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January 5, 2015

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**Subject: Milligan & Casentini Property**  
**385 26<sup>th</sup> Street, Oakland, CA**  
**Fuel Leak Case No. RO0003125**

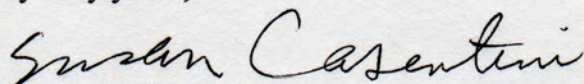
Dear Ms. Detterman:

Enclosed is the *Site Investigation Report and Request for No Further Action* for the subject LUFT site. In compliance with state and local regulations, electronic submittals of this report have been uploaded to the Geotracker database and the Alameda County ftp website.

I declare under penalty of perjury that the information and/or recommendations contained in the attached report are true and correct to the best of my knowledge.

Please contact Tim Cook at Cook Environmental Services at (925) 478-8390 if you have questions or comments in regard to the technical content of this report.

Very truly yours,



Susan Casentini

cc: Tim Cook, Cook Environmental Services, Inc.



**SITE INVESTIGATION REPORT**  
**and**  
**REQUEST FOR NO FURTHER ACTION**

**PROJECT SITE:**

**Milligan & Casentini Property**  
**385 26<sup>th</sup> Street**  
**Oakland, CA 94612**  
**Fuel Leak Case No. RO0003125**  
**Global ID T0000005131**

**PREPARED FOR:**

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**Project No. 1095**

**January 5, 2015**

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**PROFESSIONAL CERTIFICATION**  
***SITE INVESTIGATION REPORT***  
***and***  
***REQUEST FOR NO FURTHER ACTION***


**Milligan & Casentini Property  
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**By: Cook Environmental Services, Inc.  
Project No. 1095**

**January 5, 2015**

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The conclusions presented in this document are professional opinions based solely upon visual observations of the Site and vicinity, and interpretation of available information as described in this document. Cook Environmental Services, Inc. recognizes that the limited scope of services performed in execution of this investigation may not be appropriate to satisfy the needs, or requirements of other regulatory agencies or of other users. Any use or reuse of this document or its findings, conclusions or recommendations presented herein is at the sole risk of said user.



Tim Cook, P.E.  
Principal



## 1.0 INTRODUCTION

The Milligan & Casentini property is located at 385 26<sup>th</sup> Street in Oakland (**Figure 1**). This Site Investigation Report and Request for No Further Action was prepared in response to the findings of the *Underground Storage Tank Closure Report* for the subject property dated April 11, 2013. An uncontrolled release of heating oil was discovered at the Site. The purpose of this report is to fully characterize the release and delineate the extent of soil and groundwater contamination in the vicinity of the former UST. The findings of this report support case closure under the Low-Threat Underground Storage Tank Case Closure Policy (LTCP).

### 1.1 Background

A 1,200-gallon UST was discovered by Paoli Construction on February 13, 2013 during grading activities in a parking area immediately east of the one story brick building at 385 26<sup>th</sup> Street, Oakland. Cook Environmental Services, Inc. (CES) was hired by the owners to inspect the UST on February 14, 2014. CES discovered a buried redwood tank approximately 12 feet in diameter that contained an unknown volume of heating oil. This tank is first referenced on a Sanborne Fire Map dated 1912. The tank is denoted as "1,200-gal oil tk und grd" (see **Appendix A**). The only buildings on the site on the 1912 map are single-family residences. On February 14, 2013, CES noted that the contents of the UST had the distinctive odor of heating oil. The structural integrity of the redwood UST had been severely compromised and heating oil had contaminated surrounding soils. CES observed that the UST was connected to a 4-inch diameter cast iron fill pipe that was connected to a fill box located immediately south of the sidewalk at the entrance to the lot. The UST location and fill pipe are shown on **Figure 2**.

The City of Oakland Fire Department was notified and CES submitted an UST removal permit application March 4, 2013. CES hired Fremouw Environmental Services (FES) to empty the UST and transport contaminated soil to an appropriate disposal facility. Since the UST was badly decayed, no triple rinse or decontamination procedures could be performed. FES removed about 80 gallons of heating oil from the tank on March 11, 2013. The oil was disposed of as a non-hazardous waste. Paoli Construction excavated the UST and contaminated soil from March 11 to 13, 2013 and placed it in 10 cubic yard roll-off bins provided by FES. Four bins (36.5 tons) were profiled as non-hazardous and were transported to the Potrero Hills landfill near Suisun, CA. Two bins were profiled as non-RCRA hazardous waste and transported to the U.S. Ecology landfill near Beatty, NV. The UST excavation was approximately 12 feet deep. The limits of the excavation are shown on **Figure 2**. Photographs of excavation activities are provided in **Appendix B**. Upon completion of excavation activities two soil samples were collected from the bottom. Total petroleum hydrocarbons as diesel (TPH-d) was detected at 11,000 milligrams per kilogram (mg/kg) and naphthalene was detected at 10 mg/kg in soil sample S-1 collected in the north end of the excavation. TPH-d was detected at 5,200

mg/kg and naphthalene at 10 mg/kg in soil sample S-2 collected the south end of the excavation.

In a letter dated January 10, 2014, Alameda County Environmental Health (ACEH) directed the owner to prepare a *Data Gap Investigation Work Plan and Site Conceptual Model* (WP-SCM) to address the uncontrolled release of petroleum hydrocarbons from the UST. CES submitted a WP-SCM to ACEH on March 25, 2014. ACEH requested a work plan addendum in a letter dated May 23, 2014. CES submitted a revised WP-SCM on July 25, 2014. ACEH conditionally approved the revised WP-SCM in an email to the owner dated September 19, 2014. This report is submitted in fulfillment of the requirements stipulated in ACEH's requests.

## 2.0 SITE INVESTIGATION RESULTS

The following sections describe sample collection techniques and evaluate soil, groundwater and soil vapor results.

### 2.1 Soil and Groundwater Boring Installation and Sampling

Five soil borings were installed in the vicinity of the former UST and one boring was located downgradient at the southern boundary of the property on November 13, 2014. **Figure 3** shows the locations of these borings. Boring SB-1 was located in the center of the former UST (source area). Borings SB-2 through SB-5 were located 10 to 12 feet from boring SB-1, like the spokes of a wheel. The purpose of selecting this layout was to delineate the horizontal and vertical extent of contamination in the source area.

A boring permit was obtained from the Alameda County Public Works Department (ACPW). A copy of the permit is presented in **Appendix C**. Steve Miller of ACPW was present during grouting of the borings.

Borings were advanced by Penecore Drilling (C-57 license # 906899) on November 13, 2014 using a track-mounted Geoprobe drilling rig. Soil samples were collected continuously using a 5-foot long dual tube sampler. Dual tube sampling uses two sets of rods to collect continuous soil cores. One set of rods was driven into the ground as an outer casing. These rods received the driving force from the hammer and provided a sealed hole from which soil samples were recovered without the threat of cross-contamination. The second, smaller set of rods were placed inside the outer casing. The smaller rods held the sample liner in place as the outer casing was driven. The small rods were then retracted to retrieve the filled 5-foot long acrylic liner that contained the soil sample.

Soil samples were collected from each boring in the 0 to 5 and 5 to 10 foot intervals, at the groundwater interface, at lithologic changes and at areas of obvious impact.

Soil samples were collected by cutting the acrylic tubes at the appropriate intervals with a hack saw. The ends of the tube were then covered with Teflon sheets and plastic

caps, labeled with a unique identification number and placed in a cooler refrigerated to 4 degrees Celsius.

The 5-foot acrylic liner was then split open and soils were described using the unified soil classification (USC) system. Soils were then scanned for the presence of volatile organic compounds (VOCs) using a photo-ionization detector (PID). PID readings were recorded on the boring log. Boring logs are presented in **Appendix D**.

The borings were advanced to depths ranging from 30 to 35 feet. Groundwater was encountered at approximately 25 feet in all six borings. A temporary well was constructed in each boring using 3/4-inch diameter schedule 40 PVC and machine slotted PVC casing with a slot opening of 0.01 inches. The screened interval was five feet in length.

Borings SB-1 and SB-6 were sampled on November 13, 2014, the same day the borings were installed. The remaining borings were dry on November 13 and were left to recover overnight. These wells were sampled on November 14. Groundwater samples were collected using a peristaltic pump. Clean tubing was used for each well. The samples were discharged from the tubing into laboratory supplied bottles. VOC samples were stored in 40 ml VOA vials preserved with concentrated hydrochloric acid. VOA vials were filled to capacity with no headspace (i.e. air bubbles). SVOC samples were stored in unpreserved one 1-liter amber glass bottle. CAM17 metals samples were stored in 250 ml plastic bottles preserved with concentrated nitric acid. Immediately after the samples were collected, they were labeled with a unique identification number and placed in a cooler refrigerated to 4 degrees Celsius.

Soil and groundwater samples were transported to the McCampbell Analytical laboratory in Pittsburg, California under chain of custody protocols. Samples were analyzed for TPH-g, TPH-d and TPH-mo by EPA method 8015 modified; for VOCs (e.g., BTEX and naphthalene) by EPA method 8260B; and for SVOCs (e.g., PAHs and naphthalene) by EPA method 8270C. In addition, groundwater samples were analyzed for CAM17 metals by EPA method 200.8.

## ***2.2 Soil Vapor Boring Installation and Sampling***

Two soil vapor borings were installed on November 14, 2014. Soil vapor boring SV-1 was installed within 3 feet of the foundation of the building at 381 26<sup>th</sup> Street. Likewise SV-2 was installed within 3 feet of the foundation of 385 26<sup>th</sup> Street. Both borings were drilled to a depth of 5 feet below the footings of the buildings.

Borings were advanced using the Geoprobe drill equipped with a dual tube sampler. After the soil vapor boring reached a depth five feet below the footing of each building, a small stainless steel screen connected to 1/8-inch diameter plastic tubing was lowered to the bottom of the boring. Approximately 4-inches of #2/12 graded sand was added



and then the hole was grouted to the surface with bentonite. Per DTSC guidance, each boring was allowed to equilibrate for at least 2 hours prior to sampling.

A calibrated syringe was used to purge three soil vapor boring volumes prior to withdrawing the sample. Samples for TO-15 were collected using a summa canister and a helium shroud leak detection system. The sample for TO-17 analysis was collected using a helium shroud and summa canister which drew the sample through a sorbent tube. The initial and final pressure of each summa canister was recorded on the chain of custody form. Each summa canister and sorbent tube was labeled with a unique sample identification number. Sample procedures followed SOPs described in the *Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance)*, Department of Toxic Substances Control, October 2011.

The summa canisters and sorbent tube were transported to the McCampbell Analytical laboratory in Pittsburg, California under chain of custody protocols. The two summa canisters were analyzed for TPH-g, BTEX, naphthalene, helium (leak detection gas), oxygen, carbon dioxide and methane by TO-15. The sorbent tube from SV-1 was analyzed for naphthalene by TO-17. The summa canister used to draw the sorbent tube sample was analyzed for helium as a leak test.

### **2.3 Soil Sample Results**

Twenty five soil samples were collected and analyzed. Soil sample results are summarized and compared to LTCP threshold values in **Table 1**. The complete laboratory report for soil samples is provided in **Appendix E**.

The highest concentration of any of the analyzed constituents was TPH-mo. This hydrocarbon range corresponds to the same profile as home heating oil. The highest TPH-mo value was 11,000 mg/kg detected in SB-3 at a depth of 9 feet. The vertical extent of contamination in soil samples is limited to the interval from 10 to 25 feet as evidenced by soil sample results and PID readings. Benzene, ethylbenzene, naphthalene and PAHs were not detected above LTCP threshold values in any of the soil samples.

LTCP threshold values referred to are from Table 1 of the LTCP. Only commercial/industrial and utility worker values are included since land use at the site is commercial/industrial.

### **2.4 Groundwater Sample Results**

Six groundwater samples were collected and analyzed, one from each boring. Groundwater results for organic constituents (Petroleum Hydrocarbons, VOCs and SVOCs) are summarized and compared to environmental screening levels (ESLs) in **Table 2**. Groundwater results for CAM17 metals are summarized and compared to

ESLs in **Table 3**. The complete laboratory report for groundwater samples is provided in **Appendix F**.

The highest concentration of any of the analyzed organic constituents was TPH-d and TPH-mo, both detected in boring SB-2 at 1,100 micrograms per liter ( $\mu\text{g/L}$ ). Benzene, ethylbenzene, MtBE and naphthalene were not detected in any groundwater sample. SB-5 and SB-6 are downgradient from the source area. Petroleum hydrocarbons were not detected in groundwater from either of these borings. Chlorinated hydrocarbons (e.g., DCA, DCE, TCA and TCE) were detected in downgradient SB-6. None of these constituents were detected in the source area. Past land use of the site immediately south of the site and adjacent to boring SB-6 include a “domestic laundry”, which may have been a dry cleaning plant. The domestic laundry is identified in the 1912 Sanborne Fire Map (**Appendix A**).

### ***2.5 Soil Vapor Sample Results***

Prior to evaluating soil vapor samples, CES evaluated soil sample results from the bioattenuation zone (0 to 5 feet) to determine if the site qualified for bioattenuation zone assumptions under Scenario 4 of the LTCP. The sum of TPH values (TPH-g + TPH-d) was determined for all six soil borings. If this sum is less than or equal to 100 mg/kg, then bioattenuation zone assumptions can be used. In all cases, the sum of TPH values was less than 100 mg/kg. Soil vapor sample results are summarized and compared to LTCP bioattenuation threshold values in **Table 4**. The complete laboratory report for soil vapor samples is provided in **Appendix G**.

Note that all helium leak test results are below the DTSC threshold of 5 percent, thus meet the data quality requirement established for this method. All soil vapor results are below LTCP thresholds established in Scenario 4 (with a bioattenuation zone) assuming commercial land use. Based on this evaluation residual contamination does not pose a a vapor intrusion risk to the inhabitants of the buildings at 381 and 385 26<sup>th</sup> Street.

## **3.0 GENERAL SITE CLOSURE CRITERIA**

This section gives site specific data for each of the eight general criteria listed in the Low-Threat Underground Storage Tank Case Closure Policy.

### ***3.1 Public Water System***

The East Bay Municipal Utility District (EBMUD) provides and maintains a public water system to the Site and surrounding area. EBMUD services an area of 332 square miles in Alameda County and Contra Costa County.

### ***3.2 Unauthorized Release Consists Only of Petroleum Products***

The unauthorized release is comprised strictly of petroleum products (primarily TPH-d and TPH-mo). Chlorinated hydrocarbons (TCE, DCE, TCA and DCA) were detected only in downgradient boring B-6. The occurrence of chlorinated hydrocarbons is likely from an offsite source, as a “domestic laundry” was formerly located immediately south of the site. The source of this non-petroleum release is not from the site.

### ***3.3 Unauthorized Release from the UST System Has Stopped***

The 1,200-gallon redwood UST and the cast iron pipe used to fill the UST were removed from the Site in March 2013.

### ***3.4 Free Product Removed to the Maximum Extent Practicable***

Free product (i.e., heating oil) was observed in the UST excavation at the time of removal in March 2013. Approximately 80 gallons of heating oil and 60 cubic yards (CY) of contaminated soil was excavated and disposed offsite. All visible free product was removed along with the contaminated soil. The depth of the excavation was 12 feet. The depth to groundwater is approximately 25 feet. Groundwater was not encountered in the UST excavation. Free product was not observed in any of the borings drilled during this site investigation.

### ***3.5 Site Conceptual Model Prepared***

Site conceptual models (SCMs) were submitted previously with the *Data Gap Investigation Work Plan and Site Conceptual Model (WP-SCM)*, dated March 25, 2014 and the *Revised Data Gap Investigation Work Plan and Site Conceptual Model*, dated July 25, 2014. Data gaps identified in the previous SCMs were as follows:

1. Groundwater flow direction and gradient
2. The lateral and vertical extent of soil and groundwater contamination
3. Health risks associated with indoor air intrusion and outdoor air exposure
4. Past uses of the site/UST
5. The location of the UST and past soil sample locations
6. Documentation of the removal and disposal of hazardous and non-hazardous soil removed from the site during remediation activities.
7. Documentation that material used to backfill the UST excavation did not contain contamination.

With regard to item 1, ACEH agreed that permanent monitoring wells were not necessary to define groundwater flow direction and gradient; rather this could be determined from existing well data from nearby sites. This site investigation report

responds to data gaps identified in items 2 and 4. The WP-SCM provided documentation for data gaps identified in items 4, 5, 6 and 7.

The objectives of this CSM are:

- To convey an understanding of the origin, nature, and lateral and vertical extent of contamination;
- To identify potential contaminant fate-and-transport processes and pathways;
- To identify potential human and environmental receptors that may be impacted by contamination associated with the Site;
- To guide site investigation activities and identify additional data needed (if any) to draw reasonable conclusions regarding the source(s), pathways, and receptors; and
- To frame the evaluation of risk to human health, safety, and the environment posed by releases from the Site.

The source of contamination was a 1,200-gallon USTs constructed of redwood and used for the storage of home heating oil. The exact time period this UST was in use is unknown but it appears on a Sanborne Fire Map dated 1912 along with three residences on the site. The associated fill pipe was connected to the UST and ran to a remote fill location just behind the sidewalk approximately 30 feet north of the UST. The USTs and fill pipe were removed in March 2013. Documentation of UST removal and remedial activities is contained in the *Underground Storage Tank Closure Report* by CES dated April 11, 2013.

The main contaminants of concern (COCs) are TPH-mo, TPH-d, TPH-g, BTEX and naphthalene. One or more of these COCs have impacted soil and groundwater at the Site. The water table beneath the Site is typically between 25 and 30 feet deep and varies seasonally with higher water levels in the wet winter months and lower levels in the dry summer and autumn season.

Free product was observed in the UST excavation in March 2013. The excavation extended to a depth of 12 feet, thus groundwater was not encountered. Approximately 60 cubic yards of contaminated soil and 80-gallons of free product were removed from the UST and UST excavation during remedial activities. Two 55-gallon drums and six 10 cubic yard bins of soil were disposed offsite. The two 55-gallon drums were disposed of as non-hazardous liquid. Four soil bins were disposed of as non-hazardous solid waste at the Potrero Hills landfill near Suisun, California. Two soil bins were disposed of as non-RCRA hazardous solid waste at the U.S Ecology landfill near Beatty, Nevada.

This site investigation was directed at filling data gaps identified in the *Revised Data Gap Investigation and Site Conceptual Model* (WP-SCM) dated July 25, 2014. Groundwater and soil samples were collected from six soil borings and soil vapor

samples were collected from two soil borings. The location of these borings and wells are shown on **Figure 3** and **Figure 4**.

At this point, the lateral and vertical extent of the hydrocarbon plume from the former UST has been delineated.

A Sensitive Receptor Survey was conducted by CES and is included in the WP-SCM. A search of records from the Alameda County Public Works Agency and the California Department of Water Resources. The DWR search suggests that the nearest domestic well is located approx 4.3 km southwest of the site on Alameda Island. The Alameda County Public Works Agency well library was also consulted. Five irrigation wells, three industrial wells and three domestic wells are located within one mile of the site. Two of the domestic wells are located on the same property at 5175 Broadway (1.7 miles northeast of the site). One domestic well is located at 2100 Harrison (approx 0.4 miles southeast of the site). The 3 domestic wells are at least 290 feet deep. The full list of wells from the ACPWA library are included in **Appendix H**.

The nearest residence is located west of the site at 421 26<sup>th</sup> Street, in a cross-gradient direction from the contaminant plume. The expected groundwater direction based on data from nearby sites is southerly. Boring SB-6 is located approximately 70 feet south of the former UST. Petroleum hydrocarbons were not detected in soil and groundwater samples from this boring. Thus, the hydrocarbon plume detected in the source area is stable and is not moving offsite.

The highest concentrations in the source area were observed in boring SB-2. This boring is located northwest of the former UST. TPH-d and TPH-mo were both detected at 1,100 in the groundwater sample collected from this boring. BTEX, MtBE, tBA and naphthalene were not detected in this same sample. In fact, the only two BTEX constituents were detected in groundwater samples. Toluene and xylenes were detected in boring SB-1. Toluene was at 2.6 µg/L and total xylenes was detected at 0.89 µg/L. Both are significantly below their respective ESLs (40 µg/L for toluene and 20 µg/L for xylenes).

The lateral extent of TPH-d contamination in groundwater is shown on **Figure 5**. The lateral extent of TPH-mo contamination in groundwater is shown on **Figure 6**. Benzene, ethylbenzene, naphthalene and PAHs were not detected in any groundwater sample. Tert butyl alcohol (tBA) was detected in borings SB-2 and SB-3 but at concentrations below the ESL (12 µg/L). Chlorinated hydrocarbons (1,1 DCA, 1,2 DCA, 1,1 DCE, cis 1,2 DCE, 1,1,2 TCA and TCE) were detected above their respective ESLs in boring SB-6; however, these constituents are not related to the release from the former heating oil UST as none of these constituents were detected in the source area. Historic records show that there was a “domestic laundry” located adjacent and south of the site. These chlorinated compounds are typical of those used at dry cleaning plants.



Since these constituents are from an offsite source, this contaminant plume is not the focus of this SCM.

The highest hydrocarbon concentrations in site soil borings are in borings SB-1, SB-2 and SB-3. These borings are located within 12 feet of the former heating oil UST. Petroleum hydrocarbons were not detected in the groundwater sample from boring SB-5, which is located approximately 12 feet southeast (i.e., downgradient) of the former heating oil UST.

The most likely receptors for residual contamination are Site workers (via inhalation) and potential construction workers (via inhalation, ingestion or direct contact) trenching through or otherwise coming in direct contact with contaminated soil at some future time. As demonstrated in the Sensitive Receptor Survey, groundwater in the vicinity of the Site is not currently used as a drinking water resource. There are no aquatic receptors since the nearest surface water is Lake Merritt, located approximately 2,000 feet southeast of the site.

All hydrocarbon concentrations are below LTCP thresholds for evaluation of soil vapor intrusion assuming Scenario 4 with a bioattenuation zone. All hydrocarbon concentrations are below LTCP thresholds for evaluation of outdoor air exposures. All hydrocarbon concentrations are below LTCP thresholds for evaluation of direct contact with construction workers trenching through contaminated soil. Land use at the Site is has been commercial-industrial for at least the last sixty years and is not likely to change in the foreseeable future. Thus the use of commercial industrial land use for selection of LTCP threshold values is justified.

Based on the data collected in this site investigation, the plume is stable and is not moving offsite. An updated SCM is submitted in tabular form in **Table 5**.

### ***3.6 Secondary Source of Contamination Excavated and Removed***

As mentioned previously in Section 3.4, approximately 80 gallons of heating oil and 60 CY of hydrocarbon contaminated soil were removed from the former UST excavation in March 2013. A full description of the UST removal and remediation activities is included in the *Revised Data Gap Investigation Work Plan and Conceptual Site Model* dated July 25, 2014.

### ***3.7 Soil and Groundwater Samples Tested for MtBE***

Soil and groundwater samples were tested for MtBE. MtBE was not detected in soil and groundwater samples from borings B-1 through B-6. Soil results for MtBE are summarized in **Table 1**. Groundwater results for MtBE are summarized in **Table 2**.

### ***3.8 Nuisance as Defined by Water Code Section 13050 Does Not Exist at Site***

Based on the LTCP Water Code section 13050, the site does not qualify as a nuisance. Land use at the Site and the surrounding area will remain commercial-residential for the foreseeable future.

## **4.0 MEDIA SPECIFIC SITE CLOSURE CRITERIA**

Releases from USTs can impact human health and the environment through contact with any or all of the following contaminated media: groundwater, surface water, soil, and soil vapor. Although this contact can occur through ingestion, dermal contact, or inhalation of the various media, the most common drivers of health risk are ingestion of groundwater from drinking water wells, inhalation of vapors accumulated in buildings, contact with near surface contaminated soil, and inhalation of vapors in the outdoor environment. To simplify the analysis under the Low Threat Underground Storage Tank Case Closure Policy, these media and pathways are evaluated and the most common exposure scenarios are combined into three media-specific criteria:

1. Groundwater
2. Vapor Intrusion to Indoor Air
3. Direct Contact and Outdoor Air Exposure

Each of these media-specific criteria for the Site is discussed below.

### ***4.1 Groundwater***

The San Francisco Bay Regional Water Quality Control Board (RWQCB) evaluated the beneficial uses of groundwater within the East Bay Plain (East Bay Plain Groundwater Basin Beneficial Use Report, RWQCB, June 1999) and stated the following:

“Within the East Bay Plain, there are groundwater pollution plumes that may warrant less aggressive remediation on a case-by-case basis. In certain cases, aggressive cleanup may not be warranted when the plume is shallow, concentrations are declining and no beneficial uses are threatened. The requirement for aggressive cleanup can pose a serious obstacle to redevelopment of blighted urban areas in the East Bay. This report outlines “basin specific” situations where less aggressive remediation may be warranted. Ultimately, the remedial options that would be part of a less aggressive strategy depend on site specific conditions. However, likely options would include restricting groundwater remediation to the source area only, allowing monitored natural attenuation, or implementing pump-and-treat solely to limit plume migration.”

Based on an analysis of groundwater data summarized in **Table 2** and **Table 3** and an examination of the lateral extent of contamination shown on **Figure 5** and **Figure 6**, the hydrocarbon plume is confined to shallow depths and is stable in aerial extent. Remedial measures such as the removal of grossly contaminated soil and free product have been completed.

Based on the Groundwater-Specific Criteria listed in the Low Threat UST Case Closure Policy, the Site meets all four of the characteristics of a Class 2 site in the Low Threat Underground Storage Tank Case Closure Policy in that the following criteria are met:

1. The contaminant plume that exceeds water quality objectives is less than 250 feet in length.
2. Free product has been removed to the maximum extent practicable, may still be present below the Site where the release originated, but does not extend off-site.
3. The plume has been stable or decreasing for a minimum of five years.
4. The nearest existing water supply well is greater than 1,000 feet from the defined plume boundary.

Based on the relatively low concentrations of hydrocarbons in monitoring wells and the fact that the plume has stabilized or is shrinking, the Site qualifies for closure as a Class 2 site.

#### ***4.2 Vapor Intrusion to Indoor Air***

As discussed in Section 2.5, the site qualifies for Scenario 4 with a bioattenuation zone as specified in the LTCP. As presented in **Table 4**, soil vapor sample results are below LTCP soil gas criteria. Based on this evaluation, there is no significant health risk from vapor intrusion into the buildings at 381 and 385 26<sup>th</sup> Street.

#### ***4.3 Direct Contact and Outdoor Air Exposure***

As shown in **Table 1**, hydrocarbon concentrations in all 25 soil samples collected on November 13, 2014 will have no significant risk of adversely affecting human health (ref: Table 1 of the Low Threat Underground Storage Tank Case Closure Policy). In addition, concentrations of detected hydrocarbons will have no significant risk of adversely affecting the health of construction or utility workers trenching through this area.

## **5.0 CONCLUSIONS**

Based on the data presented in this Request for No Further Action, the Site meets the General and Media Specific Criteria for case closure under the Low Threat Underground Storage Tank Case Closure Policy. The case should be closed given that the recommendations in the following section are followed.

