (Internal): 1910381

Special Remarks: EDB target RL = 0.005 mg/lug

Sample Disposal:  Return to client  Disposal by lab (after 30 days)

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX, BDC, MTBE, NapH	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DH)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T)   Dissolved (D)	Anions (C)***	EDB (801)	Comments
1 S-KSB-26:5.5ft	10/23/18	1440	S	X	X	X	X	X	X	X	X	X	X	X	X	X	
2 S-KSB-26:10.5ft		1448		X	X	X	X	X	X	X	X	X	X	X	X	X	
3 S-KSB-26:14.5ft		1453		X	X	X	X	X	X	X	X	X	X	X	X	X	
4 S-KSB-26:19ft		1502		X	X	X	X	X	X	X	X	X	X	X	X	X	
5 S-KSB-27:5.5ft		1527		X	X	X	X	X	X	X	X	X	X	X	X	X	
6 S-KSB-27:9ft		1541		X	X	X	X	X	X	X	X	X	X	X	X	X	
7 S-KSB-27:15ft		1547		X	X	X	X	X	X	X	X	X	X	X	X	X	
8 S-KSB-27:20ft		1555		X	X	X	X	X	X	X	X	X	X	X	X	X	
9																	
10																	

\*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water  
 \*\*Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Tl U V Zn  
 \*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate-Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished  Date/Time: 10-24-18 11:23  
 Received  Date/Time: 10/24/18 11:23  
 Relinquished  Date/Time: \_\_\_\_\_  
 Received  Date/Time: \_\_\_\_\_

Turn-around Time:  
 Standard  
 3 Day  
 2 Day  
 Next Day  
 Same Day (specify) \_\_\_\_\_



3600 Fremont Ave. N.  
Seattle, WA 98103  
T: (206) 352-3790  
F: (206) 352-7178  
info@fremontanalytical.com

**Kane Environmental, Inc.**  
Nate Evenson  
4015 13th Ave W.  
Seattle, WA 98103

**RE: Wexler - 82305**  
**Work Order Number: 1810456**

November 01, 2018

**Attention Nate Evenson:**

Fremont Analytical, Inc. received 43 sample(s) on 10/26/2018 for the analyses presented in the following report.

***Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.***  
***Gasoline by NWTPH-Gx***  
***Sample Moisture (Percent Moisture)***  
***Total Metals by EPA Method 6020***  
***Volatile Organic Compounds by EPA Method 8260C***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

A handwritten signature in black ink, appearing to read "Chelsea Ward".

Chelsea Ward  
Project Manager

DoD/ELAP Certification #L 17-135, ISO/IEC 17025:2005  
ORELAP Certification: WA 100009-007 (NELAP Recognized)



**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Work Order:** 1810456

## Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1810456-001	S-KSB-28: 5.5ft	10/24/2018 7:51 AM	10/26/2018 5:00 PM
1810456-002	S-KSB-28: 10ft	10/24/2018 8:01 AM	10/26/2018 5:00 PM
1810456-003	S-KSB-28: 15ft	10/24/2018 7:57 AM	10/26/2018 5:00 PM
1810456-004	S-KSB-28: 20ft	10/24/2018 8:06 AM	10/26/2018 5:00 PM
1810456-005	S-KSB-29: 5ft	10/24/2018 8:17 AM	10/26/2018 5:00 PM
1810456-006	S-KSB-29: 10ft	10/24/2018 8:26 AM	10/26/2018 5:00 PM
1810456-007	S-KSB-29: 15ft	10/24/2018 8:32 AM	10/26/2018 5:00 PM
1810456-008	S-KSB-29: 20ft	10/24/2018 8:42 AM	10/26/2018 5:00 PM
1810456-009	S-KSB-30: 6.5ft	10/24/2018 9:40 AM	10/26/2018 5:00 PM
1810456-010	S-KSB-30: 10ft	10/24/2018 9:47 AM	10/26/2018 5:00 PM
1810456-011	S-KSB-30: 14ft	10/24/2018 9:53 AM	10/26/2018 5:00 PM
1810456-012	S-KSB-30: 20ft	10/24/2018 10:00 AM	10/26/2018 5:00 PM
1810456-013	S-KSB-31: 2.5ft	10/24/2018 10:29 AM	10/26/2018 5:00 PM
1810456-014	S-KSB-31: 7ft	10/24/2018 10:38 AM	10/26/2018 5:00 PM
1810456-015	S-KSB-31: 13ft	10/24/2018 10:45 AM	10/26/2018 5:00 PM
1810456-016	S-KSB-31: 20ft	10/24/2018 10:55 AM	10/26/2018 5:00 PM
1810456-017	S-KSB-32: 4.5ft	10/24/2018 11:17 AM	10/26/2018 5:00 PM
1810456-018	S-KSB-32: 10ft	10/24/2018 11:15 AM	10/26/2018 5:00 PM
1810456-019	S-KSB-32: 17ft	10/24/2018 11:30 AM	10/26/2018 5:00 PM
1810456-020	S-KSB-32: 20ft	10/24/2018 11:35 AM	10/26/2018 5:00 PM
1810456-021	S-KSB-33: 5ft	10/24/2018 11:55 AM	10/26/2018 5:00 PM
1810456-022	S-KSB-33: 10ft	10/24/2018 12:00 PM	10/26/2018 5:00 PM
1810456-023	S-KSB-33: 15ft	10/24/2018 12:06 PM	10/26/2018 5:00 PM
1810456-024	S-KSB-33: 20ft	10/24/2018 12:10 PM	10/26/2018 5:00 PM
1810456-025	S-KSB-34: 2ft	10/24/2018 1:07 PM	10/26/2018 5:00 PM
1810456-026	S-KSB-34: 10ft	10/24/2018 1:18 PM	10/26/2018 5:00 PM
1810456-027	S-KSB-34: 15ft	10/24/2018 1:23 PM	10/26/2018 5:00 PM
1810456-028	S-KSB-34: 20ft	10/24/2018 1:28 PM	10/26/2018 5:00 PM
1810456-029	S-KSB-35: 5ft	10/24/2018 1:36 PM	10/26/2018 5:00 PM
1810456-030	S-KSB-35: 7ft	10/24/2018 1:46 PM	10/26/2018 5:00 PM
1810456-031	S-KSB-35: 20ft	10/24/2018 1:56 PM	10/26/2018 5:00 PM
1810456-032	S-KSB-36: 5ft	10/24/2018 2:10 PM	10/26/2018 5:00 PM
1810456-033	S-KSB-36: 12.5ft	10/24/2018 2:19 PM	10/26/2018 5:00 PM
1810456-034	S-KSB-36: 20ft	10/24/2018 2:28 PM	10/26/2018 5:00 PM
1810456-035	S-KSB-37: 6ft	10/24/2018 2:39 PM	10/26/2018 5:00 PM
1810456-036	S-KSB-37: 12.5ft	10/24/2018 2:44 PM	10/26/2018 5:00 PM



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**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Work Order:** 1810456

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## Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1810456-037	S-KSB-37: 20ft	10/24/2018 2:50 PM	10/26/2018 5:00 PM
1810456-038	S-KSB-38: 3.5ft	10/24/2018 3:02 PM	10/26/2018 5:00 PM
1810456-039	S-KSB-38: 7ft	10/24/2018 3:00 PM	10/26/2018 5:00 PM
1810456-040	S-KSB-38: 15ft	10/24/2018 3:20 PM	10/26/2018 5:00 PM
1810456-041	S-KSB-38: 23ft	10/24/2018 3:31 PM	10/26/2018 5:00 PM
1810456-042	S-KSB-38: 30ft	10/24/2018 3:39 PM	10/26/2018 5:00 PM
1810456-043	Trip Blank	10/23/2018 4:04 PM	10/26/2018 5:00 PM

**CLIENT:** Kane Environmental, Inc.

**Project:** Wexler - 82305

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**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-001  
**Client Sample ID:** S-KSB-28: 5.5ft

**Collection Date:** 10/24/2018 7:51:00 AM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22436 Analyst: SB			
Diesel (Fuel Oil)	ND	21.9		mg/Kg-dry	1	10/30/2018 7:56:31 AM
Heavy Oil	ND	54.9		mg/Kg-dry	1	10/30/2018 7:56:31 AM
Surr: 2-Fluorobiphenyl	101	50 - 150		%Rec	1	10/30/2018 7:56:31 AM
Surr: o-Terphenyl	112	50 - 150		%Rec	1	10/30/2018 7:56:31 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22450 Analyst: KT			
Gasoline	ND	6.22		mg/Kg-dry	1	10/29/2018 7:35:50 PM
Surr: 4-Bromofluorobenzene	108	65 - 135		%Rec	1	10/29/2018 7:35:50 PM
Surr: Toluene-d8	91.8	65 - 135		%Rec	1	10/29/2018 7:35:50 PM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22450 Analyst: KT			
Methyl tert-butyl ether (MTBE)	ND	0.0622		mg/Kg-dry	1	10/29/2018 7:35:50 PM
1,2-Dichloroethane	ND	0.0249		mg/Kg-dry	1	10/29/2018 7:35:50 PM
Benzene	ND	0.0249		mg/Kg-dry	1	10/29/2018 7:35:50 PM
Toluene	ND	0.0249		mg/Kg-dry	1	10/29/2018 7:35:50 PM
1,2-Dibromoethane (EDB)	ND	0.00622		mg/Kg-dry	1	10/29/2018 7:35:50 PM
Ethylbenzene	ND	0.0311		mg/Kg-dry	1	10/29/2018 7:35:50 PM
m,p-Xylene	ND	0.0622		mg/Kg-dry	1	10/29/2018 7:35:50 PM
o-Xylene	ND	0.0311		mg/Kg-dry	1	10/29/2018 7:35:50 PM
Naphthalene	ND	0.0622		mg/Kg-dry	1	10/29/2018 7:35:50 PM
Surr: Dibromofluoromethane	80.2	56.5 - 129		%Rec	1	10/29/2018 7:35:50 PM
Surr: Toluene-d8	99.1	64.5 - 151		%Rec	1	10/29/2018 7:35:50 PM
Surr: 1-Bromo-4-fluorobenzene	102	54.8 - 168		%Rec	1	10/29/2018 7:35:50 PM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22428 Analyst: WC			
Lead	1.88	0.197		mg/Kg-dry	1	10/29/2018 6:33:44 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47207 Analyst: SS			
Percent Moisture	20.5	0.500		wt%	1	10/29/2018 10:33:09 AM



**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-002  
**Client Sample ID:** S-KSB-28: 10ft

**Collection Date:** 10/24/2018 8:01:00 AM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22436		Analyst: SB	
Diesel (Fuel Oil)	ND	22.7		mg/Kg-dry	1	10/30/2018 8:26:22 AM
Heavy Oil	ND	56.9		mg/Kg-dry	1	10/30/2018 8:26:22 AM
Surr: 2-Fluorobiphenyl	72.6	50 - 150		%Rec	1	10/30/2018 8:26:22 AM
Surr: o-Terphenyl	80.3	50 - 150		%Rec	1	10/30/2018 8:26:22 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22450		Analyst: KT	
Gasoline	ND	5.50		mg/Kg-dry	1	10/29/2018 8:37:39 PM
Surr: 4-Bromofluorobenzene	104	65 - 135		%Rec	1	10/29/2018 8:37:39 PM
Surr: Toluene-d8	97.0	65 - 135		%Rec	1	10/29/2018 8:37:39 PM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22450		Analyst: KT	
Methyl tert-butyl ether (MTBE)	ND	0.0550		mg/Kg-dry	1	10/29/2018 8:37:39 PM
1,2-Dichloroethane	ND	0.0220		mg/Kg-dry	1	10/29/2018 8:37:39 PM
Benzene	ND	0.0220		mg/Kg-dry	1	10/29/2018 8:37:39 PM
Toluene	ND	0.0220		mg/Kg-dry	1	10/29/2018 8:37:39 PM
1,2-Dibromoethane (EDB)	ND	0.00550		mg/Kg-dry	1	10/29/2018 8:37:39 PM
Ethylbenzene	ND	0.0275		mg/Kg-dry	1	10/29/2018 8:37:39 PM
m,p-Xylene	ND	0.0550		mg/Kg-dry	1	10/29/2018 8:37:39 PM
o-Xylene	ND	0.0275		mg/Kg-dry	1	10/29/2018 8:37:39 PM
Naphthalene	ND	0.0550		mg/Kg-dry	1	10/29/2018 8:37:39 PM
Surr: Dibromofluoromethane	90.7	56.5 - 129		%Rec	1	10/29/2018 8:37:39 PM
Surr: Toluene-d8	99.9	64.5 - 151		%Rec	1	10/29/2018 8:37:39 PM
Surr: 1-Bromo-4-fluorobenzene	97.9	54.8 - 168		%Rec	1	10/29/2018 8:37:39 PM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22428		Analyst: WC	
Lead	2.16	0.169		mg/Kg-dry	1	10/29/2018 6:37:48 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47207		Analyst: SS	
Percent Moisture	17.9	0.500		wt%	1	10/29/2018 10:33:09 AM



**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-003  
**Client Sample ID:** S-KSB-28: 15ft

**Collection Date:** 10/24/2018 7:57:00 AM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22436 Analyst: SB			
Diesel (Fuel Oil)	ND	21.5		mg/Kg-dry	1	10/30/2018 9:31:29 AM
Heavy Oil	ND	53.7		mg/Kg-dry	1	10/30/2018 9:31:29 AM
Surr: 2-Fluorobiphenyl	64.4	50 - 150		%Rec	1	10/30/2018 9:31:29 AM
Surr: o-Terphenyl	71.9	50 - 150		%Rec	1	10/30/2018 9:31:29 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22450 Analyst: KT			
Gasoline	ND	5.50		mg/Kg-dry	1	10/29/2018 9:08:29 PM
Surr: 4-Bromofluorobenzene	103	65 - 135		%Rec	1	10/29/2018 9:08:29 PM
Surr: Toluene-d8	96.6	65 - 135		%Rec	1	10/29/2018 9:08:29 PM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22450 Analyst: KT			
Methyl tert-butyl ether (MTBE)	ND	0.0550		mg/Kg-dry	1	10/29/2018 9:08:29 PM
1,2-Dichloroethane	ND	0.0220		mg/Kg-dry	1	10/29/2018 9:08:29 PM
Benzene	ND	0.0220		mg/Kg-dry	1	10/29/2018 9:08:29 PM
Toluene	ND	0.0220		mg/Kg-dry	1	10/29/2018 9:08:29 PM
1,2-Dibromoethane (EDB)	ND	0.00550		mg/Kg-dry	1	10/29/2018 9:08:29 PM
Ethylbenzene	ND	0.0275		mg/Kg-dry	1	10/29/2018 9:08:29 PM
m,p-Xylene	ND	0.0550		mg/Kg-dry	1	10/29/2018 9:08:29 PM
o-Xylene	ND	0.0275		mg/Kg-dry	1	10/29/2018 9:08:29 PM
Naphthalene	ND	0.0550		mg/Kg-dry	1	10/29/2018 9:08:29 PM
Surr: Dibromofluoromethane	78.0	56.5 - 129		%Rec	1	10/29/2018 9:08:29 PM
Surr: Toluene-d8	99.4	64.5 - 151		%Rec	1	10/29/2018 9:08:29 PM
Surr: 1-Bromo-4-fluorobenzene	96.8	54.8 - 168		%Rec	1	10/29/2018 9:08:29 PM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22428 Analyst: WC			
Lead	1.87	0.188		mg/Kg-dry	1	10/29/2018 6:41:51 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47207 Analyst: SS			
Percent Moisture	15.8	0.500		wt%	1	10/29/2018 10:33:09 AM



**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-004  
**Client Sample ID:** S-KSB-28: 20ft

**Collection Date:** 10/24/2018 8:06:00 AM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22436 Analyst: SB			
Diesel (Fuel Oil)	ND	22.0		mg/Kg-dry	1	10/30/2018 10:01:35 AM
Heavy Oil	ND	54.9		mg/Kg-dry	1	10/30/2018 10:01:35 AM
Surr: 2-Fluorobiphenyl	52.3	50 - 150		%Rec	1	10/30/2018 10:01:35 AM
Surr: o-Terphenyl	57.6	50 - 150		%Rec	1	10/30/2018 10:01:35 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22450 Analyst: KT			
Gasoline	ND	5.43		mg/Kg-dry	1	10/29/2018 9:39:23 PM
Surr: 4-Bromofluorobenzene	104	65 - 135		%Rec	1	10/29/2018 9:39:23 PM
Surr: Toluene-d8	96.9	65 - 135		%Rec	1	10/29/2018 9:39:23 PM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22450 Analyst: KT			
Methyl tert-butyl ether (MTBE)	ND	0.0543		mg/Kg-dry	1	10/29/2018 9:39:23 PM
1,2-Dichloroethane	ND	0.0217		mg/Kg-dry	1	10/29/2018 9:39:23 PM
Benzene	ND	0.0217		mg/Kg-dry	1	10/29/2018 9:39:23 PM
Toluene	ND	0.0217		mg/Kg-dry	1	10/29/2018 9:39:23 PM
1,2-Dibromoethane (EDB)	ND	0.00543		mg/Kg-dry	1	10/29/2018 9:39:23 PM
Ethylbenzene	ND	0.0271		mg/Kg-dry	1	10/29/2018 9:39:23 PM
m,p-Xylene	ND	0.0543		mg/Kg-dry	1	10/29/2018 9:39:23 PM
o-Xylene	ND	0.0271		mg/Kg-dry	1	10/29/2018 9:39:23 PM
Naphthalene	ND	0.0543		mg/Kg-dry	1	10/29/2018 9:39:23 PM
Surr: Dibromofluoromethane	83.2	56.5 - 129		%Rec	1	10/29/2018 9:39:23 PM
Surr: Toluene-d8	99.9	64.5 - 151		%Rec	1	10/29/2018 9:39:23 PM
Surr: 1-Bromo-4-fluorobenzene	97.8	54.8 - 168		%Rec	1	10/29/2018 9:39:23 PM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22428 Analyst: WC			
Lead	1.65	0.181		mg/Kg-dry	1	10/29/2018 6:45:55 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47207 Analyst: SS			
Percent Moisture	18.7	0.500		wt%	1	10/29/2018 10:33:09 AM



**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-005  
**Client Sample ID:** S-KSB-29: 5ft

**Collection Date:** 10/24/2018 8:17:00 AM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22454		Analyst: SB	
Diesel (Fuel Oil)	ND	24.2		mg/Kg-dry	1	10/30/2018 8:12:17 PM
Heavy Oil	ND	60.5		mg/Kg-dry	1	10/30/2018 8:12:17 PM
Surr: 2-Fluorobiphenyl	67.2	50 - 150		%Rec	1	10/30/2018 8:12:17 PM
Surr: o-Terphenyl	70.5	50 - 150		%Rec	1	10/30/2018 8:12:17 PM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22450		Analyst: KT	
Gasoline	ND	5.55		mg/Kg-dry	1	10/29/2018 10:10:14 PM
Surr: 4-Bromofluorobenzene	103	65 - 135		%Rec	1	10/29/2018 10:10:14 PM
Surr: Toluene-d8	97.1	65 - 135		%Rec	1	10/29/2018 10:10:14 PM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22450		Analyst: KT	
Methyl tert-butyl ether (MTBE)	ND	0.0555		mg/Kg-dry	1	10/29/2018 10:10:14 PM
1,2-Dichloroethane	ND	0.0222		mg/Kg-dry	1	10/29/2018 10:10:14 PM
Benzene	ND	0.0222		mg/Kg-dry	1	10/29/2018 10:10:14 PM
Toluene	ND	0.0222		mg/Kg-dry	1	10/29/2018 10:10:14 PM
1,2-Dibromoethane (EDB)	ND	0.00555		mg/Kg-dry	1	10/29/2018 10:10:14 PM
Ethylbenzene	ND	0.0278		mg/Kg-dry	1	10/29/2018 10:10:14 PM
m,p-Xylene	ND	0.0555		mg/Kg-dry	1	10/29/2018 10:10:14 PM
o-Xylene	ND	0.0278		mg/Kg-dry	1	10/29/2018 10:10:14 PM
Naphthalene	ND	0.0555		mg/Kg-dry	1	10/29/2018 10:10:14 PM
Surr: Dibromofluoromethane	86.9	56.5 - 129		%Rec	1	10/29/2018 10:10:14 PM
Surr: Toluene-d8	99.0	64.5 - 151		%Rec	1	10/29/2018 10:10:14 PM
Surr: 1-Bromo-4-fluorobenzene	97.5	54.8 - 168		%Rec	1	10/29/2018 10:10:14 PM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22428		Analyst: WC	
Lead	2.08	0.189		mg/Kg-dry	1	10/29/2018 6:49:58 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47207		Analyst: SS	
Percent Moisture	21.4	0.500		wt%	1	10/29/2018 10:33:09 AM





**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-006  
**Client Sample ID:** S-KSB-29: 10ft

**Collection Date:** 10/24/2018 8:26:00 AM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22454 Analyst: SB

Diesel (Fuel Oil)	ND	23.2		mg/Kg-dry	1	10/30/2018 10:11:37 PM
Heavy Oil	ND	57.9		mg/Kg-dry	1	10/30/2018 10:11:37 PM
Surr: 2-Fluorobiphenyl	85.7	50 - 150		%Rec	1	10/30/2018 10:11:37 PM
Surr: o-Terphenyl	90.6	50 - 150		%Rec	1	10/30/2018 10:11:37 PM

**Gasoline by NWTPH-Gx**

Batch ID: 22450 Analyst: KT

Gasoline	ND	5.98		mg/Kg-dry	1	10/29/2018 10:41:10 PM
Surr: 4-Bromofluorobenzene	104	65 - 135		%Rec	1	10/29/2018 10:41:10 PM
Surr: Toluene-d8	96.8	65 - 135		%Rec	1	10/29/2018 10:41:10 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22450 Analyst: KT

Methyl tert-butyl ether (MTBE)	ND	0.0598		mg/Kg-dry	1	10/29/2018 10:41:10 PM
1,2-Dichloroethane	ND	0.0239		mg/Kg-dry	1	10/29/2018 10:41:10 PM
Benzene	ND	0.0239		mg/Kg-dry	1	10/29/2018 10:41:10 PM
Toluene	ND	0.0239		mg/Kg-dry	1	10/29/2018 10:41:10 PM
1,2-Dibromoethane (EDB)	ND	0.00598		mg/Kg-dry	1	10/29/2018 10:41:10 PM
Ethylbenzene	ND	0.0299		mg/Kg-dry	1	10/29/2018 10:41:10 PM
m,p-Xylene	ND	0.0598		mg/Kg-dry	1	10/29/2018 10:41:10 PM
o-Xylene	ND	0.0299		mg/Kg-dry	1	10/29/2018 10:41:10 PM
Naphthalene	ND	0.0598		mg/Kg-dry	1	10/29/2018 10:41:10 PM
Surr: Dibromofluoromethane	82.7	56.5 - 129		%Rec	1	10/29/2018 10:41:10 PM
Surr: Toluene-d8	98.9	64.5 - 151		%Rec	1	10/29/2018 10:41:10 PM
Surr: 1-Bromo-4-fluorobenzene	97.6	54.8 - 168		%Rec	1	10/29/2018 10:41:10 PM

**Total Metals by EPA Method 6020**

Batch ID: 22428 Analyst: WC

Lead	2.09	0.194		mg/Kg-dry	1	10/29/2018 6:54:02 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47207 Analyst: SS

Percent Moisture	23.7	0.500		wt%	1	10/29/2018 10:33:09 AM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-007  
**Client Sample ID:** S-KSB-29: 15ft

**Collection Date:** 10/24/2018 8:32:00 AM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22454 Analyst: SB			
Diesel (Fuel Oil)	ND	20.5		mg/Kg-dry	1	10/31/2018 11:37:00 AM
Heavy Oil	ND	51.3		mg/Kg-dry	1	10/31/2018 11:37:00 AM
Surr: 2-Fluorobiphenyl	72.8	50 - 150		%Rec	1	10/31/2018 11:37:00 AM
Surr: o-Terphenyl	75.7	50 - 150		%Rec	1	10/31/2018 11:37:00 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22450 Analyst: KT			
Gasoline	ND	5.07		mg/Kg-dry	1	10/29/2018 11:11:57 PM
Surr: 4-Bromofluorobenzene	110	65 - 135		%Rec	1	10/29/2018 11:11:57 PM
Surr: Toluene-d8	93.4	65 - 135		%Rec	1	10/29/2018 11:11:57 PM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22450 Analyst: KT			
Methyl tert-butyl ether (MTBE)	ND	0.0507		mg/Kg-dry	1	10/29/2018 11:11:57 PM
1,2-Dichloroethane	ND	0.0203		mg/Kg-dry	1	10/29/2018 11:11:57 PM
Benzene	ND	0.0203		mg/Kg-dry	1	10/29/2018 11:11:57 PM
Toluene	ND	0.0203		mg/Kg-dry	1	10/29/2018 11:11:57 PM
1,2-Dibromoethane (EDB)	ND	0.00507		mg/Kg-dry	1	10/29/2018 11:11:57 PM
Ethylbenzene	ND	0.0253		mg/Kg-dry	1	10/29/2018 11:11:57 PM
m,p-Xylene	ND	0.0507		mg/Kg-dry	1	10/29/2018 11:11:57 PM
o-Xylene	ND	0.0253		mg/Kg-dry	1	10/29/2018 11:11:57 PM
Naphthalene	ND	0.0507		mg/Kg-dry	1	10/29/2018 11:11:57 PM
Surr: Dibromofluoromethane	79.4	56.5 - 129		%Rec	1	10/29/2018 11:11:57 PM
Surr: Toluene-d8	99.1	64.5 - 151		%Rec	1	10/29/2018 11:11:57 PM
Surr: 1-Bromo-4-fluorobenzene	104	54.8 - 168		%Rec	1	10/29/2018 11:11:57 PM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22428 Analyst: WC			
Lead	1.88	0.182		mg/Kg-dry	1	10/29/2018 6:58:05 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47207 Analyst: SS			
Percent Moisture	16.8	0.500		wt%	1	10/29/2018 10:33:09 AM



**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-008  
**Client Sample ID:** S-KSB-29: 20ft

**Collection Date:** 10/24/2018 8:42:00 AM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22454		Analyst: SB	
Diesel (Fuel Oil)	ND	23.3		mg/Kg-dry	1	10/30/2018 11:10:58 PM
Heavy Oil	ND	58.2		mg/Kg-dry	1	10/30/2018 11:10:58 PM
Surr: 2-Fluorobiphenyl	92.4	50 - 150		%Rec	1	10/30/2018 11:10:58 PM
Surr: o-Terphenyl	97.4	50 - 150		%Rec	1	10/30/2018 11:10:58 PM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22450		Analyst: KT	
Gasoline	ND	6.19		mg/Kg-dry	1	10/29/2018 11:42:49 PM
Surr: 4-Bromofluorobenzene	100	65 - 135		%Rec	1	10/29/2018 11:42:49 PM
Surr: Toluene-d8	97.9	65 - 135		%Rec	1	10/29/2018 11:42:49 PM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22450		Analyst: KT	
Methyl tert-butyl ether (MTBE)	ND	0.0619		mg/Kg-dry	1	10/29/2018 11:42:49 PM
1,2-Dichloroethane	ND	0.0248		mg/Kg-dry	1	10/29/2018 11:42:49 PM
Benzene	ND	0.0248		mg/Kg-dry	1	10/29/2018 11:42:49 PM
Toluene	ND	0.0248		mg/Kg-dry	1	10/29/2018 11:42:49 PM
1,2-Dibromoethane (EDB)	ND	0.00619		mg/Kg-dry	1	10/29/2018 11:42:49 PM
Ethylbenzene	ND	0.0310		mg/Kg-dry	1	10/29/2018 11:42:49 PM
m,p-Xylene	ND	0.0619		mg/Kg-dry	1	10/29/2018 11:42:49 PM
o-Xylene	ND	0.0310		mg/Kg-dry	1	10/29/2018 11:42:49 PM
Naphthalene	ND	0.0619		mg/Kg-dry	1	10/29/2018 11:42:49 PM
Surr: Dibromofluoromethane	81.4	56.5 - 129		%Rec	1	10/29/2018 11:42:49 PM
Surr: Toluene-d8	104	64.5 - 151		%Rec	1	10/29/2018 11:42:49 PM
Surr: 1-Bromo-4-fluorobenzene	94.3	54.8 - 168		%Rec	1	10/29/2018 11:42:49 PM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22428		Analyst: WC	
Lead	3.58	0.195		mg/Kg-dry	1	10/29/2018 7:02:08 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47207		Analyst: SS	
Percent Moisture	25.2	0.500		wt%	1	10/29/2018 10:33:09 AM



**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-009  
**Client Sample ID:** S-KSB-30: 6.5ft

**Collection Date:** 10/24/2018 9:40:00 AM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22454 Analyst: SB			
Diesel (Fuel Oil)	ND	21.2		mg/Kg-dry	1	10/31/2018 12:07:15 PM
Heavy Oil	109	53.0		mg/Kg-dry	1	10/31/2018 12:07:15 PM
Surr: 2-Fluorobiphenyl	57.0	50 - 150		%Rec	1	10/31/2018 12:07:15 PM
Surr: o-Terphenyl	59.8	50 - 150		%Rec	1	10/31/2018 12:07:15 PM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22450 Analyst: KT			
Gasoline	55.2	6.05		mg/Kg-dry	1	10/30/2018 12:44:32 AM
Surr: 4-Bromofluorobenzene	107	65 - 135		%Rec	1	10/30/2018 12:44:32 AM
Surr: Toluene-d8	95.3	65 - 135		%Rec	1	10/30/2018 12:44:32 AM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22450 Analyst: KT			
Methyl tert-butyl ether (MTBE)	ND	0.0605		mg/Kg-dry	1	10/30/2018 12:44:32 AM
1,2-Dichloroethane	ND	0.0242		mg/Kg-dry	1	10/30/2018 12:44:32 AM
Benzene	ND	0.0242		mg/Kg-dry	1	10/30/2018 12:44:32 AM
Toluene	0.0270	0.0242		mg/Kg-dry	1	10/30/2018 12:44:32 AM
1,2-Dibromoethane (EDB)	ND	0.00605		mg/Kg-dry	1	10/30/2018 12:44:32 AM
Ethylbenzene	ND	0.0303		mg/Kg-dry	1	10/30/2018 12:44:32 AM
m,p-Xylene	0.0702	0.0605		mg/Kg-dry	1	10/30/2018 12:44:32 AM
o-Xylene	ND	0.0303		mg/Kg-dry	1	10/30/2018 12:44:32 AM
Naphthalene	ND	0.0605		mg/Kg-dry	1	10/30/2018 12:44:32 AM
Surr: Dibromofluoromethane	85.5	56.5 - 129		%Rec	1	10/30/2018 12:44:32 AM
Surr: Toluene-d8	99.5	64.5 - 151		%Rec	1	10/30/2018 12:44:32 AM
Surr: 1-Bromo-4-fluorobenzene	99.0	54.8 - 168		%Rec	1	10/30/2018 12:44:32 AM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22428 Analyst: WC			
Lead	7.63	0.194		mg/Kg-dry	1	10/29/2018 7:06:12 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47207 Analyst: SS			
Percent Moisture	19.3	0.500		wt%	1	10/29/2018 10:33:09 AM



**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-010  
**Client Sample ID:** S-KSB-30: 10ft

**Collection Date:** 10/24/2018 9:47:00 AM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22454		Analyst: SB	
Diesel (Fuel Oil)	ND	23.0		mg/Kg-dry	1	10/31/2018 12:10:23 AM
Heavy Oil	ND	57.4		mg/Kg-dry	1	10/31/2018 12:10:23 AM
Surr: 2-Fluorobiphenyl	103	50 - 150		%Rec	1	10/31/2018 12:10:23 AM
Surr: o-Terphenyl	110	50 - 150		%Rec	1	10/31/2018 12:10:23 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22450		Analyst: KT	
Gasoline	ND	5.95		mg/Kg-dry	1	10/30/2018 12:13:41 AM
Surr: 4-Bromofluorobenzene	113	65 - 135		%Rec	1	10/30/2018 12:13:41 AM
Surr: Toluene-d8	97.1	65 - 135		%Rec	1	10/30/2018 12:13:41 AM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22450		Analyst: KT	
Methyl tert-butyl ether (MTBE)	ND	0.0595		mg/Kg-dry	1	10/30/2018 12:13:41 AM
1,2-Dichloroethane	ND	0.0238		mg/Kg-dry	1	10/30/2018 12:13:41 AM
Benzene	ND	0.0238		mg/Kg-dry	1	10/30/2018 12:13:41 AM
Toluene	ND	0.0238		mg/Kg-dry	1	10/30/2018 12:13:41 AM
1,2-Dibromoethane (EDB)	ND	0.00595		mg/Kg-dry	1	10/30/2018 12:13:41 AM
Ethylbenzene	ND	0.0298		mg/Kg-dry	1	10/30/2018 12:13:41 AM
m,p-Xylene	ND	0.0595		mg/Kg-dry	1	10/30/2018 12:13:41 AM
o-Xylene	ND	0.0298		mg/Kg-dry	1	10/30/2018 12:13:41 AM
Naphthalene	ND	0.0595		mg/Kg-dry	1	10/30/2018 12:13:41 AM
Surr: Dibromofluoromethane	85.9	56.5 - 129		%Rec	1	10/30/2018 12:13:41 AM
Surr: Toluene-d8	99.9	64.5 - 151		%Rec	1	10/30/2018 12:13:41 AM
Surr: 1-Bromo-4-fluorobenzene	107	54.8 - 168		%Rec	1	10/30/2018 12:13:41 AM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22428		Analyst: WC	
Lead	2.22	0.182		mg/Kg-dry	1	10/29/2018 7:10:15 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47207		Analyst: SS	
Percent Moisture	20.8	0.500		wt%	1	10/29/2018 10:33:09 AM



**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-011  
**Client Sample ID:** S-KSB-30: 14ft

**Collection Date:** 10/24/2018 9:53:00 AM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22454 Analyst: SB			
Diesel (Fuel Oil)	ND	22.4		mg/Kg-dry	1	10/31/2018 12:40:05 AM
Heavy Oil	ND	56.0		mg/Kg-dry	1	10/31/2018 12:40:05 AM
Surr: 2-Fluorobiphenyl	60.3	50 - 150		%Rec	1	10/31/2018 12:40:05 AM
Surr: o-Terphenyl	65.0	50 - 150		%Rec	1	10/31/2018 12:40:05 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22450 Analyst: KT			
Gasoline	ND	6.23		mg/Kg-dry	1	10/30/2018 4:51:21 AM
Surr: 4-Bromofluorobenzene	107	65 - 135		%Rec	1	10/30/2018 4:51:21 AM
Surr: Toluene-d8	90.8	65 - 135		%Rec	1	10/30/2018 4:51:21 AM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22450 Analyst: KT			
Methyl tert-butyl ether (MTBE)	ND	0.0623		mg/Kg-dry	1	10/30/2018 4:51:21 AM
1,2-Dichloroethane	ND	0.0249		mg/Kg-dry	1	10/30/2018 4:51:21 AM
Benzene	ND	0.0249		mg/Kg-dry	1	10/30/2018 4:51:21 AM
Toluene	ND	0.0249		mg/Kg-dry	1	10/30/2018 4:51:21 AM
1,2-Dibromoethane (EDB)	ND	0.00623		mg/Kg-dry	1	10/30/2018 4:51:21 AM
Ethylbenzene	ND	0.0312		mg/Kg-dry	1	10/30/2018 4:51:21 AM
m,p-Xylene	ND	0.0623		mg/Kg-dry	1	10/30/2018 4:51:21 AM
o-Xylene	ND	0.0312		mg/Kg-dry	1	10/30/2018 4:51:21 AM
Naphthalene	0.0659	0.0623		mg/Kg-dry	1	10/30/2018 4:51:21 AM
Surr: Dibromofluoromethane	89.8	56.5 - 129		%Rec	1	10/30/2018 4:51:21 AM
Surr: Toluene-d8	98.4	64.5 - 151		%Rec	1	10/30/2018 4:51:21 AM
Surr: 1-Bromo-4-fluorobenzene	101	54.8 - 168		%Rec	1	10/30/2018 4:51:21 AM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22428 Analyst: WC			
Lead	1.90	0.169		mg/Kg-dry	1	10/29/2018 7:22:27 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47207 Analyst: SS			
Percent Moisture	16.5	0.500		wt%	1	10/29/2018 10:33:09 AM



**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-012  
**Client Sample ID:** S-KSB-30: 20ft

**Collection Date:** 10/24/2018 10:00:00 AM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22454 Analyst: SB

Diesel (Fuel Oil)	ND	21.9		mg/Kg-dry	1	10/31/2018 12:37:24 PM
Heavy Oil	ND	54.7		mg/Kg-dry	1	10/31/2018 12:37:24 PM
Surr: 2-Fluorobiphenyl	80.5	50 - 150		%Rec	1	10/31/2018 12:37:24 PM
Surr: o-Terphenyl	85.4	50 - 150		%Rec	1	10/31/2018 12:37:24 PM

**Gasoline by NWTPH-Gx**

Batch ID: 22450 Analyst: KT

Gasoline	ND	6.76		mg/Kg-dry	1	10/30/2018 5:53:04 AM
Surr: 4-Bromofluorobenzene	103	65 - 135		%Rec	1	10/30/2018 5:53:04 AM
Surr: Toluene-d8	96.3	65 - 135		%Rec	1	10/30/2018 5:53:04 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22450 Analyst: KT

Methyl tert-butyl ether (MTBE)	ND	0.0676		mg/Kg-dry	1	10/30/2018 5:53:04 AM
1,2-Dichloroethane	ND	0.0270		mg/Kg-dry	1	10/30/2018 5:53:04 AM
Benzene	ND	0.0270		mg/Kg-dry	1	10/30/2018 5:53:04 AM
Toluene	ND	0.0270		mg/Kg-dry	1	10/30/2018 5:53:04 AM
1,2-Dibromoethane (EDB)	ND	0.00676		mg/Kg-dry	1	10/30/2018 5:53:04 AM
Ethylbenzene	ND	0.0338		mg/Kg-dry	1	10/30/2018 5:53:04 AM
m,p-Xylene	ND	0.0676		mg/Kg-dry	1	10/30/2018 5:53:04 AM
o-Xylene	ND	0.0338		mg/Kg-dry	1	10/30/2018 5:53:04 AM
Naphthalene	ND	0.0676		mg/Kg-dry	1	10/30/2018 5:53:04 AM
Surr: Dibromofluoromethane	82.3	56.5 - 129		%Rec	1	10/30/2018 5:53:04 AM
Surr: Toluene-d8	98.7	64.5 - 151		%Rec	1	10/30/2018 5:53:04 AM
Surr: 1-Bromo-4-fluorobenzene	97.4	54.8 - 168		%Rec	1	10/30/2018 5:53:04 AM

**Total Metals by EPA Method 6020**

Batch ID: 22428 Analyst: WC

Lead	1.47	0.179		mg/Kg-dry	1	10/29/2018 7:26:31 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47207 Analyst: SS

Percent Moisture	17.3	0.500		wt%	1	10/29/2018 10:33:09 AM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-013  
**Client Sample ID:** S-KSB-31: 2.5ft

**Collection Date:** 10/24/2018 10:29:00 AM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22454 Analyst: SB			
Diesel (Fuel Oil)	ND	22.1		mg/Kg-dry	1	10/31/2018 1:07:43 PM
Heavy Oil	ND	55.2		mg/Kg-dry	1	10/31/2018 1:07:43 PM
Surr: 2-Fluorobiphenyl	56.4	50 - 150		%Rec	1	10/31/2018 1:07:43 PM
Surr: o-Terphenyl	59.1	50 - 150		%Rec	1	10/31/2018 1:07:43 PM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22450 Analyst: KT			
Gasoline	29.6	6.23		mg/Kg-dry	1	10/30/2018 8:58:25 AM
Surr: 4-Bromofluorobenzene	105	65 - 135		%Rec	1	10/30/2018 8:58:25 AM
Surr: Toluene-d8	106	65 - 135		%Rec	1	10/30/2018 8:58:25 AM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22450 Analyst: KT			
Methyl tert-butyl ether (MTBE)	ND	0.0623		mg/Kg-dry	1	10/30/2018 8:58:25 AM
1,2-Dichloroethane	ND	0.0249		mg/Kg-dry	1	10/30/2018 8:58:25 AM
Benzene	ND	0.0249		mg/Kg-dry	1	10/30/2018 8:58:25 AM
Toluene	ND	0.0249		mg/Kg-dry	1	10/30/2018 8:58:25 AM
1,2-Dibromoethane (EDB)	ND	0.00623		mg/Kg-dry	1	10/30/2018 8:58:25 AM
Ethylbenzene	0.0361	0.0311		mg/Kg-dry	1	10/30/2018 8:58:25 AM
m,p-Xylene	ND	0.0623		mg/Kg-dry	1	10/30/2018 8:58:25 AM
o-Xylene	ND	0.0311		mg/Kg-dry	1	10/30/2018 8:58:25 AM
Naphthalene	ND	0.0623		mg/Kg-dry	1	10/30/2018 8:58:25 AM
Surr: Dibromofluoromethane	77.3	56.5 - 129		%Rec	1	10/30/2018 8:58:25 AM
Surr: Toluene-d8	109	64.5 - 151		%Rec	1	10/30/2018 8:58:25 AM
Surr: 1-Bromo-4-fluorobenzene	98.5	54.8 - 168		%Rec	1	10/30/2018 8:58:25 AM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22429 Analyst: WC			
Lead	3.35	0.189		mg/Kg-dry	1	10/30/2018 3:06:53 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47207 Analyst: SS			
Percent Moisture	21.2	0.500		wt%	1	10/29/2018 10:33:09 AM



**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-014  
**Client Sample ID:** S-KSB-31: 7ft

**Collection Date:** 10/24/2018 10:38:00 AM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22454		Analyst: SB	
Diesel (Fuel Oil)	ND	22.8		mg/Kg-dry	1	10/31/2018 4:08:03 AM
Heavy Oil	ND	57.0		mg/Kg-dry	1	10/31/2018 4:08:03 AM
Surr: 2-Fluorobiphenyl	71.4	50 - 150		%Rec	1	10/31/2018 4:08:03 AM
Surr: o-Terphenyl	75.8	50 - 150		%Rec	1	10/31/2018 4:08:03 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22450		Analyst: KT	
Gasoline	ND	6.38		mg/Kg-dry	1	10/30/2018 6:23:57 AM
Surr: 4-Bromofluorobenzene	104	65 - 135		%Rec	1	10/30/2018 6:23:57 AM
Surr: Toluene-d8	97.0	65 - 135		%Rec	1	10/30/2018 6:23:57 AM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22450		Analyst: KT	
Methyl tert-butyl ether (MTBE)	ND	0.0638		mg/Kg-dry	1	10/30/2018 6:23:57 AM
1,2-Dichloroethane	ND	0.0255		mg/Kg-dry	1	10/30/2018 6:23:57 AM
Benzene	ND	0.0255		mg/Kg-dry	1	10/30/2018 6:23:57 AM
Toluene	ND	0.0255		mg/Kg-dry	1	10/30/2018 6:23:57 AM
1,2-Dibromoethane (EDB)	ND	0.00638		mg/Kg-dry	1	10/30/2018 6:23:57 AM
Ethylbenzene	ND	0.0319		mg/Kg-dry	1	10/30/2018 6:23:57 AM
m,p-Xylene	ND	0.0638		mg/Kg-dry	1	10/30/2018 6:23:57 AM
o-Xylene	ND	0.0319		mg/Kg-dry	1	10/30/2018 6:23:57 AM
Naphthalene	ND	0.0638		mg/Kg-dry	1	10/30/2018 6:23:57 AM
Surr: Dibromofluoromethane	72.8	56.5 - 129		%Rec	1	10/30/2018 6:23:57 AM
Surr: Toluene-d8	99.5	64.5 - 151		%Rec	1	10/30/2018 6:23:57 AM
Surr: 1-Bromo-4-fluorobenzene	97.7	54.8 - 168		%Rec	1	10/30/2018 6:23:57 AM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22429		Analyst: WC	
Lead	1.85	0.185		mg/Kg-dry	1	10/30/2018 3:31:15 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47207		Analyst: SS	
Percent Moisture	18.7	0.500		wt%	1	10/29/2018 10:33:09 AM



**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-015  
**Client Sample ID:** S-KSB-31: 13ft

**Collection Date:** 10/24/2018 10:45:00 AM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22454 Analyst: SB

Diesel (Fuel Oil)	ND	23.7		mg/Kg-dry	1	10/31/2018 4:37:41 AM
Heavy Oil	ND	59.1		mg/Kg-dry	1	10/31/2018 4:37:41 AM
Surr: 2-Fluorobiphenyl	11.4	50 - 150	S	%Rec	1	10/31/2018 4:37:41 AM
Surr: o-Terphenyl	13.3	50 - 150	S	%Rec	1	10/31/2018 4:37:41 AM

**NOTES:**

S - Outlying surrogate recovery(ies) observed. A duplicate analysis was performed and recovered within range.

**Gasoline by NWTPH-Gx**

Batch ID: 22450 Analyst: KT

Gasoline	ND	6.93		mg/Kg-dry	1	10/30/2018 8:27:28 AM
Surr: 4-Bromofluorobenzene	104	65 - 135		%Rec	1	10/30/2018 8:27:28 AM
Surr: Toluene-d8	96.7	65 - 135		%Rec	1	10/30/2018 8:27:28 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22450 Analyst: KT

Methyl tert-butyl ether (MTBE)	ND	0.0693		mg/Kg-dry	1	10/30/2018 8:27:28 AM
1,2-Dichloroethane	ND	0.0277		mg/Kg-dry	1	10/30/2018 8:27:28 AM
Benzene	ND	0.0277		mg/Kg-dry	1	10/30/2018 8:27:28 AM
Toluene	ND	0.0277		mg/Kg-dry	1	10/30/2018 8:27:28 AM
1,2-Dibromoethane (EDB)	ND	0.00693		mg/Kg-dry	1	10/30/2018 8:27:28 AM
Ethylbenzene	ND	0.0347		mg/Kg-dry	1	10/30/2018 8:27:28 AM
m,p-Xylene	ND	0.0693		mg/Kg-dry	1	10/30/2018 8:27:28 AM
o-Xylene	ND	0.0347		mg/Kg-dry	1	10/30/2018 8:27:28 AM
Naphthalene	ND	0.0693		mg/Kg-dry	1	10/30/2018 8:27:28 AM
Surr: Dibromofluoromethane	78.3	56.5 - 129		%Rec	1	10/30/2018 8:27:28 AM
Surr: Toluene-d8	99.3	64.5 - 151		%Rec	1	10/30/2018 8:27:28 AM
Surr: 1-Bromo-4-fluorobenzene	97.8	54.8 - 168		%Rec	1	10/30/2018 8:27:28 AM

**Total Metals by EPA Method 6020**

Batch ID: 22429 Analyst: WC

Lead	1.64	0.192		mg/Kg-dry	1	10/30/2018 3:35:18 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47207 Analyst: SS

Percent Moisture	19.2	0.500		wt%	1	10/29/2018 10:33:09 AM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-016  
**Client Sample ID:** S-KSB-31: 20ft

**Collection Date:** 10/24/2018 10:55:00 AM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22454 Analyst: SB			
Diesel (Fuel Oil)	ND	24.8		mg/Kg-dry	1	10/31/2018 5:36:59 AM
Heavy Oil	ND	62.1		mg/Kg-dry	1	10/31/2018 5:36:59 AM
Surr: 2-Fluorobiphenyl	54.1	50 - 150		%Rec	1	10/31/2018 5:36:59 AM
Surr: o-Terphenyl	58.0	50 - 150		%Rec	1	10/31/2018 5:36:59 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22450 Analyst: KT			
Gasoline	ND	7.67		mg/Kg-dry	1	10/30/2018 6:54:48 AM
Surr: 4-Bromofluorobenzene	104	65 - 135		%Rec	1	10/30/2018 6:54:48 AM
Surr: Toluene-d8	106	65 - 135		%Rec	1	10/30/2018 6:54:48 AM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22450 Analyst: KT			
Methyl tert-butyl ether (MTBE)	ND	0.0767		mg/Kg-dry	1	10/30/2018 6:54:48 AM
1,2-Dichloroethane	ND	0.0307		mg/Kg-dry	1	10/30/2018 6:54:48 AM
Benzene	ND	0.0307		mg/Kg-dry	1	10/30/2018 6:54:48 AM
Toluene	ND	0.0307		mg/Kg-dry	1	10/30/2018 6:54:48 AM
1,2-Dibromoethane (EDB)	ND	0.00767		mg/Kg-dry	1	10/30/2018 6:54:48 AM
Ethylbenzene	ND	0.0384		mg/Kg-dry	1	10/30/2018 6:54:48 AM
m,p-Xylene	ND	0.0767		mg/Kg-dry	1	10/30/2018 6:54:48 AM
o-Xylene	ND	0.0384		mg/Kg-dry	1	10/30/2018 6:54:48 AM
Naphthalene	ND	0.0767		mg/Kg-dry	1	10/30/2018 6:54:48 AM
Surr: Dibromofluoromethane	82.1	56.5 - 129		%Rec	1	10/30/2018 6:54:48 AM
Surr: Toluene-d8	109	64.5 - 151		%Rec	1	10/30/2018 6:54:48 AM
Surr: 1-Bromo-4-fluorobenzene	97.9	54.8 - 168		%Rec	1	10/30/2018 6:54:48 AM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22429 Analyst: WC			
Lead	3.22	0.183		mg/Kg-dry	1	10/30/2018 3:39:21 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47207 Analyst: SS			
Percent Moisture	20.4	0.500		wt%	1	10/29/2018 10:33:09 AM



**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-017  
**Client Sample ID:** S-KSB-32: 4.5ft

**Collection Date:** 10/24/2018 11:17:00 AM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22454 Analyst: SB			
Diesel (Fuel Oil)	ND	18.5		mg/Kg-dry	1	10/31/2018 6:06:45 AM
Heavy Oil	ND	46.3		mg/Kg-dry	1	10/31/2018 6:06:45 AM
Surr: 2-Fluorobiphenyl	88.5	50 - 150		%Rec	1	10/31/2018 6:06:45 AM
Surr: o-Terphenyl	95.2	50 - 150		%Rec	1	10/31/2018 6:06:45 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22450 Analyst: KT			
Gasoline	ND	7.10		mg/Kg-dry	1	10/30/2018 7:25:40 AM
Surr: 4-Bromofluorobenzene	102	65 - 135		%Rec	1	10/30/2018 7:25:40 AM
Surr: Toluene-d8	96.7	65 - 135		%Rec	1	10/30/2018 7:25:40 AM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22450 Analyst: KT			
Methyl tert-butyl ether (MTBE)	ND	0.0710		mg/Kg-dry	1	10/30/2018 7:25:40 AM
1,2-Dichloroethane	ND	0.0284		mg/Kg-dry	1	10/30/2018 7:25:40 AM
Benzene	ND	0.0284		mg/Kg-dry	1	10/30/2018 7:25:40 AM
Toluene	ND	0.0284		mg/Kg-dry	1	10/30/2018 7:25:40 AM
1,2-Dibromoethane (EDB)	ND	0.00710		mg/Kg-dry	1	10/30/2018 7:25:40 AM
Ethylbenzene	ND	0.0355		mg/Kg-dry	1	10/30/2018 7:25:40 AM
m,p-Xylene	ND	0.0710		mg/Kg-dry	1	10/30/2018 7:25:40 AM
o-Xylene	ND	0.0355		mg/Kg-dry	1	10/30/2018 7:25:40 AM
Naphthalene	ND	0.0710		mg/Kg-dry	1	10/30/2018 7:25:40 AM
Surr: Dibromofluoromethane	72.2	56.5 - 129		%Rec	1	10/30/2018 7:25:40 AM
Surr: Toluene-d8	99.7	64.5 - 151		%Rec	1	10/30/2018 7:25:40 AM
Surr: 1-Bromo-4-fluorobenzene	96.5	54.8 - 168		%Rec	1	10/30/2018 7:25:40 AM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22429 Analyst: WC			
Lead	1.64	0.160		mg/Kg-dry	1	10/30/2018 3:52:14 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47207 Analyst: SS			
Percent Moisture	3.83	0.500		wt%	1	10/29/2018 10:33:09 AM