## **6.0 RECOMMENDATIONS**

Per California Health and Safety Code Section 25296.20(a) and Division 7, the Porter Cologne Water Quality Control Act under AB 681, we recommend notification of all current fee title holders within 200 feet of the Site be notified that this Site is being considered for case closure.

Upon written certification that all appropriate notifications have been made, the ACEH may wait thirty days before making a final determination or issuing a closure letter to allow the fee title holders the opportunity to comment. After the 30-day public comment period has expired, we recommend that ACEH grant closure to this LUST case.

**Table 1. Soil Sample Results  
385 26th Street, Oakland, CA**

Sample ID	Date	Depth (ft)	Hydrocarbons			VOCs							SVOCs			
			TPH-g	TPH-d	TPH-mo	Benzene	Toluene	Ethyl-benzene	Xylenes	MtBE	tBA	Naphthalene	1,1 DCE	PAHs	2-Methyl naphthalene	Naphthalene
SB-1@2.5'	11/13/14	2.5	<1.0	25	81	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.5	<0.5	<0.5
SB-1@10'	11/13/14	10	3.7	180	300	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.5	<0.5	<0.5
SB-1@11'	11/13/14	11	310	2,900	2,700	<0.20	<0.20	<0.20	<0.20	<0.20	<2.0	3.5	<0.20	<4.0	11	<4.0
SB-1@22.5'	11/13/14	22.5	290	3,100	4,300	0.33	<0.20	<0.20	<0.20	<0.20	<2.0	<0.20	<0.20	<10	<0.5	<10
SB-2@2.5'	11/13/14	2.5	<1.0	<1.0	<5.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.25	<0.5	<0.25
SB-2@9.5'	11/13/14	9.5	200	2,000	2,600	0.065	<0.050	<0.050	<0.050	<0.050	<0.5	<0.050	<0.050	<4.0	<0.5	<4.0
SB-2@12.5'	11/13/14	12.5	160	550	560	0.093	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<2.0	<0.5	<2.0
SB-2@22'	11/13/14	22	290	1,900	2,200	0.74	<0.20	<0.20	<0.20	<0.20	<2.0	<0.20	<0.20	<4.0	<0.5	<4.0
SB-3@2.5'	11/13/14	2.5	<1.0	3	13	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.25	<0.5	<0.25
SB-3@9.5'	11/13/14	9.5	550	7,900	11,000	<0.20	<0.20	<0.20	<0.20	<0.20	<2.0	2.1	<2.0	<100	<0.5	<100
SB-3@17'	11/13/14	17	430	2,800	3,900	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<10	<0.5	<10
SB-3@21'	11/13/14	21	250	2,000	2,900	0.15	<0.10	<0.10	<0.10	<0.10	<1.0	<0.10	<0.10	<4.0	<0.5	<4.0
SB-3@25.5'	11/13/14	25.5	<1.0	4	10	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.25	<0.5	<0.25
SB-4@2'	11/13/14	2	<1.0	3	10	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.25	<0.5	<0.25
SB-4@9.5'	11/13/14	9.5	<1.0	4	6	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.25	<0.5	<0.25
SB-4@14.5'	11/13/14	14.5	38	180	190	<0.010	<0.010	<0.010	<0.010	<0.010	<0.10	<0.010	<0.010	<0.25	<0.5	<0.25
SB-4@19.5'	11/13/14	19.5	<1.0	<1.0	<5.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.25	<0.5	<0.25
SB-5@2'	11/13/14	2	<1.0	<1.0	<5.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.25	<0.5	<0.25
SB-5@9.5'	11/13/14	9.5	<1.0	2	9	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.25	<0.5	<0.25
SB-5@14'	11/13/14	14	160	1,600	1,600	<0.10	<0.10	<0.10	<0.10	<0.10	<1.0	<0.10	<0.10	<4.0	<0.5	<4.0
SB-5@18'	11/13/14	18	14	39	46	<0.010	<0.010	<0.010	<0.010	<0.010	<0.10	<0.010	<0.010	<0.25	<0.5	<0.25
SB-6@2'	11/13/14	2	<1.0	2	6	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.25	<0.5	<0.25
SB-6@9'	11/13/14	9	<1.0	<1.0	<5.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.25	<0.5	<0.25
SB-6@19'	11/13/14	19	<1.0	<1.0	<5.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.25	<0.5	<0.25
SB-6@24.5'	11/13/14	24.5	<1.0	<1.0	<5.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	0.011	<0.25	<0.5	<0.25
<b>LTCP Commercial (0 to 5 ft)</b>			NE	NE	NE	8.2	NE	89	NE	NE	NE	45	NE	0.063	NE	NE
<b>LTCP Commercial (5 to 10 ft)</b>			NE	NE	NE	12	NE	134	NE	NE	NE	45	NE	NE	NE	NE
<b>LTCP Utility Worker (0 to 10 ft)</b>			NE	NE	NE	14	NE	314	NE	NE	NE	219	NE	4.5	NE	NE

Notes:



**Table 1. Soil Sample Results**  
**385 26th Street, Oakland, CA**

All concentrations are in mg/kg

Samples with yellow shading are within the 0 to 5 foot bioattenuation zone used in Scenario 4

LTCP = Low Threat Closure Plan concentrations of petroleum constituents in soil that will have no significant risk of adversely affecting human health (Table 1)

NE = no threshold established

**Table 2. Organic Constituents in Groundwater Samples**

Sample ID	Date	Hydrocarbons			VOCs								SVOCs							
		TPH-g	TPH-d	TPH-mo	Benzene	Toluene	Ethyl-benzene	Xylenes	MtBE	tBA	Naphthalene	MIBK	1,1 DCA	1,2 DCA	1,1 DCE	cis 1,2, DCE	1,1,2 TCA	TCE	PAHs	Naphthalene
SB-1	11/13/14	<50	<b>260</b>	<250	<0.50	2.6	<0.50	0.89	<0.50	<2.0	<0.50	0.68	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0
SB-2	11/14/14	91	<b>1,100</b>	<b>1,100</b>	<0.50	<0.50	<0.50	<0.50	<0.50	9.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.1	<2.1
SB-3	11/14/14	<50	<b>430</b>	<b>390</b>	<0.50	<0.50	<0.50	<0.50	<0.50	2.1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.1	<2.1
SB-4	11/14/14	<50	85	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.2	<2.2
SB-5	11/14/14	<50	<50	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.1	<2.1
SB-6	11/13/14	<50	<50	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<0.50	<0.50	<b>22</b>	<b>6.6</b>	<b>390</b>	<b>6.8</b>	<b>38</b>	<b>78</b>	<2.3	<2.3
<b>ESLs</b>		100	100	100	1.0	40	30	20	5.0	12	6.1	NE	5.0	0.5	6.0	6.0	5.0	5.0	NE	6.1

**Table 3. CAM 17 Metals in Groundwater Samples**

Sample ID	Date	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Th	V	Zn
SB-1	11/13/14	<0.50	0.83	190	<0.50	<0.25	<0.50	<b>9.3</b>	<2.0	<0.50	<0.025	16	<b>22</b>	<0.50	<0.19	<0.50	1.2	<15
SB-2	11/14/14	<0.50	1.2	160	<0.50	<0.25	<0.50	<b>4.2</b>	<2.0	<0.50	<0.025	<b>85</b>	<b>16</b>	<0.50	<0.19	<0.50	2.0	<15
SB-3	11/14/14	<0.50	0.53	180	<0.50	<0.25	<0.50	<b>4.1</b>	<2.0	<0.50	<0.025	<b>130</b>	<b>18</b>	<0.50	<0.19	<0.50	1.8	<15
SB-4	11/14/14	<10	<10	<b>1100</b>	<10	<5.0	<b>280</b>	<b>130</b>	<b>130</b>	<b>51</b>	<0.50	12	<b>580</b>	<10	<3.8	<10	<b>170</b>	<300
SB-5	11/14/14	<0.50	0.53	90	<0.50	<0.25	2.5	<b>5.1</b>	2.4	0.56	<0.025	23	<b>27</b>	<0.50	<0.19	<0.50	4.0	<15
SB-6	11/13/14	<0.50	2.0	140	<0.50	<0.25	25	<b>25</b>	<b>9.6</b>	<b>3.2</b>	0.080	3.0	<b>85</b>	<0.50	<0.19	<0.50	<b>21</b>	24
<b>ESLs</b>		6.0	10	1,000	0.53	0.25	50	3.0	3.1	2.5	0.025	78	8.2	5.0	0.19	2.0	19	81

All concentrations are in micrograms per liter (ug/L)

ESLs = SFBRWQCB Environmental Screening Levels (Lookup Tables, December 2013)

Values above ESLs are in bold

**Table 4. Soil Vapor Sample Results  
385 26th Street, Oakland, CA**

				Petroleum Hydrocarbons							Light Gases			
Sample ID	Analytical Method	Date	Depth (ft)	TPH-g (ug/m <sup>3</sup> )	TPH-d (ug/m3)	Benzene (ug/m3)	Ethyl-benzene (ug/m3)	Naphthalene (ug/m3)	Toluene (ug/m3)	Xylenes (ug/m3)	Carbon Dioxide (uL/L)	Methane (uL/L)	Oxygen (%)	Helium (%)
SV-1	TO-15	11/13/14	5.0	11,000	NA	7.1	2.9	12	7.4	21	130	2.9	17	0.0088
SV-1	TO-17	11/13/14	5.0	NA	1,600	NA	NA	13	NA	NA	NA	NA	NA	<0.0060
SV-2	TO-15	11/13/14	5.0	98,000	NA	68	20	<21	47	65	<50	150	3.1	0.037
<b>LTCP Soil Gas Criteria<sup>1</sup></b>				NE	NE	280,000	3,600,000	310,000	NE	NE	NE	NE	NE	5.0 <sup>2</sup>

Notes:

ug/m<sup>3</sup> = micrograms per cubic meter

uL/L = microliters per liter

<sup>1</sup>LTCP Scenario 4 soil gas criteria with bioattenuation zone and commercial land use

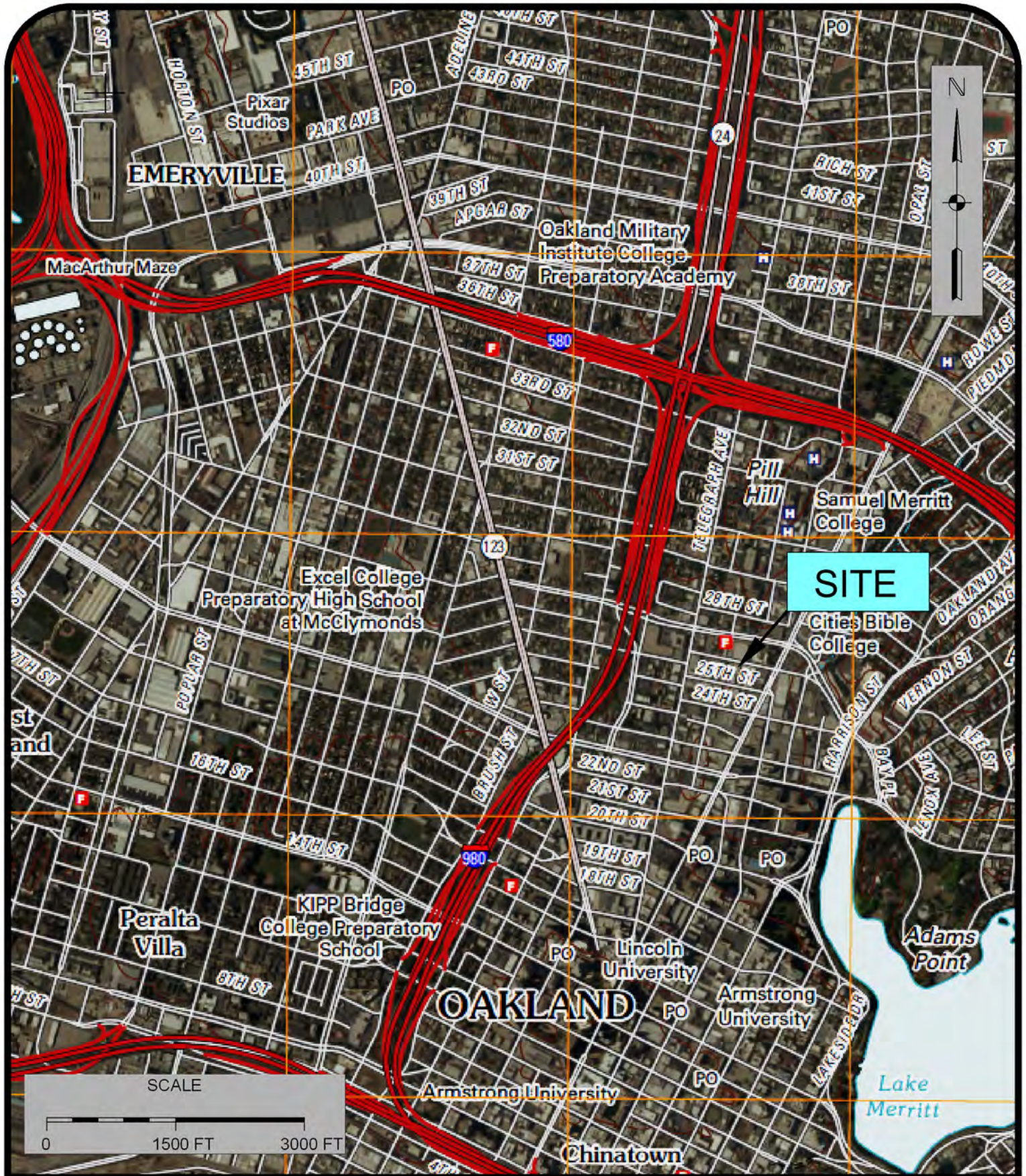
There was five vertical feet of soil between the soil vapor measurement and the foundation of the building

A 1,000-fold bioattenuation is assumed for petroleum vapors in the bioattenuation zone

<sup>2</sup>Helium is a leak check compound used to determine the integrity of the field sampling method. The DTSC established 5% helium as the threshold above which leaks may have compromised the data quality.

# **FIGURES**





**Cook Environmental Services, Inc.**

1485 Treat Blvd. Ste. 203A  
 Walnut Creek, CA 94597  
 (925) 478-8390 work  
 (925) 787-6869 cell  
 tcook@cookenvironmental.com

**Site Location**  
 385 26th St.  
 Oakland, CA 94612

Project 1095

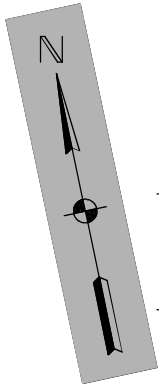
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Figure :

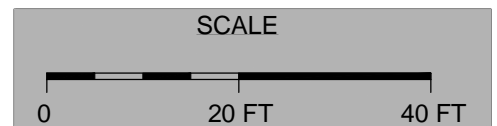
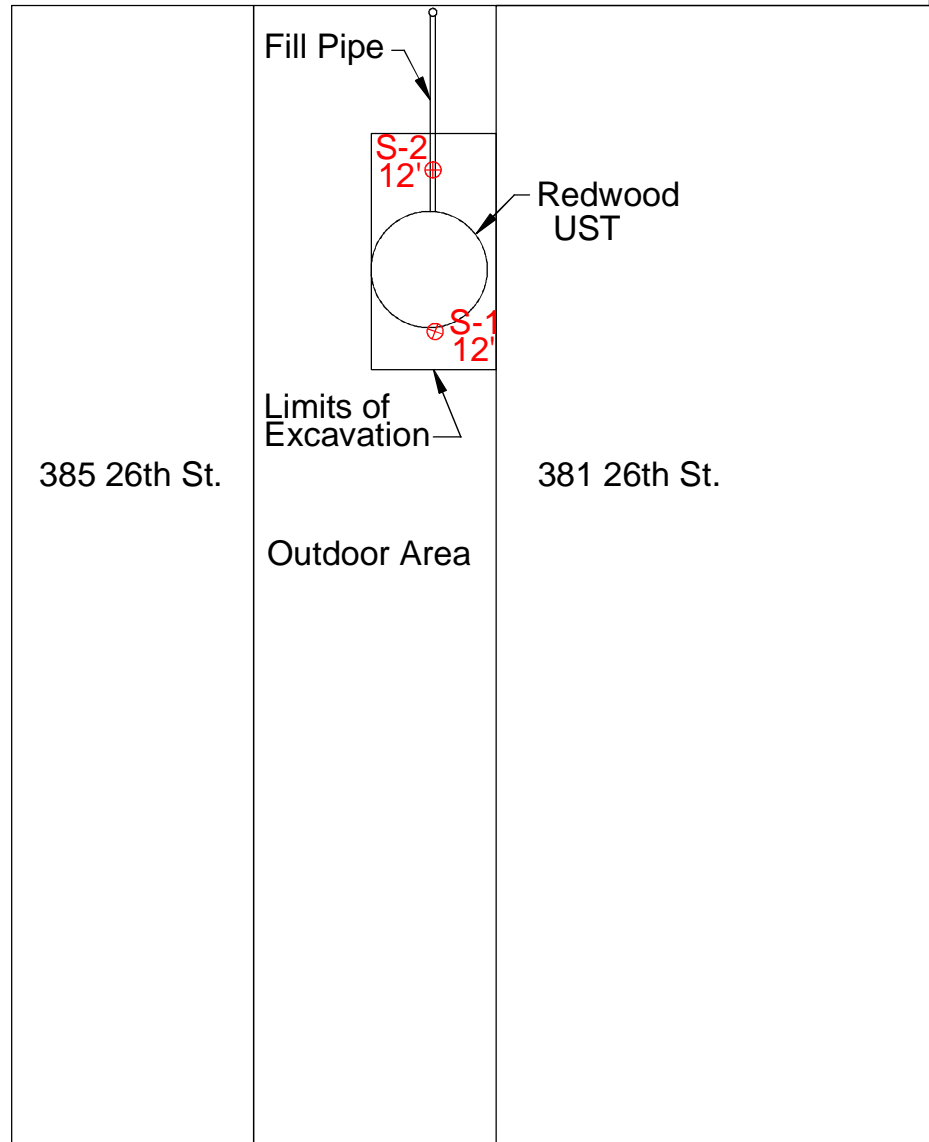
**1**





26th Street

Sidewalk



**Cook Environmental Services, Inc.**

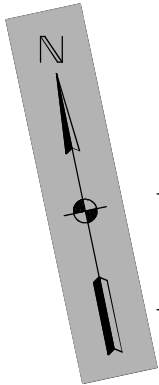
1485 Treat Blvd. Ste. 203A  
Walnut Creek, CA 94597  
(925) 478-8390 work  
(925) 787-6869 cell  
tcook@cookenvironmental.com

**Site Plan**  
**385 26th St.**  
**Oakland, CA 94612**

Project 1095  
Date: 1/5/15  
Scale: 1" = 20 FT

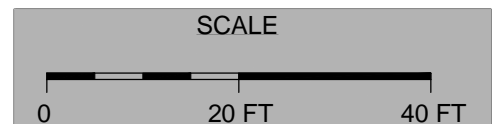
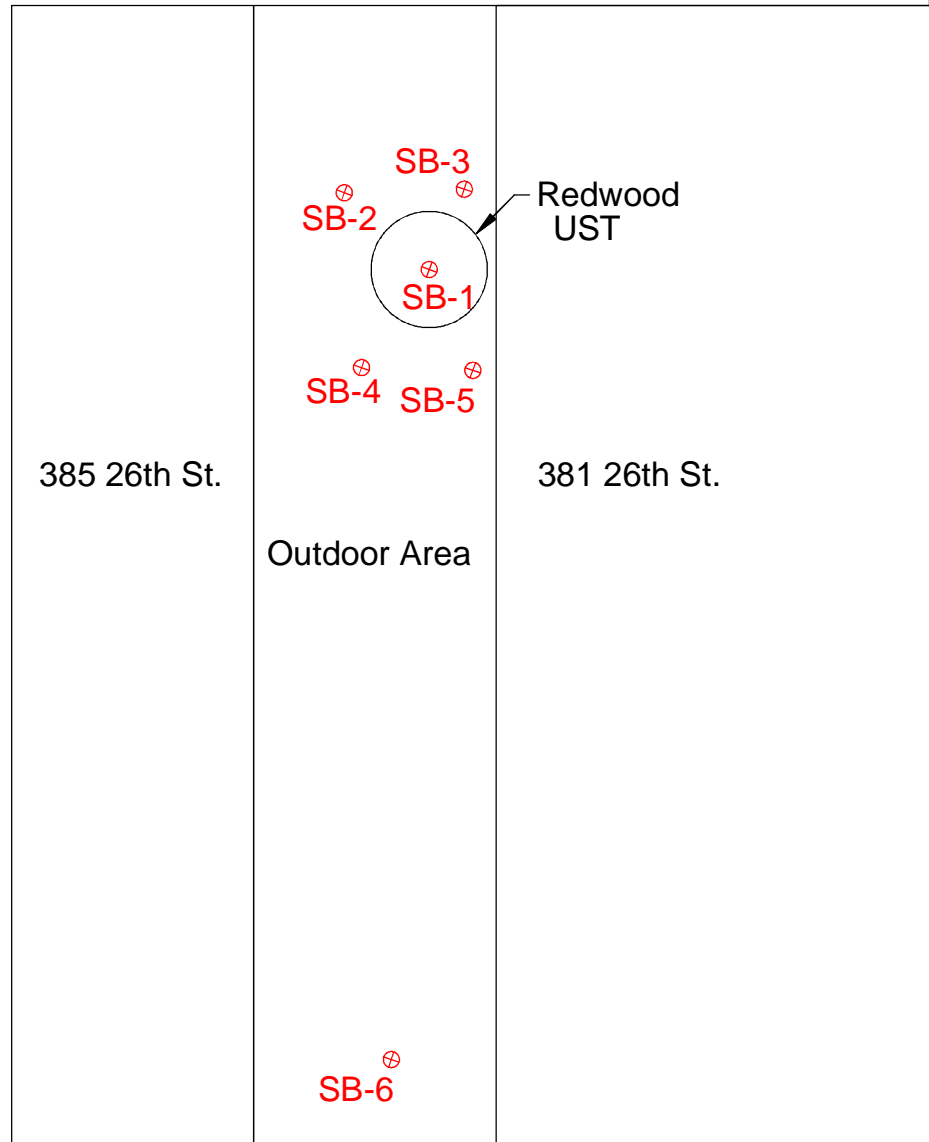
Figure :

**2**



26th Street

Sidewalk

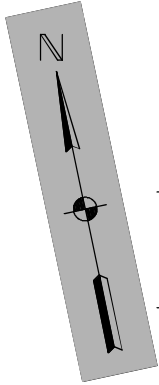


**Cook Environmental Services, Inc.**  
1485 Treat Blvd. Ste. 203A  
Walnut Creek, CA 94597  
(925) 478-8390 work  
(925) 787-6869 cell  
tcook@cookenvironmental.com

**Soil and Groundwater  
Sample Locations**  
385 26th St.  
Oakland, CA 94612

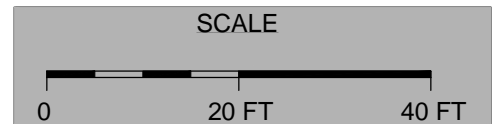
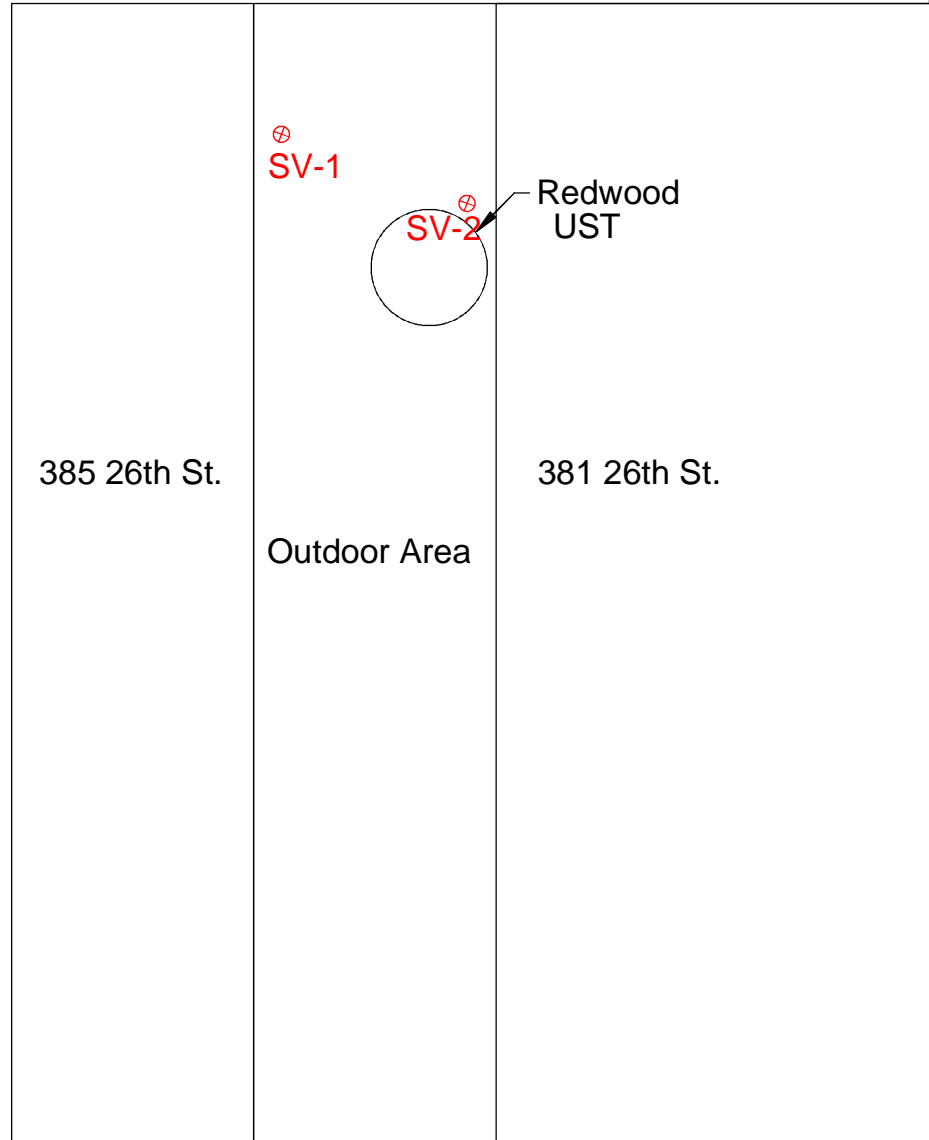
Project 1095  
Date: 1/5/15  
Scale: 1" = 20 FT

Figure :  
**3**



26th Street

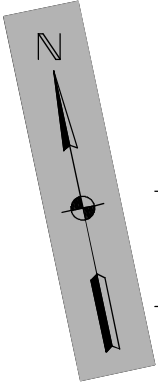
Sidewalk



**Cook Environmental Services, Inc.**  
1485 Treat Blvd. Ste. 203A  
Walnut Creek, CA 94597  
(925) 478-8390 work  
(925) 787-6869 cell  
tcook@cookenvironmental.com

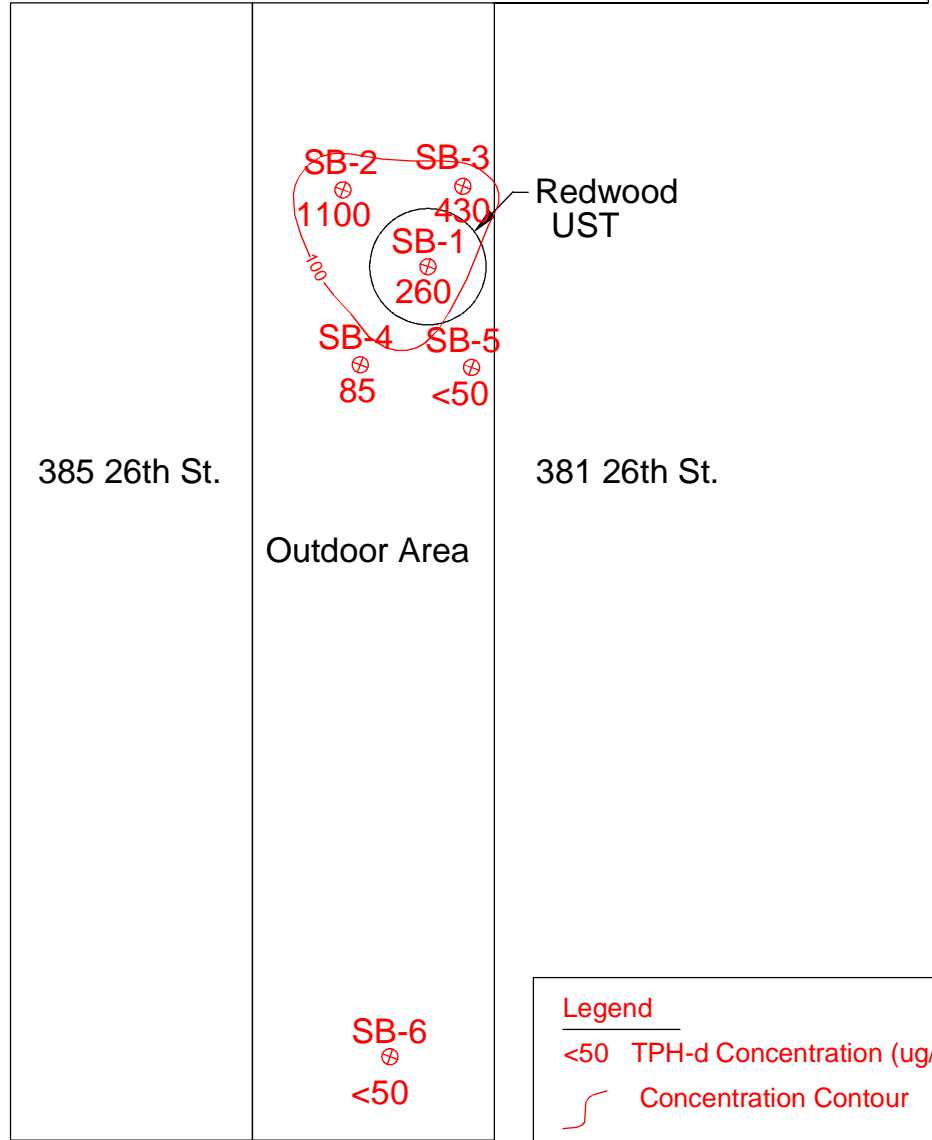
**Soil Vapor Sample Locations**  
**385 26th St.**  
**Oakland, CA 94612**

Project 1095	Figure :
Date: 1/5/15	<b>4</b>
Scale: 1" = 20 FT	



26th Street

Sidewalk



Legend

<50 TPH-d Concentration (ug/L)

Concentration Contour

SCALE



Cook Environmental Services, Inc.  
1485 Treat Blvd. Ste. 203A  
Walnut Creek, CA 94597  
(925) 478-8390 work  
(925) 787-6869 cell  
tcook@cookenvironmental.com

**TPH-d in Groundwater**  
**385 26th St.**  
**Oakland, CA 94612**

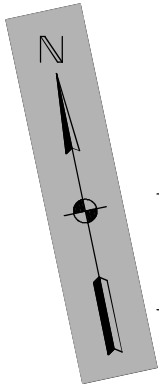
Project 1095

Date: 1/5/15

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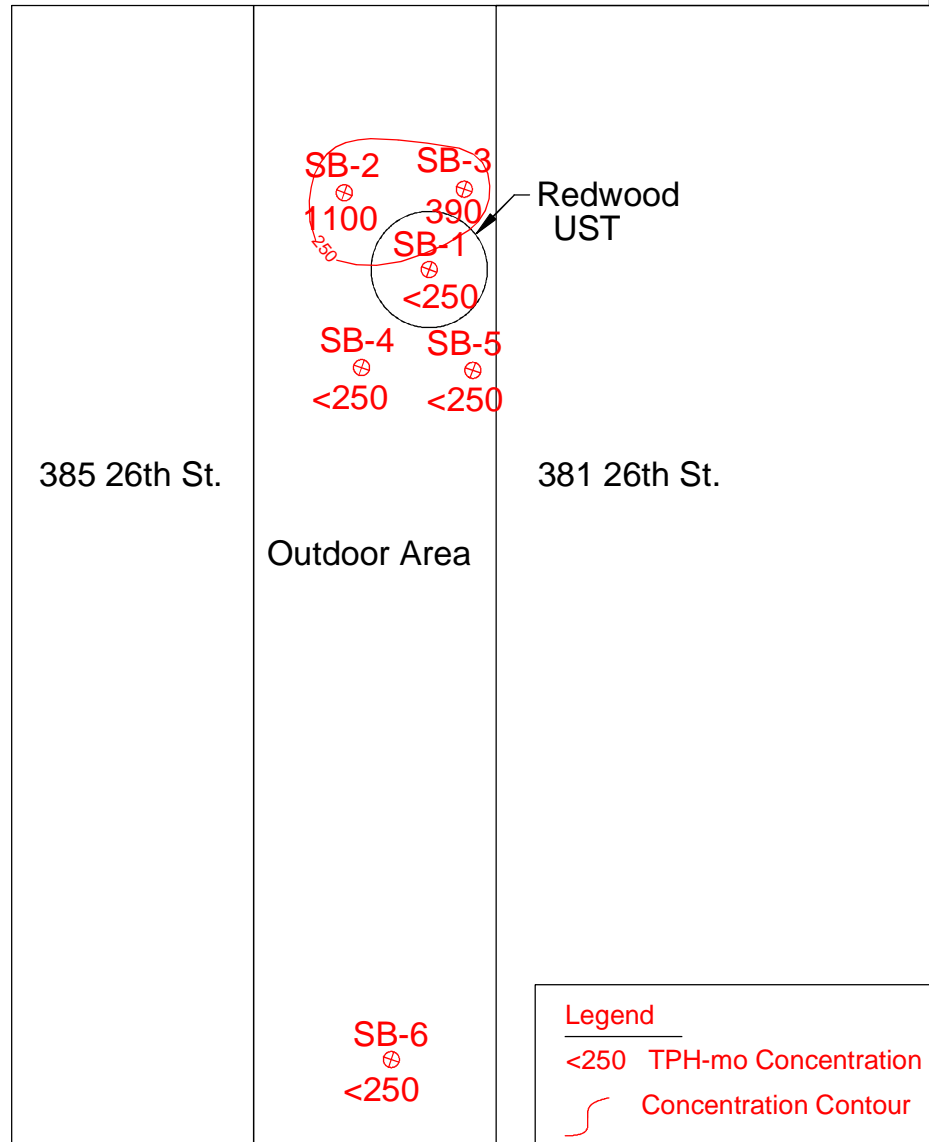
Figure :

**5**



26th Street

Sidewalk



Legend

<250 TPH-mo Concentration (ug/L)

Concentration Contour

SCALE



**Cook Environmental Services, Inc.**

1485 Treat Blvd. Ste. 203A  
Walnut Creek, CA 94597  
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tcook@cookenvironmental.com

**TPH-mo in Groundwater**  
**385 26th St.**  
**Oakland, CA 94612**

Project 1095

Date: 1/5/15

Scale: 1" = 20 FT

Figure :

**6**



**APPENDIX A**  
**1912 Sanborne Fire Map**

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---

1911  
53

35

26TH ST.

2025

DOMESTIC LAUNDRY

25TH ST.

2026

24TH ST.

2028

Scale of Feet. 0 50 100 150

54

TELEGRAPH AV. W.

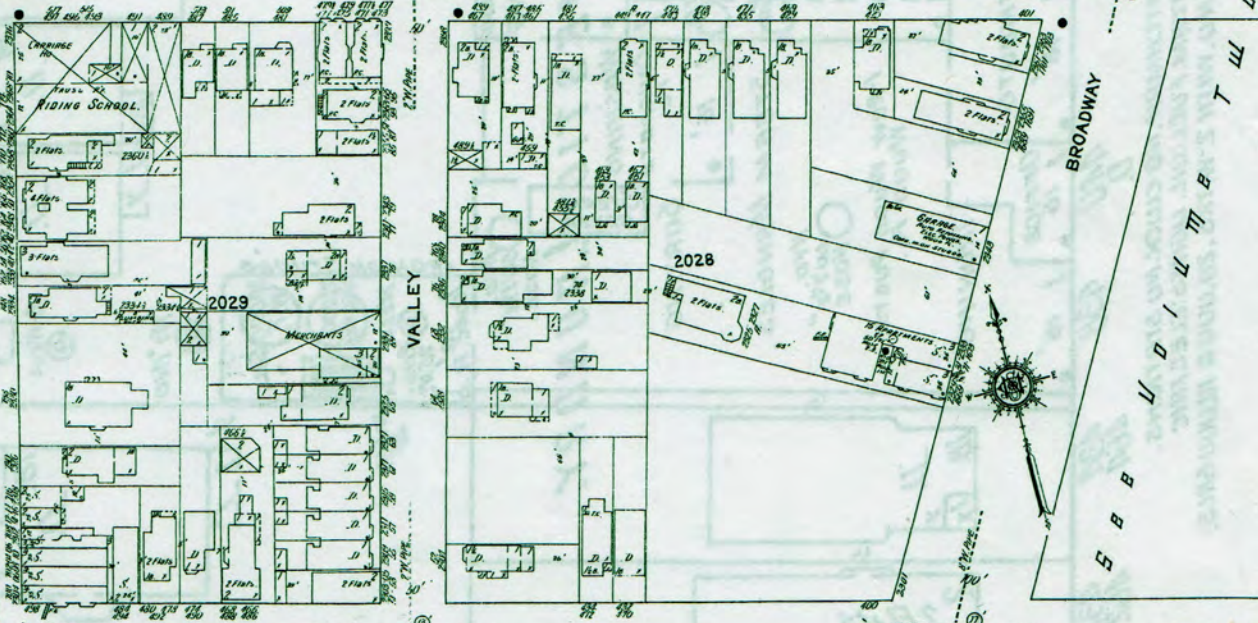
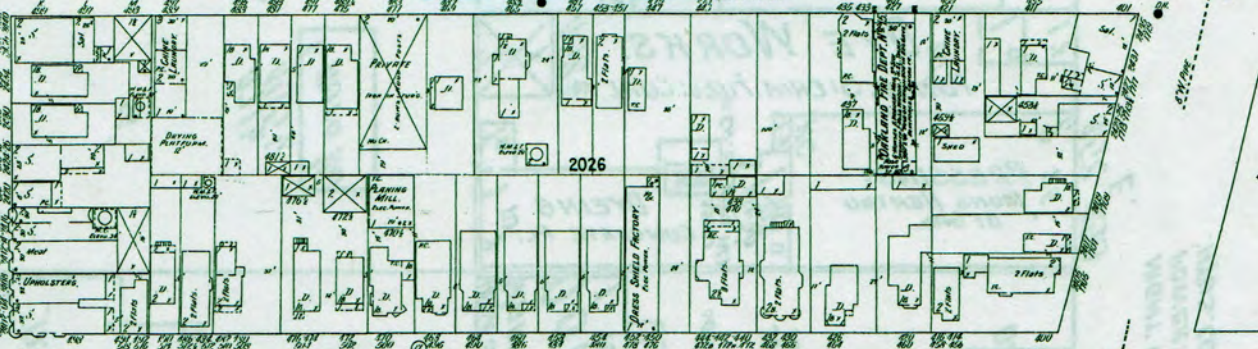
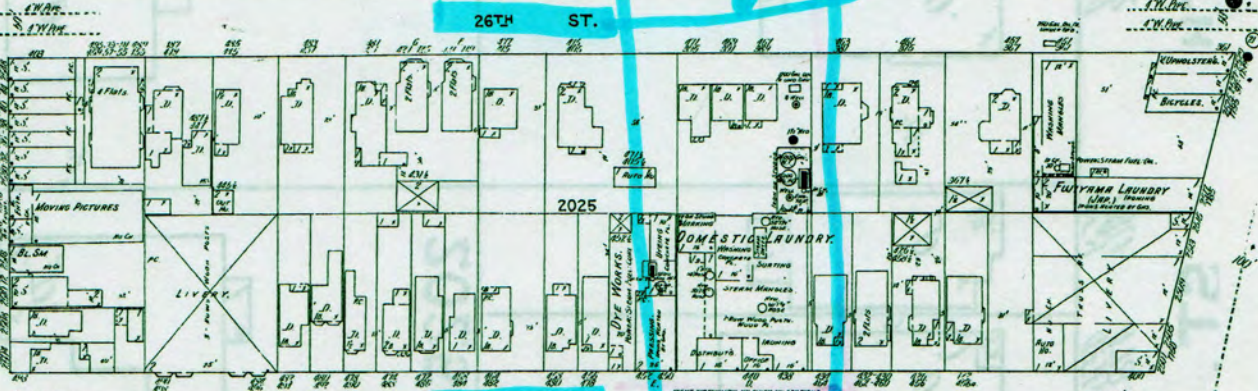
VALLEY

BROADWAY

S B B U O I U M B T W



NEWT. WASHINGTON AND CHICAGO ST. STREETS  
POWER SYSTEM PAID BY THE CITY OF BOSTON  
PLANS DRAWN BY THE BOSTON CITY ENGINEERS  
THE PLANS FOR THE CITY OF BOSTON  
MAY 1911



SYCAMORE ST.

42

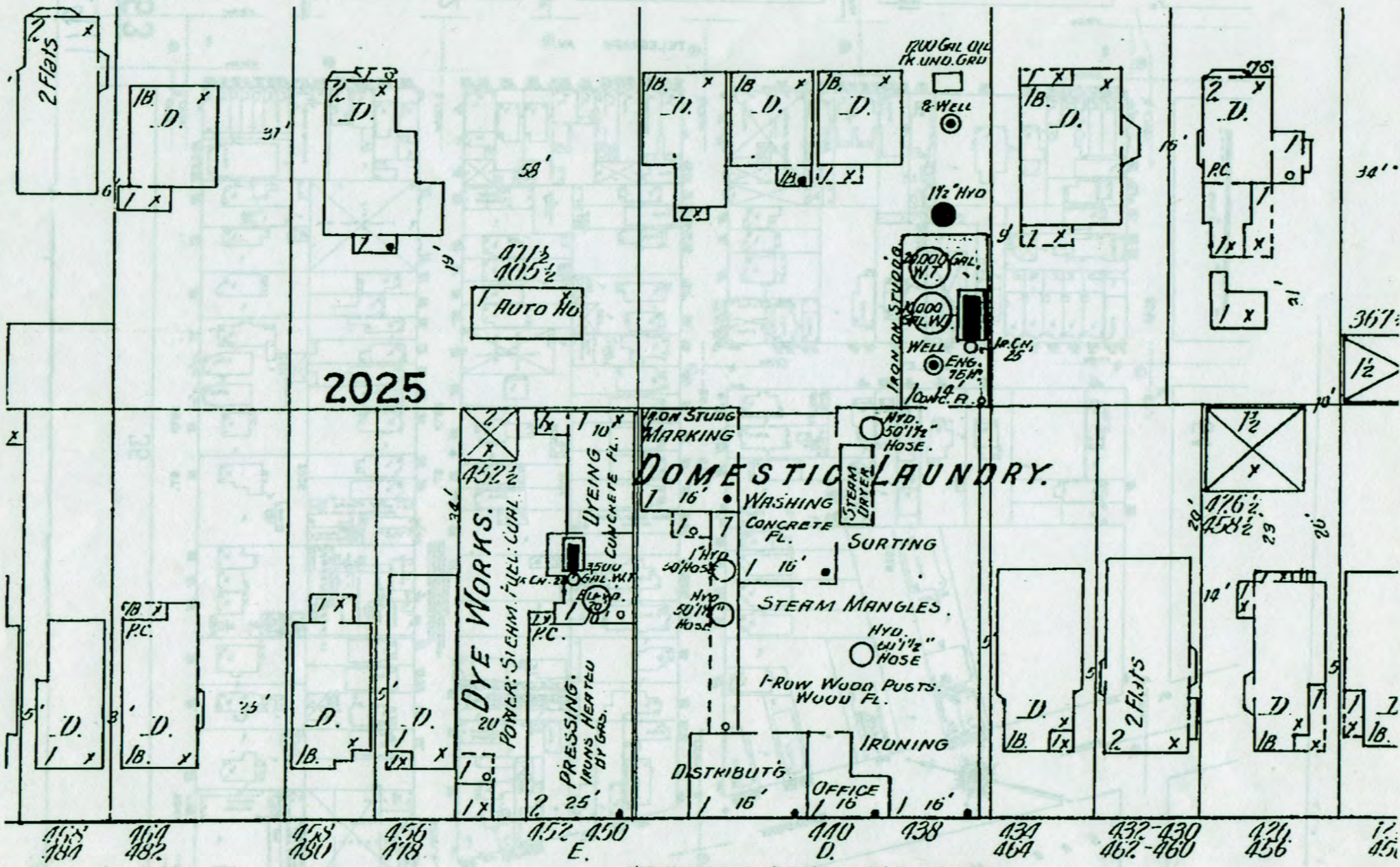
25TH ST.

24TH ST.

41

23RD ST.





**25TH ST.**

NIGHT WATCHMAN, NO CLUCK, NO STATIONS.  
 POWER: STEAM. FUEL: OIL. LIGHTS: ELECTRIC  
 HYUS. CONND. WITH 2-W. TKS. 20,000 & 10,000 GAL.

**APPENDIX B**  
**Photographs of UST Removal**

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Photo 1. Top of Redwood UST Encountered, Note Gray Contaminated Soil



Photo 2 Redwood Debris and Contaminated Soil





Photo 3. UST Excavation Approximately 8 feet bgs



Photo 4 Loading Contaminated Soil into Roll-Off Bin





Photo 5 Proximity of UST Excavation to Adjacent Building



Photo 6 Note Contaminated Soil Left in Place Beneath Foundation of Adjacent Building





Photo 7. Soil and Debris Disposed as Non-RCRA Hazardous Waste



Photo 8 Soil and Debris Disposed as Non-RCRA Hazardous Waste

# **APPENDIX C**

## **Boring Permit**

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# Alameda County Public Works Agency - Water Resources Well Permit



Public Works Agency  
—Alameda County—

399 Elmhurst Street  
Hayward, CA 94544-1395  
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 10/22/2014 By jamesy

Permit Numbers: W2014-0985  
Permits Valid from 11/13/2014 to 11/14/2014

Application Id: 1413926556722  
Site Location: 385 26th St.  
Project Start Date: 11/04/2014  
Assigned Inspector: Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org  
Extension Start Date: 11/13/2014  
Extension Count: 1

City of Project Site:Oakland  
Completion Date:11/04/2014  
Extension End Date: 11/14/2014  
Extended By: jamesy

Applicant: Cook Environmental Services, Inc. - Tim Cook  
1485 Treat Blvd, Ste 203A, Walnut Creek, CA 94597  
Property Owner: Susan Casentini  
388 Belmont St., Oakland, CA 94610  
Client: \*\* same as Property Owner \*\*  
Contact: Tim Cook

Phone: 925-478-8390  
Phone: 510-891-8993  
Phone: 925-478-8390  
Cell: 925-787-6869

Receipt Number: WR2014-0426 Total Due: \$265.00  
Payer Name : Timothy D Cook Total Amount Paid: \$265.00  
Paid By: VISA PAID IN FULL

## Works Requesting Permits:

Borehole(s) for Geo Probes-Sampling 24 to 72 hours only - 6 Boreholes  
Driller: Penecore Drilling, Inc. - Lic #: 906899 - Method: DP

Work Total: \$265.00

### Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2014-0985	10/22/2014	02/02/2015	6	3.00 in.	30.00 ft

### Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
4. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
5. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no

## Alameda County Public Works Agency - Water Resources Well Permit

case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

6. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.

7. NOTE:

Under California laws, the owner/operator are responsible for reporting the contamination to the governmental regulatory agencies under Section 25295(a). The owner/operator is liable for civil penalties under Section 25299(a)(4) and criminal penalties under Section 25299(d) for failure to report a leak. The owner/operator is liable for civil penalties under Section 25299(b)(4) for knowing failure to ensure compliance with the law by the operator. These penalty provisions do not apply to a potential buyer.

8. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

9. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

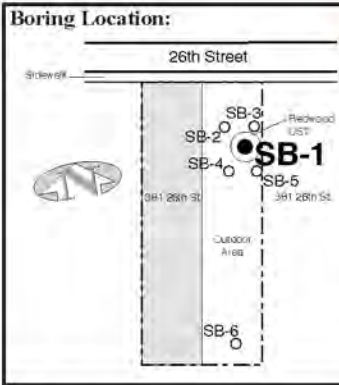
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# **APPENDIX D**

## **Borehole Logs**

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# Cook Environmental Services, Inc.

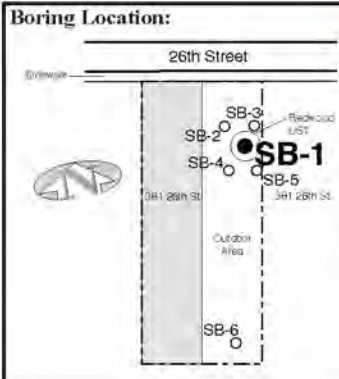
1485 Treat Blvd., Ste 203A, Walnut Creek, CA 94597, (925) 478-8390  
 (925) 787-6869 cell, tcook@cookenvironmental.com, www.cookenvironmental.com

<b>PROJECT:</b> Casentini	<b>PROJECT NO.:</b> 1095	<b>BORING NO.:</b> SB-1
<b>DRILLING CONTRACTOR:</b> Penecore Drilling	<b>START TIME:</b> 0700 <b>FINISH TIME:</b> 0815	<b>DATE:</b> 11/13/2014
<b>DRILLING METHOD:</b> Geoprobe	<b>TOTAL DEPTH:</b> 35'	<b>DEPTH TO WATER:</b> 25'
<b>SAMPLER:</b> dual tube	<b>SCREEN INT.:</b> 25-35'	<b>CASING:</b> 3/4" PVC
<b>HAMMER WEIGHT:</b> ---- <b>DROP:</b>	<b>FIELD GEOLOGIST:</b> T. Cook	

DEPTH (FEET)	SAMPLE No	INTERVAL	BLOWS/ 0.5 FOOT	PID [ppm]	BORING/WELL CONSTRUCTION DETAIL	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
2.5	@2.5'		0.0				Concrete
5							Base Rock (AB) - backfill Gravelly Sand (SW)
7.5			0.0				
10	@10'		0.0				CLAY (CL) - yellow brown with green staining, firm, low plasticity, slight odor
11	@11'		20.5				SAND (SW) - greenish gray, fine to coarse, with gravel to 1/4" dia., strong hydrocarbon odor
12.5							
15	@15'		12.7				CLAY (CL) - greenish gray, firm, moist, moderate hydrocarbon odor
17.5			10.0				CLAY (CL) - as above, soft, more moist, moderate hydrocarbon odor
20			4.0				CLAY (CL) - yellow brown, firm, moist, slight hydrocarbon odor

Checked by: TDC

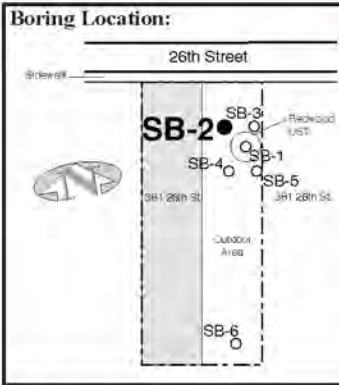




<h2 style="text-align: center;">Cook Environmental Services, Inc.</h2> <p>1485 Treat Blvd., Ste 203A, Walnut Creek, CA 94597, (925) 478-8390          (925) 787-6869 cell, tcook@cookenvironmental.com, www.cookenvironmental.com</p>		
PROJECT: Casentini	PROJECT NO. 1095	BORING NO: <b>SB-1</b>
DRILLING CONTRACTOR: Penecore Drilling	START TIME: 0700 FINISH TIME: 0815	DATE: 11/13/2014
DRILLING METHOD: Geoprobe	TOTAL DEPTH: 35'	DEPTH TO WATER: 25'
SAMPLER: dual tube	SCREEN INT.: 25-35'	CASING: 3/4" PVC
HAMMER WEIGHT: ---- DROP:	FIELD GEOLOGIST: T. Cook	

DEPTH (FEET)	SAMPLE No	INTERVAL	BLOWS/0.5 FOOT	PID [ppm]	BORING/WELL CONSTRUCTION DETAIL	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
22.5	@22.5'			27.5			CLAY (CL) - yellow brown, firm, moist, slight hydrocarbon odor CLAY (CL) - greenish gray, staining Clayey Gravelly SAND (SW) - greenish gray, loose, with gross \ contamination, strong hydrocarbon odor
25	@25'			5.4			As above, grading to Sandy CLAY (SC) at 25', firm, moist, moderate hydrocarbon odor
27.5				2.0			CLAY (CL) - orange brown with iron oxide nodules and green staining in speckles, firm, hard, low moisture, slight hydrocarbon odor
30				0.0			CLAY (CL) - as above, no odor
32.5				0.0			
35	@34'			0.0			Sandy CLAY (SC) - reddish brown, firm, with gravel to 1/4" dia., no odor
37.5							TD Boring @ 35 feet
40							

Checked by: TDC



# Cook Environmental Services, Inc.

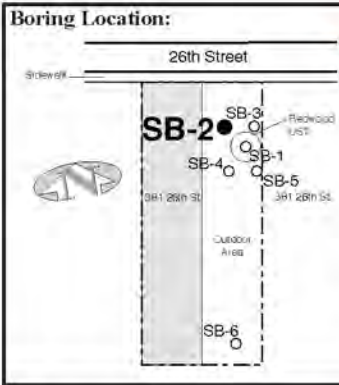
1485 Treat Blvd., Ste 203A, Walnut Creek, CA 94597, (925) 478-8390  
 (925) 787-6869 cell, tcook@cookenvironmental.com, www.cookenvironmental.com

<b>PROJECT:</b> Casentini	<b>PROJECT NO.:</b> 1095	<b>BORING NO.:</b> SB-2
<b>DRILLING CONTRACTOR:</b> Penecore Drilling	<b>START TIME:</b> 0830 <b>FINISH TIME:</b> 0945	<b>DATE:</b> 11/13/2014
<b>DRILLING METHOD:</b> Geoprobe	<b>TOTAL DEPTH:</b> 30'	<b>DEPTH TO WATER:</b> 25'
<b>SAMPLER:</b> dual tube	<b>SCREEN INT.:</b> 25-30'	<b>CASING:</b> 3/4" PVC
<b>HAMMER WEIGHT:</b> ---- <b>DROP:</b>	<b>FIELD GEOLOGIST:</b> T. Cook	

DEPTH (FEET)	SAMPLE No	INTERVAL	BLOWS/ 0.5 FOOT	PID [ppm]	BORING/WELL CONSTRUCTION DETAIL	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
2.5	@2.5'		0.0				Concrete
							Base Rock (AB) - backfill Gravelly Sand (SW)
							Silty CLAY (CL) - dark brown, moist, low-moderate plasticity, no odor
5	@4.0'		0.0				Sandy Silty CLAY (SC) - yellowish brown, moist, low plasticity, fine grained sand 10%, clay/silt 90%, no odor
							CLAY (CL) - yellow brown, firm, moist, low plasticity, no odor
10	@9.5'		20.9				CLAY (CL) - greenish gray, softer, low plasticity, moderate hydrocarbon odor
12.5	@12.5'		30.5				As above with obvious signs of hydrocarbon contamination at 12.5'
15	@15'		12.7				CLAY (CL) - greenish gray, firm, moist, moderate hydrocarbon odor
17.5			10.0				CLAY (CL) - greenish gray, stiff, more plastic, moderate hydrocarbon odor
20			4.0				

Checked by: TDC





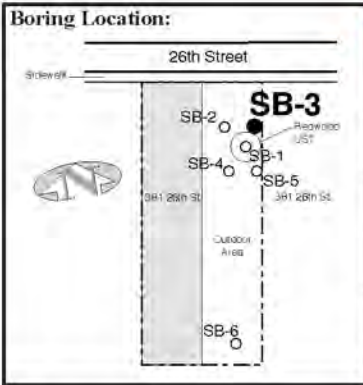
# Cook Environmental Services, Inc.