**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-018  
**Client Sample ID:** S-KSB-32: 10ft

**Collection Date:** 10/24/2018 11:15:00 AM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22454 Analyst: SB

Diesel (Fuel Oil)	ND	22.4		mg/Kg-dry	1	10/31/2018 6:36:29 AM
Heavy Oil	ND	56.0		mg/Kg-dry	1	10/31/2018 6:36:29 AM
Surr: 2-Fluorobiphenyl	73.1	50 - 150		%Rec	1	10/31/2018 6:36:29 AM
Surr: o-Terphenyl	77.9	50 - 150		%Rec	1	10/31/2018 6:36:29 AM

**Gasoline by NWTPH-Gx**

Batch ID: 22450 Analyst: KT

Gasoline	327	77.4	D	mg/Kg-dry	10	10/30/2018 12:35:06 PM
Surr: 4-Bromofluorobenzene	101	65 - 135	D	%Rec	10	10/30/2018 12:35:06 PM
Surr: Toluene-d8	98.1	65 - 135	D	%Rec	10	10/30/2018 12:35:06 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22450 Analyst: KT

Methyl tert-butyl ether (MTBE)	ND	0.0774		mg/Kg-dry	1	10/30/2018 10:00:19 AM
1,2-Dichloroethane	ND	0.0310		mg/Kg-dry	1	10/30/2018 10:00:19 AM
Benzene	ND	0.0310		mg/Kg-dry	1	10/30/2018 10:00:19 AM
Toluene	ND	0.0310		mg/Kg-dry	1	10/30/2018 10:00:19 AM
1,2-Dibromoethane (EDB)	ND	0.00774		mg/Kg-dry	1	10/30/2018 10:00:19 AM
Ethylbenzene	0.334	0.0387		mg/Kg-dry	1	10/30/2018 10:00:19 AM
m,p-Xylene	0.939	0.0774		mg/Kg-dry	1	10/30/2018 10:00:19 AM
o-Xylene	0.235	0.0387		mg/Kg-dry	1	10/30/2018 10:00:19 AM
Naphthalene	0.640	0.0774		mg/Kg-dry	1	10/30/2018 10:00:19 AM
Surr: Dibromofluoromethane	73.4	56.5 - 129		%Rec	1	10/30/2018 10:00:19 AM
Surr: Toluene-d8	98.4	64.5 - 151		%Rec	1	10/30/2018 10:00:19 AM
Surr: 1-Bromo-4-fluorobenzene	96.9	54.8 - 168		%Rec	1	10/30/2018 10:00:19 AM

**Total Metals by EPA Method 6020**

Batch ID: 22429 Analyst: WC

Lead	1.90	0.194		mg/Kg-dry	1	10/30/2018 3:56:17 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47207 Analyst: SS

Percent Moisture	19.6	0.500		wt%	1	10/29/2018 10:33:09 AM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-019  
**Client Sample ID:** S-KSB-32: 17ft

**Collection Date:** 10/24/2018 11:30:00 AM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22454      Analyst: SB

Diesel (Fuel Oil)	ND	20.9		mg/Kg-dry	1	10/31/2018 7:06:22 AM
Heavy Oil	ND	52.2		mg/Kg-dry	1	10/31/2018 7:06:22 AM
Surr: 2-Fluorobiphenyl	65.8	50 - 150		%Rec	1	10/31/2018 7:06:22 AM
Surr: o-Terphenyl	68.7	50 - 150		%Rec	1	10/31/2018 7:06:22 AM

**Gasoline by NWTPH-Gx**

Batch ID: 22450      Analyst: KT

Gasoline	127	6.92		mg/Kg-dry	1	10/30/2018 9:29:22 AM
Surr: 4-Bromofluorobenzene	108	65 - 135		%Rec	1	10/30/2018 9:29:22 AM
Surr: Toluene-d8	97.6	65 - 135		%Rec	1	10/30/2018 9:29:22 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22450      Analyst: KT

Methyl tert-butyl ether (MTBE)	ND	0.0692		mg/Kg-dry	1	10/30/2018 9:29:22 AM
1,2-Dichloroethane	ND	0.0277		mg/Kg-dry	1	10/30/2018 9:29:22 AM
Benzene	ND	0.0277		mg/Kg-dry	1	10/30/2018 9:29:22 AM
Toluene	ND	0.0277		mg/Kg-dry	1	10/30/2018 9:29:22 AM
1,2-Dibromoethane (EDB)	ND	0.00692		mg/Kg-dry	1	10/30/2018 9:29:22 AM
Ethylbenzene	0.0966	0.0346		mg/Kg-dry	1	10/30/2018 9:29:22 AM
m,p-Xylene	0.197	0.0692		mg/Kg-dry	1	10/30/2018 9:29:22 AM
o-Xylene	0.0615	0.0346		mg/Kg-dry	1	10/30/2018 9:29:22 AM
Naphthalene	0.316	0.0692		mg/Kg-dry	1	10/30/2018 9:29:22 AM
Surr: Dibromofluoromethane	68.7	56.5 - 129		%Rec	1	10/30/2018 9:29:22 AM
Surr: Toluene-d8	101	64.5 - 151		%Rec	1	10/30/2018 9:29:22 AM
Surr: 1-Bromo-4-fluorobenzene	101	54.8 - 168		%Rec	1	10/30/2018 9:29:22 AM

**Total Metals by EPA Method 6020**

Batch ID: 22429      Analyst: WC

Lead	1.51	0.173		mg/Kg-dry	1	10/30/2018 4:00:21 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47223      Analyst: SS

Percent Moisture	16.2	0.500		wt%	1	10/29/2018 3:15:30 PM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-020  
**Client Sample ID:** S-KSB-32: 20ft

**Collection Date:** 10/24/2018 11:35:00 AM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>					Batch ID: 22454	Analyst: SB
Diesel (Fuel Oil)	ND	22.9		mg/Kg-dry	1	10/31/2018 7:36:15 AM
Heavy Oil	ND	57.2		mg/Kg-dry	1	10/31/2018 7:36:15 AM
Surr: 2-Fluorobiphenyl	86.2	50 - 150		%Rec	1	10/31/2018 7:36:15 AM
Surr: o-Terphenyl	90.7	50 - 150		%Rec	1	10/31/2018 7:36:15 AM
<b><u>Gasoline by NWTPH-Gx</u></b>					Batch ID: 22450	Analyst: KT
Gasoline	15.7	6.95		mg/Kg-dry	1	10/30/2018 7:56:31 AM
Surr: 4-Bromofluorobenzene	103	65 - 135		%Rec	1	10/30/2018 7:56:31 AM
Surr: Toluene-d8	96.7	65 - 135		%Rec	1	10/30/2018 7:56:31 AM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>					Batch ID: 22450	Analyst: KT
Methyl tert-butyl ether (MTBE)	ND	0.0695		mg/Kg-dry	1	10/30/2018 7:56:31 AM
1,2-Dichloroethane	ND	0.0278		mg/Kg-dry	1	10/30/2018 7:56:31 AM
Benzene	ND	0.0278		mg/Kg-dry	1	10/30/2018 7:56:31 AM
Toluene	ND	0.0278		mg/Kg-dry	1	10/30/2018 7:56:31 AM
1,2-Dibromoethane (EDB)	ND	0.00695		mg/Kg-dry	1	10/30/2018 7:56:31 AM
Ethylbenzene	ND	0.0347		mg/Kg-dry	1	10/30/2018 7:56:31 AM
m,p-Xylene	ND	0.0695		mg/Kg-dry	1	10/30/2018 7:56:31 AM
o-Xylene	ND	0.0347		mg/Kg-dry	1	10/30/2018 7:56:31 AM
Naphthalene	ND	0.0695		mg/Kg-dry	1	10/30/2018 7:56:31 AM
Surr: Dibromofluoromethane	75.9	56.5 - 129		%Rec	1	10/30/2018 7:56:31 AM
Surr: Toluene-d8	100	64.5 - 151		%Rec	1	10/30/2018 7:56:31 AM
Surr: 1-Bromo-4-fluorobenzene	96.8	54.8 - 168		%Rec	1	10/30/2018 7:56:31 AM
<b><u>Total Metals by EPA Method 6020</u></b>					Batch ID: 22429	Analyst: WC
Lead	1.60	0.186		mg/Kg-dry	1	10/30/2018 4:04:22 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>					Batch ID: R47223	Analyst: SS
Percent Moisture	20.4	0.500		wt%	1	10/29/2018 3:15:30 PM



**Client:** Kane Environmental, Inc.

**Collection Date:** 10/24/2018 11:55:00 AM

**Project:** Wexler - 82305

**Lab ID:** 1810456-021

**Matrix:** Soil

**Client Sample ID:** S-KSB-33: 5ft

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22454 Analyst: SB

Diesel (Fuel Oil)	ND	23.4		mg/Kg-dry	1	10/31/2018 8:06:12 AM
Heavy Oil	ND	58.5		mg/Kg-dry	1	10/31/2018 8:06:12 AM
Surr: 2-Fluorobiphenyl	114	50 - 150		%Rec	1	10/31/2018 8:06:12 AM
Surr: o-Terphenyl	119	50 - 150		%Rec	1	10/31/2018 8:06:12 AM

**Gasoline by NWTPH-Gx**

Batch ID: 22451 Analyst: CR

Gasoline	ND	6.96		mg/Kg-dry	1	10/30/2018 7:03:49 AM
Surr: 4-Bromofluorobenzene	96.5	65 - 135		%Rec	1	10/30/2018 7:03:49 AM
Surr: Toluene-d8	102	65 - 135		%Rec	1	10/30/2018 7:03:49 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22451 Analyst: CR

Methyl tert-butyl ether (MTBE)	ND	0.0696		mg/Kg-dry	1	10/30/2018 7:03:49 AM
1,2-Dichloroethane	ND	0.0279		mg/Kg-dry	1	10/30/2018 7:03:49 AM
Benzene	ND	0.0279		mg/Kg-dry	1	10/30/2018 7:03:49 AM
Toluene	ND	0.0279		mg/Kg-dry	1	10/30/2018 7:03:49 AM
1,2-Dibromoethane (EDB)	ND	0.00696		mg/Kg-dry	1	10/30/2018 7:03:49 AM
Ethylbenzene	ND	0.0348		mg/Kg-dry	1	10/30/2018 7:03:49 AM
m,p-Xylene	ND	0.0696		mg/Kg-dry	1	10/30/2018 7:03:49 AM
o-Xylene	ND	0.0348		mg/Kg-dry	1	10/30/2018 7:03:49 AM
Naphthalene	ND	0.0696		mg/Kg-dry	1	10/30/2018 7:03:49 AM
Surr: Dibromofluoromethane	95.4	56.5 - 129		%Rec	1	10/30/2018 7:03:49 AM
Surr: Toluene-d8	102	64.5 - 151		%Rec	1	10/30/2018 7:03:49 AM
Surr: 1-Bromo-4-fluorobenzene	94.8	54.8 - 168		%Rec	1	10/30/2018 7:03:49 AM

**Total Metals by EPA Method 6020**

Batch ID: 22429 Analyst: WC

Lead	2.66	0.193		mg/Kg-dry	1	10/30/2018 4:08:23 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47223 Analyst: SS

Percent Moisture	17.3	0.500		wt%	1	10/29/2018 3:15:30 PM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-022  
**Client Sample ID:** S-KSB-33: 10ft

**Collection Date:** 10/24/2018 12:00:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>					Batch ID: 22454	Analyst: SB
Diesel (Fuel Oil)	ND	23.2		mg/Kg-dry	1	10/31/2018 8:36:08 AM
Heavy Oil	ND	57.9		mg/Kg-dry	1	10/31/2018 8:36:08 AM
Surr: 2-Fluorobiphenyl	51.0	50 - 150		%Rec	1	10/31/2018 8:36:08 AM
Surr: o-Terphenyl	50.9	50 - 150		%Rec	1	10/31/2018 8:36:08 AM
<b><u>Gasoline by NWTPH-Gx</u></b>					Batch ID: 22451	Analyst: CR
Gasoline	ND	5.74		mg/Kg-dry	1	10/30/2018 8:05:34 AM
Surr: 4-Bromofluorobenzene	101	65 - 135		%Rec	1	10/30/2018 8:05:34 AM
Surr: Toluene-d8	104	65 - 135		%Rec	1	10/30/2018 8:05:34 AM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>					Batch ID: 22451	Analyst: CR
Methyl tert-butyl ether (MTBE)	ND	0.0574		mg/Kg-dry	1	10/30/2018 8:05:34 AM
1,2-Dichloroethane	ND	0.0230		mg/Kg-dry	1	10/30/2018 8:05:34 AM
Benzene	ND	0.0230		mg/Kg-dry	1	10/30/2018 8:05:34 AM
Toluene	ND	0.0230		mg/Kg-dry	1	10/30/2018 8:05:34 AM
1,2-Dibromoethane (EDB)	ND	0.00574		mg/Kg-dry	1	10/30/2018 8:05:34 AM
Ethylbenzene	ND	0.0287		mg/Kg-dry	1	10/30/2018 8:05:34 AM
m,p-Xylene	ND	0.0574		mg/Kg-dry	1	10/30/2018 8:05:34 AM
o-Xylene	ND	0.0287		mg/Kg-dry	1	10/30/2018 8:05:34 AM
Naphthalene	ND	0.0574		mg/Kg-dry	1	10/30/2018 8:05:34 AM
Surr: Dibromofluoromethane	94.4	56.5 - 129		%Rec	1	10/30/2018 8:05:34 AM
Surr: Toluene-d8	101	64.5 - 151		%Rec	1	10/30/2018 8:05:34 AM
Surr: 1-Bromo-4-fluorobenzene	99.0	54.8 - 168		%Rec	1	10/30/2018 8:05:34 AM
<b><u>Total Metals by EPA Method 6020</u></b>					Batch ID: 22429	Analyst: WC
Lead	1.60	0.188		mg/Kg-dry	1	10/30/2018 4:12:24 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>					Batch ID: R47223	Analyst: SS
Percent Moisture	17.5	0.500		wt%	1	10/29/2018 3:15:30 PM



**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-023  
**Client Sample ID:** S-KSB-33: 15ft

**Collection Date:** 10/24/2018 12:06:00 PM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22454 Analyst: SB			
Diesel (Fuel Oil)	ND	23.6		mg/Kg-dry	1	10/31/2018 10:36:44 AM
Heavy Oil	ND	59.1		mg/Kg-dry	1	10/31/2018 10:36:44 AM
Surr: 2-Fluorobiphenyl	78.3	50 - 150		%Rec	1	10/31/2018 10:36:44 AM
Surr: o-Terphenyl	83.6	50 - 150		%Rec	1	10/31/2018 10:36:44 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22451 Analyst: CR			
Gasoline	ND	7.44		mg/Kg-dry	1	10/30/2018 8:36:25 AM
Surr: 4-Bromofluorobenzene	101	65 - 135		%Rec	1	10/30/2018 8:36:25 AM
Surr: Toluene-d8	103	65 - 135		%Rec	1	10/30/2018 8:36:25 AM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22451 Analyst: CR			
Methyl tert-butyl ether (MTBE)	ND	0.0744		mg/Kg-dry	1	10/30/2018 8:36:25 AM
1,2-Dichloroethane	ND	0.0297		mg/Kg-dry	1	10/30/2018 8:36:25 AM
Benzene	ND	0.0297		mg/Kg-dry	1	10/30/2018 8:36:25 AM
Toluene	ND	0.0297		mg/Kg-dry	1	10/30/2018 8:36:25 AM
1,2-Dibromoethane (EDB)	ND	0.00744		mg/Kg-dry	1	10/30/2018 8:36:25 AM
Ethylbenzene	ND	0.0372		mg/Kg-dry	1	10/30/2018 8:36:25 AM
m,p-Xylene	ND	0.0744		mg/Kg-dry	1	10/30/2018 8:36:25 AM
o-Xylene	ND	0.0372		mg/Kg-dry	1	10/30/2018 8:36:25 AM
Naphthalene	ND	0.0744		mg/Kg-dry	1	10/30/2018 8:36:25 AM
Surr: Dibromofluoromethane	95.3	56.5 - 129		%Rec	1	10/30/2018 8:36:25 AM
Surr: Toluene-d8	102	64.5 - 151		%Rec	1	10/30/2018 8:36:25 AM
Surr: 1-Bromo-4-fluorobenzene	95.4	54.8 - 168		%Rec	1	10/30/2018 8:36:25 AM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22429 Analyst: WC			
Lead	1.99	0.175		mg/Kg-dry	1	10/30/2018 4:16:26 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47223 Analyst: SS			
Percent Moisture	19.6	0.500		wt%	1	10/29/2018 3:15:30 PM



**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-024  
**Client Sample ID:** S-KSB-33: 20ft

**Collection Date:** 10/24/2018 12:10:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22454 Analyst: SB			
Diesel (Fuel Oil)	ND	22.4		mg/Kg-dry	1	10/31/2018 11:06:53 AM
Heavy Oil	ND	56.1		mg/Kg-dry	1	10/31/2018 11:06:53 AM
Surr: 2-Fluorobiphenyl	80.3	50 - 150		%Rec	1	10/31/2018 11:06:53 AM
Surr: o-Terphenyl	85.2	50 - 150		%Rec	1	10/31/2018 11:06:53 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22451 Analyst: CR			
Gasoline	ND	7.15		mg/Kg-dry	1	10/30/2018 9:07:25 AM
Surr: 4-Bromofluorobenzene	98.0	65 - 135		%Rec	1	10/30/2018 9:07:25 AM
Surr: Toluene-d8	102	65 - 135		%Rec	1	10/30/2018 9:07:25 AM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22451 Analyst: CR			
Methyl tert-butyl ether (MTBE)	ND	0.0715		mg/Kg-dry	1	10/30/2018 9:07:25 AM
1,2-Dichloroethane	ND	0.0286		mg/Kg-dry	1	10/30/2018 9:07:25 AM
Benzene	ND	0.0286		mg/Kg-dry	1	10/30/2018 9:07:25 AM
Toluene	ND	0.0286		mg/Kg-dry	1	10/30/2018 9:07:25 AM
1,2-Dibromoethane (EDB)	ND	0.00715		mg/Kg-dry	1	10/30/2018 9:07:25 AM
Ethylbenzene	ND	0.0357		mg/Kg-dry	1	10/30/2018 9:07:25 AM
m,p-Xylene	ND	0.0715		mg/Kg-dry	1	10/30/2018 9:07:25 AM
o-Xylene	ND	0.0357		mg/Kg-dry	1	10/30/2018 9:07:25 AM
Naphthalene	ND	0.0715		mg/Kg-dry	1	10/30/2018 9:07:25 AM
Surr: Dibromofluoromethane	94.8	56.5 - 129		%Rec	1	10/30/2018 9:07:25 AM
Surr: Toluene-d8	103	64.5 - 151		%Rec	1	10/30/2018 9:07:25 AM
Surr: 1-Bromo-4-fluorobenzene	95.8	54.8 - 168		%Rec	1	10/30/2018 9:07:25 AM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22429 Analyst: WC			
Lead	1.36	0.177		mg/Kg-dry	1	10/30/2018 4:20:28 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47223 Analyst: SS			
Percent Moisture	17.4	0.500		wt%	1	10/29/2018 3:15:30 PM



**Client:** Kane Environmental, Inc.

**Collection Date:** 10/24/2018 1:07:00 PM

**Project:** Wexler - 82305

**Lab ID:** 1810456-025

**Matrix:** Soil

**Client Sample ID:** S-KSB-34: 2ft

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22455 Analyst: SB

Diesel (Fuel Oil)	ND	20.0		mg/Kg-dry	1	10/31/2018 3:38:24 AM
Heavy Oil	ND	50.0		mg/Kg-dry	1	10/31/2018 3:38:24 AM
Surr: 2-Fluorobiphenyl	92.5	50 - 150		%Rec	1	10/31/2018 3:38:24 AM
Surr: o-Terphenyl	90.0	50 - 150		%Rec	1	10/31/2018 3:38:24 AM

**Gasoline by NWTPH-Gx**

Batch ID: 22451 Analyst: CR

Gasoline	ND	5.16		mg/Kg-dry	1	10/30/2018 9:38:23 AM
Surr: 4-Bromofluorobenzene	100	65 - 135		%Rec	1	10/30/2018 9:38:23 AM
Surr: Toluene-d8	103	65 - 135		%Rec	1	10/30/2018 9:38:23 AM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22451 Analyst: CR

Methyl tert-butyl ether (MTBE)	ND	0.0516		mg/Kg-dry	1	10/30/2018 9:38:23 AM
1,2-Dichloroethane	ND	0.0206		mg/Kg-dry	1	10/30/2018 9:38:23 AM
Benzene	ND	0.0206		mg/Kg-dry	1	10/30/2018 9:38:23 AM
Toluene	ND	0.0206		mg/Kg-dry	1	10/30/2018 9:38:23 AM
1,2-Dibromoethane (EDB)	ND	0.00516		mg/Kg-dry	1	10/30/2018 9:38:23 AM
Ethylbenzene	ND	0.0258		mg/Kg-dry	1	10/30/2018 9:38:23 AM
m,p-Xylene	ND	0.0516		mg/Kg-dry	1	10/30/2018 9:38:23 AM
o-Xylene	ND	0.0258		mg/Kg-dry	1	10/30/2018 9:38:23 AM
Naphthalene	ND	0.0516		mg/Kg-dry	1	10/30/2018 9:38:23 AM
Surr: Dibromofluoromethane	93.3	56.5 - 129		%Rec	1	10/30/2018 9:38:23 AM
Surr: Toluene-d8	101	64.5 - 151		%Rec	1	10/30/2018 9:38:23 AM
Surr: 1-Bromo-4-fluorobenzene	96.6	54.8 - 168		%Rec	1	10/30/2018 9:38:23 AM

**Total Metals by EPA Method 6020**

Batch ID: 22429 Analyst: WC

Lead	6.15	0.168		mg/Kg-dry	1	10/30/2018 4:24:29 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47223 Analyst: SS

Percent Moisture	8.56	0.500		wt%	1	10/29/2018 3:15:30 PM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-026  
**Client Sample ID:** S-KSB-34: 10ft

**Collection Date:** 10/24/2018 1:18:00 PM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22455 Analyst: SB			
Diesel (Fuel Oil)	ND	21.1		mg/Kg-dry	1	10/31/2018 5:36:59 AM
Heavy Oil	ND	52.7		mg/Kg-dry	1	10/31/2018 5:36:59 AM
Surr: 2-Fluorobiphenyl	99.5	50 - 150		%Rec	1	10/31/2018 5:36:59 AM
Surr: o-Terphenyl	100	50 - 150		%Rec	1	10/31/2018 5:36:59 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22451 Analyst: CR			
Gasoline	ND	4.96		mg/Kg-dry	1	10/30/2018 10:09:16 AM
Surr: 4-Bromofluorobenzene	99.9	65 - 135		%Rec	1	10/30/2018 10:09:16 AM
Surr: Toluene-d8	104	65 - 135		%Rec	1	10/30/2018 10:09:16 AM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22451 Analyst: CR			
Methyl tert-butyl ether (MTBE)	ND	0.0496		mg/Kg-dry	1	10/30/2018 10:09:16 AM
1,2-Dichloroethane	ND	0.0198		mg/Kg-dry	1	10/30/2018 10:09:16 AM
Benzene	ND	0.0198		mg/Kg-dry	1	10/30/2018 10:09:16 AM
Toluene	ND	0.0198		mg/Kg-dry	1	10/30/2018 10:09:16 AM
1,2-Dibromoethane (EDB)	ND	0.00496		mg/Kg-dry	1	10/30/2018 10:09:16 AM
Ethylbenzene	ND	0.0248		mg/Kg-dry	1	10/30/2018 10:09:16 AM
m,p-Xylene	ND	0.0496		mg/Kg-dry	1	10/30/2018 10:09:16 AM
o-Xylene	ND	0.0248		mg/Kg-dry	1	10/30/2018 10:09:16 AM
Naphthalene	ND	0.0496		mg/Kg-dry	1	10/30/2018 10:09:16 AM
Surr: Dibromofluoromethane	93.2	56.5 - 129		%Rec	1	10/30/2018 10:09:16 AM
Surr: Toluene-d8	101	64.5 - 151		%Rec	1	10/30/2018 10:09:16 AM
Surr: 1-Bromo-4-fluorobenzene	97.3	54.8 - 168		%Rec	1	10/30/2018 10:09:16 AM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22429 Analyst: WC			
Lead	1.83	0.188		mg/Kg-dry	1	10/30/2018 4:28:30 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47223 Analyst: SS			
Percent Moisture	19.6	0.500		wt%	1	10/29/2018 3:15:30 PM





**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-027  
**Client Sample ID:** S-KSB-34: 15ft

**Collection Date:** 10/24/2018 1:23:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22455 Analyst: SB			
Diesel (Fuel Oil)	ND	23.5		mg/Kg-dry	1	10/31/2018 6:06:45 AM
Heavy Oil	ND	58.8		mg/Kg-dry	1	10/31/2018 6:06:45 AM
Surr: 2-Fluorobiphenyl	79.0	50 - 150		%Rec	1	10/31/2018 6:06:45 AM
Surr: o-Terphenyl	77.4	50 - 150		%Rec	1	10/31/2018 6:06:45 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22451 Analyst: CR			
Gasoline	ND	5.10		mg/Kg-dry	1	10/30/2018 10:40:16 AM
Surr: 4-Bromofluorobenzene	100	65 - 135		%Rec	1	10/30/2018 10:40:16 AM
Surr: Toluene-d8	102	65 - 135		%Rec	1	10/30/2018 10:40:16 AM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22451 Analyst: CR			
Methyl tert-butyl ether (MTBE)	ND	0.0510		mg/Kg-dry	1	10/30/2018 10:40:16 AM
1,2-Dichloroethane	ND	0.0204		mg/Kg-dry	1	10/30/2018 10:40:16 AM
Benzene	ND	0.0204		mg/Kg-dry	1	10/30/2018 10:40:16 AM
Toluene	ND	0.0204		mg/Kg-dry	1	10/30/2018 10:40:16 AM
1,2-Dibromoethane (EDB)	ND	0.00510		mg/Kg-dry	1	10/30/2018 10:40:16 AM
Ethylbenzene	ND	0.0255		mg/Kg-dry	1	10/30/2018 10:40:16 AM
m,p-Xylene	ND	0.0510		mg/Kg-dry	1	10/30/2018 10:40:16 AM
o-Xylene	ND	0.0255		mg/Kg-dry	1	10/30/2018 10:40:16 AM
Naphthalene	ND	0.0510		mg/Kg-dry	1	10/30/2018 10:40:16 AM
Surr: Dibromofluoromethane	93.2	56.5 - 129		%Rec	1	10/30/2018 10:40:16 AM
Surr: Toluene-d8	102	64.5 - 151		%Rec	1	10/30/2018 10:40:16 AM
Surr: 1-Bromo-4-fluorobenzene	96.3	54.8 - 168		%Rec	1	10/30/2018 10:40:16 AM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22429 Analyst: WC			
Lead	1.86	0.192		mg/Kg-dry	1	10/30/2018 4:40:37 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47223 Analyst: SS			
Percent Moisture	17.5	0.500		wt%	1	10/29/2018 3:15:30 PM