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 (925) 787-6869 cell, tcook@cookenvironmental.com, www.cookenvironmental.com

<b>PROJECT:</b> Casentini	<b>PROJECT NO.:</b> 1095	<b>BORING NO.:</b> SB-2
<b>DRILLING CONTRACTOR:</b> Penecore Drilling	<b>START TIME:</b> 0830 <b>FINISH TIME:</b> 0945	<b>DATE:</b> 11/13/2014
<b>DRILLING METHOD:</b> Geoprobe	<b>TOTAL DEPTH:</b> 30'	<b>DEPTH TO WATER:</b> 25'
<b>SAMPLER:</b> dual tube	<b>SCREEN INT.:</b> 25-30'	<b>CASING:</b> 3/4" PVC
<b>HAMMER WEIGHT:</b> ---- <b>DROP:</b>	<b>FIELD GEOLOGIST:</b> T. Cook	

DEPTH (FEET)	SAMPLE No	INTERVAL	BLOWS/ 0.5 FOOT	PID [ppm]	BORING/WELL CONSTRUCTION DETAIL	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
22.5	@22'		2.0				CLAY (CL) - yellow brown, firm, low plasticity, slight hydrocarbon odor
25	@24.5'		4.5				CLAY (CL) - greenish brown, firm, low plasticity, slight hydrocarbon odor
							Clayey Gravelly SAND (SW) - reddish brown, with subangular gravel to 1/2" dia., wet, slight hydrocarbon odor
			0.0				▼ CLAY (CL) - yellow brown, firm, moist, low plasticity, no hydrocarbon odor
30	@30'		0.0				CLAY (CL) - yellow brown, very firm, moist, no hydrocarbon odor
32.5							TD Boring @ 30 feet
35							
37.5							
40							

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 (925) 787-6869 cell, tcook@cookenvironmental.com, www.cookenvironmental.com

<b>PROJECT:</b> Casentini	<b>PROJECT NO.:</b> 1095	<b>BORING NO.:</b> SB-3
<b>DRILLING CONTRACTOR:</b> Penecore Drilling	<b>START TIME:</b> 0945 <b>FINISH TIME:</b> 1100	<b>DATE:</b> 11/13/2014
<b>DRILLING METHOD:</b> Geoprobe	<b>TOTAL DEPTH:</b> 30'	<b>DEPTH TO WATER:</b> 25'
<b>SAMPLER:</b> dual tube	<b>SCREEN INT.:</b> 25-30'	<b>CASING:</b> 3/4" PVC
<b>HAMMER WEIGHT:</b> ---- <b>DROP:</b>	<b>FIELD GEOLOGIST:</b> T. Cook	

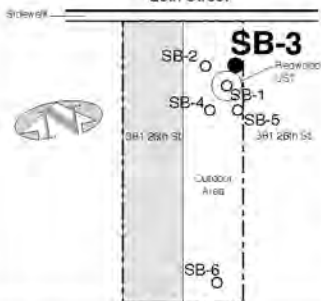
DEPTH (FEET)	SAMPLE No	INTERVAL	BLOWS/0.5 FOOT	PID [ppm]	BORING/WELL CONSTRUCTION DETAIL	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
2.5	@2.5'		0.0				Concrete
5	@7.0'		0.0				Base Rock (AB) - backfill Gravelly Sand (SW)  CLAY (CL) - dark brown, firm, moist, organic, no odor  CLAY (CL) - yellow brown, firm, moist, low plasticity, no odor  CLAY (CL) - reddish gray, firm, moist, moderate odor  CLAY (CL) - greenish gray, firm, moist, moderate odor
10	@9.5'		20.9				CLAY (CL) - green gray, softer, moist, moderate hydrocarbon odor  As above - with red gravel inclusion at 11.0'
12.5	@11.5'		15.0				CLAY (CL) - as above, but yellow brown, moderate hydrocarbon odor
15			8.0				CLAY (CL) - as above, but greenish gray, slight hydrocarbon odor
17.5	@17'		6.0				Sandy GRAVEL (SW) - 1" thick, moderate hydrocarbon odor
20			0.0				CLAY (CL) - yellow brown, stiff, moist, low plasticity, no hydrocarbon odor

Checked by: TDC



**Boring Location:**

26th Street



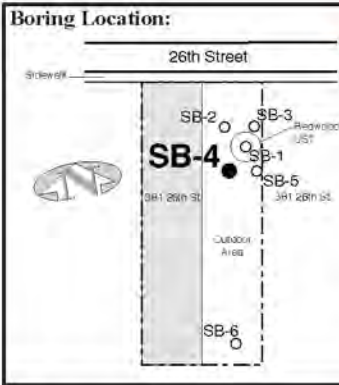
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 (925) 787-6869 cell, tcook@cookenvironmental.com, www.cookenvironmental.com

PROJECT: Casentini	PROJECT NO. 1095	BORING NO: <b>SB-3</b>
DRILLING CONTRACTOR: Penecore Drilling	START TIME: 0945 FINISH TIME: 1100	DATE: 11/13/2014
DRILLING METHOD: Geoprobe	TOTAL DEPTH: 30'	DEPTH TO WATER: 25'
SAMPLER: dual tube	SCREEN INT.: 25-30'	CASING: 3/4" PVC
HAMMER WEIGHT: ---- DROP:	FIELD GEOLOGIST: T. Cook	

DEPTH (FEET)	SAMPLE No	INTERVAL	BLOWS/ 0.5 FOOT	PID [ppm]	BORING/WELL CONSTRUCTION DETAIL	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
22.5	@21'		2.0				Sandy CLAY (CL) - greenish gray, moist, stiff, slight hydrocarbon odor
25	@24'		2.0				CLAY (CL) - green gray, moist, stiff, slight hydrocarbon odor, with red gravel inclusions to 1/4" dia.
25	@24'		4.5				Thin gravelly sand 1" thick at 24', moderate hydrocarbon odor
27.5	@25.5'		1.2				Clayey Gravelly SAND (SW) - reddish orange, moist, firm, with subangular gravel to 1/2" dia., firm, slight odor
27.5	@27.5'		0.0				CLAY (CL) - yellow brown, stiff, moist, low plasticity, no hydrocarbon odor
30			0.0				TD Boring @ 30 feet
32.5							
35							
37.5							
40							

Checked by: TDC



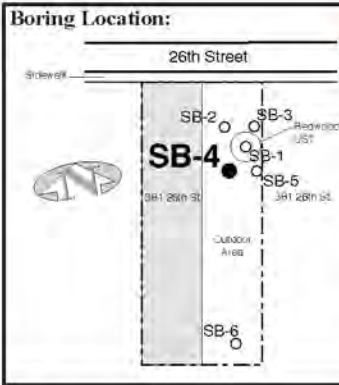
**Cook Environmental Services, Inc.**  
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 (925) 787-6869 cell, tcook@cookenvironmental.com, www.cookenvironmental.com

<b>PROJECT:</b> Casentini	<b>PROJECT NO.:</b> 1095	<b>BORING NO.:</b> SB-4
<b>DRILLING CONTRACTOR:</b> Penecore Drilling	<b>START TIME:</b> 1130 <b>FINISH TIME:</b> 1400	<b>DATE:</b> 11/13/2014
<b>DRILLING METHOD:</b> Geoprobe	<b>TOTAL DEPTH:</b> 30'	<b>DEPTH TO WATER:</b> 25'
<b>SAMPLER:</b> dual tube	<b>SCREEN INT.:</b> 25-30'	<b>CASING:</b> 3/4" PVC
<b>HAMMER WEIGHT:</b> ---- <b>DROP:</b>	<b>FIELD GEOLOGIST:</b> T. Cook	

DEPTH (FEET)	SAMPLE No	INTERVAL	BLOWS/0.5 FOOT	PID [ppm]	BORING/WELL CONSTRUCTION DETAIL	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
0.0							Concrete
2.5	@2'						CLAY (CL) - dark brown, stiff, moist, organic, no odor
5.0							CLAY (CL) - yellow brown, stiff, moist, no odor
7.5							CLAY (CL) - yellow brown, stiff, moist, no odor
10.0	@9.5'						Clayey SAND (SP) - fine grained sand with 15-20% fines, firm, moist, no odor
12.5							
15.0	@14.5'			3.2			CLAY (CL) - greenish gray, stiff, moist, slight hydrocarbon odor
17.5							
20.0	@19.5'						CLAY (CL) - yellow brown, stiff, moist, no hydrocarbon odor

Checked by: TDC





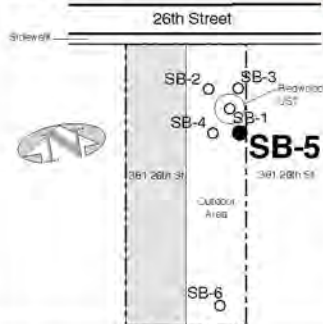
**Cook Environmental Services, Inc.**  
 1485 Treat Blvd., Ste 203A, Walnut Creek, CA 94597, (925) 478-8390  
 (925) 787-6869 cell, tcook@cookenvironmental.com, www.cookenvironmental.com

PROJECT: Casentini	PROJECT NO. 1095	BORING NO: <b>SB-4</b>
DRILLING CONTRACTOR: Penecore Drilling	START TIME: 1130 FINISH TIME: 1400	DATE: 11/13/2014
DRILLING METHOD: Geoprobe	TOTAL DEPTH: 30'	DEPTH TO WATER: 25'
SAMPLER: dual tube	SCREEN INT.: 25-30'	CASING: 3/4" PVC
HAMMER WEIGHT: ---- DROP:	FIELD GEOLOGIST: T. Cook	

DEPTH (FEET)	SAMPLE No	INTERVAL	BLOWS/ 0.5 FOOT	PID [ppm]	BORING/WELL CONSTRUCTION DETAIL	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
0.0							CLAY (CL) - yellow brown, stiff, moist, low plasticity, no odor
22.5							
25.0	@24.5'						▼ Gravelly SAND (SW) - red brown, wet, loose, subangular gravel to 1/4" dia., no odor
27.5	@27.5'						CLAY (CL) - yellow brown, stiff, moist, low plasticity, no odor
30.0							TD Boring @ 30 feet
32.5							
35.0							
37.5							
40.0							

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**Boring Location:**



**Cook Environmental Services, Inc.**

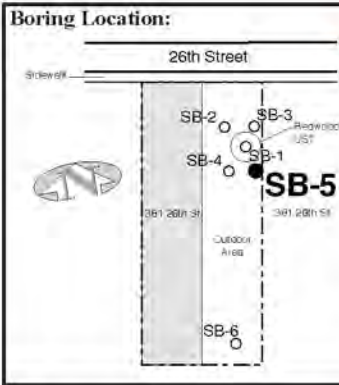
1485 Treat Blvd., Ste 203A, Walnut Creek, CA 94597, (925) 478-8390  
 (925) 787-6869 cell, tcook@cookenvironmental.com, www.cookenvironmental.com

PROJECT: Casentini	PROJECT NO. 1095	BORING NO: <b>SB-5</b>
DRILLING CONTRACTOR: Penecore Drilling	START TIME: 1400 FINISH TIME: 1530	DATE: 11/13/2014
DRILLING METHOD: Geoprobe	TOTAL DEPTH: 30'	DEPTH TO WATER: 25'
SAMPLER: dual tube	SCREEN INT.: 25-30'	CASING: 3/4" PVC
HAMMER WEIGHT: ---- DROP:	FIELD GEOLOGIST: T. Cook	

DEPTH (FEET)	SAMPLE No	INTERVAL	BLOWS/0.5 FOOT	PID [ppm]	BORING/WELL CONSTRUCTION DETAIL	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
0.0							Concrete
2.5	@2'						Base Rock (AB) - fill material Gravelly SAND (SW)
5.0							CLAY (CL) - yellow brown, stiff, low plasticity, no odor
7.5							
10.0	@9.5'						SAND (SP) - yellow brown, fine grained, no odor
12.5							CLAY (CL) - yellow brown, stiff, low plasticity, no odor
14.0	@14'						Gravelly Sandy CLAY (SC) - greenish gray, stiff, low plasticity, moderate hydrocarbon odor
15.0							CLAY (CL) - yellow brown, stiff, low plasticity, no odor
17.5							CLAY (CL) - greenish gray, stiff (18-19'), slight hydrocarbon odor
18.0	@18'						CLAY (CL) - yellow brown, stiff, moist, no hydrocarbon odor
20.0							

Checked by: TDC





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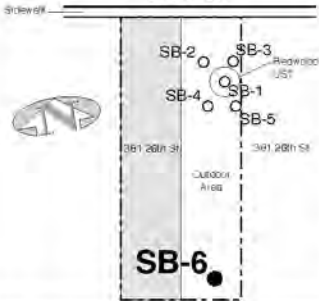
<b>PROJECT:</b> Casentini	<b>PROJECT NO.:</b> 1095	<b>BORING NO.:</b> SB-5
<b>DRILLING CONTRACTOR:</b> Penecore Drilling	<b>START TIME:</b> 1400 <b>FINISH TIME:</b> 1530	<b>DATE:</b> 11/13/2014
<b>DRILLING METHOD:</b> Geoprobe	<b>TOTAL DEPTH:</b> 30'	<b>DEPTH TO WATER:</b> 25'
<b>SAMPLER:</b> dual tube	<b>SCREEN INT.:</b> 25-30'	<b>CASING:</b> 3/4" PVC
<b>HAMMER WEIGHT:</b> ---- <b>DROP:</b>	<b>FIELD GEOLOGIST:</b> T. Cook	

DEPTH (FEET)	SAMPLE No	INTERVAL	BLOWS/ 0.5 FOOT	PID [ppm]	BORING/WELL CONSTRUCTION DETAIL	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
0.0							CLAY (CL) - yellow brown, stiff, low plasticity, no odor
22.5							
25	@24'			0.0			▼ SAND (SP) - light tan, loose, wet, fine grained, no odor Gravelly SAND (SP) - with gravel to 1/2" dia. from 24.5'-25'
25	@25'						CLAY (CL) - yellow brown, stiff, low plasticity, no odor
27.5							
30							TD Boring @ 30 feet
32.5							
35							
37.5							
40							

Checked by: TDC

**Boring Location:**

26th Street



**Cook Environmental Services, Inc.**

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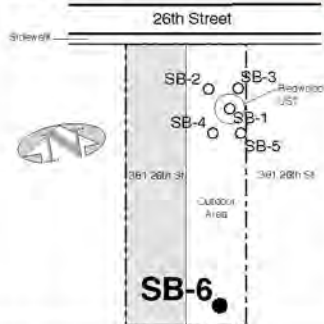
PROJECT: Casentini	PROJECT NO. 1095	BORING NO: <b>SB-6</b>
DRILLING CONTRACTOR: Penecore Drilling	START TIME: 1530 FINISH TIME: 1700	DATE: 11/13/2014
DRILLING METHOD: Geoprobe	TOTAL DEPTH: 30'	DEPTH TO WATER: 25'
SAMPLER: dual tube	SCREEN INT.: 25-30'	CASING: 3/4" PVC
HAMMER WEIGHT: ---- DROP:	FIELD GEOLOGIST: T. Cook	

DEPTH (FEET)	SAMPLE No	INTERVAL	BLOWS/ 0.5 FOOT	PID [ppm]	BORING/WELL CONSTRUCTION DETAIL	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
0.0			0.0				Concrete
2.5	@2'		0.0				CLAY (CL) - dark brown, stiff, low plasticity, organic no odor
5.0			0.0				CLAY (CL) - yellow brown, stiff, low plasticity, no odor
7.5			0.0				
10.0	@9'		0.0				As Above - softer and more moist 9'-10'
12.5			0.0				
15.0	@14'		0.0				
17.5			0.0				Gravelly Sandy CLAY (SC) - red brown, firm, moist, no odor CLAY (CL) - yellow brown, stiff, low plasticity, no odor
20.0	@19'		0.0				SAND (SP) dark gray, fine grained, firm, no odor

Checked by: TDC



**Boring Location:**



**Cook Environmental Services, Inc.**

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 (925) 787-6869 cell, tcook@cookenvironmental.com, www.cookenvironmental.com

<b>PROJECT:</b> Casentini	<b>PROJECT NO.:</b> 1095	<b>BORING NO.:</b> SB-6
<b>DRILLING CONTRACTOR:</b> Penecore Drilling	<b>START TIME:</b> 1530 <b>FINISH TIME:</b> 1700	<b>DATE:</b> 11/13/2014
<b>DRILLING METHOD:</b> Geoprobe	<b>TOTAL DEPTH:</b> 30'	<b>DEPTH TO WATER:</b> 25'
<b>SAMPLER:</b> dual tube	<b>SCREEN INT.:</b> 25-30'	<b>CASING:</b> 3/4" PVC
<b>HAMMER WEIGHT:</b> ---- <b>DROP:</b>	<b>FIELD GEOLOGIST:</b> T. Cook	

DEPTH (FEET)	SAMPLE No	INTERVAL	BLOWS/ 0.5 FOOT	PID [ppm]	BORING/WELL CONSTRUCTION DETAIL	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
22.5				0.0			CLAY (CL) - yellow brown, stiff, moist, low plasticity, no odor
25	@24.5'		0.0				▼ Sandy CLAY (SC) - light tan, soft, wet, no odor, fine grained sand Gravelly SAND (SW) - reddish brown, firm, wet, with gravel to 3/4" dia., no odor
27.5	@26'		0.0				CLAY (CL) - yellow brown, stiff, low plasticity, no odor
30	@28.5'						Gravelly SAND (SW) - reddish brown, loose, wet, with gravel to 1/2" dia., no odor CLAY (CL) - yellow brown, stiff, low plasticity, no odor
32.5							TD Boring @ 30 feet
35							
37.5							
40							

Checked by: TDC

**APPENDIX E**  
**Laboratory Analytical Report**  
**for Soil Samples**

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# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1411565

**Report Created for:** Cook Environmental Services, Inc.  
1485 Treat Blvd, Ste. 203A  
Walnut Creek, CA 94597

**Project Contact:** Tim Cook

**Project P.O.:**

**Project Name:** #1095; Casentini

**Project Received:** 11/14/2014

Analytical Report reviewed & approved for release on 11/20/2014 by:

*Question about  
your data?*

[Click here to email  
McC Campbell](#)

Angela Rydelius,  
Laboratory Manager

***The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.***





## Glossary of Terms & Qualifier Definitions

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**WorkOrder:** 1411565

### Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
TEQ	Toxicity Equivalence

### Analytical Qualifiers

S	spike recovery outside accepted recovery limits
a3	sample diluted due to high organic content.
a4	reporting limits raised due to the sample's matrix prohibiting a full volume extraction.
c1	surrogate recovery outside of the control limits due to the dilution of the sample.
c2	surrogate recovery outside of the control limits due to matrix interference.
d7	strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram
d9	no recognizable pattern
e1	unmodified or weakly modified diesel is significant
e2	diesel range compounds are significant; no recognizable pattern
e3	aged diesel is significant
e7	oil range compounds are significant
e8	kerosene/kerosene range/jet fuel range
e10	fuel oil



## **Glossary of Terms & Qualifier Definitions**

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**WorkOrder:** 1411565

### **Quality Control Qualifiers**

F1 MS/MSD recovery and/or RPD was out of acceptance criteria; LCS validated the prep batch.





## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1@2.5'	1411565-001A	Soil	11/13/2014	GC10	97782

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	11/15/2014 11:40
tert-Amyl methyl ether (TAME)	ND	0.0050	1	11/15/2014 11:40
Benzene	ND	0.0050	1	11/15/2014 11:40
Bromobenzene	ND	0.0050	1	11/15/2014 11:40
Bromochloromethane	ND	0.0050	1	11/15/2014 11:40
Bromodichloromethane	ND	0.0050	1	11/15/2014 11:40
Bromoform	ND	0.0050	1	11/15/2014 11:40
Bromomethane	ND	0.0050	1	11/15/2014 11:40
2-Butanone (MEK)	ND	0.020	1	11/15/2014 11:40
t-Butyl alcohol (TBA)	ND	0.050	1	11/15/2014 11:40
n-Butyl benzene	ND	0.0050	1	11/15/2014 11:40
sec-Butyl benzene	ND	0.0050	1	11/15/2014 11:40
tert-Butyl benzene	ND	0.0050	1	11/15/2014 11:40
Carbon Disulfide	ND	0.0050	1	11/15/2014 11:40
Carbon Tetrachloride	ND	0.0050	1	11/15/2014 11:40
Chlorobenzene	ND	0.0050	1	11/15/2014 11:40
Chloroethane	ND	0.0050	1	11/15/2014 11:40
Chloroform	ND	0.0050	1	11/15/2014 11:40
Chloromethane	ND	0.0050	1	11/15/2014 11:40
2-Chlorotoluene	ND	0.0050	1	11/15/2014 11:40
4-Chlorotoluene	ND	0.0050	1	11/15/2014 11:40
Dibromochloromethane	ND	0.0050	1	11/15/2014 11:40
1,2-Dibromo-3-chloropropane	ND	0.0040	1	11/15/2014 11:40
1,2-Dibromoethane (EDB)	ND	0.0040	1	11/15/2014 11:40
Dibromomethane	ND	0.0050	1	11/15/2014 11:40
1,2-Dichlorobenzene	ND	0.0050	1	11/15/2014 11:40
1,3-Dichlorobenzene	ND	0.0050	1	11/15/2014 11:40
1,4-Dichlorobenzene	ND	0.0050	1	11/15/2014 11:40
Dichlorodifluoromethane	ND	0.0050	1	11/15/2014 11:40
1,1-Dichloroethane	ND	0.0050	1	11/15/2014 11:40
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	11/15/2014 11:40
1,1-Dichloroethene	ND	0.0050	1	11/15/2014 11:40
cis-1,2-Dichloroethene	ND	0.0050	1	11/15/2014 11:40
trans-1,2-Dichloroethene	ND	0.0050	1	11/15/2014 11:40
1,2-Dichloropropane	ND	0.0050	1	11/15/2014 11:40
1,3-Dichloropropane	ND	0.0050	1	11/15/2014 11:40
2,2-Dichloropropane	ND	0.0050	1	11/15/2014 11:40
1,1-Dichloropropene	ND	0.0050	1	11/15/2014 11:40

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1@2.5'	1411565-001A	Soil	11/13/2014	GC10	97782

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.0050	1	11/15/2014 11:40
trans-1,3-Dichloropropene	ND	0.0050	1	11/15/2014 11:40
Diisopropyl ether (DIPE)	ND	0.0050	1	11/15/2014 11:40
Ethylbenzene	ND	0.0050	1	11/15/2014 11:40
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	11/15/2014 11:40
Freon 113	ND	0.10	1	11/15/2014 11:40
Hexachlorobutadiene	ND	0.0050	1	11/15/2014 11:40
Hexachloroethane	ND	0.0050	1	11/15/2014 11:40
2-Hexanone	ND	0.0050	1	11/15/2014 11:40
Isopropylbenzene	ND	0.0050	1	11/15/2014 11:40
4-Isopropyl toluene	ND	0.0050	1	11/15/2014 11:40
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	11/15/2014 11:40
Methylene chloride	ND	0.0050	1	11/15/2014 11:40
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	11/15/2014 11:40
Naphthalene	ND	0.0050	1	11/15/2014 11:40
n-Propyl benzene	ND	0.0050	1	11/15/2014 11:40
Styrene	ND	0.0050	1	11/15/2014 11:40
1,1,1,2-Tetrachloroethane	ND	0.0050	1	11/15/2014 11:40
1,1,2,2-Tetrachloroethane	ND	0.0050	1	11/15/2014 11:40
Tetrachloroethene	ND	0.0050	1	11/15/2014 11:40
Toluene	ND	0.0050	1	11/15/2014 11:40
1,2,3-Trichlorobenzene	ND	0.0050	1	11/15/2014 11:40
1,2,4-Trichlorobenzene	ND	0.0050	1	11/15/2014 11:40
1,1,1-Trichloroethane	ND	0.0050	1	11/15/2014 11:40
1,1,2-Trichloroethane	ND	0.0050	1	11/15/2014 11:40
Trichloroethene	ND	0.0050	1	11/15/2014 11:40
Trichlorofluoromethane	ND	0.0050	1	11/15/2014 11:40
1,2,3-Trichloropropane	ND	0.0050	1	11/15/2014 11:40
1,2,4-Trimethylbenzene	ND	0.0050	1	11/15/2014 11:40
1,3,5-Trimethylbenzene	ND	0.0050	1	11/15/2014 11:40
Vinyl Chloride	ND	0.0050	1	11/15/2014 11:40
Xylenes, Total	ND	0.0050	1	11/15/2014 11:40

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1@2.5'	1411565-001A	Soil	11/13/2014	GC10	97782

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	93	70-130		11/15/2014 11:40
Toluene-d8	105	70-130		11/15/2014 11:40
4-BFB	96	70-130		11/15/2014 11:40

**Analyst(s):** KF



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1@10'	1411565-002A	Soil	11/13/2014	GC10	97866

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	11/18/2014 12:42
tert-Amyl methyl ether (TAME)	ND	0.0050	1	11/18/2014 12:42
Benzene	ND	0.0050	1	11/18/2014 12:42
Bromobenzene	ND	0.0050	1	11/18/2014 12:42
Bromochloromethane	ND	0.0050	1	11/18/2014 12:42
Bromodichloromethane	ND	0.0050	1	11/18/2014 12:42
Bromoform	ND	0.0050	1	11/18/2014 12:42
Bromomethane	ND	0.0050	1	11/18/2014 12:42
2-Butanone (MEK)	ND	0.020	1	11/18/2014 12:42
t-Butyl alcohol (TBA)	ND	0.050	1	11/18/2014 12:42
n-Butyl benzene	ND	0.0050	1	11/18/2014 12:42
sec-Butyl benzene	ND	0.0050	1	11/18/2014 12:42
tert-Butyl benzene	ND	0.0050	1	11/18/2014 12:42
Carbon Disulfide	ND	0.0050	1	11/18/2014 12:42
Carbon Tetrachloride	ND	0.0050	1	11/18/2014 12:42
Chlorobenzene	ND	0.0050	1	11/18/2014 12:42
Chloroethane	ND	0.0050	1	11/18/2014 12:42
Chloroform	ND	0.0050	1	11/18/2014 12:42
Chloromethane	ND	0.0050	1	11/18/2014 12:42
2-Chlorotoluene	ND	0.0050	1	11/18/2014 12:42
4-Chlorotoluene	ND	0.0050	1	11/18/2014 12:42
Dibromochloromethane	ND	0.0050	1	11/18/2014 12:42
1,2-Dibromo-3-chloropropane	ND	0.0040	1	11/18/2014 12:42
1,2-Dibromoethane (EDB)	ND	0.0040	1	11/18/2014 12:42
Dibromomethane	ND	0.0050	1	11/18/2014 12:42
1,2-Dichlorobenzene	ND	0.0050	1	11/18/2014 12:42
1,3-Dichlorobenzene	ND	0.0050	1	11/18/2014 12:42
1,4-Dichlorobenzene	ND	0.0050	1	11/18/2014 12:42
Dichlorodifluoromethane	ND	0.0050	1	11/18/2014 12:42
1,1-Dichloroethane	ND	0.0050	1	11/18/2014 12:42
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	11/18/2014 12:42
1,1-Dichloroethene	ND	0.0050	1	11/18/2014 12:42
cis-1,2-Dichloroethene	ND	0.0050	1	11/18/2014 12:42
trans-1,2-Dichloroethene	ND	0.0050	1	11/18/2014 12:42
1,2-Dichloropropane	ND	0.0050	1	11/18/2014 12:42
1,3-Dichloropropane	ND	0.0050	1	11/18/2014 12:42
2,2-Dichloropropane	ND	0.0050	1	11/18/2014 12:42
1,1-Dichloropropene	ND	0.0050	1	11/18/2014 12:42

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1@10'	1411565-002A	Soil	11/13/2014	GC10	97866

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.0050	1	11/18/2014 12:42
trans-1,3-Dichloropropene	ND	0.0050	1	11/18/2014 12:42
Diisopropyl ether (DIPE)	ND	0.0050	1	11/18/2014 12:42
Ethylbenzene	ND	0.0050	1	11/18/2014 12:42
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	11/18/2014 12:42
Freon 113	ND	0.10	1	11/18/2014 12:42
Hexachlorobutadiene	ND	0.0050	1	11/18/2014 12:42
Hexachloroethane	ND	0.0050	1	11/18/2014 12:42
2-Hexanone	ND	0.0050	1	11/18/2014 12:42
Isopropylbenzene	ND	0.0050	1	11/18/2014 12:42
4-Isopropyl toluene	ND	0.0050	1	11/18/2014 12:42
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	11/18/2014 12:42
Methylene chloride	ND	0.0050	1	11/18/2014 12:42
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	11/18/2014 12:42
Naphthalene	ND	0.0050	1	11/18/2014 12:42
n-Propyl benzene	ND	0.0050	1	11/18/2014 12:42
Styrene	ND	0.0050	1	11/18/2014 12:42
1,1,1,2-Tetrachloroethane	ND	0.0050	1	11/18/2014 12:42
1,1,2,2-Tetrachloroethane	ND	0.0050	1	11/18/2014 12:42
Tetrachloroethene	ND	0.0050	1	11/18/2014 12:42
Toluene	ND	0.0050	1	11/18/2014 12:42
1,2,3-Trichlorobenzene	ND	0.0050	1	11/18/2014 12:42
1,2,4-Trichlorobenzene	ND	0.0050	1	11/18/2014 12:42
1,1,1-Trichloroethane	ND	0.0050	1	11/18/2014 12:42
1,1,2-Trichloroethane	ND	0.0050	1	11/18/2014 12:42
Trichloroethene	ND	0.0050	1	11/18/2014 12:42
Trichlorofluoromethane	ND	0.0050	1	11/18/2014 12:42
1,2,3-Trichloropropane	ND	0.0050	1	11/18/2014 12:42
1,2,4-Trimethylbenzene	ND	0.0050	1	11/18/2014 12:42
1,3,5-Trimethylbenzene	ND	0.0050	1	11/18/2014 12:42
Vinyl Chloride	ND	0.0050	1	11/18/2014 12:42
Xylenes, Total	ND	0.0050	1	11/18/2014 12:42

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1@10'	1411565-002A	Soil	11/13/2014	GC10	97866

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	94	70-130		11/18/2014 12:42
Toluene-d8	105	70-130		11/18/2014 12:42
4-BFB	105	70-130		11/18/2014 12:42

**Analyst(s):** AK





## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1@11'	1411565-003A	Soil	11/13/2014	GC16	97782

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	4.0	40	11/15/2014 16:05
tert-Amyl methyl ether (TAME)	ND	0.20	40	11/15/2014 16:05
Benzene	ND	0.20	40	11/15/2014 16:05
Bromobenzene	ND	0.20	40	11/15/2014 16:05
Bromochloromethane	ND	0.20	40	11/15/2014 16:05
Bromodichloromethane	ND	0.20	40	11/15/2014 16:05
Bromoform	ND	0.20	40	11/15/2014 16:05
Bromomethane	ND	0.20	40	11/15/2014 16:05
2-Butanone (MEK)	ND	0.80	40	11/15/2014 16:05
t-Butyl alcohol (TBA)	ND	2.0	40	11/15/2014 16:05
n-Butyl benzene	ND	0.20	40	11/15/2014 16:05
sec-Butyl benzene	ND	0.20	40	11/15/2014 16:05
tert-Butyl benzene	ND	0.20	40	11/15/2014 16:05
Carbon Disulfide	ND	0.20	40	11/15/2014 16:05
Carbon Tetrachloride	ND	0.20	40	11/15/2014 16:05
Chlorobenzene	ND	0.20	40	11/15/2014 16:05
Chloroethane	ND	0.20	40	11/15/2014 16:05
Chloroform	ND	0.20	40	11/15/2014 16:05
Chloromethane	ND	0.20	40	11/15/2014 16:05
2-Chlorotoluene	ND	0.20	40	11/15/2014 16:05
4-Chlorotoluene	ND	0.20	40	11/15/2014 16:05
Dibromochloromethane	ND	0.20	40	11/15/2014 16:05
1,2-Dibromo-3-chloropropane	ND	0.16	40	11/15/2014 16:05
1,2-Dibromoethane (EDB)	ND	0.16	40	11/15/2014 16:05
Dibromomethane	ND	0.20	40	11/15/2014 16:05
1,2-Dichlorobenzene	ND	0.20	40	11/15/2014 16:05
1,3-Dichlorobenzene	ND	0.20	40	11/15/2014 16:05
1,4-Dichlorobenzene	ND	0.20	40	11/15/2014 16:05
Dichlorodifluoromethane	ND	0.20	40	11/15/2014 16:05
1,1-Dichloroethane	ND	0.20	40	11/15/2014 16:05
1,2-Dichloroethane (1,2-DCA)	ND	0.16	40	11/15/2014 16:05
1,1-Dichloroethene	ND	0.20	40	11/15/2014 16:05
cis-1,2-Dichloroethene	ND	0.20	40	11/15/2014 16:05
trans-1,2-Dichloroethene	ND	0.20	40	11/15/2014 16:05
1,2-Dichloropropane	ND	0.20	40	11/15/2014 16:05
1,3-Dichloropropane	ND	0.20	40	11/15/2014 16:05
2,2-Dichloropropane	ND	0.20	40	11/15/2014 16:05
1,1-Dichloropropene	ND	0.20	40	11/15/2014 16:05

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1@11'	1411565-003A	Soil	11/13/2014	GC16	97782
<b>Analytes</b>	<b>Result</b>		<b>RL</b>	<b>DF</b>	<b>Date Analyzed</b>
cis-1,3-Dichloropropene	ND		0.20	40	11/15/2014 16:05
trans-1,3-Dichloropropene	ND		0.20	40	11/15/2014 16:05
Diisopropyl ether (DIPE)	ND		0.20	40	11/15/2014 16:05
Ethylbenzene	ND		0.20	40	11/15/2014 16:05
Ethyl tert-butyl ether (ETBE)	ND		0.20	40	11/15/2014 16:05
Freon 113	ND		4.0	40	11/15/2014 16:05
Hexachlorobutadiene	ND		0.20	40	11/15/2014 16:05
Hexachloroethane	ND		0.20	40	11/15/2014 16:05
2-Hexanone	ND		0.20	40	11/15/2014 16:05
Isopropylbenzene	ND		0.20	40	11/15/2014 16:05
4-Isopropyl toluene	ND		0.20	40	11/15/2014 16:05
Methyl-t-butyl ether (MTBE)	ND		0.20	40	11/15/2014 16:05
Methylene chloride	ND		0.20	40	11/15/2014 16:05
4-Methyl-2-pentanone (MIBK)	ND		0.20	40	11/15/2014 16:05
Naphthalene	<b>3.5</b>		0.20	40	11/15/2014 16:05
n-Propyl benzene	ND		0.20	40	11/15/2014 16:05
Styrene	ND		0.20	40	11/15/2014 16:05
1,1,1,2-Tetrachloroethane	ND		0.20	40	11/15/2014 16:05
1,1,2,2-Tetrachloroethane	ND		0.20	40	11/15/2014 16:05
Tetrachloroethene	ND		0.20	40	11/15/2014 16:05
Toluene	ND		0.20	40	11/15/2014 16:05
1,2,3-Trichlorobenzene	ND		0.20	40	11/15/2014 16:05
1,2,4-Trichlorobenzene	ND		0.20	40	11/15/2014 16:05
1,1,1-Trichloroethane	ND		0.20	40	11/15/2014 16:05
1,1,2-Trichloroethane	ND		0.20	40	11/15/2014 16:05
Trichloroethene	ND		0.20	40	11/15/2014 16:05
Trichlorofluoromethane	ND		0.20	40	11/15/2014 16:05
1,2,3-Trichloropropane	ND		0.20	40	11/15/2014 16:05
1,2,4-Trimethylbenzene	ND		0.20	40	11/15/2014 16:05
1,3,5-Trimethylbenzene	ND		0.20	40	11/15/2014 16:05
Vinyl Chloride	ND		0.20	40	11/15/2014 16:05
Xylenes, Total	ND		0.20	40	11/15/2014 16:05

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1@11'	1411565-003A	Soil	11/13/2014	GC16	97782

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	106	70-130		11/15/2014 16:05
Toluene-d8	104	70-130		11/15/2014 16:05
4-BFB	115	70-130		11/15/2014 16:05

**Analyst(s):** KF



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1@22.5'	1411565-005A	Soil	11/13/2014	GC18	97782

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	4.0	40	11/18/2014 00:37
tert-Amyl methyl ether (TAME)	ND	0.20	40	11/18/2014 00:37
Benzene	ND	0.20	40	11/18/2014 00:37
Bromobenzene	ND	0.20	40	11/18/2014 00:37
Bromochloromethane	ND	0.20	40	11/18/2014 00:37
Bromodichloromethane	ND	0.20	40	11/18/2014 00:37
Bromoform	ND	0.20	40	11/18/2014 00:37
Bromomethane	ND	0.20	40	11/18/2014 00:37
2-Butanone (MEK)	ND	0.80	40	11/18/2014 00:37
t-Butyl alcohol (TBA)	ND	2.0	40	11/18/2014 00:37
n-Butyl benzene	ND	0.20	40	11/18/2014 00:37
sec-Butyl benzene	<b>0.33</b>	0.20	40	11/18/2014 00:37
tert-Butyl benzene	ND	0.20	40	11/18/2014 00:37
Carbon Disulfide	ND	0.20	40	11/18/2014 00:37
Carbon Tetrachloride	ND	0.20	40	11/18/2014 00:37
Chlorobenzene	ND	0.20	40	11/18/2014 00:37
Chloroethane	ND	0.20	40	11/18/2014 00:37
Chloroform	ND	0.20	40	11/18/2014 00:37
Chloromethane	ND	0.20	40	11/18/2014 00:37
2-Chlorotoluene	ND	0.20	40	11/18/2014 00:37
4-Chlorotoluene	ND	0.20	40	11/18/2014 00:37
Dibromochloromethane	ND	0.20	40	11/18/2014 00:37
1,2-Dibromo-3-chloropropane	ND	0.16	40	11/18/2014 00:37
1,2-Dibromoethane (EDB)	ND	0.16	40	11/18/2014 00:37
Dibromomethane	ND	0.20	40	11/18/2014 00:37
1,2-Dichlorobenzene	ND	0.20	40	11/18/2014 00:37
1,3-Dichlorobenzene	ND	0.20	40	11/18/2014 00:37
1,4-Dichlorobenzene	ND	0.20	40	11/18/2014 00:37
Dichlorodifluoromethane	ND	0.20	40	11/18/2014 00:37
1,1-Dichloroethane	ND	0.20	40	11/18/2014 00:37
1,2-Dichloroethane (1,2-DCA)	ND	0.16	40	11/18/2014 00:37
1,1-Dichloroethene	ND	0.20	40	11/18/2014 00:37
cis-1,2-Dichloroethene	ND	0.20	40	11/18/2014 00:37
trans-1,2-Dichloroethene	ND	0.20	40	11/18/2014 00:37
1,2-Dichloropropane	ND	0.20	40	11/18/2014 00:37
1,3-Dichloropropane	ND	0.20	40	11/18/2014 00:37
2,2-Dichloropropane	ND	0.20	40	11/18/2014 00:37
1,1-Dichloropropene	ND	0.20	40	11/18/2014 00:37

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1@22.5'	1411565-005A	Soil	11/13/2014	GC18	97782

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.20	40	11/18/2014 00:37
trans-1,3-Dichloropropene	ND	0.20	40	11/18/2014 00:37
Diisopropyl ether (DIPE)	ND	0.20	40	11/18/2014 00:37
Ethylbenzene	ND	0.20	40	11/18/2014 00:37
Ethyl tert-butyl ether (ETBE)	ND	0.20	40	11/18/2014 00:37
Freon 113	ND	4.0	40	11/18/2014 00:37
Hexachlorobutadiene	ND	0.20	40	11/18/2014 00:37
Hexachloroethane	ND	0.20	40	11/18/2014 00:37
2-Hexanone	ND	0.20	40	11/18/2014 00:37
Isopropylbenzene	ND	0.20	40	11/18/2014 00:37
4-Isopropyl toluene	ND	0.20	40	11/18/2014 00:37
Methyl-t-butyl ether (MTBE)	ND	0.20	40	11/18/2014 00:37
Methylene chloride	ND	0.20	40	11/18/2014 00:37
4-Methyl-2-pentanone (MIBK)	ND	0.20	40	11/18/2014 00:37
Naphthalene	ND	0.20	40	11/18/2014 00:37
n-Propyl benzene	ND	0.20	40	11/18/2014 00:37
Styrene	ND	0.20	40	11/18/2014 00:37
1,1,1,2-Tetrachloroethane	ND	0.20	40	11/18/2014 00:37
1,1,2,2-Tetrachloroethane	ND	0.20	40	11/18/2014 00:37
Tetrachloroethene	ND	0.20	40	11/18/2014 00:37
Toluene	ND	0.20	40	11/18/2014 00:37
1,2,3-Trichlorobenzene	ND	0.20	40	11/18/2014 00:37
1,2,4-Trichlorobenzene	ND	0.20	40	11/18/2014 00:37
1,1,1-Trichloroethane	ND	0.20	40	11/18/2014 00:37
1,1,2-Trichloroethane	ND	0.20	40	11/18/2014 00:37
Trichloroethene	ND	0.20	40	11/18/2014 00:37
Trichlorofluoromethane	ND	0.20	40	11/18/2014 00:37
1,2,3-Trichloropropane	ND	0.20	40	11/18/2014 00:37
1,2,4-Trimethylbenzene	ND	0.20	40	11/18/2014 00:37
1,3,5-Trimethylbenzene	ND	0.20	40	11/18/2014 00:37
Vinyl Chloride	ND	0.20	40	11/18/2014 00:37
Xylenes, Total	ND	0.20	40	11/18/2014 00:37

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# Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW5030B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8260B

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/kg

## Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1@22.5'	1411565-005A	Soil	11/13/2014	GC18	97782

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	102	70-130		11/18/2014 00:37
Toluene-d8	109	70-130		11/18/2014 00:37
4-BFB	88	70-130		11/18/2014 00:37

**Analyst(s):** AK





## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2@2.5'	1411565-008A	Soil	11/13/2014	GC16	97782

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	11/15/2014 17:30
tert-Amyl methyl ether (TAME)	ND	0.0050	1	11/15/2014 17:30
Benzene	ND	0.0050	1	11/15/2014 17:30
Bromobenzene	ND	0.0050	1	11/15/2014 17:30
Bromochloromethane	ND	0.0050	1	11/15/2014 17:30
Bromodichloromethane	ND	0.0050	1	11/15/2014 17:30
Bromoform	ND	0.0050	1	11/15/2014 17:30
Bromomethane	ND	0.0050	1	11/15/2014 17:30
2-Butanone (MEK)	ND	0.020	1	11/15/2014 17:30
t-Butyl alcohol (TBA)	ND	0.050	1	11/15/2014 17:30
n-Butyl benzene	ND	0.0050	1	11/15/2014 17:30
sec-Butyl benzene	ND	0.0050	1	11/15/2014 17:30
tert-Butyl benzene	ND	0.0050	1	11/15/2014 17:30
Carbon Disulfide	ND	0.0050	1	11/15/2014 17:30
Carbon Tetrachloride	ND	0.0050	1	11/15/2014 17:30
Chlorobenzene	ND	0.0050	1	11/15/2014 17:30
Chloroethane	ND	0.0050	1	11/15/2014 17:30
Chloroform	ND	0.0050	1	11/15/2014 17:30
Chloromethane	ND	0.0050	1	11/15/2014 17:30
2-Chlorotoluene	ND	0.0050	1	11/15/2014 17:30
4-Chlorotoluene	ND	0.0050	1	11/15/2014 17:30
Dibromochloromethane	ND	0.0050	1	11/15/2014 17:30
1,2-Dibromo-3-chloropropane	ND	0.0040	1	11/15/2014 17:30
1,2-Dibromoethane (EDB)	ND	0.0040	1	11/15/2014 17:30
Dibromomethane	ND	0.0050	1	11/15/2014 17:30
1,2-Dichlorobenzene	ND	0.0050	1	11/15/2014 17:30
1,3-Dichlorobenzene	ND	0.0050	1	11/15/2014 17:30
1,4-Dichlorobenzene	ND	0.0050	1	11/15/2014 17:30
Dichlorodifluoromethane	ND	0.0050	1	11/15/2014 17:30
1,1-Dichloroethane	ND	0.0050	1	11/15/2014 17:30
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	11/15/2014 17:30
1,1-Dichloroethene	ND	0.0050	1	11/15/2014 17:30
cis-1,2-Dichloroethene	ND	0.0050	1	11/15/2014 17:30
trans-1,2-Dichloroethene	ND	0.0050	1	11/15/2014 17:30
1,2-Dichloropropane	ND	0.0050	1	11/15/2014 17:30
1,3-Dichloropropane	ND	0.0050	1	11/15/2014 17:30
2,2-Dichloropropane	ND	0.0050	1	11/15/2014 17:30
1,1-Dichloropropene	ND	0.0050	1	11/15/2014 17:30

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2@2.5'	1411565-008A	Soil	11/13/2014	GC16	97782

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.0050	1	11/15/2014 17:30
trans-1,3-Dichloropropene	ND	0.0050	1	11/15/2014 17:30
Diisopropyl ether (DIPE)	ND	0.0050	1	11/15/2014 17:30
Ethylbenzene	ND	0.0050	1	11/15/2014 17:30
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	11/15/2014 17:30
Freon 113	ND	0.10	1	11/15/2014 17:30
Hexachlorobutadiene	ND	0.0050	1	11/15/2014 17:30
Hexachloroethane	ND	0.0050	1	11/15/2014 17:30
2-Hexanone	ND	0.0050	1	11/15/2014 17:30
Isopropylbenzene	ND	0.0050	1	11/15/2014 17:30
4-Isopropyl toluene	ND	0.0050	1	11/15/2014 17:30
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	11/15/2014 17:30
Methylene chloride	ND	0.0050	1	11/15/2014 17:30
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	11/15/2014 17:30
Naphthalene	ND	0.0050	1	11/15/2014 17:30
n-Propyl benzene	ND	0.0050	1	11/15/2014 17:30
Styrene	ND	0.0050	1	11/15/2014 17:30
1,1,1,2-Tetrachloroethane	ND	0.0050	1	11/15/2014 17:30
1,1,2,2-Tetrachloroethane	ND	0.0050	1	11/15/2014 17:30
Tetrachloroethene	ND	0.0050	1	11/15/2014 17:30
Toluene	ND	0.0050	1	11/15/2014 17:30
1,2,3-Trichlorobenzene	ND	0.0050	1	11/15/2014 17:30
1,2,4-Trichlorobenzene	ND	0.0050	1	11/15/2014 17:30
1,1,1-Trichloroethane	ND	0.0050	1	11/15/2014 17:30
1,1,2-Trichloroethane	ND	0.0050	1	11/15/2014 17:30
Trichloroethene	ND	0.0050	1	11/15/2014 17:30
Trichlorofluoromethane	ND	0.0050	1	11/15/2014 17:30
1,2,3-Trichloropropane	ND	0.0050	1	11/15/2014 17:30
1,2,4-Trimethylbenzene	ND	0.0050	1	11/15/2014 17:30
1,3,5-Trimethylbenzene	ND	0.0050	1	11/15/2014 17:30
Vinyl Chloride	ND	0.0050	1	11/15/2014 17:30
Xylenes, Total	ND	0.0050	1	11/15/2014 17:30

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2@2.5'	1411565-008A	Soil	11/13/2014	GC16	97782

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	103	70-130		11/15/2014 17:30
Toluene-d8	111	70-130		11/15/2014 17:30
4-BFB	112	70-130		11/15/2014 17:30

**Analyst(s):** KF



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2@9.5'	1411565-010A	Soil	11/13/2014	GC16	97782

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	1.0	10	11/15/2014 18:13
tert-Amyl methyl ether (TAME)	ND	0.050	10	11/15/2014 18:13
Benzene	ND	0.050	10	11/15/2014 18:13
Bromobenzene	ND	0.050	10	11/15/2014 18:13
Bromochloromethane	ND	0.050	10	11/15/2014 18:13
Bromodichloromethane	ND	0.050	10	11/15/2014 18:13
Bromoform	ND	0.050	10	11/15/2014 18:13
Bromomethane	ND	0.050	10	11/15/2014 18:13
2-Butanone (MEK)	ND	0.20	10	11/15/2014 18:13
t-Butyl alcohol (TBA)	ND	0.50	10	11/15/2014 18:13
n-Butyl benzene	<b>0.065</b>	0.050	10	11/15/2014 18:13
sec-Butyl benzene	ND	0.050	10	11/15/2014 18:13
tert-Butyl benzene	ND	0.050	10	11/15/2014 18:13
Carbon Disulfide	ND	0.050	10	11/15/2014 18:13
Carbon Tetrachloride	ND	0.050	10	11/15/2014 18:13
Chlorobenzene	ND	0.050	10	11/15/2014 18:13
Chloroethane	ND	0.050	10	11/15/2014 18:13
Chloroform	ND	0.050	10	11/15/2014 18:13
Chloromethane	ND	0.050	10	11/15/2014 18:13
2-Chlorotoluene	ND	0.050	10	11/15/2014 18:13
4-Chlorotoluene	ND	0.050	10	11/15/2014 18:13
Dibromochloromethane	ND	0.050	10	11/15/2014 18:13
1,2-Dibromo-3-chloropropane	ND	0.040	10	11/15/2014 18:13
1,2-Dibromoethane (EDB)	ND	0.040	10	11/15/2014 18:13
Dibromomethane	ND	0.050	10	11/15/2014 18:13
1,2-Dichlorobenzene	ND	0.050	10	11/15/2014 18:13
1,3-Dichlorobenzene	ND	0.050	10	11/15/2014 18:13
1,4-Dichlorobenzene	ND	0.050	10	11/15/2014 18:13
Dichlorodifluoromethane	ND	0.050	10	11/15/2014 18:13
1,1-Dichloroethane	ND	0.050	10	11/15/2014 18:13
1,2-Dichloroethane (1,2-DCA)	ND	0.040	10	11/15/2014 18:13
1,1-Dichloroethene	ND	0.050	10	11/15/2014 18:13
cis-1,2-Dichloroethene	ND	0.050	10	11/15/2014 18:13
trans-1,2-Dichloroethene	ND	0.050	10	11/15/2014 18:13
1,2-Dichloropropane	ND	0.050	10	11/15/2014 18:13
1,3-Dichloropropane	ND	0.050	10	11/15/2014 18:13
2,2-Dichloropropane	ND	0.050	10	11/15/2014 18:13
1,1-Dichloropropene	ND	0.050	10	11/15/2014 18:13

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2@9.5'	1411565-010A	Soil	11/13/2014	GC16	97782

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.050	10	11/15/2014 18:13
trans-1,3-Dichloropropene	ND	0.050	10	11/15/2014 18:13
Diisopropyl ether (DIPE)	ND	0.050	10	11/15/2014 18:13
Ethylbenzene	ND	0.050	10	11/15/2014 18:13
Ethyl tert-butyl ether (ETBE)	ND	0.050	10	11/15/2014 18:13
Freon 113	ND	1.0	10	11/15/2014 18:13
Hexachlorobutadiene	ND	0.050	10	11/15/2014 18:13
Hexachloroethane	ND	0.050	10	11/15/2014 18:13
2-Hexanone	ND	0.050	10	11/15/2014 18:13
Isopropylbenzene	ND	0.050	10	11/15/2014 18:13
4-Isopropyl toluene	ND	0.050	10	11/15/2014 18:13
Methyl-t-butyl ether (MTBE)	ND	0.050	10	11/15/2014 18:13
Methylene chloride	ND	0.050	10	11/15/2014 18:13
4-Methyl-2-pentanone (MIBK)	ND	0.050	10	11/15/2014 18:13
Naphthalene	ND	0.050	10	11/15/2014 18:13
n-Propyl benzene	ND	0.050	10	11/15/2014 18:13
Styrene	ND	0.050	10	11/15/2014 18:13
1,1,1,2-Tetrachloroethane	ND	0.050	10	11/15/2014 18:13
1,1,2,2-Tetrachloroethane	ND	0.050	10	11/15/2014 18:13
Tetrachloroethene	ND	0.050	10	11/15/2014 18:13
Toluene	ND	0.050	10	11/15/2014 18:13
1,2,3-Trichlorobenzene	ND	0.050	10	11/15/2014 18:13
1,2,4-Trichlorobenzene	ND	0.050	10	11/15/2014 18:13
1,1,1-Trichloroethane	ND	0.050	10	11/15/2014 18:13
1,1,2-Trichloroethane	ND	0.050	10	11/15/2014 18:13
Trichloroethene	ND	0.050	10	11/15/2014 18:13
Trichlorofluoromethane	ND	0.050	10	11/15/2014 18:13
1,2,3-Trichloropropane	ND	0.050	10	11/15/2014 18:13
1,2,4-Trimethylbenzene	ND	0.050	10	11/15/2014 18:13
1,3,5-Trimethylbenzene	ND	0.050	10	11/15/2014 18:13
Vinyl Chloride	ND	0.050	10	11/15/2014 18:13
Xylenes, Total	ND	0.050	10	11/15/2014 18:13

(Cont.)



# Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW5030B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8260B

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/kg

## Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2@9.5'	1411565-010A	Soil	11/13/2014	GC16	97782

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	103	70-130		11/15/2014 18:13
Toluene-d8	104	70-130		11/15/2014 18:13
4-BFB	128	70-130		11/15/2014 18:13

**Analyst(s):** KF





## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2@12.5'	1411565-011A	Soil	11/13/2014	GC10	97782

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	11/15/2014 15:06
tert-Amyl methyl ether (TAME)	ND	0.0050	1	11/15/2014 15:06
Benzene	ND	0.0050	1	11/15/2014 15:06
Bromobenzene	ND	0.0050	1	11/15/2014 15:06
Bromochloromethane	ND	0.0050	1	11/15/2014 15:06
Bromodichloromethane	ND	0.0050	1	11/15/2014 15:06
Bromoform	ND	0.0050	1	11/15/2014 15:06
Bromomethane	ND	0.0050	1	11/15/2014 15:06
2-Butanone (MEK)	ND	0.020	1	11/15/2014 15:06
t-Butyl alcohol (TBA)	ND	0.050	1	11/15/2014 15:06
n-Butyl benzene	<b>0.033</b>	0.0050	1	11/15/2014 15:06
sec-Butyl benzene	<b>0.044</b>	0.0050	1	11/15/2014 15:06
tert-Butyl benzene	ND	0.0050	1	11/15/2014 15:06
Carbon Disulfide	ND	0.0050	1	11/15/2014 15:06
Carbon Tetrachloride	ND	0.0050	1	11/15/2014 15:06
Chlorobenzene	ND	0.0050	1	11/15/2014 15:06
Chloroethane	ND	0.0050	1	11/15/2014 15:06
Chloroform	ND	0.0050	1	11/15/2014 15:06
Chloromethane	ND	0.0050	1	11/15/2014 15:06
2-Chlorotoluene	ND	0.0050	1	11/15/2014 15:06
4-Chlorotoluene	ND	0.0050	1	11/15/2014 15:06
Dibromochloromethane	ND	0.0050	1	11/15/2014 15:06
1,2-Dibromo-3-chloropropane	ND	0.0040	1	11/15/2014 15:06
1,2-Dibromoethane (EDB)	ND	0.0040	1	11/15/2014 15:06
Dibromomethane	ND	0.0050	1	11/15/2014 15:06
1,2-Dichlorobenzene	ND	0.0050	1	11/15/2014 15:06
1,3-Dichlorobenzene	ND	0.0050	1	11/15/2014 15:06
1,4-Dichlorobenzene	ND	0.0050	1	11/15/2014 15:06
Dichlorodifluoromethane	ND	0.0050	1	11/15/2014 15:06
1,1-Dichloroethane	ND	0.0050	1	11/15/2014 15:06
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	11/15/2014 15:06
1,1-Dichloroethene	ND	0.0050	1	11/15/2014 15:06
cis-1,2-Dichloroethene	ND	0.0050	1	11/15/2014 15:06
trans-1,2-Dichloroethene	ND	0.0050	1	11/15/2014 15:06
1,2-Dichloropropane	ND	0.0050	1	11/15/2014 15:06
1,3-Dichloropropane	ND	0.0050	1	11/15/2014 15:06
2,2-Dichloropropane	ND	0.0050	1	11/15/2014 15:06
1,1-Dichloropropene	ND	0.0050	1	11/15/2014 15:06

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2@12.5'	1411565-011A	Soil	11/13/2014	GC10	97782

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.0050	1	11/15/2014 15:06
trans-1,3-Dichloropropene	ND	0.0050	1	11/15/2014 15:06
Diisopropyl ether (DIPE)	ND	0.0050	1	11/15/2014 15:06
Ethylbenzene	ND	0.0050	1	11/15/2014 15:06
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	11/15/2014 15:06
Freon 113	ND	0.10	1	11/15/2014 15:06
Hexachlorobutadiene	ND	0.0050	1	11/15/2014 15:06
Hexachloroethane	ND	0.0050	1	11/15/2014 15:06
2-Hexanone	ND	0.0050	1	11/15/2014 15:06
Isopropylbenzene	<b>0.016</b>	0.0050	1	11/15/2014 15:06
4-Isopropyl toluene	ND	0.0050	1	11/15/2014 15:06
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	11/15/2014 15:06
Methylene chloride	ND	0.0050	1	11/15/2014 15:06
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	11/15/2014 15:06
Naphthalene	ND	0.0050	1	11/15/2014 15:06
n-Propyl benzene	ND	0.0050	1	11/15/2014 15:06
Styrene	ND	0.0050	1	11/15/2014 15:06
1,1,1,2-Tetrachloroethane	ND	0.0050	1	11/15/2014 15:06
1,1,2,2-Tetrachloroethane	ND	0.0050	1	11/15/2014 15:06
Tetrachloroethene	ND	0.0050	1	11/15/2014 15:06
Toluene	ND	0.0050	1	11/15/2014 15:06
1,2,3-Trichlorobenzene	ND	0.0050	1	11/15/2014 15:06
1,2,4-Trichlorobenzene	ND	0.0050	1	11/15/2014 15:06
1,1,1-Trichloroethane	ND	0.0050	1	11/15/2014 15:06
1,1,2-Trichloroethane	ND	0.0050	1	11/15/2014 15:06
Trichloroethene	ND	0.0050	1	11/15/2014 15:06
Trichlorofluoromethane	ND	0.0050	1	11/15/2014 15:06
1,2,3-Trichloropropane	ND	0.0050	1	11/15/2014 15:06
1,2,4-Trimethylbenzene	ND	0.0050	1	11/15/2014 15:06
1,3,5-Trimethylbenzene	ND	0.0050	1	11/15/2014 15:06
Vinyl Chloride	ND	0.0050	1	11/15/2014 15:06
Xylenes, Total	ND	0.0050	1	11/15/2014 15:06

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2@12.5'	1411565-011A	Soil	11/13/2014	GC10	97782

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	90	70-130		11/15/2014 15:06
Toluene-d8	98	70-130		11/15/2014 15:06
4-BFB	105	70-130		11/15/2014 15:06

**Analyst(s):** KF



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2@22'	1411565-012A	Soil	11/13/2014	GC18	97782

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	4.0	40	11/18/2014 01:15
tert-Amyl methyl ether (TAME)	ND	0.20	40	11/18/2014 01:15
Benzene	ND	0.20	40	11/18/2014 01:15
Bromobenzene	ND	0.20	40	11/18/2014 01:15
Bromochloromethane	ND	0.20	40	11/18/2014 01:15
Bromodichloromethane	ND	0.20	40	11/18/2014 01:15
Bromoform	ND	0.20	40	11/18/2014 01:15
Bromomethane	ND	0.20	40	11/18/2014 01:15
2-Butanone (MEK)	ND	0.80	40	11/18/2014 01:15
t-Butyl alcohol (TBA)	ND	2.0	40	11/18/2014 01:15
n-Butyl benzene	ND	0.20	40	11/18/2014 01:15
sec-Butyl benzene	<b>0.44</b>	0.20	40	11/18/2014 01:15
tert-Butyl benzene	ND	0.20	40	11/18/2014 01:15
Carbon Disulfide	ND	0.20	40	11/18/2014 01:15
Carbon Tetrachloride	ND	0.20	40	11/18/2014 01:15
Chlorobenzene	ND	0.20	40	11/18/2014 01:15
Chloroethane	ND	0.20	40	11/18/2014 01:15
Chloroform	ND	0.20	40	11/18/2014 01:15
Chloromethane	ND	0.20	40	11/18/2014 01:15
2-Chlorotoluene	ND	0.20	40	11/18/2014 01:15
4-Chlorotoluene	ND	0.20	40	11/18/2014 01:15
Dibromochloromethane	ND	0.20	40	11/18/2014 01:15
1,2-Dibromo-3-chloropropane	ND	0.16	40	11/18/2014 01:15
1,2-Dibromoethane (EDB)	ND	0.16	40	11/18/2014 01:15
Dibromomethane	ND	0.20	40	11/18/2014 01:15
1,2-Dichlorobenzene	ND	0.20	40	11/18/2014 01:15
1,3-Dichlorobenzene	ND	0.20	40	11/18/2014 01:15
1,4-Dichlorobenzene	ND	0.20	40	11/18/2014 01:15
Dichlorodifluoromethane	ND	0.20	40	11/18/2014 01:15
1,1-Dichloroethane	ND	0.20	40	11/18/2014 01:15
1,2-Dichloroethane (1,2-DCA)	ND	0.16	40	11/18/2014 01:15
1,1-Dichloroethene	ND	0.20	40	11/18/2014 01:15
cis-1,2-Dichloroethene	ND	0.20	40	11/18/2014 01:15
trans-1,2-Dichloroethene	ND	0.20	40	11/18/2014 01:15
1,2-Dichloropropane	ND	0.20	40	11/18/2014 01:15
1,3-Dichloropropane	ND	0.20	40	11/18/2014 01:15
2,2-Dichloropropane	ND	0.20	40	11/18/2014 01:15
1,1-Dichloropropene	ND	0.20	40	11/18/2014 01:15

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2@22'	1411565-012A	Soil	11/13/2014	GC18	97782
<b>Analytes</b>	<b>Result</b>	<b>RL</b>	<b>DF</b>	<b>Date Analyzed</b>	
cis-1,3-Dichloropropene	ND	0.20	40	11/18/2014 01:15	
trans-1,3-Dichloropropene	ND	0.20	40	11/18/2014 01:15	
Diisopropyl ether (DIPE)	ND	0.20	40	11/18/2014 01:15	
Ethylbenzene	ND	0.20	40	11/18/2014 01:15	
Ethyl tert-butyl ether (ETBE)	ND	0.20	40	11/18/2014 01:15	
Freon 113	ND	4.0	40	11/18/2014 01:15	
Hexachlorobutadiene	ND	0.20	40	11/18/2014 01:15	
Hexachloroethane	ND	0.20	40	11/18/2014 01:15	
2-Hexanone	ND	0.20	40	11/18/2014 01:15	
Isopropylbenzene	<b>0.30</b>	0.20	40	11/18/2014 01:15	
4-Isopropyl toluene	ND	0.20	40	11/18/2014 01:15	
Methyl-t-butyl ether (MTBE)	ND	0.20	40	11/18/2014 01:15	
Methylene chloride	ND	0.20	40	11/18/2014 01:15	
4-Methyl-2-pentanone (MIBK)	ND	0.20	40	11/18/2014 01:15	
Naphthalene	ND	0.20	40	11/18/2014 01:15	
n-Propyl benzene	ND	0.20	40	11/18/2014 01:15	
Styrene	ND	0.20	40	11/18/2014 01:15	
1,1,1,2-Tetrachloroethane	ND	0.20	40	11/18/2014 01:15	
1,1,2,2-Tetrachloroethane	ND	0.20	40	11/18/2014 01:15	
Tetrachloroethene	ND	0.20	40	11/18/2014 01:15	
Toluene	ND	0.20	40	11/18/2014 01:15	
1,2,3-Trichlorobenzene	ND	0.20	40	11/18/2014 01:15	
1,2,4-Trichlorobenzene	ND	0.20	40	11/18/2014 01:15	
1,1,1-Trichloroethane	ND	0.20	40	11/18/2014 01:15	
1,1,2-Trichloroethane	ND	0.20	40	11/18/2014 01:15	
Trichloroethene	ND	0.20	40	11/18/2014 01:15	
Trichlorofluoromethane	ND	0.20	40	11/18/2014 01:15	
1,2,3-Trichloropropane	ND	0.20	40	11/18/2014 01:15	
1,2,4-Trimethylbenzene	ND	0.20	40	11/18/2014 01:15	
1,3,5-Trimethylbenzene	ND	0.20	40	11/18/2014 01:15	
Vinyl Chloride	ND	0.20	40	11/18/2014 01:15	
Xylenes, Total	ND	0.20	40	11/18/2014 01:15	

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2@22'	1411565-012A	Soil	11/13/2014	GC18	97782

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	105	70-130		11/18/2014 01:15
Toluene-d8	110	70-130		11/18/2014 01:15
4-BFB	91	70-130		11/18/2014 01:15

**Analyst(s):** AK



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@2.5'	1411565-015A	Soil	11/13/2014	GC10	97782

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	11/15/2014 15:47
tert-Amyl methyl ether (TAME)	ND	0.0050	1	11/15/2014 15:47
Benzene	ND	0.0050	1	11/15/2014 15:47
Bromobenzene	ND	0.0050	1	11/15/2014 15:47
Bromochloromethane	ND	0.0050	1	11/15/2014 15:47
Bromodichloromethane	ND	0.0050	1	11/15/2014 15:47
Bromoform	ND	0.0050	1	11/15/2014 15:47
Bromomethane	ND	0.0050	1	11/15/2014 15:47
2-Butanone (MEK)	ND	0.020	1	11/15/2014 15:47
t-Butyl alcohol (TBA)	ND	0.050	1	11/15/2014 15:47
n-Butyl benzene	ND	0.0050	1	11/15/2014 15:47
sec-Butyl benzene	ND	0.0050	1	11/15/2014 15:47
tert-Butyl benzene	ND	0.0050	1	11/15/2014 15:47
Carbon Disulfide	ND	0.0050	1	11/15/2014 15:47
Carbon Tetrachloride	ND	0.0050	1	11/15/2014 15:47
Chlorobenzene	ND	0.0050	1	11/15/2014 15:47
Chloroethane	ND	0.0050	1	11/15/2014 15:47
Chloroform	ND	0.0050	1	11/15/2014 15:47
Chloromethane	ND	0.0050	1	11/15/2014 15:47
2-Chlorotoluene	ND	0.0050	1	11/15/2014 15:47
4-Chlorotoluene	ND	0.0050	1	11/15/2014 15:47
Dibromochloromethane	ND	0.0050	1	11/15/2014 15:47
1,2-Dibromo-3-chloropropane	ND	0.0040	1	11/15/2014 15:47
1,2-Dibromoethane (EDB)	ND	0.0040	1	11/15/2014 15:47
Dibromomethane	ND	0.0050	1	11/15/2014 15:47
1,2-Dichlorobenzene	ND	0.0050	1	11/15/2014 15:47
1,3-Dichlorobenzene	ND	0.0050	1	11/15/2014 15:47
1,4-Dichlorobenzene	ND	0.0050	1	11/15/2014 15:47
Dichlorodifluoromethane	ND	0.0050	1	11/15/2014 15:47
1,1-Dichloroethane	ND	0.0050	1	11/15/2014 15:47
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	11/15/2014 15:47
1,1-Dichloroethene	ND	0.0050	1	11/15/2014 15:47
cis-1,2-Dichloroethene	ND	0.0050	1	11/15/2014 15:47
trans-1,2-Dichloroethene	ND	0.0050	1	11/15/2014 15:47
1,2-Dichloropropane	ND	0.0050	1	11/15/2014 15:47
1,3-Dichloropropane	ND	0.0050	1	11/15/2014 15:47
2,2-Dichloropropane	ND	0.0050	1	11/15/2014 15:47
1,1-Dichloropropene	ND	0.0050	1	11/15/2014 15:47

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@2.5'	1411565-015A	Soil	11/13/2014	GC10	97782
<b>Analytes</b>	<b>Result</b>		<b>RL</b>	<b>DF</b>	<b>Date Analyzed</b>
cis-1,3-Dichloropropene	ND		0.0050	1	11/15/2014 15:47
trans-1,3-Dichloropropene	ND		0.0050	1	11/15/2014 15:47
Diisopropyl ether (DIPE)	ND		0.0050	1	11/15/2014 15:47
Ethylbenzene	ND		0.0050	1	11/15/2014 15:47
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	11/15/2014 15:47
Freon 113	ND		0.10	1	11/15/2014 15:47
Hexachlorobutadiene	ND		0.0050	1	11/15/2014 15:47
Hexachloroethane	ND		0.0050	1	11/15/2014 15:47
2-Hexanone	ND		0.0050	1	11/15/2014 15:47
Isopropylbenzene	ND		0.0050	1	11/15/2014 15:47
4-Isopropyl toluene	ND		0.0050	1	11/15/2014 15:47
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	11/15/2014 15:47
Methylene chloride	ND		0.0050	1	11/15/2014 15:47
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	11/15/2014 15:47
Naphthalene	ND		0.0050	1	11/15/2014 15:47
n-Propyl benzene	ND		0.0050	1	11/15/2014 15:47
Styrene	ND		0.0050	1	11/15/2014 15:47
1,1,1,2-Tetrachloroethane	ND		0.0050	1	11/15/2014 15:47
1,1,2,2-Tetrachloroethane	ND		0.0050	1	11/15/2014 15:47
Tetrachloroethene	ND		0.0050	1	11/15/2014 15:47
Toluene	ND		0.0050	1	11/15/2014 15:47
1,2,3-Trichlorobenzene	ND		0.0050	1	11/15/2014 15:47
1,2,4-Trichlorobenzene	ND		0.0050	1	11/15/2014 15:47
1,1,1-Trichloroethane	ND		0.0050	1	11/15/2014 15:47
1,1,2-Trichloroethane	ND		0.0050	1	11/15/2014 15:47
Trichloroethene	ND		0.0050	1	11/15/2014 15:47
Trichlorofluoromethane	ND		0.0050	1	11/15/2014 15:47
1,2,3-Trichloropropane	ND		0.0050	1	11/15/2014 15:47
1,2,4-Trimethylbenzene	ND		0.0050	1	11/15/2014 15:47
1,3,5-Trimethylbenzene	ND		0.0050	1	11/15/2014 15:47
Vinyl Chloride	ND		0.0050	1	11/15/2014 15:47
Xylenes, Total	ND		0.0050	1	11/15/2014 15:47

(Cont.)



# Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW5030B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8260B

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/kg

## Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@2.5'	1411565-015A	Soil	11/13/2014	GC10	97782

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	92	70-130		11/15/2014 15:47
Toluene-d8	106	70-130		11/15/2014 15:47
4-BFB	105	70-130		11/15/2014 15:47

**Analyst(s):** KF



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@9.5'	1411565-016A	Soil	11/13/2014	GC16	97801

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	4.0	40	11/15/2014 19:37
tert-Amyl methyl ether (TAME)	ND	0.20	40	11/15/2014 19:37
Benzene	ND	0.20	40	11/15/2014 19:37
Bromobenzene	ND	0.20	40	11/15/2014 19:37
Bromochloromethane	ND	0.20	40	11/15/2014 19:37
Bromodichloromethane	ND	0.20	40	11/15/2014 19:37
Bromoform	ND	0.20	40	11/15/2014 19:37
Bromomethane	ND	0.20	40	11/15/2014 19:37
2-Butanone (MEK)	ND	0.80	40	11/15/2014 19:37
t-Butyl alcohol (TBA)	ND	2.0	40	11/15/2014 19:37
n-Butyl benzene	ND	0.20	40	11/15/2014 19:37
sec-Butyl benzene	ND	0.20	40	11/15/2014 19:37
tert-Butyl benzene	ND	0.20	40	11/15/2014 19:37
Carbon Disulfide	ND	0.20	40	11/15/2014 19:37
Carbon Tetrachloride	ND	0.20	40	11/15/2014 19:37
Chlorobenzene	ND	0.20	40	11/15/2014 19:37
Chloroethane	ND	0.20	40	11/15/2014 19:37
Chloroform	ND	0.20	40	11/15/2014 19:37
Chloromethane	ND	0.20	40	11/15/2014 19:37
2-Chlorotoluene	ND	0.20	40	11/15/2014 19:37
4-Chlorotoluene	ND	0.20	40	11/15/2014 19:37
Dibromochloromethane	ND	0.20	40	11/15/2014 19:37
1,2-Dibromo-3-chloropropane	ND	0.16	40	11/15/2014 19:37
1,2-Dibromoethane (EDB)	ND	0.16	40	11/15/2014 19:37
Dibromomethane	ND	0.20	40	11/15/2014 19:37
1,2-Dichlorobenzene	ND	0.20	40	11/15/2014 19:37
1,3-Dichlorobenzene	ND	0.20	40	11/15/2014 19:37
1,4-Dichlorobenzene	ND	0.20	40	11/15/2014 19:37
Dichlorodifluoromethane	ND	0.20	40	11/15/2014 19:37
1,1-Dichloroethane	ND	0.20	40	11/15/2014 19:37
1,2-Dichloroethane (1,2-DCA)	ND	0.16	40	11/15/2014 19:37
1,1-Dichloroethene	ND	0.20	40	11/15/2014 19:37
cis-1,2-Dichloroethene	ND	0.20	40	11/15/2014 19:37
trans-1,2-Dichloroethene	ND	0.20	40	11/15/2014 19:37
1,2-Dichloropropane	ND	0.20	40	11/15/2014 19:37
1,3-Dichloropropane	ND	0.20	40	11/15/2014 19:37
2,2-Dichloropropane	ND	0.20	40	11/15/2014 19:37
1,1-Dichloropropene	ND	0.20	40	11/15/2014 19:37

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@9.5'	1411565-016A	Soil	11/13/2014	GC16	97801
<b>Analytes</b>	<b>Result</b>		<b>RL</b>	<b>DF</b>	<b>Date Analyzed</b>
cis-1,3-Dichloropropene	ND		0.20	40	11/15/2014 19:37
trans-1,3-Dichloropropene	ND		0.20	40	11/15/2014 19:37
Diisopropyl ether (DIPE)	ND		0.20	40	11/15/2014 19:37
Ethylbenzene	ND		0.20	40	11/15/2014 19:37
Ethyl tert-butyl ether (ETBE)	ND		0.20	40	11/15/2014 19:37
Freon 113	ND		4.0	40	11/15/2014 19:37
Hexachlorobutadiene	ND		0.20	40	11/15/2014 19:37
Hexachloroethane	ND		0.20	40	11/15/2014 19:37
2-Hexanone	ND		0.20	40	11/15/2014 19:37
Isopropylbenzene	ND		0.20	40	11/15/2014 19:37
4-Isopropyl toluene	ND		0.20	40	11/15/2014 19:37
Methyl-t-butyl ether (MTBE)	ND		0.20	40	11/15/2014 19:37
Methylene chloride	ND		0.20	40	11/15/2014 19:37
4-Methyl-2-pentanone (MIBK)	ND		0.20	40	11/15/2014 19:37
Naphthalene	<b>2.1</b>		0.20	40	11/15/2014 19:37
n-Propyl benzene	ND		0.20	40	11/15/2014 19:37
Styrene	ND		0.20	40	11/15/2014 19:37
1,1,1,2-Tetrachloroethane	ND		0.20	40	11/15/2014 19:37
1,1,2,2-Tetrachloroethane	ND		0.20	40	11/15/2014 19:37
Tetrachloroethene	ND		0.20	40	11/15/2014 19:37
Toluene	ND		0.20	40	11/15/2014 19:37
1,2,3-Trichlorobenzene	ND		0.20	40	11/15/2014 19:37
1,2,4-Trichlorobenzene	ND		0.20	40	11/15/2014 19:37
1,1,1-Trichloroethane	ND		0.20	40	11/15/2014 19:37
1,1,2-Trichloroethane	ND		0.20	40	11/15/2014 19:37
Trichloroethene	ND		0.20	40	11/15/2014 19:37
Trichlorofluoromethane	ND		0.20	40	11/15/2014 19:37
1,2,3-Trichloropropane	ND		0.20	40	11/15/2014 19:37
1,2,4-Trimethylbenzene	ND		0.20	40	11/15/2014 19:37
1,3,5-Trimethylbenzene	ND		0.20	40	11/15/2014 19:37
Vinyl Chloride	ND		0.20	40	11/15/2014 19:37
Xylenes, Total	ND		0.20	40	11/15/2014 19:37

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@9.5'	1411565-016A	Soil	11/13/2014	GC16	97801

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	105	70-130		11/15/2014 19:37
Toluene-d8	104	70-130		11/15/2014 19:37
4-BFB	118	70-130		11/15/2014 19:37

**Analyst(s):** KF



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@17'	1411565-018A	Soil	11/13/2014	GC18	97801

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	100	11/17/2014 22:42
tert-Amyl methyl ether (TAME)	ND	0.50	100	11/17/2014 22:42
Benzene	ND	0.50	100	11/17/2014 22:42
Bromobenzene	ND	0.50	100	11/17/2014 22:42
Bromochloromethane	ND	0.50	100	11/17/2014 22:42
Bromodichloromethane	ND	0.50	100	11/17/2014 22:42
Bromoform	ND	0.50	100	11/17/2014 22:42
Bromomethane	ND	0.50	100	11/17/2014 22:42
2-Butanone (MEK)	ND	2.0	100	11/17/2014 22:42
t-Butyl alcohol (TBA)	ND	5.0	100	11/17/2014 22:42
n-Butyl benzene	ND	0.50	100	11/17/2014 22:42
sec-Butyl benzene	ND	0.50	100	11/17/2014 22:42
tert-Butyl benzene	ND	0.50	100	11/17/2014 22:42
Carbon Disulfide	ND	0.50	100	11/17/2014 22:42
Carbon Tetrachloride	ND	0.50	100	11/17/2014 22:42
Chlorobenzene	ND	0.50	100	11/17/2014 22:42
Chloroethane	ND	0.50	100	11/17/2014 22:42
Chloroform	ND	0.50	100	11/17/2014 22:42
Chloromethane	ND	0.50	100	11/17/2014 22:42
2-Chlorotoluene	ND	0.50	100	11/17/2014 22:42
4-Chlorotoluene	ND	0.50	100	11/17/2014 22:42
Dibromochloromethane	ND	0.50	100	11/17/2014 22:42
1,2-Dibromo-3-chloropropane	ND	0.40	100	11/17/2014 22:42
1,2-Dibromoethane (EDB)	ND	0.40	100	11/17/2014 22:42
Dibromomethane	ND	0.50	100	11/17/2014 22:42
1,2-Dichlorobenzene	ND	0.50	100	11/17/2014 22:42
1,3-Dichlorobenzene	ND	0.50	100	11/17/2014 22:42
1,4-Dichlorobenzene	ND	0.50	100	11/17/2014 22:42
Dichlorodifluoromethane	ND	0.50	100	11/17/2014 22:42
1,1-Dichloroethane	ND	0.50	100	11/17/2014 22:42
1,2-Dichloroethane (1,2-DCA)	ND	0.40	100	11/17/2014 22:42
1,1-Dichloroethene	ND	0.50	100	11/17/2014 22:42
cis-1,2-Dichloroethene	ND	0.50	100	11/17/2014 22:42
trans-1,2-Dichloroethene	ND	0.50	100	11/17/2014 22:42
1,2-Dichloropropane	ND	0.50	100	11/17/2014 22:42
1,3-Dichloropropane	ND	0.50	100	11/17/2014 22:42
2,2-Dichloropropane	ND	0.50	100	11/17/2014 22:42
1,1-Dichloropropene	ND	0.50	100	11/17/2014 22:42