**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-028  
**Client Sample ID:** S-KSB-34: 20ft

**Collection Date:** 10/24/2018 1:28:00 PM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22455		Analyst: SB	
Diesel (Fuel Oil)	ND	22.2		mg/Kg-dry	1	10/31/2018 6:36:29 AM
Heavy Oil	ND	55.4		mg/Kg-dry	1	10/31/2018 6:36:29 AM
Surr: 2-Fluorobiphenyl	85.6	50 - 150		%Rec	1	10/31/2018 6:36:29 AM
Surr: o-Terphenyl	84.9	50 - 150		%Rec	1	10/31/2018 6:36:29 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22451		Analyst: CR	
Gasoline	6.70	5.29		mg/Kg-dry	1	10/30/2018 11:11:19 AM
Surr: 4-Bromofluorobenzene	96.1	65 - 135		%Rec	1	10/30/2018 11:11:19 AM
Surr: Toluene-d8	102	65 - 135		%Rec	1	10/30/2018 11:11:19 AM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22451		Analyst: CR	
Methyl tert-butyl ether (MTBE)	ND	0.0529		mg/Kg-dry	1	10/30/2018 11:11:19 AM
1,2-Dichloroethane	ND	0.0212		mg/Kg-dry	1	10/30/2018 11:11:19 AM
Benzene	ND	0.0212		mg/Kg-dry	1	10/30/2018 11:11:19 AM
Toluene	ND	0.0212		mg/Kg-dry	1	10/30/2018 11:11:19 AM
1,2-Dibromoethane (EDB)	ND	0.00529		mg/Kg-dry	1	10/30/2018 11:11:19 AM
Ethylbenzene	ND	0.0265		mg/Kg-dry	1	10/30/2018 11:11:19 AM
m,p-Xylene	ND	0.0529		mg/Kg-dry	1	10/30/2018 11:11:19 AM
o-Xylene	ND	0.0265		mg/Kg-dry	1	10/30/2018 11:11:19 AM
Naphthalene	ND	0.0529		mg/Kg-dry	1	10/30/2018 11:11:19 AM
Surr: Dibromofluoromethane	93.2	56.5 - 129		%Rec	1	10/30/2018 11:11:19 AM
Surr: Toluene-d8	102	64.5 - 151		%Rec	1	10/30/2018 11:11:19 AM
Surr: 1-Bromo-4-fluorobenzene	91.8	54.8 - 168		%Rec	1	10/30/2018 11:11:19 AM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22429		Analyst: WC	
Lead	1.57	0.188		mg/Kg-dry	1	10/30/2018 4:44:39 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47223		Analyst: SS	
Percent Moisture	16.0	0.500		wt%	1	10/29/2018 3:15:30 PM



**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-029  
**Client Sample ID:** S-KSB-35: 5ft

**Collection Date:** 10/24/2018 1:36:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22455		Analyst: SB	
Diesel (Fuel Oil)	ND	23.0		mg/Kg-dry	1	10/31/2018 7:06:22 AM
Heavy Oil	ND	57.4		mg/Kg-dry	1	10/31/2018 7:06:22 AM
Surr: 2-Fluorobiphenyl	93.0	50 - 150		%Rec	1	10/31/2018 7:06:22 AM
Surr: o-Terphenyl	92.1	50 - 150		%Rec	1	10/31/2018 7:06:22 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22451		Analyst: CR	
Gasoline	ND	5.65		mg/Kg-dry	1	10/30/2018 11:42:20 AM
Surr: 4-Bromofluorobenzene	106	65 - 135		%Rec	1	10/30/2018 11:42:20 AM
Surr: Toluene-d8	104	65 - 135		%Rec	1	10/30/2018 11:42:20 AM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22451		Analyst: CR	
Methyl tert-butyl ether (MTBE)	ND	0.0565		mg/Kg-dry	1	10/30/2018 11:42:20 AM
1,2-Dichloroethane	ND	0.0226		mg/Kg-dry	1	10/30/2018 11:42:20 AM
Benzene	ND	0.0226		mg/Kg-dry	1	10/30/2018 11:42:20 AM
Toluene	ND	0.0226		mg/Kg-dry	1	10/30/2018 11:42:20 AM
1,2-Dibromoethane (EDB)	ND	0.00565		mg/Kg-dry	1	10/30/2018 11:42:20 AM
Ethylbenzene	ND	0.0282		mg/Kg-dry	1	10/30/2018 11:42:20 AM
m,p-Xylene	ND	0.0565		mg/Kg-dry	1	10/30/2018 11:42:20 AM
o-Xylene	ND	0.0282		mg/Kg-dry	1	10/30/2018 11:42:20 AM
Naphthalene	ND	0.0565		mg/Kg-dry	1	10/30/2018 11:42:20 AM
Surr: Dibromofluoromethane	91.8	56.5 - 129		%Rec	1	10/30/2018 11:42:20 AM
Surr: Toluene-d8	99.9	64.5 - 151		%Rec	1	10/30/2018 11:42:20 AM
Surr: 1-Bromo-4-fluorobenzene	100	54.8 - 168		%Rec	1	10/30/2018 11:42:20 AM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22429		Analyst: WC	
Lead	1.83	0.197		mg/Kg-dry	1	10/30/2018 4:48:40 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47223		Analyst: SS	
Percent Moisture	18.9	0.500		wt%	1	10/29/2018 3:15:30 PM



**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-030  
**Client Sample ID:** S-KSB-35: 7ft

**Collection Date:** 10/24/2018 1:46:00 PM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22455 Analyst: SB			
Diesel (Fuel Oil)	ND	20.7		mg/Kg-dry	1	10/31/2018 7:36:15 AM
Heavy Oil	ND	51.7		mg/Kg-dry	1	10/31/2018 7:36:15 AM
Surr: 2-Fluorobiphenyl	85.9	50 - 150		%Rec	1	10/31/2018 7:36:15 AM
Surr: o-Terphenyl	84.4	50 - 150		%Rec	1	10/31/2018 7:36:15 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22451 Analyst: CR			
Gasoline	ND	6.09		mg/Kg-dry	1	10/30/2018 12:13:18 PM
Surr: 4-Bromofluorobenzene	96.3	65 - 135		%Rec	1	10/30/2018 12:13:18 PM
Surr: Toluene-d8	103	65 - 135		%Rec	1	10/30/2018 12:13:18 PM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22451 Analyst: CR			
Methyl tert-butyl ether (MTBE)	ND	0.0609		mg/Kg-dry	1	10/30/2018 12:13:18 PM
1,2-Dichloroethane	ND	0.0244		mg/Kg-dry	1	10/30/2018 12:13:18 PM
Benzene	ND	0.0244		mg/Kg-dry	1	10/30/2018 12:13:18 PM
Toluene	ND	0.0244		mg/Kg-dry	1	10/30/2018 12:13:18 PM
1,2-Dibromoethane (EDB)	ND	0.00609		mg/Kg-dry	1	10/30/2018 12:13:18 PM
Ethylbenzene	ND	0.0305		mg/Kg-dry	1	10/30/2018 12:13:18 PM
m,p-Xylene	ND	0.0609		mg/Kg-dry	1	10/30/2018 12:13:18 PM
o-Xylene	ND	0.0305		mg/Kg-dry	1	10/30/2018 12:13:18 PM
Naphthalene	ND	0.0609		mg/Kg-dry	1	10/30/2018 12:13:18 PM
Surr: Dibromofluoromethane	93.3	56.5 - 129		%Rec	1	10/30/2018 12:13:18 PM
Surr: Toluene-d8	102	64.5 - 151		%Rec	1	10/30/2018 12:13:18 PM
Surr: 1-Bromo-4-fluorobenzene	92.1	54.8 - 168		%Rec	1	10/30/2018 12:13:18 PM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22429 Analyst: WC			
Lead	1.48	0.179		mg/Kg-dry	1	10/30/2018 4:52:42 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47223 Analyst: SS			
Percent Moisture	17.8	0.500		wt%	1	10/29/2018 3:15:30 PM



**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-031  
**Client Sample ID:** S-KSB-35: 20ft

**Collection Date:** 10/24/2018 1:56:00 PM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22455 Analyst: SB

Diesel (Fuel Oil)	ND	24.5		mg/Kg-dry	1	10/31/2018 8:06:12 AM
Heavy Oil	ND	61.2		mg/Kg-dry	1	10/31/2018 8:06:12 AM
Surr: 2-Fluorobiphenyl	97.1	50 - 150		%Rec	1	10/31/2018 8:06:12 AM
Surr: o-Terphenyl	97.2	50 - 150		%Rec	1	10/31/2018 8:06:12 AM

**Gasoline by NWTPH-Gx**

Batch ID: 22451 Analyst: CR

Gasoline	ND	6.61		mg/Kg-dry	1	10/30/2018 4:21:40 PM
Surr: 4-Bromofluorobenzene	98.9	65 - 135		%Rec	1	10/30/2018 4:21:40 PM
Surr: Toluene-d8	102	65 - 135		%Rec	1	10/30/2018 4:21:40 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22451 Analyst: CR

Methyl tert-butyl ether (MTBE)	ND	0.0661		mg/Kg-dry	1	10/30/2018 4:21:40 PM
1,2-Dichloroethane	ND	0.0264		mg/Kg-dry	1	10/30/2018 4:21:40 PM
Benzene	ND	0.0264		mg/Kg-dry	1	10/30/2018 4:21:40 PM
Toluene	ND	0.0264		mg/Kg-dry	1	10/30/2018 4:21:40 PM
1,2-Dibromoethane (EDB)	ND	0.00661		mg/Kg-dry	1	10/30/2018 4:21:40 PM
Ethylbenzene	ND	0.0331		mg/Kg-dry	1	10/30/2018 4:21:40 PM
m,p-Xylene	ND	0.0661		mg/Kg-dry	1	10/30/2018 4:21:40 PM
o-Xylene	ND	0.0331		mg/Kg-dry	1	10/30/2018 4:21:40 PM
Naphthalene	ND	0.0661		mg/Kg-dry	1	10/30/2018 4:21:40 PM
Surr: Dibromofluoromethane	96.1	56.5 - 129		%Rec	1	10/30/2018 4:21:40 PM
Surr: Toluene-d8	101	64.5 - 151		%Rec	1	10/30/2018 4:21:40 PM
Surr: 1-Bromo-4-fluorobenzene	94.2	54.8 - 168		%Rec	1	10/30/2018 4:21:40 PM

**Total Metals by EPA Method 6020**

Batch ID: 22429 Analyst: WC

Lead	3.37	0.205		mg/Kg-dry	1	10/30/2018 4:56:43 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47223 Analyst: SS

Percent Moisture	22.5	0.500		wt%	1	10/29/2018 3:15:30 PM
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**Client:** Kane Environmental, Inc.

**Collection Date:** 10/24/2018 2:10:00 PM

**Project:** Wexler - 82305

**Lab ID:** 1810456-032

**Matrix:** Soil

**Client Sample ID:** S-KSB-36: 5ft

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22455 Analyst: SB

Diesel (Fuel Oil)	ND	21.9		mg/Kg-dry	1	10/31/2018 8:36:08 AM
Heavy Oil	ND	54.7		mg/Kg-dry	1	10/31/2018 8:36:08 AM
Surr: 2-Fluorobiphenyl	95.4	50 - 150		%Rec	1	10/31/2018 8:36:08 AM
Surr: o-Terphenyl	94.0	50 - 150		%Rec	1	10/31/2018 8:36:08 AM

**Gasoline by NWTPH-Gx**

Batch ID: 22451 Analyst: CR

Gasoline	ND	6.26		mg/Kg-dry	1	10/30/2018 5:23:58 PM
Surr: 4-Bromofluorobenzene	99.0	65 - 135		%Rec	1	10/30/2018 5:23:58 PM
Surr: Toluene-d8	103	65 - 135		%Rec	1	10/30/2018 5:23:58 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22451 Analyst: CR

Methyl tert-butyl ether (MTBE)	ND	0.0626		mg/Kg-dry	1	10/30/2018 5:23:58 PM
1,2-Dichloroethane	ND	0.0250		mg/Kg-dry	1	10/30/2018 5:23:58 PM
Benzene	ND	0.0250		mg/Kg-dry	1	10/30/2018 5:23:58 PM
Toluene	ND	0.0250		mg/Kg-dry	1	10/30/2018 5:23:58 PM
1,2-Dibromoethane (EDB)	ND	0.00626		mg/Kg-dry	1	10/30/2018 5:23:58 PM
Ethylbenzene	ND	0.0313		mg/Kg-dry	1	10/30/2018 5:23:58 PM
m,p-Xylene	ND	0.0626		mg/Kg-dry	1	10/30/2018 5:23:58 PM
o-Xylene	ND	0.0313		mg/Kg-dry	1	10/30/2018 5:23:58 PM
Naphthalene	ND	0.0626		mg/Kg-dry	1	10/30/2018 5:23:58 PM
Surr: Dibromofluoromethane	94.1	56.5 - 129		%Rec	1	10/30/2018 5:23:58 PM
Surr: Toluene-d8	102	64.5 - 151		%Rec	1	10/30/2018 5:23:58 PM
Surr: 1-Bromo-4-fluorobenzene	92.6	54.8 - 168		%Rec	1	10/30/2018 5:23:58 PM

**Total Metals by EPA Method 6020**

Batch ID: 22429 Analyst: WC

Lead	1.75	0.183		mg/Kg-dry	1	10/30/2018 5:00:45 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47223 Analyst: SS

Percent Moisture	22.7	0.500		wt%	1	10/29/2018 3:15:30 PM
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**Client:** Kane Environmental, Inc.

**Collection Date:** 10/24/2018 2:19:00 PM

**Project:** Wexler - 82305

**Lab ID:** 1810456-033

**Matrix:** Soil

**Client Sample ID:** S-KSB-36: 12.5ft

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22455 Analyst: SB

Diesel (Fuel Oil)	ND	24.9		mg/Kg-dry	1	10/31/2018 10:36:44 AM
Heavy Oil	ND	62.4		mg/Kg-dry	1	10/31/2018 10:36:44 AM
Surr: 2-Fluorobiphenyl	92.6	50 - 150		%Rec	1	10/31/2018 10:36:44 AM
Surr: o-Terphenyl	91.2	50 - 150		%Rec	1	10/31/2018 10:36:44 AM

**Gasoline by NWTPH-Gx**

Batch ID: 22451 Analyst: CR

Gasoline	ND	6.00		mg/Kg-dry	1	10/30/2018 5:55:01 PM
Surr: 4-Bromofluorobenzene	97.7	65 - 135		%Rec	1	10/30/2018 5:55:01 PM
Surr: Toluene-d8	101	65 - 135		%Rec	1	10/30/2018 5:55:01 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22451 Analyst: CR

Methyl tert-butyl ether (MTBE)	ND	0.0600		mg/Kg-dry	1	10/30/2018 5:55:01 PM
1,2-Dichloroethane	ND	0.0240		mg/Kg-dry	1	10/30/2018 5:55:01 PM
Benzene	ND	0.0240		mg/Kg-dry	1	10/30/2018 5:55:01 PM
Toluene	ND	0.0240		mg/Kg-dry	1	10/30/2018 5:55:01 PM
1,2-Dibromoethane (EDB)	ND	0.00600		mg/Kg-dry	1	10/30/2018 5:55:01 PM
Ethylbenzene	ND	0.0300		mg/Kg-dry	1	10/30/2018 5:55:01 PM
m,p-Xylene	ND	0.0600		mg/Kg-dry	1	10/30/2018 5:55:01 PM
o-Xylene	ND	0.0300		mg/Kg-dry	1	10/30/2018 5:55:01 PM
Naphthalene	ND	0.0600		mg/Kg-dry	1	10/30/2018 5:55:01 PM
Surr: Dibromofluoromethane	95.0	56.5 - 129		%Rec	1	10/30/2018 5:55:01 PM
Surr: Toluene-d8	102	64.5 - 151		%Rec	1	10/30/2018 5:55:01 PM
Surr: 1-Bromo-4-fluorobenzene	92.9	54.8 - 168		%Rec	1	10/30/2018 5:55:01 PM

**Total Metals by EPA Method 6020**

Batch ID: 22430 Analyst: WC

Lead	2.65	0.199		mg/Kg-dry	1	10/30/2018 5:16:53 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47223 Analyst: SS

Percent Moisture	23.3	0.500		wt%	1	10/29/2018 3:15:30 PM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-034  
**Client Sample ID:** S-KSB-36: 20ft

**Collection Date:** 10/24/2018 2:28:00 PM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22455 Analyst: SB

Diesel (Fuel Oil)	ND	24.2		mg/Kg-dry	1	10/31/2018 11:06:53 AM
Heavy Oil	ND	60.5		mg/Kg-dry	1	10/31/2018 11:06:53 AM
Surr: 2-Fluorobiphenyl	92.3	50 - 150		%Rec	1	10/31/2018 11:06:53 AM
Surr: o-Terphenyl	91.3	50 - 150		%Rec	1	10/31/2018 11:06:53 AM

**Gasoline by NWTPH-Gx**

Batch ID: 22451 Analyst: CR

Gasoline	ND	5.76		mg/Kg-dry	1	10/30/2018 6:26:02 PM
Surr: 4-Bromofluorobenzene	101	65 - 135		%Rec	1	10/30/2018 6:26:02 PM
Surr: Toluene-d8	102	65 - 135		%Rec	1	10/30/2018 6:26:02 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22451 Analyst: CR

Methyl tert-butyl ether (MTBE)	ND	0.0576		mg/Kg-dry	1	10/30/2018 6:26:02 PM
1,2-Dichloroethane	ND	0.0231		mg/Kg-dry	1	10/30/2018 6:26:02 PM
Benzene	ND	0.0231		mg/Kg-dry	1	10/30/2018 6:26:02 PM
Toluene	ND	0.0231		mg/Kg-dry	1	10/30/2018 6:26:02 PM
1,2-Dibromoethane (EDB)	ND	0.00576		mg/Kg-dry	1	10/30/2018 6:26:02 PM
Ethylbenzene	ND	0.0288		mg/Kg-dry	1	10/30/2018 6:26:02 PM
m,p-Xylene	ND	0.0576		mg/Kg-dry	1	10/30/2018 6:26:02 PM
o-Xylene	ND	0.0288		mg/Kg-dry	1	10/30/2018 6:26:02 PM
Naphthalene	ND	0.0576		mg/Kg-dry	1	10/30/2018 6:26:02 PM
Surr: Dibromofluoromethane	93.5	56.5 - 129		%Rec	1	10/30/2018 6:26:02 PM
Surr: Toluene-d8	101	64.5 - 151		%Rec	1	10/30/2018 6:26:02 PM
Surr: 1-Bromo-4-fluorobenzene	97.4	54.8 - 168		%Rec	1	10/30/2018 6:26:02 PM

**Total Metals by EPA Method 6020**

Batch ID: 22430 Analyst: WC

Lead	3.00	0.186		mg/Kg-dry	1	10/30/2018 5:49:08 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47223 Analyst: SS

Percent Moisture	23.3	0.500		wt%	1	10/29/2018 3:15:30 PM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-035  
**Client Sample ID:** S-KSB-37: 6ft

**Collection Date:** 10/24/2018 2:39:00 PM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22455 Analyst: SB			
Diesel (Fuel Oil)	ND	22.4		mg/Kg-dry	1	10/31/2018 11:37:00 AM
Heavy Oil	ND	56.0		mg/Kg-dry	1	10/31/2018 11:37:00 AM
Surr: 2-Fluorobiphenyl	89.6	50 - 150		%Rec	1	10/31/2018 11:37:00 AM
Surr: o-Terphenyl	88.8	50 - 150		%Rec	1	10/31/2018 11:37:00 AM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22451 Analyst: CR			
Gasoline	ND	5.55		mg/Kg-dry	1	10/30/2018 6:57:04 PM
Surr: 4-Bromofluorobenzene	100	65 - 135		%Rec	1	10/30/2018 6:57:04 PM
Surr: Toluene-d8	103	65 - 135		%Rec	1	10/30/2018 6:57:04 PM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22451 Analyst: CR			
Methyl tert-butyl ether (MTBE)	ND	0.0555		mg/Kg-dry	1	10/30/2018 6:57:04 PM
1,2-Dichloroethane	ND	0.0222		mg/Kg-dry	1	10/30/2018 6:57:04 PM
Benzene	ND	0.0222		mg/Kg-dry	1	10/30/2018 6:57:04 PM
Toluene	ND	0.0222		mg/Kg-dry	1	10/30/2018 6:57:04 PM
1,2-Dibromoethane (EDB)	ND	0.00555		mg/Kg-dry	1	10/30/2018 6:57:04 PM
Ethylbenzene	ND	0.0278		mg/Kg-dry	1	10/30/2018 6:57:04 PM
m,p-Xylene	ND	0.0555		mg/Kg-dry	1	10/30/2018 6:57:04 PM
o-Xylene	ND	0.0278		mg/Kg-dry	1	10/30/2018 6:57:04 PM
Naphthalene	ND	0.0555		mg/Kg-dry	1	10/30/2018 6:57:04 PM
Surr: Dibromofluoromethane	93.4	56.5 - 129		%Rec	1	10/30/2018 6:57:04 PM
Surr: Toluene-d8	101	64.5 - 151		%Rec	1	10/30/2018 6:57:04 PM
Surr: 1-Bromo-4-fluorobenzene	96.0	54.8 - 168		%Rec	1	10/30/2018 6:57:04 PM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22430 Analyst: WC			
Lead	1.90	0.191		mg/Kg-dry	1	10/30/2018 5:53:09 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47223 Analyst: SS			
Percent Moisture	20.6	0.500		wt%	1	10/29/2018 3:15:30 PM



**Client:** Kane Environmental, Inc.

**Collection Date:** 10/24/2018 2:44:00 PM

**Project:** Wexler - 82305

**Lab ID:** 1810456-036

**Matrix:** Soil

**Client Sample ID:** S-KSB-37: 12.5ft

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22455 Analyst: SB

Diesel (Fuel Oil)	ND	26.3		mg/Kg-dry	1	10/31/2018 12:37:24 PM
Heavy Oil	ND	65.7		mg/Kg-dry	1	10/31/2018 12:37:24 PM
Surr: 2-Fluorobiphenyl	93.5	50 - 150		%Rec	1	10/31/2018 12:37:24 PM
Surr: o-Terphenyl	94.1	50 - 150		%Rec	1	10/31/2018 12:37:24 PM

**Gasoline by NWTPH-Gx**

Batch ID: 22451 Analyst: CR

Gasoline	ND	6.03		mg/Kg-dry	1	10/30/2018 7:28:02 PM
Surr: 4-Bromofluorobenzene	98.3	65 - 135		%Rec	1	10/30/2018 7:28:02 PM
Surr: Toluene-d8	103	65 - 135		%Rec	1	10/30/2018 7:28:02 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22451 Analyst: CR

Methyl tert-butyl ether (MTBE)	ND	0.0603		mg/Kg-dry	1	10/30/2018 7:28:02 PM
1,2-Dichloroethane	ND	0.0241		mg/Kg-dry	1	10/30/2018 7:28:02 PM
Benzene	ND	0.0241		mg/Kg-dry	1	10/30/2018 7:28:02 PM
Toluene	ND	0.0241		mg/Kg-dry	1	10/30/2018 7:28:02 PM
1,2-Dibromoethane (EDB)	ND	0.00603		mg/Kg-dry	1	10/30/2018 7:28:02 PM
Ethylbenzene	ND	0.0302		mg/Kg-dry	1	10/30/2018 7:28:02 PM
m,p-Xylene	ND	0.0603		mg/Kg-dry	1	10/30/2018 7:28:02 PM
o-Xylene	ND	0.0302		mg/Kg-dry	1	10/30/2018 7:28:02 PM
Naphthalene	ND	0.0603		mg/Kg-dry	1	10/30/2018 7:28:02 PM
Surr: Dibromofluoromethane	93.7	56.5 - 129		%Rec	1	10/30/2018 7:28:02 PM
Surr: Toluene-d8	102	64.5 - 151		%Rec	1	10/30/2018 7:28:02 PM
Surr: 1-Bromo-4-fluorobenzene	95.8	54.8 - 168		%Rec	1	10/30/2018 7:28:02 PM

**Total Metals by EPA Method 6020**

Batch ID: 22430 Analyst: WC

Lead	3.24	0.194		mg/Kg-dry	1	10/30/2018 5:57:11 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47223 Analyst: SS

Percent Moisture	25.9	0.500		wt%	1	10/29/2018 3:15:30 PM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-037  
**Client Sample ID:** S-KSB-37: 20ft

**Collection Date:** 10/24/2018 2:50:00 PM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22455 Analyst: SB

Diesel (Fuel Oil)	ND	22.4		mg/Kg-dry	1	10/31/2018 1:07:43 PM
Heavy Oil	ND	56.0		mg/Kg-dry	1	10/31/2018 1:07:43 PM
Surr: 2-Fluorobiphenyl	83.0	50 - 150		%Rec	1	10/31/2018 1:07:43 PM
Surr: o-Terphenyl	82.1	50 - 150		%Rec	1	10/31/2018 1:07:43 PM

**Gasoline by NWTPH-Gx**

Batch ID: 22451 Analyst: CR

Gasoline	ND	5.79		mg/Kg-dry	1	10/30/2018 7:58:57 PM
Surr: 4-Bromofluorobenzene	96.8	65 - 135		%Rec	1	10/30/2018 7:58:57 PM
Surr: Toluene-d8	103	65 - 135		%Rec	1	10/30/2018 7:58:57 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22451 Analyst: CR

Methyl tert-butyl ether (MTBE)	ND	0.0579		mg/Kg-dry	1	10/30/2018 7:58:57 PM
1,2-Dichloroethane	ND	0.0232		mg/Kg-dry	1	10/30/2018 7:58:57 PM
Benzene	ND	0.0232		mg/Kg-dry	1	10/30/2018 7:58:57 PM
Toluene	ND	0.0232		mg/Kg-dry	1	10/30/2018 7:58:57 PM
1,2-Dibromoethane (EDB)	ND	0.00579		mg/Kg-dry	1	10/30/2018 7:58:57 PM
Ethylbenzene	ND	0.0289		mg/Kg-dry	1	10/30/2018 7:58:57 PM
m,p-Xylene	ND	0.0579		mg/Kg-dry	1	10/30/2018 7:58:57 PM
o-Xylene	ND	0.0289		mg/Kg-dry	1	10/30/2018 7:58:57 PM
Naphthalene	ND	0.0579		mg/Kg-dry	1	10/30/2018 7:58:57 PM
Surr: Dibromofluoromethane	93.1	56.5 - 129		%Rec	1	10/30/2018 7:58:57 PM
Surr: Toluene-d8	101	64.5 - 151		%Rec	1	10/30/2018 7:58:57 PM
Surr: 1-Bromo-4-fluorobenzene	94.3	54.8 - 168		%Rec	1	10/30/2018 7:58:57 PM

**Total Metals by EPA Method 6020**

Batch ID: 22430 Analyst: WC

Lead	1.52	0.171		mg/Kg-dry	1	10/30/2018 6:01:12 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47223 Analyst: SS

Percent Moisture	14.2	0.500		wt%	1	10/29/2018 3:15:30 PM
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**Client:** Kane Environmental, Inc.

**Collection Date:** 10/24/2018 3:02:00 PM

**Project:** Wexler - 82305

**Lab ID:** 1810456-038

**Matrix:** Soil

**Client Sample ID:** S-KSB-38: 3.5ft

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22455 Analyst: SB

Diesel (Fuel Oil)	ND	22.4		mg/Kg-dry	1	10/31/2018 1:37:51 PM
Heavy Oil	ND	56.0		mg/Kg-dry	1	10/31/2018 1:37:51 PM
Surr: 2-Fluorobiphenyl	77.3	50 - 150		%Rec	1	10/31/2018 1:37:51 PM
Surr: o-Terphenyl	77.5	50 - 150		%Rec	1	10/31/2018 1:37:51 PM

**Gasoline by NWTPH-Gx**

Batch ID: 22451 Analyst: CR

Gasoline	8,750	611	D	mg/Kg-dry	100	10/31/2018 8:28:32 AM
Surr: 4-Bromofluorobenzene	140	65 - 135	DS	%Rec	100	10/31/2018 8:28:32 AM
Surr: Toluene-d8	103	65 - 135	D	%Rec	100	10/31/2018 8:28:32 AM

**NOTES:**

S - Outlying surrogate recovery attributed to TPH interference. The method is in control as indicated by the Method Blank (MB) & Laboratory Control Sample (LCS).

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22451 Analyst: CR

Methyl tert-butyl ether (MTBE)	ND	0.0611		mg/Kg-dry	1	10/31/2018 12:06:56 AM
1,2-Dichloroethane	ND	0.0244		mg/Kg-dry	1	10/31/2018 12:06:56 AM
Benzene	ND	0.0244		mg/Kg-dry	1	10/31/2018 12:06:56 AM
Toluene	ND	0.0244		mg/Kg-dry	1	10/31/2018 12:06:56 AM
1,2-Dibromoethane (EDB)	ND	0.00611		mg/Kg-dry	1	10/31/2018 12:06:56 AM
Ethylbenzene	ND	0.0306		mg/Kg-dry	1	10/31/2018 12:06:56 AM
m,p-Xylene	ND	0.0611		mg/Kg-dry	1	10/31/2018 12:06:56 AM
o-Xylene	ND	0.0306		mg/Kg-dry	1	10/31/2018 12:06:56 AM
Naphthalene	ND	0.0611		mg/Kg-dry	1	10/31/2018 12:06:56 AM
Surr: Dibromofluoromethane	91.1	56.5 - 129		%Rec	1	10/31/2018 12:06:56 AM
Surr: Toluene-d8	134	64.5 - 151		%Rec	1	10/31/2018 12:06:56 AM
Surr: 1-Bromo-4-fluorobenzene	180	54.8 - 168	S	%Rec	1	10/31/2018 12:06:56 AM

**NOTES:**

S - Outlying surrogate recovery attributed to TPH interference. The method is in control as indicated by the Method Blank (MB) & Laboratory Control Sample (LCS).

**Total Metals by EPA Method 6020**

Batch ID: 22430 Analyst: WC

Lead	4.22	0.197		mg/Kg-dry	1	10/30/2018 6:05:14 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47223 Analyst: SS

Percent Moisture	19.5	0.500		wt%	1	10/29/2018 3:15:30 PM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-039  
**Client Sample ID:** S-KSB-38: 7ft

**Collection Date:** 10/24/2018 3:00:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22455 Analyst: SB

Diesel (Fuel Oil)	ND	22.5		mg/Kg-dry	1	10/31/2018 2:08:07 PM
Diesel Range Organics (C12-C24)	51.6	22.5		mg/Kg-dry	1	10/31/2018 2:08:07 PM
Heavy Oil	ND	56.3		mg/Kg-dry	1	10/31/2018 2:08:07 PM
Surr: 2-Fluorobiphenyl	100	50 - 150		%Rec	1	10/31/2018 2:08:07 PM
Surr: o-Terphenyl	95.4	50 - 150		%Rec	1	10/31/2018 2:08:07 PM

**NOTES:**

DRO - Indicates the presence of unresolved compounds eluting from dodecane through tetracosane (~C12-C24). Chromatographic pattern demonstrates a continuation of Gasoline.

**Gasoline by NWTPH-Gx**

Batch ID: 22451 Analyst: CR

Gasoline	2,140	659	D	mg/Kg-dry	100	10/31/2018 8:59:29 AM
Surr: 4-Bromofluorobenzene	108	65 - 135	D	%Rec	100	10/31/2018 8:59:29 AM
Surr: Toluene-d8	98.9	65 - 135	D	%Rec	100	10/31/2018 8:59:29 AM

**NOTES:**

Diluted due to matrix.

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22451 Analyst: CR

Methyl tert-butyl ether (MTBE)	ND	0.0659		mg/Kg-dry	1	10/30/2018 11:05:02 PM
1,2-Dichloroethane	ND	0.0264		mg/Kg-dry	1	10/30/2018 11:05:02 PM
Benzene	ND	0.0264		mg/Kg-dry	1	10/30/2018 11:05:02 PM
Toluene	ND	0.0264		mg/Kg-dry	1	10/30/2018 11:05:02 PM
1,2-Dibromoethane (EDB)	ND	0.00659		mg/Kg-dry	1	10/30/2018 11:05:02 PM
Ethylbenzene	ND	0.0330		mg/Kg-dry	1	10/30/2018 11:05:02 PM
m,p-Xylene	ND	0.0659		mg/Kg-dry	1	10/30/2018 11:05:02 PM
o-Xylene	ND	0.0330		mg/Kg-dry	1	10/30/2018 11:05:02 PM
Naphthalene	ND	0.0659		mg/Kg-dry	1	10/30/2018 11:05:02 PM
Surr: Dibromofluoromethane	87.2	56.5 - 129		%Rec	1	10/30/2018 11:05:02 PM
Surr: Toluene-d8	127	64.5 - 151		%Rec	1	10/30/2018 11:05:02 PM
Surr: 1-Bromo-4-fluorobenzene	142	54.8 - 168		%Rec	1	10/30/2018 11:05:02 PM

**Total Metals by EPA Method 6020**

Batch ID: 22430 Analyst: WC

Lead	6.75	0.176		mg/Kg-dry	1	10/30/2018 6:17:21 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47278 Analyst: SS

Percent Moisture	15.8	0.500		wt%	1	10/31/2018 9:38:54 AM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-040  
**Client Sample ID:** S-KSB-38: 15ft

**Collection Date:** 10/24/2018 3:20:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22455 Analyst: SB			
Diesel (Fuel Oil)	ND	22.8		mg/Kg-dry	1	10/31/2018 2:38:16 PM
Heavy Oil	ND	57.1		mg/Kg-dry	1	10/31/2018 2:38:16 PM
Surr: 2-Fluorobiphenyl	85.6	50 - 150		%Rec	1	10/31/2018 2:38:16 PM
Surr: o-Terphenyl	84.1	50 - 150		%Rec	1	10/31/2018 2:38:16 PM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22451 Analyst: CR			
Gasoline	ND	5.79		mg/Kg-dry	1	10/30/2018 8:29:59 PM
Surr: 4-Bromofluorobenzene	102	65 - 135		%Rec	1	10/30/2018 8:29:59 PM
Surr: Toluene-d8	103	65 - 135		%Rec	1	10/30/2018 8:29:59 PM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22451 Analyst: CR			
Methyl tert-butyl ether (MTBE)	ND	0.0579		mg/Kg-dry	1	10/30/2018 8:29:59 PM
1,2-Dichloroethane	ND	0.0232		mg/Kg-dry	1	10/30/2018 8:29:59 PM
Benzene	ND	0.0232		mg/Kg-dry	1	10/30/2018 8:29:59 PM
Toluene	ND	0.0232		mg/Kg-dry	1	10/30/2018 8:29:59 PM
1,2-Dibromoethane (EDB)	ND	0.00579		mg/Kg-dry	1	10/30/2018 8:29:59 PM
Ethylbenzene	ND	0.0289		mg/Kg-dry	1	10/30/2018 8:29:59 PM
m,p-Xylene	ND	0.0579		mg/Kg-dry	1	10/30/2018 8:29:59 PM
o-Xylene	ND	0.0289		mg/Kg-dry	1	10/30/2018 8:29:59 PM
Naphthalene	ND	0.0579		mg/Kg-dry	1	10/30/2018 8:29:59 PM
Surr: Dibromofluoromethane	93.8	56.5 - 129		%Rec	1	10/30/2018 8:29:59 PM
Surr: Toluene-d8	102	64.5 - 151		%Rec	1	10/30/2018 8:29:59 PM
Surr: 1-Bromo-4-fluorobenzene	100	54.8 - 168		%Rec	1	10/30/2018 8:29:59 PM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22430 Analyst: WC			
Lead	1.40	0.176		mg/Kg-dry	1	10/30/2018 6:21:22 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47278 Analyst: SS			
Percent Moisture	15.3	0.500		wt%	1	10/31/2018 9:38:54 AM





**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-041  
**Client Sample ID:** S-KSB-38: 23ft

**Collection Date:** 10/24/2018 3:31:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 22455 Analyst: SB

Diesel (Fuel Oil)	ND	20.6		mg/Kg-dry	1	10/31/2018 3:08:34 PM
Heavy Oil	ND	51.4		mg/Kg-dry	1	10/31/2018 3:08:34 PM
Surr: 2-Fluorobiphenyl	87.2	50 - 150		%Rec	1	10/31/2018 3:08:34 PM
Surr: o-Terphenyl	86.4	50 - 150		%Rec	1	10/31/2018 3:08:34 PM

**Gasoline by NWTPH-Gx**

Batch ID: 22469 Analyst: KT

Gasoline	ND	5.91		mg/Kg-dry	1	10/31/2018 12:10:13 PM
Surr: 4-Bromofluorobenzene	103	65 - 135		%Rec	1	10/31/2018 12:10:13 PM
Surr: Toluene-d8	95.3	65 - 135		%Rec	1	10/31/2018 12:10:13 PM

**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 22469 Analyst: KT

Methyl tert-butyl ether (MTBE)	ND	0.0591		mg/Kg-dry	1	10/31/2018 12:10:13 PM
1,2-Dichloroethane	ND	0.0236		mg/Kg-dry	1	10/31/2018 12:10:13 PM
Benzene	ND	0.0236		mg/Kg-dry	1	10/31/2018 12:10:13 PM
Toluene	ND	0.0236		mg/Kg-dry	1	10/31/2018 12:10:13 PM
1,2-Dibromoethane (EDB)	ND	0.00591		mg/Kg-dry	1	10/31/2018 12:10:13 PM
Ethylbenzene	ND	0.0296		mg/Kg-dry	1	10/31/2018 12:10:13 PM
m,p-Xylene	ND	0.0591		mg/Kg-dry	1	10/31/2018 12:10:13 PM
o-Xylene	ND	0.0296		mg/Kg-dry	1	10/31/2018 12:10:13 PM
Naphthalene	0.0625	0.0591		mg/Kg-dry	1	10/31/2018 12:10:13 PM
Surr: Dibromofluoromethane	77.0	56.5 - 129		%Rec	1	10/31/2018 12:10:13 PM
Surr: Toluene-d8	99.8	64.5 - 151		%Rec	1	10/31/2018 12:10:13 PM
Surr: 1-Bromo-4-fluorobenzene	97.1	54.8 - 168		%Rec	1	10/31/2018 12:10:13 PM

**Total Metals by EPA Method 6020**

Batch ID: 22430 Analyst: WC

Lead	1.92	0.187		mg/Kg-dry	1	10/30/2018 6:25:24 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R47278 Analyst: SS

Percent Moisture	18.9	0.500		wt%	1	10/31/2018 9:38:54 AM
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**Client:** Kane Environmental, Inc.  
**Project:** Wexler - 82305  
**Lab ID:** 1810456-042  
**Client Sample ID:** S-KSB-38: 30ft

**Collection Date:** 10/24/2018 3:39:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>			Batch ID: 22455		Analyst: SB	
Diesel (Fuel Oil)	ND	23.3		mg/Kg-dry	1	10/31/2018 3:38:35 PM
Heavy Oil	ND	58.3		mg/Kg-dry	1	10/31/2018 3:38:35 PM
Surr: 2-Fluorobiphenyl	87.8	50 - 150		%Rec	1	10/31/2018 3:38:35 PM
Surr: o-Terphenyl	86.7	50 - 150		%Rec	1	10/31/2018 3:38:35 PM
<b><u>Gasoline by NWTPH-Gx</u></b>			Batch ID: 22469		Analyst: KT	
Gasoline	ND	4.82		mg/Kg-dry	1	10/31/2018 12:41:09 PM
Surr: 4-Bromofluorobenzene	104	65 - 135		%Rec	1	10/31/2018 12:41:09 PM
Surr: Toluene-d8	102	65 - 135		%Rec	1	10/31/2018 12:41:09 PM
<b><u>Volatile Organic Compounds by EPA Method 8260C</u></b>			Batch ID: 22469		Analyst: KT	
Methyl tert-butyl ether (MTBE)	ND	0.0482		mg/Kg-dry	1	10/31/2018 12:41:09 PM
1,2-Dichloroethane	ND	0.0193		mg/Kg-dry	1	10/31/2018 12:41:09 PM
Benzene	ND	0.0193		mg/Kg-dry	1	10/31/2018 12:41:09 PM
Toluene	ND	0.0193		mg/Kg-dry	1	10/31/2018 12:41:09 PM
1,2-Dibromoethane (EDB)	ND	0.00482		mg/Kg-dry	1	10/31/2018 12:41:09 PM
Ethylbenzene	ND	0.0241		mg/Kg-dry	1	10/31/2018 12:41:09 PM
m,p-Xylene	ND	0.0482		mg/Kg-dry	1	10/31/2018 12:41:09 PM
o-Xylene	ND	0.0241		mg/Kg-dry	1	10/31/2018 12:41:09 PM
Naphthalene	ND	0.0482		mg/Kg-dry	1	10/31/2018 12:41:09 PM
Surr: Dibromofluoromethane	81.5	56.5 - 129		%Rec	1	10/31/2018 12:41:09 PM
Surr: Toluene-d8	105	64.5 - 151		%Rec	1	10/31/2018 12:41:09 PM
Surr: 1-Bromo-4-fluorobenzene	97.6	54.8 - 168		%Rec	1	10/31/2018 12:41:09 PM
<b><u>Total Metals by EPA Method 6020</u></b>			Batch ID: 22430		Analyst: WC	
Lead	1.64	0.181		mg/Kg-dry	1	10/30/2018 6:29:25 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>			Batch ID: R47278		Analyst: SS	
Percent Moisture	21.3	0.500		wt%	1	10/31/2018 9:38:54 AM



**Work Order:** 1810456  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Total Metals by EPA Method 6020**

Sample ID <b>MB-22428</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>10/29/2018</b>	RunNo: <b>47249</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>22428</b>	Analysis Date: <b>10/29/2018</b>	SeqNo: <b>920015</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead ND 0.154

Sample ID <b>LCS-22428</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>	Prep Date: <b>10/29/2018</b>	RunNo: <b>47249</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>22428</b>	Analysis Date: <b>10/29/2018</b>	SeqNo: <b>920016</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 22.2 0.154 19.23 0 116 80 120

Sample ID <b>1810413-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>10/29/2018</b>	RunNo: <b>47249</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>22428</b>	Analysis Date: <b>10/29/2018</b>	SeqNo: <b>920018</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 2.47 0.160 1.769 33.2 20 R

**NOTES:**

R - High RPD observed. The method is in control as indicated by the LCS.

Sample ID <b>1810413-001AMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>10/29/2018</b>	RunNo: <b>47249</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>22428</b>	Analysis Date: <b>10/29/2018</b>	SeqNo: <b>920022</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 21.7 0.161 20.17 1.769 98.6 75 125

Sample ID <b>1810413-001AMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>10/29/2018</b>	RunNo: <b>47249</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>22428</b>	Analysis Date: <b>10/29/2018</b>	SeqNo: <b>920023</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 22.1 0.161 20.17 1.769 101 75 125 21.66 1.86 20



Date: 11/1/2018

**Work Order:** 1810456  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Total Metals by EPA Method 6020**

Sample ID	<b>MB-22429</b>	SampType:	<b>MBLK</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>10/29/2018</b>	RunNo:	<b>47280</b>		
Client ID:	<b>MBLKS</b>	Batch ID:	<b>22429</b>			Analysis Date:	<b>10/30/2018</b>	SeqNo:	<b>920679</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead ND 0.147

Sample ID	<b>LCS-22429</b>	SampType:	<b>LCS</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>10/29/2018</b>	RunNo:	<b>47280</b>		
Client ID:	<b>LCSS</b>	Batch ID:	<b>22429</b>			Analysis Date:	<b>10/30/2018</b>	SeqNo:	<b>920682</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 18.7 0.153 19.08 0 97.8 80 120

Sample ID	<b>1810456-013ADUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/29/2018</b>	RunNo:	<b>47280</b>		
Client ID:	<b>S-KSB-31: 2.5ft</b>	Batch ID:	<b>22429</b>			Analysis Date:	<b>10/30/2018</b>	SeqNo:	<b>920684</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 3.17 0.188 3.348 5.56 20

Sample ID	<b>1810456-013AMS</b>	SampType:	<b>MS</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/29/2018</b>	RunNo:	<b>47280</b>		
Client ID:	<b>S-KSB-31: 2.5ft</b>	Batch ID:	<b>22429</b>			Analysis Date:	<b>10/30/2018</b>	SeqNo:	<b>920686</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 23.7 0.189 23.68 3.348 85.8 75 125

Sample ID	<b>1810456-013AMSD</b>	SampType:	<b>MSD</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/29/2018</b>	RunNo:	<b>47280</b>		
Client ID:	<b>S-KSB-31: 2.5ft</b>	Batch ID:	<b>22429</b>			Analysis Date:	<b>10/30/2018</b>	SeqNo:	<b>920687</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 22.1 0.188 23.51 3.348 79.9 75 125 23.68 6.69 20

**Work Order:** 1810456  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Total Metals by EPA Method 6020**

Sample ID <b>MB-22430</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>10/29/2018</b>	RunNo: <b>47281</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>22430</b>	Analysis Date: <b>10/30/2018</b>	SeqNo: <b>920752</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead ND 0.153

Sample ID <b>LCS-22430</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>	Prep Date: <b>10/29/2018</b>	RunNo: <b>47281</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>22430</b>	Analysis Date: <b>10/30/2018</b>	SeqNo: <b>920753</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 19.4 0.152 18.94 0 102 80 120

Sample ID <b>1810456-033ADUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>10/29/2018</b>	RunNo: <b>47281</b>							
Client ID: <b>S-KSB-36: 12.5ft</b>	Batch ID: <b>22430</b>	Analysis Date: <b>10/30/2018</b>	SeqNo: <b>920757</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 3.46 0.198 2.654 26.5 20 R

**NOTES:**

R - High RPD observed. The method is in control as indicated by the LCS.

Sample ID <b>1810456-033AMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>10/29/2018</b>	RunNo: <b>47281</b>							
Client ID: <b>S-KSB-36: 12.5ft</b>	Batch ID: <b>22430</b>	Analysis Date: <b>10/30/2018</b>	SeqNo: <b>920759</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 26.5 0.199 24.89 2.654 95.7 75 125

Sample ID <b>1810456-033AMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>10/29/2018</b>	RunNo: <b>47281</b>							
Client ID: <b>S-KSB-36: 12.5ft</b>	Batch ID: <b>22430</b>	Analysis Date: <b>10/30/2018</b>	SeqNo: <b>920760</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 25.0 0.199 24.89 2.654 89.8 75 125 26.49 5.71 20

**Work Order:** 1810456  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID <b>MB-22436</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>10/29/2018</b>	RunNo: <b>47263</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>22436</b>		Analysis Date: <b>10/29/2018</b>	SeqNo: <b>920226</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	15.5		20.00		77.3	50	150				
Surr: o-Terphenyl	16.2		20.00		81.0	50	150				

Sample ID <b>LCS-22436</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>	Prep Date: <b>10/29/2018</b>	RunNo: <b>47263</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>22436</b>		Analysis Date: <b>10/29/2018</b>	SeqNo: <b>920227</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	489	20.0	500.0	0	97.8	65	135				
Surr: 2-Fluorobiphenyl	16.6		20.00		83.0	50	150				
Surr: o-Terphenyl	18.1		20.00		90.4	50	150				

Sample ID <b>1810404-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>10/29/2018</b>	RunNo: <b>47263</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>22436</b>		Analysis Date: <b>10/29/2018</b>	SeqNo: <b>920229</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	23.1						0		30	
Heavy Oil	ND	57.9						0		30	
Surr: 2-Fluorobiphenyl	10.4		23.14		44.8	50	150		0		S
Surr: o-Terphenyl	11.6		23.14		50.2	50	150		0		

**NOTES:**

S - Outlying surrogate recovery(ies) observed. A duplicate analysis was performed and recovered within range.

Sample ID <b>1810404-001AMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>10/29/2018</b>	RunNo: <b>47263</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>22436</b>		Analysis Date: <b>10/29/2018</b>	SeqNo: <b>920230</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	536	24.5	611.4	0	87.7	65	135				
Surr: 2-Fluorobiphenyl	12.7		24.46		52.1	50	150				

**Work Order:** 1810456  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID <b>1810404-001AMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>			Prep Date: <b>10/29/2018</b>	RunNo: <b>47263</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>22436</b>				Analysis Date: <b>10/29/2018</b>	SeqNo: <b>920230</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: o-Terphenyl                      15.0                      24.46                      61.2                      50                      150

Sample ID <b>1810404-001AMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>			Prep Date: <b>10/29/2018</b>	RunNo: <b>47263</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>22436</b>				Analysis Date: <b>10/29/2018</b>	SeqNo: <b>920231</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)                      654                      23.6                      589.5                      0                      111                      65                      135                      536.2                      19.8                      30  
Surr: 2-Fluorobiphenyl                      18.2                      23.58                      77.1                      50                      150                      0  
Surr: o-Terphenyl                      20.4                      23.58                      86.7                      50                      150                      0

Sample ID <b>1810404-010ADUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>			Prep Date: <b>10/29/2018</b>	RunNo: <b>47263</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>22436</b>				Analysis Date: <b>10/30/2018</b>	SeqNo: <b>920242</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)                      ND                      18.0                      0                      30  
Heavy Oil                      ND                      45.0                      0                      30  
Surr: 2-Fluorobiphenyl                      19.7                      17.98                      110                      50                      150                      0  
Surr: o-Terphenyl                      21.0                      17.98                      117                      50                      150                      0

Sample ID <b>MB-22454</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>			Prep Date: <b>10/30/2018</b>	RunNo: <b>47313</b>					
Client ID: <b>MBLKS</b>	Batch ID: <b>22454</b>				Analysis Date: <b>10/30/2018</b>	SeqNo: <b>921348</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)                      ND                      20.0  
Heavy Oil                      ND                      50.0  
Surr: 2-Fluorobiphenyl                      17.2                      20.00                      86.2                      50                      150  
Surr: o-Terphenyl                      18.4                      20.00                      91.8                      50                      150



**Work Order:** 1810456  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID	<b>LCS-22454</b>	SampType:	<b>LCS</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>10/30/2018</b>	RunNo:	<b>47313</b>		
Client ID:	<b>LCSS</b>	Batch ID:	<b>22454</b>			Analysis Date:	<b>10/30/2018</b>	SeqNo:	<b>921349</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	551	20.0	500.0	0	110	65	135				
Surr: 2-Fluorobiphenyl	19.5		20.00		97.7	50	150				
Surr: o-Terphenyl	21.5		20.00		107	50	150				

Sample ID	<b>1810456-005ADUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/30/2018</b>	RunNo:	<b>47313</b>		
Client ID:	<b>S-KSB-29: 5ft</b>	Batch ID:	<b>22454</b>			Analysis Date:	<b>10/30/2018</b>	SeqNo:	<b>921351</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	22.5						0		30	
Heavy Oil	ND	56.2						0		30	
Surr: 2-Fluorobiphenyl	12.4		22.46		55.3	50	150		0		
Surr: o-Terphenyl	13.5		22.46		60.3	50	150		0		

Sample ID	<b>1810456-005AMS</b>	SampType:	<b>MS</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/30/2018</b>	RunNo:	<b>47313</b>		
Client ID:	<b>S-KSB-29: 5ft</b>	Batch ID:	<b>22454</b>			Analysis Date:	<b>10/30/2018</b>	SeqNo:	<b>921352</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	587	22.6	565.6	0	104	65	135				
Surr: 2-Fluorobiphenyl	13.5		22.62		59.8	50	150				
Surr: o-Terphenyl	15.5		22.62		68.7	50	150				

Sample ID	<b>1810456-005AMSD</b>	SampType:	<b>MSD</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/30/2018</b>	RunNo:	<b>47313</b>		
Client ID:	<b>S-KSB-29: 5ft</b>	Batch ID:	<b>22454</b>			Analysis Date:	<b>10/30/2018</b>	SeqNo:	<b>921353</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	522	23.0	575.3	0	90.7	65	135	587.5	11.9	30	
Surr: 2-Fluorobiphenyl	14.5		23.01		62.9	50	150		0		
Surr: o-Terphenyl	16.5		23.01		71.5	50	150		0		