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@17'	1411565-018A	Soil	11/13/2014	GC18	97801

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.50	100	11/17/2014 22:42
trans-1,3-Dichloropropene	ND	0.50	100	11/17/2014 22:42
Diisopropyl ether (DIPE)	ND	0.50	100	11/17/2014 22:42
Ethylbenzene	ND	0.50	100	11/17/2014 22:42
Ethyl tert-butyl ether (ETBE)	ND	0.50	100	11/17/2014 22:42
Freon 113	ND	10	100	11/17/2014 22:42
Hexachlorobutadiene	ND	0.50	100	11/17/2014 22:42
Hexachloroethane	ND	0.50	100	11/17/2014 22:42
2-Hexanone	ND	0.50	100	11/17/2014 22:42
Isopropylbenzene	ND	0.50	100	11/17/2014 22:42
4-Isopropyl toluene	ND	0.50	100	11/17/2014 22:42
Methyl-t-butyl ether (MTBE)	ND	0.50	100	11/17/2014 22:42
Methylene chloride	ND	0.50	100	11/17/2014 22:42
4-Methyl-2-pentanone (MIBK)	ND	0.50	100	11/17/2014 22:42
Naphthalene	ND	0.50	100	11/17/2014 22:42
n-Propyl benzene	ND	0.50	100	11/17/2014 22:42
Styrene	ND	0.50	100	11/17/2014 22:42
1,1,1,2-Tetrachloroethane	ND	0.50	100	11/17/2014 22:42
1,1,2,2-Tetrachloroethane	ND	0.50	100	11/17/2014 22:42
Tetrachloroethene	ND	0.50	100	11/17/2014 22:42
Toluene	ND	0.50	100	11/17/2014 22:42
1,2,3-Trichlorobenzene	ND	0.50	100	11/17/2014 22:42
1,2,4-Trichlorobenzene	ND	0.50	100	11/17/2014 22:42
1,1,1-Trichloroethane	ND	0.50	100	11/17/2014 22:42
1,1,2-Trichloroethane	ND	0.50	100	11/17/2014 22:42
Trichloroethene	ND	0.50	100	11/17/2014 22:42
Trichlorofluoromethane	ND	0.50	100	11/17/2014 22:42
1,2,3-Trichloropropane	ND	0.50	100	11/17/2014 22:42
1,2,4-Trimethylbenzene	ND	0.50	100	11/17/2014 22:42
1,3,5-Trimethylbenzene	ND	0.50	100	11/17/2014 22:42
Vinyl Chloride	ND	0.50	100	11/17/2014 22:42
Xylenes, Total	ND	0.50	100	11/17/2014 22:42

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# Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW5030B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8260B

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/kg

## Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@17'	1411565-018A	Soil	11/13/2014	GC18	97801

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits	Analytical Comments: a3	
Dibromofluoromethane	95	70-130		11/17/2014 22:42
Toluene-d8	113	70-130		11/17/2014 22:42
4-BFB	85	70-130		11/17/2014 22:42

**Analyst(s):** AK





## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@21'	1411565-019A	Soil	11/13/2014	GC10	97801

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	2.0	20	11/15/2014 16:29
tert-Amyl methyl ether (TAME)	ND	0.10	20	11/15/2014 16:29
Benzene	ND	0.10	20	11/15/2014 16:29
Bromobenzene	ND	0.10	20	11/15/2014 16:29
Bromochloromethane	ND	0.10	20	11/15/2014 16:29
Bromodichloromethane	ND	0.10	20	11/15/2014 16:29
Bromoform	ND	0.10	20	11/15/2014 16:29
Bromomethane	ND	0.10	20	11/15/2014 16:29
2-Butanone (MEK)	ND	0.40	20	11/15/2014 16:29
t-Butyl alcohol (TBA)	ND	1.0	20	11/15/2014 16:29
n-Butyl benzene	ND	0.10	20	11/15/2014 16:29
sec-Butyl benzene	<b>0.15</b>	0.10	20	11/15/2014 16:29
tert-Butyl benzene	ND	0.10	20	11/15/2014 16:29
Carbon Disulfide	ND	0.10	20	11/15/2014 16:29
Carbon Tetrachloride	ND	0.10	20	11/15/2014 16:29
Chlorobenzene	ND	0.10	20	11/15/2014 16:29
Chloroethane	ND	0.10	20	11/15/2014 16:29
Chloroform	ND	0.10	20	11/15/2014 16:29
Chloromethane	ND	0.10	20	11/15/2014 16:29
2-Chlorotoluene	ND	0.10	20	11/15/2014 16:29
4-Chlorotoluene	ND	0.10	20	11/15/2014 16:29
Dibromochloromethane	ND	0.10	20	11/15/2014 16:29
1,2-Dibromo-3-chloropropane	ND	0.080	20	11/15/2014 16:29
1,2-Dibromoethane (EDB)	ND	0.080	20	11/15/2014 16:29
Dibromomethane	ND	0.10	20	11/15/2014 16:29
1,2-Dichlorobenzene	ND	0.10	20	11/15/2014 16:29
1,3-Dichlorobenzene	ND	0.10	20	11/15/2014 16:29
1,4-Dichlorobenzene	ND	0.10	20	11/15/2014 16:29
Dichlorodifluoromethane	ND	0.10	20	11/15/2014 16:29
1,1-Dichloroethane	ND	0.10	20	11/15/2014 16:29
1,2-Dichloroethane (1,2-DCA)	ND	0.080	20	11/15/2014 16:29
1,1-Dichloroethene	ND	0.10	20	11/15/2014 16:29
cis-1,2-Dichloroethene	ND	0.10	20	11/15/2014 16:29
trans-1,2-Dichloroethene	ND	0.10	20	11/15/2014 16:29
1,2-Dichloropropane	ND	0.10	20	11/15/2014 16:29
1,3-Dichloropropane	ND	0.10	20	11/15/2014 16:29
2,2-Dichloropropane	ND	0.10	20	11/15/2014 16:29
1,1-Dichloropropene	ND	0.10	20	11/15/2014 16:29

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@21'	1411565-019A	Soil	11/13/2014	GC10	97801

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.10	20	11/15/2014 16:29
trans-1,3-Dichloropropene	ND	0.10	20	11/15/2014 16:29
Diisopropyl ether (DIPE)	ND	0.10	20	11/15/2014 16:29
Ethylbenzene	ND	0.10	20	11/15/2014 16:29
Ethyl tert-butyl ether (ETBE)	ND	0.10	20	11/15/2014 16:29
Freon 113	ND	2.0	20	11/15/2014 16:29
Hexachlorobutadiene	ND	0.10	20	11/15/2014 16:29
Hexachloroethane	ND	0.10	20	11/15/2014 16:29
2-Hexanone	ND	0.10	20	11/15/2014 16:29
Isopropylbenzene	ND	0.10	20	11/15/2014 16:29
4-Isopropyl toluene	ND	0.10	20	11/15/2014 16:29
Methyl-t-butyl ether (MTBE)	ND	0.10	20	11/15/2014 16:29
Methylene chloride	ND	0.10	20	11/15/2014 16:29
4-Methyl-2-pentanone (MIBK)	ND	0.10	20	11/15/2014 16:29
Naphthalene	ND	0.10	20	11/15/2014 16:29
n-Propyl benzene	ND	0.10	20	11/15/2014 16:29
Styrene	ND	0.10	20	11/15/2014 16:29
1,1,1,2-Tetrachloroethane	ND	0.10	20	11/15/2014 16:29
1,1,2,2-Tetrachloroethane	ND	0.10	20	11/15/2014 16:29
Tetrachloroethene	ND	0.10	20	11/15/2014 16:29
Toluene	ND	0.10	20	11/15/2014 16:29
1,2,3-Trichlorobenzene	ND	0.10	20	11/15/2014 16:29
1,2,4-Trichlorobenzene	ND	0.10	20	11/15/2014 16:29
1,1,1-Trichloroethane	ND	0.10	20	11/15/2014 16:29
1,1,2-Trichloroethane	ND	0.10	20	11/15/2014 16:29
Trichloroethene	ND	0.10	20	11/15/2014 16:29
Trichlorofluoromethane	ND	0.10	20	11/15/2014 16:29
1,2,3-Trichloropropane	ND	0.10	20	11/15/2014 16:29
1,2,4-Trimethylbenzene	ND	0.10	20	11/15/2014 16:29
1,3,5-Trimethylbenzene	ND	0.10	20	11/15/2014 16:29
Vinyl Chloride	ND	0.10	20	11/15/2014 16:29
Xylenes, Total	ND	0.10	20	11/15/2014 16:29

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@21'	1411565-019A	Soil	11/13/2014	GC10	97801

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	92	70-130		11/15/2014 16:29
Toluene-d8	94	70-130		11/15/2014 16:29
4-BFB	100	70-130		11/15/2014 16:29

**Analyst(s):** KF



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@25.5'	1411565-021A	Soil	11/13/2014	GC10	97801

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	11/15/2014 17:10
tert-Amyl methyl ether (TAME)	ND	0.0050	1	11/15/2014 17:10
Benzene	ND	0.0050	1	11/15/2014 17:10
Bromobenzene	ND	0.0050	1	11/15/2014 17:10
Bromochloromethane	ND	0.0050	1	11/15/2014 17:10
Bromodichloromethane	ND	0.0050	1	11/15/2014 17:10
Bromoform	ND	0.0050	1	11/15/2014 17:10
Bromomethane	ND	0.0050	1	11/15/2014 17:10
2-Butanone (MEK)	ND	0.020	1	11/15/2014 17:10
t-Butyl alcohol (TBA)	ND	0.050	1	11/15/2014 17:10
n-Butyl benzene	ND	0.0050	1	11/15/2014 17:10
sec-Butyl benzene	ND	0.0050	1	11/15/2014 17:10
tert-Butyl benzene	ND	0.0050	1	11/15/2014 17:10
Carbon Disulfide	ND	0.0050	1	11/15/2014 17:10
Carbon Tetrachloride	ND	0.0050	1	11/15/2014 17:10
Chlorobenzene	ND	0.0050	1	11/15/2014 17:10
Chloroethane	ND	0.0050	1	11/15/2014 17:10
Chloroform	ND	0.0050	1	11/15/2014 17:10
Chloromethane	ND	0.0050	1	11/15/2014 17:10
2-Chlorotoluene	ND	0.0050	1	11/15/2014 17:10
4-Chlorotoluene	ND	0.0050	1	11/15/2014 17:10
Dibromochloromethane	ND	0.0050	1	11/15/2014 17:10
1,2-Dibromo-3-chloropropane	ND	0.0040	1	11/15/2014 17:10
1,2-Dibromoethane (EDB)	ND	0.0040	1	11/15/2014 17:10
Dibromomethane	ND	0.0050	1	11/15/2014 17:10
1,2-Dichlorobenzene	ND	0.0050	1	11/15/2014 17:10
1,3-Dichlorobenzene	ND	0.0050	1	11/15/2014 17:10
1,4-Dichlorobenzene	ND	0.0050	1	11/15/2014 17:10
Dichlorodifluoromethane	ND	0.0050	1	11/15/2014 17:10
1,1-Dichloroethane	ND	0.0050	1	11/15/2014 17:10
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	11/15/2014 17:10
1,1-Dichloroethene	ND	0.0050	1	11/15/2014 17:10
cis-1,2-Dichloroethene	ND	0.0050	1	11/15/2014 17:10
trans-1,2-Dichloroethene	ND	0.0050	1	11/15/2014 17:10
1,2-Dichloropropane	ND	0.0050	1	11/15/2014 17:10
1,3-Dichloropropane	ND	0.0050	1	11/15/2014 17:10
2,2-Dichloropropane	ND	0.0050	1	11/15/2014 17:10
1,1-Dichloropropene	ND	0.0050	1	11/15/2014 17:10

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@25.5'	1411565-021A	Soil	11/13/2014	GC10	97801

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.0050	1	11/15/2014 17:10
trans-1,3-Dichloropropene	ND	0.0050	1	11/15/2014 17:10
Diisopropyl ether (DIPE)	ND	0.0050	1	11/15/2014 17:10
Ethylbenzene	ND	0.0050	1	11/15/2014 17:10
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	11/15/2014 17:10
Freon 113	ND	0.10	1	11/15/2014 17:10
Hexachlorobutadiene	ND	0.0050	1	11/15/2014 17:10
Hexachloroethane	ND	0.0050	1	11/15/2014 17:10
2-Hexanone	ND	0.0050	1	11/15/2014 17:10
Isopropylbenzene	ND	0.0050	1	11/15/2014 17:10
4-Isopropyl toluene	ND	0.0050	1	11/15/2014 17:10
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	11/15/2014 17:10
Methylene chloride	ND	0.0050	1	11/15/2014 17:10
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	11/15/2014 17:10
Naphthalene	ND	0.0050	1	11/15/2014 17:10
n-Propyl benzene	ND	0.0050	1	11/15/2014 17:10
Styrene	ND	0.0050	1	11/15/2014 17:10
1,1,1,2-Tetrachloroethane	ND	0.0050	1	11/15/2014 17:10
1,1,2,2-Tetrachloroethane	ND	0.0050	1	11/15/2014 17:10
Tetrachloroethene	ND	0.0050	1	11/15/2014 17:10
Toluene	ND	0.0050	1	11/15/2014 17:10
1,2,3-Trichlorobenzene	ND	0.0050	1	11/15/2014 17:10
1,2,4-Trichlorobenzene	ND	0.0050	1	11/15/2014 17:10
1,1,1-Trichloroethane	ND	0.0050	1	11/15/2014 17:10
1,1,2-Trichloroethane	ND	0.0050	1	11/15/2014 17:10
Trichloroethene	ND	0.0050	1	11/15/2014 17:10
Trichlorofluoromethane	ND	0.0050	1	11/15/2014 17:10
1,2,3-Trichloropropane	ND	0.0050	1	11/15/2014 17:10
1,2,4-Trimethylbenzene	ND	0.0050	1	11/15/2014 17:10
1,3,5-Trimethylbenzene	ND	0.0050	1	11/15/2014 17:10
Vinyl Chloride	ND	0.0050	1	11/15/2014 17:10
Xylenes, Total	ND	0.0050	1	11/15/2014 17:10

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@25.5'	1411565-021A	Soil	11/13/2014	GC10	97801

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	93	70-130		11/15/2014 17:10
Toluene-d8	107	70-130		11/15/2014 17:10
4-BFB	105	70-130		11/15/2014 17:10

**Analyst(s):** KF



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4@2'	1411565-023A	Soil	11/13/2014	GC10	97801

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	11/15/2014 17:51
tert-Amyl methyl ether (TAME)	ND	0.0050	1	11/15/2014 17:51
Benzene	ND	0.0050	1	11/15/2014 17:51
Bromobenzene	ND	0.0050	1	11/15/2014 17:51
Bromochloromethane	ND	0.0050	1	11/15/2014 17:51
Bromodichloromethane	ND	0.0050	1	11/15/2014 17:51
Bromoform	ND	0.0050	1	11/15/2014 17:51
Bromomethane	ND	0.0050	1	11/15/2014 17:51
2-Butanone (MEK)	ND	0.020	1	11/15/2014 17:51
t-Butyl alcohol (TBA)	ND	0.050	1	11/15/2014 17:51
n-Butyl benzene	ND	0.0050	1	11/15/2014 17:51
sec-Butyl benzene	ND	0.0050	1	11/15/2014 17:51
tert-Butyl benzene	ND	0.0050	1	11/15/2014 17:51
Carbon Disulfide	ND	0.0050	1	11/15/2014 17:51
Carbon Tetrachloride	ND	0.0050	1	11/15/2014 17:51
Chlorobenzene	ND	0.0050	1	11/15/2014 17:51
Chloroethane	ND	0.0050	1	11/15/2014 17:51
Chloroform	ND	0.0050	1	11/15/2014 17:51
Chloromethane	ND	0.0050	1	11/15/2014 17:51
2-Chlorotoluene	ND	0.0050	1	11/15/2014 17:51
4-Chlorotoluene	ND	0.0050	1	11/15/2014 17:51
Dibromochloromethane	ND	0.0050	1	11/15/2014 17:51
1,2-Dibromo-3-chloropropane	ND	0.0040	1	11/15/2014 17:51
1,2-Dibromoethane (EDB)	ND	0.0040	1	11/15/2014 17:51
Dibromomethane	ND	0.0050	1	11/15/2014 17:51
1,2-Dichlorobenzene	ND	0.0050	1	11/15/2014 17:51
1,3-Dichlorobenzene	ND	0.0050	1	11/15/2014 17:51
1,4-Dichlorobenzene	ND	0.0050	1	11/15/2014 17:51
Dichlorodifluoromethane	ND	0.0050	1	11/15/2014 17:51
1,1-Dichloroethane	ND	0.0050	1	11/15/2014 17:51
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	11/15/2014 17:51
1,1-Dichloroethene	ND	0.0050	1	11/15/2014 17:51
cis-1,2-Dichloroethene	ND	0.0050	1	11/15/2014 17:51
trans-1,2-Dichloroethene	ND	0.0050	1	11/15/2014 17:51
1,2-Dichloropropane	ND	0.0050	1	11/15/2014 17:51
1,3-Dichloropropane	ND	0.0050	1	11/15/2014 17:51
2,2-Dichloropropane	ND	0.0050	1	11/15/2014 17:51
1,1-Dichloropropene	ND	0.0050	1	11/15/2014 17:51

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4@2'	1411565-023A	Soil	11/13/2014	GC10	97801

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.0050	1	11/15/2014 17:51
trans-1,3-Dichloropropene	ND	0.0050	1	11/15/2014 17:51
Diisopropyl ether (DIPE)	ND	0.0050	1	11/15/2014 17:51
Ethylbenzene	ND	0.0050	1	11/15/2014 17:51
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	11/15/2014 17:51
Freon 113	ND	0.10	1	11/15/2014 17:51
Hexachlorobutadiene	ND	0.0050	1	11/15/2014 17:51
Hexachloroethane	ND	0.0050	1	11/15/2014 17:51
2-Hexanone	ND	0.0050	1	11/15/2014 17:51
Isopropylbenzene	ND	0.0050	1	11/15/2014 17:51
4-Isopropyl toluene	ND	0.0050	1	11/15/2014 17:51
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	11/15/2014 17:51
Methylene chloride	ND	0.0050	1	11/15/2014 17:51
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	11/15/2014 17:51
Naphthalene	ND	0.0050	1	11/15/2014 17:51
n-Propyl benzene	ND	0.0050	1	11/15/2014 17:51
Styrene	ND	0.0050	1	11/15/2014 17:51
1,1,1,2-Tetrachloroethane	ND	0.0050	1	11/15/2014 17:51
1,1,2,2-Tetrachloroethane	ND	0.0050	1	11/15/2014 17:51
Tetrachloroethene	ND	0.0050	1	11/15/2014 17:51
Toluene	ND	0.0050	1	11/15/2014 17:51
1,2,3-Trichlorobenzene	ND	0.0050	1	11/15/2014 17:51
1,2,4-Trichlorobenzene	ND	0.0050	1	11/15/2014 17:51
1,1,1-Trichloroethane	ND	0.0050	1	11/15/2014 17:51
1,1,2-Trichloroethane	ND	0.0050	1	11/15/2014 17:51
Trichloroethene	ND	0.0050	1	11/15/2014 17:51
Trichlorofluoromethane	ND	0.0050	1	11/15/2014 17:51
1,2,3-Trichloropropane	ND	0.0050	1	11/15/2014 17:51
1,2,4-Trimethylbenzene	ND	0.0050	1	11/15/2014 17:51
1,3,5-Trimethylbenzene	ND	0.0050	1	11/15/2014 17:51
Vinyl Chloride	ND	0.0050	1	11/15/2014 17:51
Xylenes, Total	ND	0.0050	1	11/15/2014 17:51

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4@2'	1411565-023A	Soil	11/13/2014	GC10	97801

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	91	70-130		11/15/2014 17:51
Toluene-d8	103	70-130		11/15/2014 17:51
4-BFB	100	70-130		11/15/2014 17:51

**Analyst(s):** KF



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4@9.5'	1411565-024A	Soil	11/13/2014	GC10	97801

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	11/15/2014 18:32
tert-Amyl methyl ether (TAME)	ND	0.0050	1	11/15/2014 18:32
Benzene	ND	0.0050	1	11/15/2014 18:32
Bromobenzene	ND	0.0050	1	11/15/2014 18:32
Bromochloromethane	ND	0.0050	1	11/15/2014 18:32
Bromodichloromethane	ND	0.0050	1	11/15/2014 18:32
Bromoform	ND	0.0050	1	11/15/2014 18:32
Bromomethane	ND	0.0050	1	11/15/2014 18:32
2-Butanone (MEK)	ND	0.020	1	11/15/2014 18:32
t-Butyl alcohol (TBA)	ND	0.050	1	11/15/2014 18:32
n-Butyl benzene	ND	0.0050	1	11/15/2014 18:32
sec-Butyl benzene	ND	0.0050	1	11/15/2014 18:32
tert-Butyl benzene	ND	0.0050	1	11/15/2014 18:32
Carbon Disulfide	ND	0.0050	1	11/15/2014 18:32
Carbon Tetrachloride	ND	0.0050	1	11/15/2014 18:32
Chlorobenzene	ND	0.0050	1	11/15/2014 18:32
Chloroethane	ND	0.0050	1	11/15/2014 18:32
Chloroform	ND	0.0050	1	11/15/2014 18:32
Chloromethane	ND	0.0050	1	11/15/2014 18:32
2-Chlorotoluene	ND	0.0050	1	11/15/2014 18:32
4-Chlorotoluene	ND	0.0050	1	11/15/2014 18:32
Dibromochloromethane	ND	0.0050	1	11/15/2014 18:32
1,2-Dibromo-3-chloropropane	ND	0.0040	1	11/15/2014 18:32
1,2-Dibromoethane (EDB)	ND	0.0040	1	11/15/2014 18:32
Dibromomethane	ND	0.0050	1	11/15/2014 18:32
1,2-Dichlorobenzene	ND	0.0050	1	11/15/2014 18:32
1,3-Dichlorobenzene	ND	0.0050	1	11/15/2014 18:32
1,4-Dichlorobenzene	ND	0.0050	1	11/15/2014 18:32
Dichlorodifluoromethane	ND	0.0050	1	11/15/2014 18:32
1,1-Dichloroethane	ND	0.0050	1	11/15/2014 18:32
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	11/15/2014 18:32
1,1-Dichloroethene	ND	0.0050	1	11/15/2014 18:32
cis-1,2-Dichloroethene	ND	0.0050	1	11/15/2014 18:32
trans-1,2-Dichloroethene	ND	0.0050	1	11/15/2014 18:32
1,2-Dichloropropane	ND	0.0050	1	11/15/2014 18:32
1,3-Dichloropropane	ND	0.0050	1	11/15/2014 18:32
2,2-Dichloropropane	ND	0.0050	1	11/15/2014 18:32
1,1-Dichloropropene	ND	0.0050	1	11/15/2014 18:32

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# Analytical Report

Client: Cook Environmental Services, Inc.