**Work Order:** 1810456  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID <b>MB-22455</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>			Prep Date: <b>10/30/2018</b>	RunNo: <b>47321</b>					
Client ID: <b>MBLKS</b>	Batch ID: <b>22455</b>				Analysis Date: <b>10/31/2018</b>	SeqNo: <b>921537</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	19.8		20.00		98.8	50	150				
Surr: o-Terphenyl	19.3		20.00		96.5	50	150				

Sample ID <b>LCS-22455</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>			Prep Date: <b>10/30/2018</b>	RunNo: <b>47321</b>					
Client ID: <b>LCSS</b>	Batch ID: <b>22455</b>				Analysis Date: <b>10/31/2018</b>	SeqNo: <b>921538</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	507	20.0	500.0	0	101	65	135				
Surr: 2-Fluorobiphenyl	20.3		20.00		102	50	150				
Surr: o-Terphenyl	19.1		20.00		95.7	50	150				

Sample ID <b>1810456-025ADUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>			Prep Date: <b>10/30/2018</b>	RunNo: <b>47321</b>					
Client ID: <b>S-KSB-34: 2ft</b>	Batch ID: <b>22455</b>				Analysis Date: <b>10/31/2018</b>	SeqNo: <b>921540</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	21.6						0		30	
Heavy Oil	ND	54.0						0		30	
Surr: 2-Fluorobiphenyl	21.1		21.61		97.8	50	150		0		
Surr: o-Terphenyl	20.6		21.61		95.3	50	150		0		

Sample ID <b>1810456-025AMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>			Prep Date: <b>10/30/2018</b>	RunNo: <b>47321</b>					
Client ID: <b>S-KSB-34: 2ft</b>	Batch ID: <b>22455</b>				Analysis Date: <b>10/31/2018</b>	SeqNo: <b>921541</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	541	21.6	540.9	0	100	65	135				
Surr: 2-Fluorobiphenyl	21.1		21.64		97.4	50	150				
Surr: o-Terphenyl	20.0		21.64		92.6	50	150				



Date: 11/1/2018

**Work Order:** 1810456  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID	<b>1810456-025AMS</b>	SampType:	<b>MS</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/30/2018</b>	RunNo:	<b>47321</b>		
Client ID:	<b>S-KSB-34: 2ft</b>	Batch ID:	<b>22455</b>			Analysis Date:	<b>10/31/2018</b>	SeqNo:	<b>921541</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID	<b>1810456-015ADUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/30/2018</b>	RunNo:	<b>47313</b>		
Client ID:	<b>S-KSB-31: 13ft</b>	Batch ID:	<b>22454</b>			Analysis Date:	<b>10/31/2018</b>	SeqNo:	<b>921362</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	23.9						0		30	
Heavy Oil	ND	59.7						0		30	
Surr: 2-Fluorobiphenyl	24.4		23.86		102	50	150		0		
Surr: o-Terphenyl	25.9		23.86		108	50	150		0		

Sample ID	<b>1810456-025AMSD</b>	SampType:	<b>MSD</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/30/2018</b>	RunNo:	<b>47321</b>		
Client ID:	<b>S-KSB-34: 2ft</b>	Batch ID:	<b>22455</b>			Analysis Date:	<b>10/31/2018</b>	SeqNo:	<b>921542</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	536	20.9	522.3	0	103	65	135	540.6	0.858	30	
Surr: 2-Fluorobiphenyl	21.8		20.89		104	50	150		0		
Surr: o-Terphenyl	20.7		20.89		99.3	50	150		0		

Sample ID	<b>1810456-035ADUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/30/2018</b>	RunNo:	<b>47321</b>		
Client ID:	<b>S-KSB-37: 6ft</b>	Batch ID:	<b>22455</b>			Analysis Date:	<b>10/31/2018</b>	SeqNo:	<b>921555</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	22.0						0		30	
Heavy Oil	ND	54.9						0		30	
Surr: 2-Fluorobiphenyl	20.1		21.95		91.8	50	150		0		
Surr: o-Terphenyl	20.0		21.95		91.3	50	150		0		

**Work Order:** 1810456  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID	<b>LCS-22450</b>	SampType:	<b>LCS</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>10/29/2018</b>	RunNo:	<b>47243</b>		
Client ID:	<b>LCSS</b>	Batch ID:	<b>22450</b>			Analysis Date:	<b>10/29/2018</b>	SeqNo:	<b>919902</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	26.2	5.00	25.00	0	105	65	135				
Surr: Toluene-d8	1.22		1.250		97.4	65	135				
Surr: 4-Bromofluorobenzene	1.30		1.250		104	65	135				

Sample ID	<b>MB-22450</b>	SampType:	<b>MBLK</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>10/29/2018</b>	RunNo:	<b>47243</b>		
Client ID:	<b>MBLKS</b>	Batch ID:	<b>22450</b>			Analysis Date:	<b>10/29/2018</b>	SeqNo:	<b>919903</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	5.00									
Surr: Toluene-d8	1.21		1.250		96.8	65	135				
Surr: 4-Bromofluorobenzene	1.29		1.250		103	65	135				

Sample ID	<b>1810456-001BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/29/2018</b>	RunNo:	<b>47243</b>		
Client ID:	<b>S-KSB-28: 5.5ft</b>	Batch ID:	<b>22450</b>			Analysis Date:	<b>10/29/2018</b>	SeqNo:	<b>919881</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	6.22						0		30	
Surr: Toluene-d8	1.51		1.554		97.2	65	135		0		
Surr: 4-Bromofluorobenzene	1.60		1.554		103	65	135		0		

Sample ID	<b>1810456-011BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/29/2018</b>	RunNo:	<b>47243</b>		
Client ID:	<b>S-KSB-30: 14ft</b>	Batch ID:	<b>22450</b>			Analysis Date:	<b>10/30/2018</b>	SeqNo:	<b>919892</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	6.23						0		30	
Surr: Toluene-d8	1.49		1.558		95.5	65	135		0		
Surr: 4-Bromofluorobenzene	1.60		1.558		102	65	135		0		

**Work Order:** 1810456  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID	<b>LCS-22451</b>	SampType:	<b>LCS</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>10/29/2018</b>	RunNo:	<b>47319</b>		
Client ID:	<b>LCSS</b>	Batch ID:	<b>22451</b>			Analysis Date:	<b>10/30/2018</b>	SeqNo:	<b>921492</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	25.1	5.00	25.00	0	100	65	135				
Surr: Toluene-d8	1.24		1.250		99.5	65	135				
Surr: 4-Bromofluorobenzene	1.25		1.250		100	65	135				

Sample ID	<b>MB-22451</b>	SampType:	<b>MBLK</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>10/29/2018</b>	RunNo:	<b>47319</b>		
Client ID:	<b>MBLKS</b>	Batch ID:	<b>22451</b>			Analysis Date:	<b>10/30/2018</b>	SeqNo:	<b>921493</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	5.00									
Surr: Toluene-d8	1.29		1.250		104	65	135				
Surr: 4-Bromofluorobenzene	1.20		1.250		95.9	65	135				

Sample ID	<b>1810456-021BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/29/2018</b>	RunNo:	<b>47319</b>		
Client ID:	<b>S-KSB-33: 5ft</b>	Batch ID:	<b>22451</b>			Analysis Date:	<b>10/30/2018</b>	SeqNo:	<b>921466</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	6.96						0		30	
Surr: Toluene-d8	1.80		1.741		104	65	135		0		
Surr: 4-Bromofluorobenzene	1.76		1.741		101	65	135		0		

Sample ID	<b>1810456-020BMS</b>	SampType:	<b>MS</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/29/2018</b>	RunNo:	<b>47243</b>		
Client ID:	<b>S-KSB-32: 20ft</b>	Batch ID:	<b>22450</b>			Analysis Date:	<b>10/30/2018</b>	SeqNo:	<b>920162</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	47.7	6.95	34.73	15.74	91.9	65	135				
Surr: Toluene-d8	1.67		1.736		96.3	65	135				
Surr: 4-Bromofluorobenzene	1.81		1.736		104	65	135				

**Work Order:** 1810456  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID	<b>1810456-020BMSD</b>	SampType:	<b>MSD</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/29/2018</b>	RunNo:	<b>47243</b>		
Client ID:	<b>S-KSB-32: 20ft</b>	Batch ID:	<b>22450</b>			Analysis Date:	<b>10/30/2018</b>	SeqNo:	<b>920292</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	40.2	6.95	34.73	15.74	70.3	65	135	47.67	17.1	30	
Surr: Toluene-d8	1.68		1.736		96.8	65	135		0		
Surr: 4-Bromofluorobenzene	1.86		1.736		107	65	135		0		

Sample ID	<b>1810456-031BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/29/2018</b>	RunNo:	<b>47319</b>		
Client ID:	<b>S-KSB-35: 20ft</b>	Batch ID:	<b>22451</b>			Analysis Date:	<b>10/30/2018</b>	SeqNo:	<b>921477</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	6.61						0		30	
Surr: Toluene-d8	1.70		1.653		103	65	135		0		
Surr: 4-Bromofluorobenzene	1.66		1.653		100	65	135		0		

Sample ID	<b>1810456-040BMS</b>	SampType:	<b>MS</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/29/2018</b>	RunNo:	<b>47319</b>		
Client ID:	<b>S-KSB-38: 15ft</b>	Batch ID:	<b>22451</b>			Analysis Date:	<b>10/30/2018</b>	SeqNo:	<b>921487</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	17.6	5.79	28.94	0	60.8	65	135				S
Surr: Toluene-d8	1.51		1.447		104	65	135				
Surr: 4-Bromofluorobenzene	1.48		1.447		102	65	135				

**NOTES:**

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range.

Sample ID	<b>1810456-040BMSD</b>	SampType:	<b>MSD</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/29/2018</b>	RunNo:	<b>47319</b>		
Client ID:	<b>S-KSB-38: 15ft</b>	Batch ID:	<b>22451</b>			Analysis Date:	<b>10/30/2018</b>	SeqNo:	<b>921488</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	26.8	5.79	28.94	0	92.6	65	135	17.61	41.4	30	R
Surr: Toluene-d8	1.50		1.447		104	65	135		0		
Surr: 4-Bromofluorobenzene	1.43		1.447		98.8	65	135		0		

**Work Order:** 1810456  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID	<b>1810456-040BMSD</b>	SampType:	<b>MSD</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/29/2018</b>	RunNo:	<b>47319</b>				
Client ID:	<b>S-KSB-38: 15ft</b>	Batch ID:	<b>22451</b>			Analysis Date:	<b>10/30/2018</b>	SeqNo:	<b>921488</b>				
Analyte		Result		RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**NOTES:**

R - High RPD observed, spike recoveries are within range.

Sample ID	<b>LCS-22469</b>	SampType:	<b>LCS</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>10/31/2018</b>	RunNo:	<b>47311</b>				
Client ID:	<b>LCSS</b>	Batch ID:	<b>22469</b>			Analysis Date:	<b>10/31/2018</b>	SeqNo:	<b>921309</b>				
Analyte		Result		RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline		26.9		5.00	25.00	0	107	65	135				
Surr: Toluene-d8		1.21			1.250		97.1	65	135				
Surr: 4-Bromofluorobenzene		1.27			1.250		101	65	135				

Sample ID	<b>MB-22469</b>	SampType:	<b>MBLK</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>10/31/2018</b>	RunNo:	<b>47311</b>				
Client ID:	<b>MBLKS</b>	Batch ID:	<b>22469</b>			Analysis Date:	<b>10/31/2018</b>	SeqNo:	<b>921310</b>				
Analyte		Result		RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline		ND		5.00									
Surr: Toluene-d8		1.21			1.250		96.7	65	135				
Surr: 4-Bromofluorobenzene		1.28			1.250		102	65	135				

Sample ID	<b>1810456-042BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/31/2018</b>	RunNo:	<b>47311</b>				
Client ID:	<b>S-KSB-38: 30ft</b>	Batch ID:	<b>22469</b>			Analysis Date:	<b>10/31/2018</b>	SeqNo:	<b>921303</b>				
Analyte		Result		RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline		ND		4.82									
Surr: Toluene-d8		1.17			1.206		97.3	65	135				
Surr: 4-Bromofluorobenzene		1.29			1.206		107	65	135				



**Work Order:** 1810456  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID <b>1810505-001BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>		Prep Date: <b>10/31/2018</b>	RunNo: <b>47311</b>						
Client ID: <b>BATCH</b>	Batch ID: <b>22469</b>			Analysis Date: <b>10/31/2018</b>	SeqNo: <b>921306</b>						
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	6.24						0		30	
Surr: Toluene-d8	1.51		1.560		96.7	65	135		0		
Surr: 4-Bromofluorobenzene	1.67		1.560		107	65	135		0		

Sample ID <b>1810456-041BMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>		Prep Date: <b>10/31/2018</b>	RunNo: <b>47311</b>						
Client ID: <b>S-KSB-38: 23ft</b>	Batch ID: <b>22469</b>			Analysis Date: <b>10/31/2018</b>	SeqNo: <b>921300</b>						
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	59.1	5.91	29.56	29.75	99.5	65	135				
Surr: Toluene-d8	1.43		1.478		96.6	65	135				
Surr: 4-Bromofluorobenzene	1.58		1.478		107	65	135				

Sample ID <b>1810456-041BMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>		Prep Date: <b>10/31/2018</b>	RunNo: <b>47311</b>						
Client ID: <b>S-KSB-38: 23ft</b>	Batch ID: <b>22469</b>			Analysis Date: <b>10/31/2018</b>	SeqNo: <b>921301</b>						
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	59.8	5.91	29.56	29.75	102	65	135	59.15	1.11	30	
Surr: Toluene-d8	1.42		1.478		96.3	65	135		0		
Surr: 4-Bromofluorobenzene	1.57		1.478		107	65	135		0		

**Work Order:** 1810456  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	LCS-22450	SampType:	LCS	Units:	mg/Kg	Prep Date:	10/29/2018	RunNo:	47244		
Client ID:	LCSS	Batch ID:	22450	Analysis Date:	10/29/2018	SeqNo:	919940				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.10	0.0500	1.000	0	110	44.1	152				
1,2-Dichloroethane	1.12	0.0200	1.000	0	112	50.9	162				
Benzene	1.04	0.0200	1.000	0	104	64.3	133				
Toluene	1.04	0.0200	1.000	0	104	67.3	138				
1,2-Dibromoethane (EDB)	1.03	0.00500	1.000	0	103	50.5	154				
Ethylbenzene	1.05	0.0250	1.000	0	105	74	129				
m,p-Xylene	2.08	0.0500	2.000	0	104	70	124				
o-Xylene	0.968	0.0250	1.000	0	96.8	68.1	139				
Naphthalene	1.09	0.0500	1.000	0	109	46.5	167				
Surr: Dibromofluoromethane	0.910		1.250		72.8	56.5	129				
Surr: Toluene-d8	1.24		1.250		99.1	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.25		1.250		99.6	54.8	168				

Sample ID	MB-22450	SampType:	MBLK	Units:	mg/Kg	Prep Date:	10/29/2018	RunNo:	47244		
Client ID:	MBLKS	Batch ID:	22450	Analysis Date:	10/29/2018	SeqNo:	919941				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.0500									
1,2-Dichloroethane	ND	0.0200									
Benzene	ND	0.0200									
Toluene	ND	0.0200									
1,2-Dibromoethane (EDB)	ND	0.00500									
Ethylbenzene	ND	0.0250									
m,p-Xylene	ND	0.0500									
o-Xylene	ND	0.0250									
Naphthalene	ND	0.0500									
Surr: Dibromofluoromethane	0.992		1.250		79.3	56.5	129				
Surr: Toluene-d8	1.24		1.250		98.9	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.21		1.250		96.9	54.8	168				

**Work Order:** 1810456  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	<b>1810456-001BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/29/2018</b>	RunNo:	<b>47244</b>		
Client ID:	<b>S-KSB-28: 5.5ft</b>	Batch ID:	<b>22450</b>			Analysis Date:	<b>10/29/2018</b>	SeqNo:	<b>919909</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.0622						0		30	
1,2-Dichloroethane	ND	0.0249						0		30	
Benzene	ND	0.0249						0		30	
Toluene	ND	0.0249						0		30	
1,2-Dibromoethane (EDB)	ND	0.00622						0		30	
Ethylbenzene	ND	0.0311						0		30	
m,p-Xylene	ND	0.0622						0		30	
o-Xylene	ND	0.0311						0		30	
Naphthalene	ND	0.0622						0		30	
Surr: Dibromofluoromethane	1.17		1.554		75.6	56.5	129		0		
Surr: Toluene-d8	1.55		1.554		99.7	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.51		1.554		97.0	54.8	168		0		

Sample ID	<b>1810456-010BMS</b>	SampType:	<b>MS</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/29/2018</b>	RunNo:	<b>47244</b>		
Client ID:	<b>S-KSB-30: 10ft</b>	Batch ID:	<b>22450</b>			Analysis Date:	<b>10/30/2018</b>	SeqNo:	<b>919927</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.27	0.0595	1.191	0	107	58.5	167				
1,2-Dichloroethane	1.32	0.0238	1.191	0	111	51.3	139				
Benzene	1.23	0.0238	1.191	0	103	63.5	133				
Toluene	1.22	0.0238	1.191	0	102	63.4	132				
1,2-Dibromoethane (EDB)	1.20	0.00595	1.191	0	101	50.4	136				
Ethylbenzene	1.23	0.0298	1.191	0	103	54.5	134				
m,p-Xylene	2.40	0.0595	2.382	0	101	53.1	132				
o-Xylene	1.12	0.0298	1.191	0	93.9	53.3	139				
Naphthalene	1.27	0.0595	1.191	0	107	52.3	124				
Surr: Dibromofluoromethane	1.15		1.488		77.4	56.5	129				
Surr: Toluene-d8	1.49		1.488		100	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.49		1.488		99.8	54.8	168				

**Work Order:** 1810456  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1810456-010BMSD	SampType:	MSD	Units:	mg/Kg-dry	Prep Date:	10/29/2018	RunNo:	47244		
Client ID:	S-KSB-30: 10ft	Batch ID:	22450	Analysis Date:	10/30/2018	SeqNo:	919928				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.35	0.0595	1.191	0	113	58.5	167	1.271	5.93	30	
1,2-Dichloroethane	1.32	0.0238	1.191	0	111	51.3	139	1.319	0.224	30	
Benzene	1.32	0.0238	1.191	0	111	63.5	133	1.229	7.15	30	
Toluene	1.31	0.0238	1.191	0	110	63.4	132	1.216	7.24	30	
1,2-Dibromoethane (EDB)	1.24	0.00595	1.191	0	104	50.4	136	1.202	3.11	30	
Ethylbenzene	1.34	0.0298	1.191	0	112	54.5	134	1.227	8.59	30	
m,p-Xylene	2.61	0.0595	2.382	0	110	53.1	132	2.402	8.45	30	
o-Xylene	1.28	0.0298	1.191	0	107	53.3	139	1.118	13.2	30	
Naphthalene	1.40	0.0595	1.191	0	118	52.3	124	1.273	9.67	30	
Surr: Dibromofluoromethane	1.20		1.488		80.3	56.5	129		0		
Surr: Toluene-d8	1.47		1.488		98.9	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.62		1.488		109	54.8	168		0		

Sample ID	LCS-22451	SampType:	LCS	Units:	mg/Kg	Prep Date:	10/29/2018	RunNo:	47314		
Client ID:	LCSS	Batch ID:	22451	Analysis Date:	10/30/2018	SeqNo:	921411				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.19	0.0500	1.000	0	119	44.1	152				
1,2-Dichloroethane	1.14	0.0200	1.000	0	114	50.9	162				
Benzene	1.16	0.0200	1.000	0	116	64.3	133				
Toluene	1.10	0.0200	1.000	0	110	67.3	138				
1,2-Dibromoethane (EDB)	1.01	0.00500	1.000	0	101	50.5	154				
Ethylbenzene	1.14	0.0250	1.000	0	114	74	129				
m,p-Xylene	2.19	0.0500	2.000	0	110	70	124				
o-Xylene	1.13	0.0250	1.000	0	113	68.1	139				
Naphthalene	1.10	0.0500	1.000	0	110	46.5	167				
Surr: Dibromofluoromethane	1.24		1.250		98.9	56.5	129				
Surr: Toluene-d8	1.25		1.250		100	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.21		1.250		97.2	54.8	168				

**Work Order:** 1810456  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	<b>1810456-011BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/29/2018</b>	RunNo:	<b>47244</b>		
Client ID:	<b>S-KSB-30: 14ft</b>	Batch ID:	<b>22450</b>			Analysis Date:	<b>10/30/2018</b>	SeqNo:	<b>919930</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.0623						0		30	
1,2-Dichloroethane	ND	0.0249						0		30	
Benzene	ND	0.0249						0		30	
Toluene	ND	0.0249						0		30	
1,2-Dibromoethane (EDB)	ND	0.00623						0		30	
Ethylbenzene	ND	0.0312						0		30	
m,p-Xylene	ND	0.0623						0		30	
o-Xylene	ND	0.0312						0		30	
Naphthalene	ND	0.0623						0.06593	6.38	30	
Surr: Dibromofluoromethane	1.35		1.558		86.4	56.5	129		0		
Surr: Toluene-d8	1.52		1.558		97.6	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.50		1.558		96.5	54.8	168		0		

Sample ID	<b>MB-22451</b>	SampType:	<b>MBLK</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>10/29/2018</b>	RunNo:	<b>47314</b>		
Client ID:	<b>MBLKS</b>	Batch ID:	<b>22451</b>			Analysis Date:	<b>10/30/2018</b>	SeqNo:	<b>921412</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.0500									
1,2-Dichloroethane	ND	0.0200									
Benzene	ND	0.0200									
Toluene	ND	0.0200									
1,2-Dibromoethane (EDB)	ND	0.00500									
Ethylbenzene	ND	0.0250									
m,p-Xylene	ND	0.0500									
o-Xylene	ND	0.0250									
Naphthalene	ND	0.0500									
Surr: Dibromofluoromethane	1.20		1.250		95.9	56.5	129				
Surr: Toluene-d8	1.26		1.250		101	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.17		1.250		93.8	54.8	168				

**Work Order:** 1810456  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	<b>1810456-021BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/29/2018</b>	RunNo:	<b>47314</b>		
Client ID:	<b>S-KSB-33: 5ft</b>	Batch ID:	<b>22451</b>			Analysis Date:	<b>10/30/2018</b>	SeqNo:	<b>921385</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.0696						0		30	
1,2-Dichloroethane	ND	0.0279						0		30	
Benzene	ND	0.0279						0		30	
Toluene	ND	0.0279						0		30	
1,2-Dibromoethane (EDB)	ND	0.00696						0		30	
Ethylbenzene	ND	0.0348						0		30	
m,p-Xylene	ND	0.0696						0		30	
o-Xylene	ND	0.0348						0		30	
Naphthalene	ND	0.0696						0		30	
Surr: Dibromofluoromethane	1.64		1.741		94.0	56.5	129		0		
Surr: Toluene-d8	1.76		1.741		101	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.73		1.741		99.2	54.8	168		0		

Sample ID	<b>1810456-030BMS</b>	SampType:	<b>MS</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/29/2018</b>	RunNo:	<b>47314</b>		
Client ID:	<b>S-KSB-35: 7ft</b>	Batch ID:	<b>22451</b>			Analysis Date:	<b>10/30/2018</b>	SeqNo:	<b>921395</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.36	0.0609	1.219	0	111	58.5	167				
1,2-Dichloroethane	1.33	0.0244	1.219	0	109	51.3	139				
Benzene	1.31	0.0244	1.219	0	107	63.5	133				
Toluene	1.25	0.0244	1.219	0.005209	102	63.4	132				
1,2-Dibromoethane (EDB)	1.17	0.00609	1.219	0	95.7	50.4	136				
Ethylbenzene	1.25	0.0305	1.219	0	103	54.5	134				
m,p-Xylene	2.39	0.0609	2.438	0	98.1	53.1	132				
o-Xylene	1.22	0.0305	1.219	0	100	53.3	139				
Naphthalene	1.17	0.0609	1.219	0	96.3	52.3	124				
Surr: Dibromofluoromethane	1.53		1.523		100	56.5	129				
Surr: Toluene-d8	1.56		1.523		102	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.52		1.523		99.8	54.8	168				

**Work Order:** 1810456  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1810456-030BMSD	SampType:	MSD	Units:	mg/Kg-dry	Prep Date:	10/29/2018	RunNo:	47314		
Client ID:	S-KSB-35: 7ft	Batch ID:	22451	Analysis Date:	10/30/2018	SeqNo:	921396				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.34	0.0609	1.219	0	110	58.5	167	1.358	1.17	30	
1,2-Dichloroethane	1.27	0.0244	1.219	0	104	51.3	139	1.325	4.37	30	
Benzene	1.20	0.0244	1.219	0	98.2	63.5	133	1.307	8.77	30	
Toluene	1.14	0.0244	1.219	0.005209	92.8	63.4	132	1.247	9.35	30	
1,2-Dibromoethane (EDB)	1.16	0.00609	1.219	0	95.0	50.4	136	1.166	0.765	30	
Ethylbenzene	1.16	0.0305	1.219	0	95.3	54.5	134	1.252	7.49	30	
m,p-Xylene	2.23	0.0609	2.438	0	91.4	53.1	132	2.392	7.07	30	
o-Xylene	1.12	0.0305	1.219	0	92.2	53.3	139	1.221	8.36	30	
Naphthalene	1.19	0.0609	1.219	0	97.9	52.3	124	1.174	1.60	30	
Surr: Dibromofluoromethane	1.51		1.523		99.4	56.5	129		0		
Surr: Toluene-d8	1.54		1.523		101	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.54		1.523		101	54.8	168		0		

Sample ID	1810456-031BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	10/29/2018	RunNo:	47314		
Client ID:	S-KSB-35: 20ft	Batch ID:	22451	Analysis Date:	10/30/2018	SeqNo:	921398				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.0661						0		30	
1,2-Dichloroethane	ND	0.0264						0		30	
Benzene	ND	0.0264						0		30	
Toluene	ND	0.0264						0		30	
1,2-Dibromoethane (EDB)	ND	0.00661						0		30	
Ethylbenzene	ND	0.0331						0		30	
m,p-Xylene	ND	0.0661						0		30	
o-Xylene	ND	0.0331						0		30	
Naphthalene	ND	0.0661						0		30	
Surr: Dibromofluoromethane	1.56		1.653		94.3	56.5	129		0		
Surr: Toluene-d8	1.68		1.653		102	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.57		1.653		95.1	54.8	168		0		



**Work Order:** 1810456  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	LCS-22469	SampType:	LCS	Units:	mg/Kg	Prep Date:	10/31/2018	RunNo:	47318		
Client ID:	LCSS	Batch ID:	22469	Analysis Date:	10/31/2018	SeqNo:	921461				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.07	0.0500	1.000	0	107	44.1	152				
1,2-Dichloroethane	1.10	0.0200	1.000	0	110	50.9	162				
Benzene	1.01	0.0200	1.000	0	101	64.3	133				
Toluene	1.02	0.0200	1.000	0	102	67.3	138				
1,2-Dibromoethane (EDB)	1.01	0.00500	1.000	0	101	50.5	154				
Ethylbenzene	1.01	0.0250	1.000	0	101	74	129				
m,p-Xylene	2.01	0.0500	2.000	0	100	70	124				
o-Xylene	0.932	0.0250	1.000	0	93.2	68.1	139				
Naphthalene	1.10	0.0500	1.000	0	110	46.5	167				
Surr: Dibromofluoromethane	0.911		1.250		72.9	56.5	129				
Surr: Toluene-d8	1.26		1.250		100	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.25		1.250		99.9	54.8	168				

Sample ID	MB-22469	SampType:	MBLK	Units:	mg/Kg	Prep Date:	10/31/2018	RunNo:	47318		
Client ID:	MBLKS	Batch ID:	22469	Analysis Date:	10/31/2018	SeqNo:	921462				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.0500									
1,2-Dichloroethane	ND	0.0200									
Benzene	ND	0.0200									
Toluene	ND	0.0200									
1,2-Dibromoethane (EDB)	ND	0.00500									
Ethylbenzene	ND	0.0250									
m,p-Xylene	ND	0.0500									
o-Xylene	ND	0.0250									
Naphthalene	ND	0.0500									
Surr: Dibromofluoromethane	0.772		1.250		61.8	56.5	129				
Surr: Toluene-d8	1.25		1.250		99.9	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.20		1.250		96.2	54.8	168				



**Work Order:** 1810456  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	<b>1810456-042BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/31/2018</b>	RunNo:	<b>47318</b>		
Client ID:	<b>S-KSB-38: 30ft</b>	Batch ID:	<b>22469</b>			Analysis Date:	<b>10/31/2018</b>	SeqNo:	<b>921436</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.0482									
1,2-Dichloroethane (EDC)	ND	0.0193									
Benzene	ND	0.0193									
Toluene	ND	0.0193									
1,2-Dibromoethane (EDB)	ND	0.00482									
Ethylbenzene	ND	0.0241									
m,p-Xylene	ND	0.0482									
o-Xylene	ND	0.0241									
Naphthalene	ND	0.0482									
Surr: Dibromofluoromethane	0.951		1.206		78.9	56.5	129				
Surr: Toluene-d8	1.22		1.206		101	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.22		1.206		101	54.8	168				

Sample ID	<b>1810505-001BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/31/2018</b>	RunNo:	<b>47318</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>22469</b>			Analysis Date:	<b>10/31/2018</b>	SeqNo:	<b>921448</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.0624						0		30	
1,2-Dichloroethane	ND	0.0250						0		30	
Benzene	ND	0.0250						0		30	
Toluene	ND	0.0250						0		30	
1,2-Dibromoethane (EDB)	ND	0.00624						0		30	
Ethylbenzene	ND	0.0312						0		30	
m,p-Xylene	ND	0.0624						0		30	
o-Xylene	ND	0.0312						0		30	
Naphthalene	ND	0.0624						0		30	
Surr: Dibromofluoromethane	1.21		1.560		77.8	56.5	129		0		
Surr: Toluene-d8	1.55		1.560		99.1	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.59		1.560		102	54.8	168		0		

**Work Order:** 1810456  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>1810489-001BMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>10/31/2018</b>	RunNo: <b>47318</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>22469</b>		Analysis Date: <b>10/31/2018</b>	SeqNo: <b>921445</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methyl tert-butyl ether (MTBE)	0.799	0.0334	0.6675	0	120	58.5	167				
1,2-Dichloroethane	0.747	0.0133	0.6675	0	112	51.3	139				
Benzene	0.745	0.0133	0.6675	0.009513	110	63.5	133				
Toluene	0.743	0.0133	0.6675	0	111	63.4	132				
1,2-Dibromoethane (EDB)	0.689	0.00334	0.6675	0	103	50.4	136				
Ethylbenzene	0.752	0.0167	0.6675	0	113	54.5	134				
m,p-Xylene	1.46	0.0334	1.335	0.008698	109	53.1	132				
o-Xylene	0.678	0.0167	0.6675	0.006899	101	53.3	139				
Naphthalene	0.909	0.0334	0.6675	0	136	52.3	124				S
Surr: Dibromofluoromethane	0.611		0.8344		73.3	56.5	129				
Surr: Toluene-d8	0.831		0.8344		99.5	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.48		4.172		35.6	54.8	168				S

**NOTES:**

- S - Outlying spike recovery(ies) observed.
- S - Outlying surrogate recovery(ies) observed.

Sample ID <b>1810489-001BMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>10/31/2018</b>	RunNo: <b>47318</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>22469</b>		Analysis Date: <b>10/31/2018</b>	SeqNo: <b>921446</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methyl tert-butyl ether (MTBE)	0.736	0.0334	0.6675	0	110	58.5	167	0.7989	8.21	30	
1,2-Dichloroethane	0.726	0.0133	0.6675	0	109	51.3	139	0.7467	2.85	30	
Benzene	0.747	0.0133	0.6675	0.009513	110	63.5	133	0.7454	0.179	30	
Toluene	0.727	0.0133	0.6675	0	109	63.4	132	0.7428	2.13	30	
1,2-Dibromoethane (EDB)	0.659	0.00334	0.6675	0	98.7	50.4	136	0.6886	4.43	30	
Ethylbenzene	0.747	0.0167	0.6675	0	112	54.5	134	0.7516	0.619	30	
m,p-Xylene	1.44	0.0334	1.335	0.008698	108	53.1	132	1.462	1.22	30	
o-Xylene	0.682	0.0167	0.6675	0.006899	101	53.3	139	0.6783	0.482	30	
Naphthalene	0.895	0.0334	0.6675	0	134	52.3	124	0.9088	1.51	30	S
Surr: Dibromofluoromethane	0.647		0.8344		77.5	56.5	129		0		
Surr: Toluene-d8	0.821		0.8344		98.4	64.5	151		0		

**Work Order:** 1810456  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1810489-001BMSD	SampType:	MSD	Units:	mg/Kg-dry	Prep Date:	10/31/2018	RunNo:	47318		
Client ID:	BATCH	Batch ID:	22469	Analysis Date:	10/31/2018	SeqNo:	921446				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: 1-Bromo-4-fluorobenzene	1.49		4.172		35.6	54.8	168		0		S
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**NOTES:**  
 S - Outlying spike recovery(ies) observed.  
 S - Outlying surrogate recovery(ies) observed.



Date: 11/1/2018

**Work Order:** 1810456  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Sample Moisture (Percent Moisture)**

Sample ID <b>1810453-002ADUP</b>	SampType: <b>DUP</b>	Units: <b>wt%</b>	Prep Date: <b>10/29/2018</b>	RunNo: <b>47207</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>R47207</b>		Analysis Date: <b>10/29/2018</b>	SeqNo: <b>918771</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Percent Moisture	40.3	0.500						40.47	0.330	20
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Sample ID <b>1810456-011ADUP</b>	SampType: <b>DUP</b>	Units: <b>wt%</b>	Prep Date: <b>10/29/2018</b>	RunNo: <b>47207</b>							
Client ID: <b>S-KSB-30: 14ft</b>	Batch ID: <b>R47207</b>		Analysis Date: <b>10/29/2018</b>	SeqNo: <b>918783</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Percent Moisture	17.7	0.500						16.51	6.93	20
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Sample ID <b>1810456-021ADUP</b>	SampType: <b>DUP</b>	Units: <b>wt%</b>	Prep Date: <b>10/29/2018</b>	RunNo: <b>47223</b>							
Client ID: <b>S-KSB-33: 5ft</b>	Batch ID: <b>R47223</b>		Analysis Date: <b>10/29/2018</b>	SeqNo: <b>919307</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Percent Moisture	15.8	0.500						17.28	8.74	20
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Sample ID <b>1810456-032ADUP</b>	SampType: <b>DUP</b>	Units: <b>wt%</b>	Prep Date: <b>10/29/2018</b>	RunNo: <b>47223</b>							
Client ID: <b>S-KSB-36: 5ft</b>	Batch ID: <b>R47223</b>		Analysis Date: <b>10/29/2018</b>	SeqNo: <b>919319</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Percent Moisture	22.6	0.500						22.67	0.437	20
------------------	------	-------	--	--	--	--	--	-------	-------	----

Sample ID <b>1810456-040ADUP</b>	SampType: <b>DUP</b>	Units: <b>wt%</b>	Prep Date: <b>10/31/2018</b>	RunNo: <b>47278</b>							
Client ID: <b>S-KSB-38: 15ft</b>	Batch ID: <b>R47278</b>		Analysis Date: <b>10/31/2018</b>	SeqNo: <b>920627</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Percent Moisture	15.0	0.500						15.31	1.92	20
------------------	------	-------	--	--	--	--	--	-------	------	----



**Work Order:** 1810456  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler - 82305

**QC SUMMARY REPORT**  
**Sample Moisture (Percent Moisture)**

Sample ID <b>1810489-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>wt%</b>	Prep Date: <b>10/31/2018</b>	RunNo: <b>47278</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>R47278</b>	Analysis Date: <b>10/31/2018</b>	SeqNo: <b>920637</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	17.3	0.500						18.01	4.02	20	

Client Name: **KANE**

 Work Order Number: **1810456**

 Logged by: **Brianna Barnes**

 Date Received: **10/26/2018 5:00:00 PM**

### Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present
2. How was the sample delivered? Client

### Log In

3. Coolers are present? Yes  No  NA
4. Shipping container/cooler in good condition? Yes  No
5. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact) Yes  No  Not Required
6. Was an attempt made to cool the samples? Yes  No  NA
7. Were all items received at a temperature of >0°C to 10.0°C \* Yes  No  NA
8. Sample(s) in proper container(s)? Yes  No
9. Sufficient sample volume for indicated test(s)? Yes  No
10. Are samples properly preserved? Yes  No
11. Was preservative added to bottles? Yes  No  NA
12. Is there headspace in the VOA vials? Yes  No  NA
13. Did all samples containers arrive in good condition(unbroken)? Yes  No
14. Does paperwork match bottle labels? Yes  No
15. Are matrices correctly identified on Chain of Custody? Yes  No
16. Is it clear what analyses were requested? Yes  No
17. Were all holding times able to be met? Yes  No

### Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

### Item Information

Item #	Temp °C
Cooler 1	1.6
Cooler 2	0.2
Sample 1	3.4
Sample 2	5.2

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C





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Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

# Chain of Custody Record & Laboratory Services Agreement

Date: 10/24/18 Page: 1 of 5

Project Name: Wexler - 82305

Project No: 82305-2

Collected by: Nate Evenson & Jeff Jensen, Kane Env.

Location: 18125 Bothell Way NE, Bothell, WA

Report To (PM): Nate Evenson

PM Email: nevenson@kane-environmental.com

Laboratory Project No (Internal): 1610456  
Special Remarks: EDB target RL = 0.005 mg/kg

Sample Disposal:  Return to client  Disposal by lab (after 30 days)

Client: Kane Environmental  
Address: 4015 13th Ave W  
City, State, Zip: Seattle, WA 98119  
Telephone: (206) 691-0476  
Fax: (206) 675-0650

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX, EDB, EDX, MTBE, Naph	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T)   Dissolved (D)	Anions (IC)***	EDB (801)	Comments
1 S-KSB-28:5.5ft	10/24/18	07:51	S														
2 S-KSB-28:10ft		08:01															
3 S-KSB-28:15ft		07:57															
4 S-KSB-28:20ft		08:06															
5 S-KSB-29:5ft		08:17															
6 S-KSB-29:10ft		08:26															
7 S-KSB-29:15ft		08:32															
8 S-KSB-29:20ft		08:42															
9 S-KSB-30:6.5ft		09:40															
10 S-KSB-30:10ft		09:47															

\*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

\*\*Metals (Circle):  Nitrate  Nitrite  Chloride  Sulfate  Bromide  Phosphate  Fluoride  Nitrate+Nitrite  
Individual: Pb

\*\*\*Anions (Circle):  Nitrate  Nitrite  Chloride  Sulfate  Bromide  Phosphate  Fluoride  Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished: [Signature] Date/Time: 10/26/18 1700  
Relinquished: [Signature] Date/Time: 10/26/18 1700

Received: [Signature] Date/Time: 10/26/18 1700

Turn-around Time:  Standard  3 Day  2 Day  Next Day  Same Day (specify)

ASAP





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Seattle, WA 98103  
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Fax: 206-352-7178

### Chain of Custody Record & Laboratory Services Agreement

Date: 10/24/18 Page: 2 of 5

Project Name: Wexler - 82305

Project No: 82305-2

Collected by: Nate Evenson & Jeff Jensen, Kane Env.

Location: 18125 Bothell Way NE, Bothell, WA

Report To (PM): Nate Evenson

PM Email: nevenson@kane-environmental.com

Laboratory Project No (Internal): 1810450

Special Remarks: EDB target RL = 0.005 mg/kg

Sample Disposal:  Return to client  Disposal by lab (after 30 days)

Client: Kane Environmental  
Address: 4015 13th Ave W  
City, State, Zip: Seattle, WA 98119  
Telephone: (206) 691-0476  
Fax: (206) 675-0650

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GY/BTEX	EDB, MT, ST, Xylenes	Gasoline Range Organics (GX)	Hydrocarbon Identification (HClD)	Diesel/Heavy Oil Range Organics (DOX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8082 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T)   Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1 S-KSB-30.14ft	10/24/18	09:53	S	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
2 S-KSB-30.20ft		10:00		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
3 S-KSB-31.2.5ft		10:29		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
4 S-KSB-31.7ft		10:38		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
5 S-KSB-31.13ft		10:45		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
6 S-KSB-31.20ft		10:55		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
7 S-KSB-32.4.5ft		11:17		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
8 S-KSB-32.10ft		11:15		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
9 S-KSB-32.17ft		11:30		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
10 S-KSB-32.20ft		11:35		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

\*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

\*\*Metals (Circle):  Nitrate  Nitrite  Chloride  Sulfate  Bromide  O-Phosphate  Fluoride  Nitrate-Nitrite

\*\*\*Anions (Circle):  Nitrate  Nitrite  Chloride  Sulfate  Bromide  O-Phosphate  Fluoride  Nitrate-Nitrite

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Relinquished  Date/Time: 10/26/18 1700  
Received  Date/Time: 10/26/18 1700

Turn-around Time:  Standard  3 Day  ASAP  2 Day  Next Day  Same Day (specify)





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# Chain of Custody Record & Laboratory Services Agreement

Date: 10/24/18 Page: 3 of 5

Laboratory Project No (Internal): 16104516

Project Name: Wexler - 82305

Special Remarks: EDB target RL = 0.005 mg/kg

Project No: 82305-2

Collected by: Nate Evenson & Jeff Jensen, Kane Env.

Location: 18125 Bothell Way NE, Bothell, WA

Report To (PM): Nate Evenson  
PM Email: neverson@kane-environmental.com

Sample Disposal:  Return to client  Disposal by lab (after 30 days)

Client: Kane Environmental  
Address: 4015 13th Ave W  
City, State, Zip: Seattle, WA 98119  
Telephone: (206) 691-0476  
Fax: (206) 675-0650

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCDI)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) Dissolved (D)	Anions (IC)**	EDB (8011)	Comments
1 S-KSB-33:5ft	10/24/18	11:55	S	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
2 S-KSB-33:10ft		12:00		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
3 S-KSB-33:15ft		12:06		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
4 S-KSB-33:20ft		12:10		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
5 S-KSB-34:2ft		13:07		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
6 S-KSB-34:10ft		13:18		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
7 S-KSB-34:15ft		13:23		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
8 S-KSB-34:20ft		13:28		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
9 S-KSB-35:5ft		13:36		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
10 S-KSB-35:7ft		13:46		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

\*\*Metals (Circle):  Nitrate  Nitrite  Chloride  Sulfate  Bromide  O-Phosphate  Fluoride  Nitrate+Nitrite  
Individual: Pb

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished  Date/Time: 10/26/18 1700  
Received  Date/Time: 10/26/18 1700

Turn-around Time:  Standard  3 Day  2 Day  Next Day  Same Day (specify)





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# Chain of Custody Record & Laboratory Services Agreement

Date: 10/24/18 Page: 4 of 5

Project Name: Wexler - 82305

Project No: 82305-2

Collected by: Nate Evenson & Jeff Jensen, Kane Env.

Location: 18125 Bothell Way NE, Bothell, WA

Report To (PM): Nate Evenson

PM Email: nevenson@kane-environmental.com

Laboratory Project No (Internal): 1910450  
Special Remarks: EDB target RL = 0.005 mg/kg

Sample Disposal:  Return to client  Disposal by lab (after 30 days)

Client: Kane Environmental  
Address: 4015 13th Ave W  
City, State, Zip: Seattle, WA 98119  
Telephone: (206) 691-0476  
Fax: (206) 675-0650

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GW/BTEX	BTEX EDB, PCE, MTBE, NAP	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (HCID)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T)   Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1 S-KSB-35:20ft	10/24/18	13:56	S	X	X	X	X	X	X	X	X	X	X	X	X	X	
2 S-KSB-36:5ft		14:10		X	X	X	X	X	X	X	X	X	X	X	X	X	
3 S-KSB-36:12.5ft		14:19		X	X	X	X	X	X	X	X	X	X	X	X	X	
4 S-KSB-36:20ft		14:28		X	X	X	X	X	X	X	X	X	X	X	X	X	
5 S-KSB-37:6ft		14:39		X	X	X	X	X	X	X	X	X	X	X	X	X	
6 S-KSB-37:12.5ft		14:44		X	X	X	X	X	X	X	X	X	X	X	X	X	
7 S-KSB-37:20ft		14:50		X	X	X	X	X	X	X	X	X	X	X	X	X	
8 S-KSB-38:3.5ft		15:02		X	X	X	X	X	X	X	X	X	X	X	X	X	
9 S-KSB-38:7ft		15:00		X	X	X	X	X	X	X	X	X	X	X	X	X	
10 S-KSB-38:15ft		15:20		X	X	X	X	X	X	X	X	X	X	X	X	X	

Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

\*\*\*Metals (Circle):  Nitrate  Nitrite  Chloride  Sulfate  Bromide  O-Phosphate  Fluoride  Nitrate+Nitrite

Individual: Pb

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Relinquished  Date/Time: 10/26/18 1700  
Relinquished  Date/Time: 10/26/18 1700

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### Chain of Custody Record & Laboratory Services Agreement

Date: 10/24/18 Page: 5 of 5

Project Name: Wexler - 82305

Project No: 82305-2

Collected by: Nate Evenson & Jeff Jensen, Kane Env.

Location: 18125 Bothell Way NE, Bothell, WA

Report to (PM): Nate Evenson

PM Email: nevenson@kane-environmental.com

Laboratory Project No (Internal): 18104514  
Special Remarks: EDB target RL = 0.005 mg/kg

Sample Disposal:  Return to client  Disposal by lab (after 30 days)

Client: Kane Environmental  
Address: 4015 13th Ave W  
City, State, Zip: Seattle, WA 98119  
Telephone: (206) 691-0476  
Fax: (206) 675-0650

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GV/BTEX	BTEX <del>EDB</del> EPA MTHS <del>MTDS</del> <del>Naph</del>	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (HX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8270 - SIM)	Metals** (EPA 6020 / 200.8)	Total (T)   Dissolved (D)	Metals (IC)**	EDB (8011)	Comments
1 S-KSB-38:23ft	10/24/18	15:31	S	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
2 S-KSB-38:30ft	↓	15:39	↓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

\*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

\*\*Metals (Circle):  Nitrate  Nitrite  Chloride  Sulfate  Bromide  O-Phosphate  Fluoride  Nitrate+Nitrite  
Individual: Pb

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished  Date/Time: 10/26/18 1700  
Received  Date/Time: 10/26/18 1700  
www.fremontanalytical.com



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Seattle, WA 98103  
T: (206) 352-3790  
F: (206) 352-7178  
info@fremontanalytical.com

**Kane Environmental, Inc.**  
John Kane  
4015 13th Ave W.  
Seattle, WA 98103

**RE: Wexler**  
**Work Order Number: 1902069**

February 07, 2019

**Attention John Kane:**

Fremont Analytical, Inc. received 1 sample(s) on 2/7/2019 for the analyses presented in the following report.

***Volatile Organic Compounds by EPA Method 8260C***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

A handwritten signature in black ink, appearing to read "Chelsea Ward", written in a cursive style.

Chelsea Ward  
Project Manager

DoD/ELAP Certification #L 17-135, ISO/IEC 17025:2005  
ORELAP Certification: WA 100009-007 (NELAP Recognized)



Date: 02/07/2019

---

**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler  
**Work Order:** 1902069

## Work Order Sample Summary

---

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1902069-001	S-KSB-8R	02/07/2019 8:45 AM	02/07/2019 9:45 AM



**CLIENT:** Kane Environmental, Inc.

**Project:** Wexler

---

WorkOrder Narrative:

**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



**Client:** Kane Environmental, Inc.

**Collection Date:** 2/7/2019 8:45:00 AM

**Project:** Wexler

**Lab ID:** 1902069-001

**Matrix:** Groundwater

**Client Sample ID:** S-KSB-8R

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 23483

Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
Chloromethane	ND	2.00		µg/L	1	2/7/2019 12:05:49 PM
Vinyl chloride	ND	0.200		µg/L	1	2/7/2019 12:05:49 PM
Bromomethane	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
Chloroethane	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
Methylene chloride	14.7	1.00		µg/L	1	2/7/2019 12:05:49 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
2,2-Dichloropropane	ND	2.00		µg/L	1	2/7/2019 12:05:49 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
Chloroform	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
Carbon tetrachloride	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
Benzene	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	2/7/2019 12:05:49 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
Bromodichloromethane	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
Dibromomethane	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
Toluene	3.54	1.00	B	µg/L	1	2/7/2019 12:05:49 PM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
Dibromochloromethane	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	2/7/2019 12:05:49 PM
Chlorobenzene	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
Ethylbenzene	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
m,p-Xylene	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
o-Xylene	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
Styrene	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
Isopropylbenzene	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
Bromoform	ND	2.00		µg/L	1	2/7/2019 12:05:49 PM



**Client:** Kane Environmental, Inc.

**Collection Date:** 2/7/2019 8:45:00 AM

**Project:** Wexler

**Lab ID:** 1902069-001

**Matrix:** Groundwater

**Client Sample ID:** S-KSB-8R

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260C**

Batch ID: 23483

Analyst: KT

1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
n-Propylbenzene	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
Bromobenzene	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
2-Chlorotoluene	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
4-Chlorotoluene	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
tert-Butylbenzene	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	2/7/2019 12:05:49 PM
sec-Butylbenzene	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
n-Butylbenzene	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
Hexachloro-1,3-butadiene	ND	4.00		µg/L	1	2/7/2019 12:05:49 PM
Naphthalene	ND	1.00		µg/L	1	2/7/2019 12:05:49 PM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	2/7/2019 12:05:49 PM
Surr: Dibromofluoromethane	99.4	45.4 - 152		%Rec	1	2/7/2019 12:05:49 PM
Surr: Toluene-d8	103	40.1 - 139		%Rec	1	2/7/2019 12:05:49 PM
Surr: 1-Bromo-4-fluorobenzene	98.0	64.2 - 128		%Rec	1	2/7/2019 12:05:49 PM

**Work Order:** 1902069  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	LCS-23483	SampType:	LCS	Units:	µg/L	Prep Date:	2/7/2019	RunNo:	49375		
Client ID:	LCSW	Batch ID:	23483	Analysis Date:	2/7/2019	SeqNo:	968136				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	20.4	1.00	20.00	0	102	18.7	171				
Chloromethane	23.1	2.00	20.00	0	115	38.5	171				
Vinyl chloride	22.6	0.200	20.00	0	113	48	145				
Bromomethane	21.0	1.00	20.00	0	105	32.5	184				
Trichlorofluoromethane (CFC-11)	18.8	1.00	20.00	0	93.9	43.5	149				
Chloroethane	20.7	1.00	20.00	0	104	43.8	168				
1,1-Dichloroethene	19.9	1.00	20.00	0	99.5	57.5	150				
Methylene chloride	20.1	1.00	20.00	0	100	67.1	131				
trans-1,2-Dichloroethene	20.0	1.00	20.00	0	100	71.7	129				
Methyl tert-butyl ether (MTBE)	17.8	1.00	20.00	0	89.1	58	138				
1,1-Dichloroethane	20.4	1.00	20.00	0	102	67.9	134				
2,2-Dichloropropane	22.3	2.00	20.00	0	111	26.5	185				
cis-1,2-Dichloroethene	20.4	1.00	20.00	0	102	70.2	139				
Chloroform	19.3	1.00	20.00	0	96.5	66.3	131				
1,1,1-Trichloroethane (TCA)	17.8	1.00	20.00	0	89.1	63	140				
1,1-Dichloropropene	19.3	1.00	20.00	0	96.5	69.9	124				
Carbon tetrachloride	17.6	1.00	20.00	0	87.8	66.2	134				
1,2-Dichloroethane (EDC)	16.9	1.00	20.00	0	84.3	67	126				
Benzene	20.3	1.00	20.00	0	101	69.3	132				
Trichloroethene (TCE)	19.2	0.500	20.00	0	96.1	65.2	136				
1,2-Dichloropropane	20.0	1.00	20.00	0	100	70.5	130				
Bromodichloromethane	18.4	1.00	20.00	0	92.0	67.2	137				
Dibromomethane	18.7	1.00	20.00	0	93.3	69.3	143				
cis-1,3-Dichloropropene	19.1	1.00	20.00	0	95.7	62.6	137				
Toluene	20.4	1.00	20.00	0	102	61.3	145				
trans-1,3-Dichloropropylene	18.5	1.00	20.00	0	92.7	56.5	163				
1,1,2-Trichloroethane	19.0	1.00	20.00	0	95.1	71.7	131				
1,3-Dichloropropane	19.1	1.00	20.00	0	95.5	73.5	127				
Tetrachloroethene (PCE)	19.7	1.00	20.00	0	98.7	47.5	147				
Dibromochloromethane	17.7	1.00	20.00	0	88.4	67.2	134				
1,2-Dibromoethane (EDB)	18.3	0.250	20.00	0	91.6	73.6	125				

Work Order: 1902069  
 CLIENT: Kane Environmental, Inc.  
 Project: Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	LCS-23483	SampType:	LCS	Units:	µg/L	Prep Date:	2/7/2019	RunNo:	49375		
Client ID:	LCSW	Batch ID:	23483	Analysis Date:	2/7/2019	SeqNo:	968136				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	19.1	1.00	20.00	0	95.7	73.9	126				
1,1,1,2-Tetrachloroethane	18.9	1.00	20.00	0	94.4	76.8	124				
Ethylbenzene	19.5	1.00	20.00	0	97.3	72	130				
m,p-Xylene	38.5	1.00	40.00	0	96.2	70.3	134				
o-Xylene	19.3	1.00	20.00	0	96.6	72.1	131				
Styrene	19.7	1.00	20.00	0	98.5	64.3	140				
Isopropylbenzene	18.9	1.00	20.00	0	94.7	73.9	128				
Bromoform	17.4	2.00	20.00	0	87.1	55.3	141				
1,1,2,2-Tetrachloroethane	18.9	1.00	20.00	0	94.4	62.9	132				
n-Propylbenzene	18.9	1.00	20.00	0	94.4	74.5	127				
Bromobenzene	18.5	1.00	20.00	0	92.7	71	131				
1,3,5-Trimethylbenzene	18.9	1.00	20.00	0	94.7	73.1	128				
2-Chlorotoluene	19.2	1.00	20.00	0	96.0	70.8	130				
4-Chlorotoluene	18.7	1.00	20.00	0	93.6	70.1	131				
tert-Butylbenzene	18.8	1.00	20.00	0	93.9	68.2	131				
1,2,3-Trichloropropane	18.1	1.00	20.00	0	90.4	67.7	131				
1,2,4-Trichlorobenzene	19.5	2.00	20.00	0	97.5	41	139				
sec-Butylbenzene	19.0	1.00	20.00	0	95.2	72	129				
4-Isopropyltoluene	18.9	1.00	20.00	0	94.5	69.2	130				
1,3-Dichlorobenzene	20.5	1.00	20.00	0	102	69.5	128				
1,4-Dichlorobenzene	20.1	1.00	20.00	0	100	66.8	119				
n-Butylbenzene	20.7	1.00	20.00	0	104	73.8	127				
1,2-Dichlorobenzene	19.8	1.00	20.00	0	98.8	69.7	119				
1,2-Dibromo-3-chloropropane	17.7	1.00	20.00	0	88.3	63.1	136				
1,2,4-Trimethylbenzene	19.1	1.00	20.00	0	95.7	73.4	127				
Hexachloro-1,3-butadiene	20.4	4.00	20.00	0	102	58.6	138				
Naphthalene	18.1	1.00	20.00	0	90.7	41.8	165				
1,2,3-Trichlorobenzene	18.7	4.00	20.00	0	93.6	35.8	155				
Surr: Dibromofluoromethane	24.8		25.00		99.3	45.4	152				
Surr: Toluene-d8	26.0		25.00		104	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	25.2		25.00		101	64.2	128				

**Work Order:** 1902069  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>LCS-23483</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>	Prep Date: <b>2/7/2019</b>	RunNo: <b>49375</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>23483</b>		Analysis Date: <b>2/7/2019</b>	SeqNo: <b>968136</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID <b>MB-23483</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>2/7/2019</b>	RunNo: <b>49375</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23483</b>		Analysis Date: <b>2/7/2019</b>	SeqNo: <b>968138</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dichlorodifluoromethane (CFC-12)	ND	1.00									
Chloromethane	ND	2.00									
Vinyl chloride	ND	0.200									
Bromomethane	ND	1.00									
Trichlorofluoromethane (CFC-11)	ND	1.00									
Chloroethane	ND	1.00									
1,1-Dichloroethene	ND	1.00									
Methylene chloride	ND	1.00									
trans-1,2-Dichloroethene	ND	1.00									
Methyl tert-butyl ether (MTBE)	ND	1.00									
1,1-Dichloroethane	ND	1.00									
2,2-Dichloropropane	ND	2.00									
cis-1,2-Dichloroethene	ND	1.00									
Chloroform	ND	1.00									
1,1,1-Trichloroethane (TCA)	ND	1.00									
1,1-Dichloropropene	ND	1.00									
Carbon tetrachloride	ND	1.00									
1,2-Dichloroethane (EDC)	ND	1.00									
Benzene	ND	1.00									
Trichloroethene (TCE)	ND	0.500									
1,2-Dichloropropane	ND	1.00									
Bromodichloromethane	ND	1.00									
Dibromomethane	ND	1.00									
cis-1,3-Dichloropropene	ND	1.00									
Toluene	ND	1.00									



**Work Order:** 1902069  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>MB-23483</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>2/7/2019</b>	RunNo: <b>49375</b>
Client ID: <b>MBLKW</b>	Batch ID: <b>23483</b>		Analysis Date: <b>2/7/2019</b>	SeqNo: <b>968138</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropylene	ND	1.00									
1,1,2-Trichloroethane	ND	1.00									
1,3-Dichloropropane	ND	1.00									
Tetrachloroethene (PCE)	ND	1.00									
Dibromochloromethane	ND	1.00									
1,2-Dibromoethane (EDB)	ND	0.250									
Chlorobenzene	ND	1.00									
1,1,1,2-Tetrachloroethane	ND	1.00									
Ethylbenzene	ND	1.00									
m,p-Xylene	ND	1.00									
o-Xylene	ND	1.00									
Styrene	ND	1.00									
Isopropylbenzene	ND	1.00									
Bromoform	ND	2.00									
1,1,1,2,2-Tetrachloroethane	ND	1.00									
n-Propylbenzene	ND	1.00									
Bromobenzene	ND	1.00									
1,3,5-Trimethylbenzene	ND	1.00									
2-Chlorotoluene	ND	1.00									
4-Chlorotoluene	ND	1.00									
tert-Butylbenzene	ND	1.00									
1,2,3-Trichloropropane	ND	1.00									
1,2,4-Trichlorobenzene	ND	2.00									
sec-Butylbenzene	ND	1.00									
4-Isopropyltoluene	ND	1.00									
1,3-Dichlorobenzene	ND	1.00									
1,4-Dichlorobenzene	ND	1.00									
n-Butylbenzene	ND	1.00									
1,2-Dichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2,4-Trimethylbenzene	ND	1.00									

**Work Order:** 1902069  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>MB-23483</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>2/7/2019</b>	RunNo: <b>49375</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23483</b>		Analysis Date: <b>2/7/2019</b>	SeqNo: <b>968138</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachloro-1,3-butadiene	ND	4.00									
Naphthalene	ND	1.00									
1,2,3-Trichlorobenzene	ND	4.00									
Surr: Dibromofluoromethane	24.7		25.00		98.8	45.4	152				
Surr: Toluene-d8	25.7		25.00		103	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	25.2		25.00		101	64.2	128				

Sample ID <b>FB-23483</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>2/7/2019</b>	RunNo: <b>49375</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23483</b>		Analysis Date: <b>2/7/2019</b>	SeqNo: <b>968137</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00									
Chloromethane	ND	2.00									
Vinyl chloride	ND	0.200									
Bromomethane	ND	1.00									
Trichlorofluoromethane (CFC-11)	ND	1.00									
Chloroethane	ND	1.00									
1,1-Dichloroethene	ND	1.00									
Methylene chloride	ND	1.00									
trans-1,2-Dichloroethene	ND	1.00									
Methyl tert-butyl ether (MTBE)	ND	1.00									
1,1-Dichloroethane	ND	1.00									
2,2-Dichloropropane	ND	2.00									
cis-1,2-Dichloroethene	ND	1.00									
Chloroform	ND	1.00									
1,1,1-Trichloroethane (TCA)	ND	1.00									
1,1-Dichloropropene	ND	1.00									
Carbon tetrachloride	ND	1.00									
1,2-Dichloroethane (EDC)	ND	1.00									
Benzene	ND	1.00									

**Work Order:** 1902069  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>FB-23483</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>2/7/2019</b>	RunNo: <b>49375</b>
Client ID: <b>MBLKW</b>	Batch ID: <b>23483</b>		Analysis Date: <b>2/7/2019</b>	SeqNo: <b>968137</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	ND	0.500									
1,2-Dichloropropane	ND	1.00									
Bromodichloromethane	ND	1.00									
Dibromomethane	ND	1.00									
cis-1,3-Dichloropropene	ND	1.00									
Toluene	5.65	1.00									
trans-1,3-Dichloropropylene	ND	1.00									
1,1,2-Trichloroethane	ND	1.00									
1,3-Dichloropropane	ND	1.00									
Tetrachloroethene (PCE)	ND	1.00									
Dibromochloromethane	ND	1.00									
1,2-Dibromoethane (EDB)	ND	0.250									
Chlorobenzene	ND	1.00									
1,1,1,2-Tetrachloroethane	ND	1.00									
Ethylbenzene	ND	1.00									
m,p-Xylene	ND	1.00									
o-Xylene	ND	1.00									
Styrene	ND	1.00									
Isopropylbenzene	ND	1.00									
Bromoform	ND	2.00									
1,1,2,2-Tetrachloroethane	ND	1.00									
n-Propylbenzene	ND	1.00									
Bromobenzene	ND	1.00									
1,3,5-Trimethylbenzene	ND	1.00									
2-Chlorotoluene	ND	1.00									
4-Chlorotoluene	ND	1.00									
tert-Butylbenzene	ND	1.00									
1,2,3-Trichloropropane	ND	1.00									
1,2,4-Trichlorobenzene	ND	2.00									
sec-Butylbenzene	ND	1.00									
4-Isopropyltoluene	ND	1.00									

Work Order: 1902069  
 CLIENT: Kane Environmental, Inc.  
 Project: Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID <b>FB-23483</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>2/7/2019</b>	RunNo: <b>49375</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>23483</b>		Analysis Date: <b>2/7/2019</b>	SeqNo: <b>968137</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,3-Dichlorobenzene	ND	1.00									
1,4-Dichlorobenzene	ND	1.00									
n-Butylbenzene	ND	1.00									
1,2-Dichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2,4-Trimethylbenzene	ND	1.00									
Hexachloro-1,3-butadiene	ND	4.00									
Naphthalene	ND	1.00									
1,2,3-Trichlorobenzene	ND	4.00									
Surr: Dibromofluoromethane	24.7		25.00		98.8	45.4	152				
Surr: Toluene-d8	26.1		25.00		104	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	24.6		25.00		98.2	64.2	128				

**NOTES:**  
 Filter Blank

Sample ID <b>1902069-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>2/7/2019</b>	RunNo: <b>49375</b>							
Client ID: <b>S-KSB-8R</b>	Batch ID: <b>23483</b>		Analysis Date: <b>2/7/2019</b>	SeqNo: <b>968133</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	2.00						0		30	
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	15.8	1.00						14.69	7.49	30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
2,2-Dichloropropane	ND	2.00						0		30	

Work Order: 1902069  
 CLIENT: Kane Environmental, Inc.  
 Project: Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	1902069-001ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	2/7/2019	RunNo:	49375
Client ID:	S-KSB-8R	Batch ID:	23483			Analysis Date:	2/7/2019	SeqNo:	968133

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
Toluene	6.13	1.00						3.544	53.4	30	BR
trans-1,3-Dichloropropylene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.250						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Ethylbenzene	ND	1.00						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	1.00						0		30	
Styrene	ND	1.00						0		30	
Isopropylbenzene	ND	1.00						0		30	
Bromoform	ND	2.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
n-Propylbenzene	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
1,3,5-Trimethylbenzene	ND	1.00						0		30	

Work Order: 1902069  
 CLIENT: Kane Environmental, Inc.  
 Project: Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	<b>1902069-001ADUP</b>	SampType:	<b>DUP</b>	Units:	<b>µg/L</b>	Prep Date:	<b>2/7/2019</b>	RunNo:	<b>49375</b>
Client ID:	<b>S-KSB-8R</b>	Batch ID:	<b>23483</b>			Analysis Date:	<b>2/7/2019</b>	SeqNo:	<b>968133</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
tert-Butylbenzene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
sec-Butylbenzene	ND	1.00						0		30	
4-Isopropyltoluene	ND	1.00						0		30	
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
n-Butylbenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
1,2,4-Trimethylbenzene	ND	1.00						0		30	
Hexachloro-1,3-butadiene	ND	4.00						0		30	
Naphthalene	ND	1.00						0		30	
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	24.7		25.00		98.6	45.4	152		0		
Surr: Toluene-d8	25.8		25.00		103	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	24.3		25.00		97.3	64.2	128		0		

**NOTES:**

R - High RPD observed.

Sample ID	<b>LCS D-23483</b>	SampType:	<b>LCS D</b>	Units:	<b>µg/L</b>	Prep Date:	<b>2/7/2019</b>	RunNo:	<b>49375</b>
Client ID:	<b>LCS W02</b>	Batch ID:	<b>23483</b>			Analysis Date:	<b>2/7/2019</b>	SeqNo:	<b>968133</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	22.6	1.00	20.00	0	113	18.7	171	20.41	10.4	20	
Chloromethane	22.8	2.00	20.00	0	114	38.5	171	23.06	1.09	20	
Vinyl chloride	23.6	0.200	20.00	0	118	48	145	22.64	4.05	20	
Bromomethane	22.2	1.00	20.00	0	111	32.5	184	21.00	5.63	20	
Trichlorofluoromethane (CFC-11)	20.2	1.00	20.00	0	101	43.5	149	18.79	7.12	20	

**Work Order:** 1902069  
**CLIENT:** Kane Environmental, Inc.  
**Project:** Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	LCS D-23483	SampType:	LCS D	Units:	µg/L	Prep Date:	2/7/2019	RunNo:	49375		
Client ID:	LCSW02	Batch ID:	23483	Analysis Date:	2/7/2019	SeqNo:	968135				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroethane	22.7	1.00	20.00	0	114	43.8	168	20.74	9.11	20	
1,1-Dichloroethene	21.3	1.00	20.00	0	107	57.5	150	19.89	7.06	20	
Methylene chloride	20.6	1.00	20.00	0	103	67.1	131	20.07	2.59	20	
trans-1,2-Dichloroethene	20.8	1.00	20.00	0	104	71.7	129	20.05	3.88	20	
Methyl tert-butyl ether (MTBE)	17.9	1.00	20.00	0	89.7	58	138	17.82	0.633	20	
1,1-Dichloroethane	20.9	1.00	20.00	0	104	67.9	134	20.40	2.36	20	
2,2-Dichloropropane	23.8	2.00	20.00	0	119	26.5	185	22.30	6.61	20	
cis-1,2-Dichloroethene	20.7	1.00	20.00	0	104	70.2	139	20.40	1.49	20	
Chloroform	19.4	1.00	20.00	0	97.0	66.3	131	19.31	0.511	20	
1,1,1-Trichloroethane (TCA)	18.9	1.00	20.00	0	94.3	63	140	17.83	5.65	20	
1,1-Dichloropropene	20.7	1.00	20.00	0	103	69.9	124	19.29	7.04	20	
Carbon tetrachloride	18.8	1.00	20.00	0	93.8	66.2	134	17.56	6.58	20	
1,2-Dichloroethane (EDC)	17.1	1.00	20.00	0	85.6	68.8	123	16.85	1.51	20	
Benzene	21.3	1.00	20.00	0	106	69.3	132	20.29	4.79	20	
Trichloroethene (TCE)	20.1	0.500	20.00	0	100	65.2	136	19.23	4.39	20	
1,2-Dichloropropane	20.6	1.00	20.00	0	103	70.5	130	19.99	2.76	20	
Bromodichloromethane	18.8	1.00	20.00	0	93.8	74.6	127	18.40	1.90	20	
Dibromomethane	19.2	1.00	20.00	0	95.8	69.3	143	18.66	2.63	20	
cis-1,3-Dichloropropene	19.5	1.00	20.00	0	97.6	62.6	137	19.14	1.92	20	
Toluene	21.0	1.00	20.00	0	105	61.3	145	20.35	2.89	20	
trans-1,3-Dichloropropylene	18.4	1.00	20.00	0	92.1	56.5	163	18.54	0.613	20	
1,1,2-Trichloroethane	19.5	1.00	20.00	0	97.3	71.7	131	19.01	2.27	20	
1,3-Dichloropropane	19.2	1.00	20.00	0	95.8	73.5	127	19.10	0.358	20	
Tetrachloroethene (PCE)	21.1	1.00	20.00	0	106	47.5	147	19.74	6.81	20	
Dibromochloromethane	17.9	1.00	20.00	0	89.6	67.2	134	17.68	1.30	20	
1,2-Dibromoethane (EDB)	18.6	0.250	20.00	0	92.9	73.6	125	18.33	1.39	20	
Chlorobenzene	19.7	1.00	20.00	0	98.6	73.9	126	19.14	3.02	20	
1,1,1,2-Tetrachloroethane	19.4	1.00	20.00	0	96.9	76.8	124	18.89	2.57	20	
Ethylbenzene	20.2	1.00	20.00	0	101	72	130	19.46	3.61	20	
m,p-Xylene	40.2	1.00	40.00	0	100	70.3	134	38.47	4.29	20	
o-Xylene	20.0	1.00	20.00	0	100	72.1	131	19.32	3.58	20	



Work Order: 1902069  
 CLIENT: Kane Environmental, Inc.  
 Project: Wexler

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260C**

Sample ID	LCSW02	LCSW02	LCSW02	LCSW02	LCSW02	LCSW02	LCSW02	LCSW02	LCSW02	LCSW02	LCSW02		
Client ID:	LCSW02	Batch ID:	23483	Units:	µg/L	Prep Date:	2/7/2019	RunNo:	49375	Analysis Date:	2/7/2019	SeqNo:	968135
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Styrene	20.1	1.00	20.00	0	101	64.3	140	19.70	2.16	20			
Isopropylbenzene	20.2	1.00	20.00	0	101	73.9	128	18.93	6.25	20			
Bromoform	17.8	2.00	20.00	0	89.1	55.3	141	17.41	2.30	20			
1,1,1,2-Tetrachloroethane	19.9	1.00	20.00	0	99.3	62.9	132	18.89	5.03	20			
n-Propylbenzene	20.4	1.00	20.00	0	102	74.5	127	18.89	7.67	20			
Bromobenzene	19.6	1.00	20.00	0	97.9	71	131	18.54	5.40	20			
1,3,5-Trimethylbenzene	20.0	1.00	20.00	0	99.9	73.1	128	18.94	5.36	20			
2-Chlorotoluene	20.0	1.00	20.00	0	100	70.8	130	19.20	4.15	20			
4-Chlorotoluene	20.2	1.00	20.00	0	101	70.1	131	18.71	7.76	20			
tert-Butylbenzene	20.0	1.00	20.00	0	100	68.2	131	18.78	6.46	20			
1,2,3-Trichloropropane	19.0	1.00	20.00	0	94.8	67.7	131	18.08	4.71	20			
1,2,4-Trichlorobenzene	19.9	2.00	20.00	0	99.4	41	139	19.51	1.87	20			
sec-Butylbenzene	20.5	1.00	20.00	0	103	72	129	19.04	7.37	20			
4-Isopropyltoluene	20.0	1.00	20.00	0	100	69.2	130	18.89	5.72	20			
1,3-Dichlorobenzene	20.4	1.00	20.00	0	102	69.5	128	20.47	0.137	20			
1,4-Dichlorobenzene	20.6	1.00	20.00	0	103	66.8	119	20.05	2.45	20			
n-Butylbenzene	21.8	1.00	20.00	0	109	73.8	127	20.75	4.89	20			
1,2-Dichlorobenzene	20.3	1.00	20.00	0	102	69.7	119	19.75	2.98	20			
1,2-Dibromo-3-chloropropane	18.2	1.00	20.00	0	91.1	63.1	136	17.65	3.14	20			
1,2,4-Trimethylbenzene	19.9	1.00	20.00	0	99.5	73.4	127	19.14	3.87	20			
Hexachloro-1,3-butadiene	21.9	4.00	20.00	0	110	58.6	138	20.39	7.32	20			
Naphthalene	18.6	1.00	20.00	0	93.0	41.8	165	18.13	2.50	20			
1,2,3-Trichlorobenzene	19.4	4.00	20.00	0	96.9	35.8	155	18.72	3.49	20			
Surr: Dibromofluoromethane	24.7		25.00		98.8	45.4	152		0				
Surr: Toluene-d8	25.9		25.00		104	40.1	139		0				
Surr: 1-Bromo-4-fluorobenzene	25.7		25.00		103	64.2	128		0				

Client Name: **KANE**  
 Logged by: **Clare Griggs**

Work Order Number: **1902069**  
 Date Received: **2/7/2019 9:45:00 AM**

### Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present   
 2. How was the sample delivered? Client

### Log In

3. Coolers are present? Yes  No  NA   
 4. Shipping container/cooler in good condition? Yes  No   
 5. Custody Seals present on shipping container/cooler?  
 (Refer to comments for Custody Seals not intact) Yes  No  Not Required   
 6. Was an attempt made to cool the samples? Yes  No  NA   
 7. Were all items received at a temperature of >0°C to 10.0°C \* Yes  No  NA   
 8. Sample(s) in proper container(s)? Yes  No   
 9. Sufficient sample volume for indicated test(s)? Yes  No   
 10. Are samples properly preserved? Yes  No   
 11. Was preservative added to bottles? Yes  No  NA   
 12. Is there headspace in the VOA vials? Yes  No  NA   
 13. Did all samples containers arrive in good condition(unbroken)? Yes  No   
 14. Does paperwork match bottle labels? Yes  No   
 15. Are matrices correctly identified on Chain of Custody? Yes  No   
 16. Is it clear what analyses were requested? Yes  No   
 17. Were all holding times able to be met? Yes  No

### Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

### Item Information

Item #	Temp °C
Cooler	2.9
Sample	2.4

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



**Attachment D**  
**Detailed Remedial Alternative Comparison**

	Alternative 1	Alternative 2	Alternative 3
Description	<p><b>Excavation and Off-Site Disposal of Contaminated Soil</b> An excavation of petroleum contaminated soils to depths up to seventeen (17) feet below ground surface (bgs) will result in removal of all petroleum contaminated soils at the Wexler Site. Soil clearance samples will be collected to ensure removal of contaminated soil. Dewatering of the excavation or surrounding area will be required. Excavated soils containing any detections of HVOCs and/or petroleum contaminants at concentrations exceeding re-use limits will be disposed at an appropriate off-Site location.</p> <ul style="list-style-type: none"> <li>- Will achieve the most protection.</li> <li>- Reduces volume of impacted soil by complete removal of impacted soils and groundwater.</li> <li>- Greatest use of removal and off-site disposal.</li> <li>- Most disturbance of impacted soil and groundwater, with elevated short-term risk.</li> <li>- No Operations &amp; Maintenance for remediation equipment</li> <li>- Removes all impacted soil and groundwater from the site. No access issues during excavation activities.</li> </ul>	<p><b>In-Situ Chemical/Biological Remediation with Vadose Zone Soil Excavation</b> This option focuses on in-situ remediation of petroleum contaminated soil and groundwater on the Wexler Site using chemical oxidants to degrade petroleum constituents and increase bio-availability and enhancement of biological activity using an oxygen releasing remediation product. Contaminated vadose zone soil will be removed by excavation. May not achieve overall protection.</p> <ul style="list-style-type: none"> <li>- Disturbance of impacted soils limited to the vadose zone only, moderate amount of short-term risk.</li> <li>- Implementable; no restrictions to implement with building demolition</li> <li>- Groundwater impacts contained. No access concerns.</li> <li>- No Operations &amp; Maintenance for remediation equipment</li> <li>- Longer restoration timeframe</li> <li>- Requires multiple injections and sampling events, effectiveness of treatment may be variable throughout the Site</li> </ul>	<p><b>Air Sparging (AS) and Soil Vapor Extraction (SVE)</b> A series of approximately twenty (20) soil vapor extraction (SVE) wells will be installed on the Wexler Site to remove TPH concentrations in the upper ten (10) feet of the Site. The wells will be connected to a vacuum generated by an air blower system, with the effluent air run through activated carbon or another treatment system prior to discharge into the atmosphere. Air sparging (AS) will be conducted in approximately ten (10) wells screened in the saturated zone, within and below the zone of contaminated soil and groundwater at the Site using a compressor system. May not achieve overall protection.</p> <ul style="list-style-type: none"> <li>- No disturbance of impacted soils, low amount of short-term risk.</li> <li>- Implementable; no restrictions to implement with building demolition</li> <li>- Groundwater impacts contained. No access concerns.</li> <li>- Significant Operations &amp; Maintenance, permitting, and equipment requirements</li> <li>- Longer restoration timeframe</li> <li>- Effectiveness of treatment may be variable throughout the Site based on variations in soil permeability</li> </ul>
Area of Containment	0 square feet	4,000 square feet	4,000 square feet
Approximate Volume of Soil Removal	1,300 tons Soil	250 tons of Soil	0 tons of Soil
Compliance with MTCA Threshold Requirements	Yes – Alternative protects human health and the environment.	Yes – Alternative protects human health and the environment.	Yes – Alternative protects human health and the environment.
Restoration Time Frame	1 to 2 years – Potential risk to workers from airborne exposure to petroleum in soil.	5 to 7 years or more – Low exposure to workers from airborne exposure to petroleum in soil.	5 to 7 years or more – Low exposure to workers or tenants from airborne exposure to petroleum in soil.
<b>Total Score</b>	<b>25</b>	<b>18</b>	<b>19</b>
Total Score Summary Comparison	<p><b>ALTERNATIVE 1</b></p>	<p><b>ALTERNATIVE 2</b></p>	<p><b>ALTERNATIVE 3</b></p>
Criteria	Total Score <sup>a</sup>	Total Score <sup>a</sup>	Total Score <sup>a</sup>
Overall Protectiveness	5	3	3
Permanence	5	1	2
Long-Term Effectiveness	5	1	1
Short-Term Risk Management	3	4	4
Implementability	5	5	5
Public Concerns	3	4	4
Total	26	18	19
Estimated Cost	\$1,200,000	\$1,400,000	\$1,590,000

a – Total benefit score on a scale of 1-5, with 5 being the most beneficial