WorkOrder: 1411565

Project: #1095; Casentini

Extraction Method: SW5030B

Date Received: 11/14/14 10:51

Analytical Method: SW8260B

Date Prepared: 11/14/14-11/17/14

Unit: mg/kg

## Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4@9.5'	1411565-024A	Soil	11/13/2014	GC10	97801

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.0050	1	11/15/2014 18:32
trans-1,3-Dichloropropene	ND	0.0050	1	11/15/2014 18:32
Diisopropyl ether (DIPE)	ND	0.0050	1	11/15/2014 18:32
Ethylbenzene	ND	0.0050	1	11/15/2014 18:32
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	11/15/2014 18:32
Freon 113	ND	0.10	1	11/15/2014 18:32
Hexachlorobutadiene	ND	0.0050	1	11/15/2014 18:32
Hexachloroethane	ND	0.0050	1	11/15/2014 18:32
2-Hexanone	ND	0.0050	1	11/15/2014 18:32
Isopropylbenzene	ND	0.0050	1	11/15/2014 18:32
4-Isopropyl toluene	ND	0.0050	1	11/15/2014 18:32
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	11/15/2014 18:32
Methylene chloride	ND	0.0050	1	11/15/2014 18:32
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	11/15/2014 18:32
Naphthalene	ND	0.0050	1	11/15/2014 18:32
n-Propyl benzene	ND	0.0050	1	11/15/2014 18:32
Styrene	ND	0.0050	1	11/15/2014 18:32
1,1,1,2-Tetrachloroethane	ND	0.0050	1	11/15/2014 18:32
1,1,2,2-Tetrachloroethane	ND	0.0050	1	11/15/2014 18:32
Tetrachloroethene	ND	0.0050	1	11/15/2014 18:32
Toluene	ND	0.0050	1	11/15/2014 18:32
1,2,3-Trichlorobenzene	ND	0.0050	1	11/15/2014 18:32
1,2,4-Trichlorobenzene	ND	0.0050	1	11/15/2014 18:32
1,1,1-Trichloroethane	ND	0.0050	1	11/15/2014 18:32
1,1,2-Trichloroethane	ND	0.0050	1	11/15/2014 18:32
Trichloroethene	ND	0.0050	1	11/15/2014 18:32
Trichlorofluoromethane	ND	0.0050	1	11/15/2014 18:32
1,2,3-Trichloropropane	ND	0.0050	1	11/15/2014 18:32
1,2,4-Trimethylbenzene	ND	0.0050	1	11/15/2014 18:32
1,3,5-Trimethylbenzene	ND	0.0050	1	11/15/2014 18:32
Vinyl Chloride	ND	0.0050	1	11/15/2014 18:32
Xylenes, Total	ND	0.0050	1	11/15/2014 18:32

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4@9.5'	1411565-024A	Soil	11/13/2014	GC10	97801

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	92	70-130		11/15/2014 18:32
Toluene-d8	103	70-130		11/15/2014 18:32
4-BFB	101	70-130		11/15/2014 18:32

**Analyst(s):** KF



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4@14.5'	1411565-025A	Soil	11/13/2014	GC10	97801

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.20	2	11/17/2014 23:26
tert-Amyl methyl ether (TAME)	ND	0.010	2	11/17/2014 23:26
Benzene	ND	0.010	2	11/17/2014 23:26
Bromobenzene	ND	0.010	2	11/17/2014 23:26
Bromochloromethane	ND	0.010	2	11/17/2014 23:26
Bromodichloromethane	ND	0.010	2	11/17/2014 23:26
Bromoform	ND	0.010	2	11/17/2014 23:26
Bromomethane	ND	0.010	2	11/17/2014 23:26
2-Butanone (MEK)	ND	0.040	2	11/17/2014 23:26
t-Butyl alcohol (TBA)	ND	0.10	2	11/17/2014 23:26
n-Butyl benzene	ND	0.010	2	11/17/2014 23:26
sec-Butyl benzene	ND	0.010	2	11/17/2014 23:26
tert-Butyl benzene	ND	0.010	2	11/17/2014 23:26
Carbon Disulfide	ND	0.010	2	11/17/2014 23:26
Carbon Tetrachloride	ND	0.010	2	11/17/2014 23:26
Chlorobenzene	ND	0.010	2	11/17/2014 23:26
Chloroethane	ND	0.010	2	11/17/2014 23:26
Chloroform	ND	0.010	2	11/17/2014 23:26
Chloromethane	ND	0.010	2	11/17/2014 23:26
2-Chlorotoluene	ND	0.010	2	11/17/2014 23:26
4-Chlorotoluene	ND	0.010	2	11/17/2014 23:26
Dibromochloromethane	ND	0.010	2	11/17/2014 23:26
1,2-Dibromo-3-chloropropane	ND	0.0080	2	11/17/2014 23:26
1,2-Dibromoethane (EDB)	ND	0.0080	2	11/17/2014 23:26
Dibromomethane	ND	0.010	2	11/17/2014 23:26
1,2-Dichlorobenzene	ND	0.010	2	11/17/2014 23:26
1,3-Dichlorobenzene	ND	0.010	2	11/17/2014 23:26
1,4-Dichlorobenzene	ND	0.010	2	11/17/2014 23:26
Dichlorodifluoromethane	ND	0.010	2	11/17/2014 23:26
1,1-Dichloroethane	ND	0.010	2	11/17/2014 23:26
1,2-Dichloroethane (1,2-DCA)	ND	0.0080	2	11/17/2014 23:26
1,1-Dichloroethene	ND	0.010	2	11/17/2014 23:26
cis-1,2-Dichloroethene	ND	0.010	2	11/17/2014 23:26
trans-1,2-Dichloroethene	ND	0.010	2	11/17/2014 23:26
1,2-Dichloropropane	ND	0.010	2	11/17/2014 23:26
1,3-Dichloropropane	ND	0.010	2	11/17/2014 23:26
2,2-Dichloropropane	ND	0.010	2	11/17/2014 23:26
1,1-Dichloropropene	ND	0.010	2	11/17/2014 23:26

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4@14.5'	1411565-025A	Soil	11/13/2014	GC10	97801

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.010	2	11/17/2014 23:26
trans-1,3-Dichloropropene	ND	0.010	2	11/17/2014 23:26
Diisopropyl ether (DIPE)	ND	0.010	2	11/17/2014 23:26
Ethylbenzene	ND	0.010	2	11/17/2014 23:26
Ethyl tert-butyl ether (ETBE)	ND	0.010	2	11/17/2014 23:26
Freon 113	ND	0.20	2	11/17/2014 23:26
Hexachlorobutadiene	ND	0.010	2	11/17/2014 23:26
Hexachloroethane	ND	0.010	2	11/17/2014 23:26
2-Hexanone	ND	0.010	2	11/17/2014 23:26
Isopropylbenzene	ND	0.010	2	11/17/2014 23:26
4-Isopropyl toluene	ND	0.010	2	11/17/2014 23:26
Methyl-t-butyl ether (MTBE)	ND	0.010	2	11/17/2014 23:26
Methylene chloride	ND	0.010	2	11/17/2014 23:26
4-Methyl-2-pentanone (MIBK)	ND	0.010	2	11/17/2014 23:26
Naphthalene	ND	0.010	2	11/17/2014 23:26
n-Propyl benzene	ND	0.010	2	11/17/2014 23:26
Styrene	ND	0.010	2	11/17/2014 23:26
1,1,1,2-Tetrachloroethane	ND	0.010	2	11/17/2014 23:26
1,1,2,2-Tetrachloroethane	ND	0.010	2	11/17/2014 23:26
Tetrachloroethene	ND	0.010	2	11/17/2014 23:26
Toluene	ND	0.010	2	11/17/2014 23:26
1,2,3-Trichlorobenzene	ND	0.010	2	11/17/2014 23:26
1,2,4-Trichlorobenzene	ND	0.010	2	11/17/2014 23:26
1,1,1-Trichloroethane	ND	0.010	2	11/17/2014 23:26
1,1,2-Trichloroethane	ND	0.010	2	11/17/2014 23:26
Trichloroethene	ND	0.010	2	11/17/2014 23:26
Trichlorofluoromethane	ND	0.010	2	11/17/2014 23:26
1,2,3-Trichloropropane	ND	0.010	2	11/17/2014 23:26
1,2,4-Trimethylbenzene	ND	0.010	2	11/17/2014 23:26
1,3,5-Trimethylbenzene	ND	0.010	2	11/17/2014 23:26
Vinyl Chloride	ND	0.010	2	11/17/2014 23:26
Xylenes, Total	ND	0.010	2	11/17/2014 23:26

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4@14.5'	1411565-025A	Soil	11/13/2014	GC10	97801

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits	Analytical Comments: a3	
Dibromofluoromethane	93	70-130		11/17/2014 23:26
Toluene-d8	102	70-130		11/17/2014 23:26
4-BFB	105	70-130		11/17/2014 23:26

**Analyst(s):** KF





## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4@19.5'	1411565-026A	Soil	11/13/2014	GC10	97801

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	11/15/2014 19:14
tert-Amyl methyl ether (TAME)	ND	0.0050	1	11/15/2014 19:14
Benzene	ND	0.0050	1	11/15/2014 19:14
Bromobenzene	ND	0.0050	1	11/15/2014 19:14
Bromochloromethane	ND	0.0050	1	11/15/2014 19:14
Bromodichloromethane	ND	0.0050	1	11/15/2014 19:14
Bromoform	ND	0.0050	1	11/15/2014 19:14
Bromomethane	ND	0.0050	1	11/15/2014 19:14
2-Butanone (MEK)	ND	0.020	1	11/15/2014 19:14
t-Butyl alcohol (TBA)	ND	0.050	1	11/15/2014 19:14
n-Butyl benzene	ND	0.0050	1	11/15/2014 19:14
sec-Butyl benzene	ND	0.0050	1	11/15/2014 19:14
tert-Butyl benzene	ND	0.0050	1	11/15/2014 19:14
Carbon Disulfide	ND	0.0050	1	11/15/2014 19:14
Carbon Tetrachloride	ND	0.0050	1	11/15/2014 19:14
Chlorobenzene	ND	0.0050	1	11/15/2014 19:14
Chloroethane	ND	0.0050	1	11/15/2014 19:14
Chloroform	ND	0.0050	1	11/15/2014 19:14
Chloromethane	ND	0.0050	1	11/15/2014 19:14
2-Chlorotoluene	ND	0.0050	1	11/15/2014 19:14
4-Chlorotoluene	ND	0.0050	1	11/15/2014 19:14
Dibromochloromethane	ND	0.0050	1	11/15/2014 19:14
1,2-Dibromo-3-chloropropane	ND	0.0040	1	11/15/2014 19:14
1,2-Dibromoethane (EDB)	ND	0.0040	1	11/15/2014 19:14
Dibromomethane	ND	0.0050	1	11/15/2014 19:14
1,2-Dichlorobenzene	ND	0.0050	1	11/15/2014 19:14
1,3-Dichlorobenzene	ND	0.0050	1	11/15/2014 19:14
1,4-Dichlorobenzene	ND	0.0050	1	11/15/2014 19:14
Dichlorodifluoromethane	ND	0.0050	1	11/15/2014 19:14
1,1-Dichloroethane	ND	0.0050	1	11/15/2014 19:14
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	11/15/2014 19:14
1,1-Dichloroethene	ND	0.0050	1	11/15/2014 19:14
cis-1,2-Dichloroethene	ND	0.0050	1	11/15/2014 19:14
trans-1,2-Dichloroethene	ND	0.0050	1	11/15/2014 19:14
1,2-Dichloropropane	ND	0.0050	1	11/15/2014 19:14
1,3-Dichloropropane	ND	0.0050	1	11/15/2014 19:14
2,2-Dichloropropane	ND	0.0050	1	11/15/2014 19:14
1,1-Dichloropropene	ND	0.0050	1	11/15/2014 19:14

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4@19.5'	1411565-026A	Soil	11/13/2014	GC10	97801

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.0050	1	11/15/2014 19:14
trans-1,3-Dichloropropene	ND	0.0050	1	11/15/2014 19:14
Diisopropyl ether (DIPE)	ND	0.0050	1	11/15/2014 19:14
Ethylbenzene	ND	0.0050	1	11/15/2014 19:14
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	11/15/2014 19:14
Freon 113	ND	0.10	1	11/15/2014 19:14
Hexachlorobutadiene	ND	0.0050	1	11/15/2014 19:14
Hexachloroethane	ND	0.0050	1	11/15/2014 19:14
2-Hexanone	ND	0.0050	1	11/15/2014 19:14
Isopropylbenzene	ND	0.0050	1	11/15/2014 19:14
4-Isopropyl toluene	ND	0.0050	1	11/15/2014 19:14
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	11/15/2014 19:14
Methylene chloride	ND	0.0050	1	11/15/2014 19:14
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	11/15/2014 19:14
Naphthalene	ND	0.0050	1	11/15/2014 19:14
n-Propyl benzene	ND	0.0050	1	11/15/2014 19:14
Styrene	ND	0.0050	1	11/15/2014 19:14
1,1,1,2-Tetrachloroethane	ND	0.0050	1	11/15/2014 19:14
1,1,2,2-Tetrachloroethane	ND	0.0050	1	11/15/2014 19:14
Tetrachloroethene	ND	0.0050	1	11/15/2014 19:14
Toluene	ND	0.0050	1	11/15/2014 19:14
1,2,3-Trichlorobenzene	ND	0.0050	1	11/15/2014 19:14
1,2,4-Trichlorobenzene	ND	0.0050	1	11/15/2014 19:14
1,1,1-Trichloroethane	ND	0.0050	1	11/15/2014 19:14
1,1,2-Trichloroethane	ND	0.0050	1	11/15/2014 19:14
Trichloroethene	ND	0.0050	1	11/15/2014 19:14
Trichlorofluoromethane	ND	0.0050	1	11/15/2014 19:14
1,2,3-Trichloropropane	ND	0.0050	1	11/15/2014 19:14
1,2,4-Trimethylbenzene	ND	0.0050	1	11/15/2014 19:14
1,3,5-Trimethylbenzene	ND	0.0050	1	11/15/2014 19:14
Vinyl Chloride	ND	0.0050	1	11/15/2014 19:14
Xylenes, Total	ND	0.0050	1	11/15/2014 19:14

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## Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW5030B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8260B

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4@19.5'	1411565-026A	Soil	11/13/2014	GC10	97801

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	93	70-130		11/15/2014 19:14
Toluene-d8	103	70-130		11/15/2014 19:14
4-BFB	99	70-130		11/15/2014 19:14

**Analyst(s):** KF



## Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW5030B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8260B

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5@2'	1411565-029A	Soil	11/13/2014	GC10	97801

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	11/15/2014 19:55
tert-Amyl methyl ether (TAME)	ND	0.0050	1	11/15/2014 19:55
Benzene	ND	0.0050	1	11/15/2014 19:55
Bromobenzene	ND	0.0050	1	11/15/2014 19:55
Bromochloromethane	ND	0.0050	1	11/15/2014 19:55
Bromodichloromethane	ND	0.0050	1	11/15/2014 19:55
Bromoform	ND	0.0050	1	11/15/2014 19:55
Bromomethane	ND	0.0050	1	11/15/2014 19:55
2-Butanone (MEK)	ND	0.020	1	11/15/2014 19:55
t-Butyl alcohol (TBA)	ND	0.050	1	11/15/2014 19:55
n-Butyl benzene	ND	0.0050	1	11/15/2014 19:55
sec-Butyl benzene	ND	0.0050	1	11/15/2014 19:55
tert-Butyl benzene	ND	0.0050	1	11/15/2014 19:55
Carbon Disulfide	ND	0.0050	1	11/15/2014 19:55
Carbon Tetrachloride	ND	0.0050	1	11/15/2014 19:55
Chlorobenzene	ND	0.0050	1	11/15/2014 19:55
Chloroethane	ND	0.0050	1	11/15/2014 19:55
Chloroform	ND	0.0050	1	11/15/2014 19:55
Chloromethane	ND	0.0050	1	11/15/2014 19:55
2-Chlorotoluene	ND	0.0050	1	11/15/2014 19:55
4-Chlorotoluene	ND	0.0050	1	11/15/2014 19:55
Dibromochloromethane	ND	0.0050	1	11/15/2014 19:55
1,2-Dibromo-3-chloropropane	ND	0.0040	1	11/15/2014 19:55
1,2-Dibromoethane (EDB)	ND	0.0040	1	11/15/2014 19:55
Dibromomethane	ND	0.0050	1	11/15/2014 19:55
1,2-Dichlorobenzene	ND	0.0050	1	11/15/2014 19:55
1,3-Dichlorobenzene	ND	0.0050	1	11/15/2014 19:55
1,4-Dichlorobenzene	ND	0.0050	1	11/15/2014 19:55
Dichlorodifluoromethane	ND	0.0050	1	11/15/2014 19:55
1,1-Dichloroethane	ND	0.0050	1	11/15/2014 19:55
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	11/15/2014 19:55
1,1-Dichloroethene	ND	0.0050	1	11/15/2014 19:55
cis-1,2-Dichloroethene	ND	0.0050	1	11/15/2014 19:55
trans-1,2-Dichloroethene	ND	0.0050	1	11/15/2014 19:55
1,2-Dichloropropane	ND	0.0050	1	11/15/2014 19:55
1,3-Dichloropropane	ND	0.0050	1	11/15/2014 19:55
2,2-Dichloropropane	ND	0.0050	1	11/15/2014 19:55
1,1-Dichloropropene	ND	0.0050	1	11/15/2014 19:55

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5@2'	1411565-029A	Soil	11/13/2014	GC10	97801
<b>Analytes</b>	<b>Result</b>		<b>RL</b>	<b>DF</b>	<b>Date Analyzed</b>
cis-1,3-Dichloropropene	ND		0.0050	1	11/15/2014 19:55
trans-1,3-Dichloropropene	ND		0.0050	1	11/15/2014 19:55
Diisopropyl ether (DIPE)	ND		0.0050	1	11/15/2014 19:55
Ethylbenzene	ND		0.0050	1	11/15/2014 19:55
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	11/15/2014 19:55
Freon 113	ND		0.10	1	11/15/2014 19:55
Hexachlorobutadiene	ND		0.0050	1	11/15/2014 19:55
Hexachloroethane	ND		0.0050	1	11/15/2014 19:55
2-Hexanone	ND		0.0050	1	11/15/2014 19:55
Isopropylbenzene	ND		0.0050	1	11/15/2014 19:55
4-Isopropyl toluene	ND		0.0050	1	11/15/2014 19:55
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	11/15/2014 19:55
Methylene chloride	ND		0.0050	1	11/15/2014 19:55
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	11/15/2014 19:55
Naphthalene	ND		0.0050	1	11/15/2014 19:55
n-Propyl benzene	ND		0.0050	1	11/15/2014 19:55
Styrene	ND		0.0050	1	11/15/2014 19:55
1,1,1,2-Tetrachloroethane	ND		0.0050	1	11/15/2014 19:55
1,1,2,2-Tetrachloroethane	ND		0.0050	1	11/15/2014 19:55
Tetrachloroethene	ND		0.0050	1	11/15/2014 19:55
Toluene	ND		0.0050	1	11/15/2014 19:55
1,2,3-Trichlorobenzene	ND		0.0050	1	11/15/2014 19:55
1,2,4-Trichlorobenzene	ND		0.0050	1	11/15/2014 19:55
1,1,1-Trichloroethane	ND		0.0050	1	11/15/2014 19:55
1,1,2-Trichloroethane	ND		0.0050	1	11/15/2014 19:55
Trichloroethene	ND		0.0050	1	11/15/2014 19:55
Trichlorofluoromethane	ND		0.0050	1	11/15/2014 19:55
1,2,3-Trichloropropane	ND		0.0050	1	11/15/2014 19:55
1,2,4-Trimethylbenzene	ND		0.0050	1	11/15/2014 19:55
1,3,5-Trimethylbenzene	ND		0.0050	1	11/15/2014 19:55
Vinyl Chloride	ND		0.0050	1	11/15/2014 19:55
Xylenes, Total	ND		0.0050	1	11/15/2014 19:55

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5@2'	1411565-029A	Soil	11/13/2014	GC10	97801

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	91	70-130		11/15/2014 19:55
Toluene-d8	104	70-130		11/15/2014 19:55
4-BFB	101	70-130		11/15/2014 19:55

**Analyst(s):** KF



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5@9.5'	1411565-030A	Soil	11/13/2014	GC10	97801

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	11/15/2014 20:36
tert-Amyl methyl ether (TAME)	ND	0.0050	1	11/15/2014 20:36
Benzene	ND	0.0050	1	11/15/2014 20:36
Bromobenzene	ND	0.0050	1	11/15/2014 20:36
Bromochloromethane	ND	0.0050	1	11/15/2014 20:36
Bromodichloromethane	ND	0.0050	1	11/15/2014 20:36
Bromoform	ND	0.0050	1	11/15/2014 20:36
Bromomethane	ND	0.0050	1	11/15/2014 20:36
2-Butanone (MEK)	ND	0.020	1	11/15/2014 20:36
t-Butyl alcohol (TBA)	ND	0.050	1	11/15/2014 20:36
n-Butyl benzene	ND	0.0050	1	11/15/2014 20:36
sec-Butyl benzene	ND	0.0050	1	11/15/2014 20:36
tert-Butyl benzene	ND	0.0050	1	11/15/2014 20:36
Carbon Disulfide	ND	0.0050	1	11/15/2014 20:36
Carbon Tetrachloride	ND	0.0050	1	11/15/2014 20:36
Chlorobenzene	ND	0.0050	1	11/15/2014 20:36
Chloroethane	ND	0.0050	1	11/15/2014 20:36
Chloroform	ND	0.0050	1	11/15/2014 20:36
Chloromethane	ND	0.0050	1	11/15/2014 20:36
2-Chlorotoluene	ND	0.0050	1	11/15/2014 20:36
4-Chlorotoluene	ND	0.0050	1	11/15/2014 20:36
Dibromochloromethane	ND	0.0050	1	11/15/2014 20:36
1,2-Dibromo-3-chloropropane	ND	0.0040	1	11/15/2014 20:36
1,2-Dibromoethane (EDB)	ND	0.0040	1	11/15/2014 20:36
Dibromomethane	ND	0.0050	1	11/15/2014 20:36
1,2-Dichlorobenzene	ND	0.0050	1	11/15/2014 20:36
1,3-Dichlorobenzene	ND	0.0050	1	11/15/2014 20:36
1,4-Dichlorobenzene	ND	0.0050	1	11/15/2014 20:36
Dichlorodifluoromethane	ND	0.0050	1	11/15/2014 20:36
1,1-Dichloroethane	ND	0.0050	1	11/15/2014 20:36
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	11/15/2014 20:36
1,1-Dichloroethene	ND	0.0050	1	11/15/2014 20:36
cis-1,2-Dichloroethene	ND	0.0050	1	11/15/2014 20:36
trans-1,2-Dichloroethene	ND	0.0050	1	11/15/2014 20:36
1,2-Dichloropropane	ND	0.0050	1	11/15/2014 20:36
1,3-Dichloropropane	ND	0.0050	1	11/15/2014 20:36
2,2-Dichloropropane	ND	0.0050	1	11/15/2014 20:36
1,1-Dichloropropene	ND	0.0050	1	11/15/2014 20:36

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5@9.5'	1411565-030A	Soil	11/13/2014	GC10	97801

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.0050	1	11/15/2014 20:36
trans-1,3-Dichloropropene	ND	0.0050	1	11/15/2014 20:36
Diisopropyl ether (DIPE)	ND	0.0050	1	11/15/2014 20:36
Ethylbenzene	ND	0.0050	1	11/15/2014 20:36
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	11/15/2014 20:36
Freon 113	ND	0.10	1	11/15/2014 20:36
Hexachlorobutadiene	ND	0.0050	1	11/15/2014 20:36
Hexachloroethane	ND	0.0050	1	11/15/2014 20:36
2-Hexanone	ND	0.0050	1	11/15/2014 20:36
Isopropylbenzene	ND	0.0050	1	11/15/2014 20:36
4-Isopropyl toluene	ND	0.0050	1	11/15/2014 20:36
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	11/15/2014 20:36
Methylene chloride	ND	0.0050	1	11/15/2014 20:36
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	11/15/2014 20:36
Naphthalene	ND	0.0050	1	11/15/2014 20:36
n-Propyl benzene	ND	0.0050	1	11/15/2014 20:36
Styrene	ND	0.0050	1	11/15/2014 20:36
1,1,1,2-Tetrachloroethane	ND	0.0050	1	11/15/2014 20:36
1,1,2,2-Tetrachloroethane	ND	0.0050	1	11/15/2014 20:36
Tetrachloroethene	ND	0.0050	1	11/15/2014 20:36
Toluene	ND	0.0050	1	11/15/2014 20:36
1,2,3-Trichlorobenzene	ND	0.0050	1	11/15/2014 20:36
1,2,4-Trichlorobenzene	ND	0.0050	1	11/15/2014 20:36
1,1,1-Trichloroethane	ND	0.0050	1	11/15/2014 20:36
1,1,2-Trichloroethane	ND	0.0050	1	11/15/2014 20:36
Trichloroethene	ND	0.0050	1	11/15/2014 20:36
Trichlorofluoromethane	ND	0.0050	1	11/15/2014 20:36
1,2,3-Trichloropropane	ND	0.0050	1	11/15/2014 20:36
1,2,4-Trimethylbenzene	ND	0.0050	1	11/15/2014 20:36
1,3,5-Trimethylbenzene	ND	0.0050	1	11/15/2014 20:36
Vinyl Chloride	ND	0.0050	1	11/15/2014 20:36
Xylenes, Total	ND	0.0050	1	11/15/2014 20:36

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW5030B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8260B

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5@9.5'	1411565-030A	Soil	11/13/2014	GC10	97801

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	91	70-130		11/15/2014 20:36
Toluene-d8	105	70-130		11/15/2014 20:36
4-BFB	102	70-130		11/15/2014 20:36

**Analyst(s):** KF



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5@14'	1411565-031A	Soil	11/13/2014	GC10	97801

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	2.0	20	11/18/2014 00:07
tert-Amyl methyl ether (TAME)	ND	0.10	20	11/18/2014 00:07
Benzene	ND	0.10	20	11/18/2014 00:07
Bromobenzene	ND	0.10	20	11/18/2014 00:07
Bromochloromethane	ND	0.10	20	11/18/2014 00:07
Bromodichloromethane	ND	0.10	20	11/18/2014 00:07
Bromoform	ND	0.10	20	11/18/2014 00:07
Bromomethane	ND	0.10	20	11/18/2014 00:07
2-Butanone (MEK)	ND	0.40	20	11/18/2014 00:07
t-Butyl alcohol (TBA)	ND	1.0	20	11/18/2014 00:07
n-Butyl benzene	ND	0.10	20	11/18/2014 00:07
sec-Butyl benzene	ND	0.10	20	11/18/2014 00:07
tert-Butyl benzene	ND	0.10	20	11/18/2014 00:07
Carbon Disulfide	ND	0.10	20	11/18/2014 00:07
Carbon Tetrachloride	ND	0.10	20	11/18/2014 00:07
Chlorobenzene	ND	0.10	20	11/18/2014 00:07
Chloroethane	ND	0.10	20	11/18/2014 00:07
Chloroform	ND	0.10	20	11/18/2014 00:07
Chloromethane	ND	0.10	20	11/18/2014 00:07
2-Chlorotoluene	ND	0.10	20	11/18/2014 00:07
4-Chlorotoluene	ND	0.10	20	11/18/2014 00:07
Dibromochloromethane	ND	0.10	20	11/18/2014 00:07
1,2-Dibromo-3-chloropropane	ND	0.080	20	11/18/2014 00:07
1,2-Dibromoethane (EDB)	ND	0.080	20	11/18/2014 00:07
Dibromomethane	ND	0.10	20	11/18/2014 00:07
1,2-Dichlorobenzene	ND	0.10	20	11/18/2014 00:07
1,3-Dichlorobenzene	ND	0.10	20	11/18/2014 00:07
1,4-Dichlorobenzene	ND	0.10	20	11/18/2014 00:07
Dichlorodifluoromethane	ND	0.10	20	11/18/2014 00:07
1,1-Dichloroethane	ND	0.10	20	11/18/2014 00:07
1,2-Dichloroethane (1,2-DCA)	ND	0.080	20	11/18/2014 00:07
1,1-Dichloroethene	ND	0.10	20	11/18/2014 00:07
cis-1,2-Dichloroethene	ND	0.10	20	11/18/2014 00:07
trans-1,2-Dichloroethene	ND	0.10	20	11/18/2014 00:07
1,2-Dichloropropane	ND	0.10	20	11/18/2014 00:07
1,3-Dichloropropane	ND	0.10	20	11/18/2014 00:07
2,2-Dichloropropane	ND	0.10	20	11/18/2014 00:07
1,1-Dichloropropene	ND	0.10	20	11/18/2014 00:07

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5@14'	1411565-031A	Soil	11/13/2014	GC10	97801

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.10	20	11/18/2014 00:07
trans-1,3-Dichloropropene	ND	0.10	20	11/18/2014 00:07
Diisopropyl ether (DIPE)	ND	0.10	20	11/18/2014 00:07
Ethylbenzene	ND	0.10	20	11/18/2014 00:07
Ethyl tert-butyl ether (ETBE)	ND	0.10	20	11/18/2014 00:07
Freon 113	ND	2.0	20	11/18/2014 00:07
Hexachlorobutadiene	ND	0.10	20	11/18/2014 00:07
Hexachloroethane	ND	0.10	20	11/18/2014 00:07
2-Hexanone	ND	0.10	20	11/18/2014 00:07
Isopropylbenzene	ND	0.10	20	11/18/2014 00:07
4-Isopropyl toluene	ND	0.10	20	11/18/2014 00:07
Methyl-t-butyl ether (MTBE)	ND	0.10	20	11/18/2014 00:07
Methylene chloride	ND	0.10	20	11/18/2014 00:07
4-Methyl-2-pentanone (MIBK)	ND	0.10	20	11/18/2014 00:07
Naphthalene	ND	0.10	20	11/18/2014 00:07
n-Propyl benzene	ND	0.10	20	11/18/2014 00:07
Styrene	ND	0.10	20	11/18/2014 00:07
1,1,1,2-Tetrachloroethane	ND	0.10	20	11/18/2014 00:07
1,1,2,2-Tetrachloroethane	ND	0.10	20	11/18/2014 00:07
Tetrachloroethene	ND	0.10	20	11/18/2014 00:07
Toluene	ND	0.10	20	11/18/2014 00:07
1,2,3-Trichlorobenzene	ND	0.10	20	11/18/2014 00:07
1,2,4-Trichlorobenzene	ND	0.10	20	11/18/2014 00:07
1,1,1-Trichloroethane	ND	0.10	20	11/18/2014 00:07
1,1,2-Trichloroethane	ND	0.10	20	11/18/2014 00:07
Trichloroethene	ND	0.10	20	11/18/2014 00:07
Trichlorofluoromethane	ND	0.10	20	11/18/2014 00:07
1,2,3-Trichloropropane	ND	0.10	20	11/18/2014 00:07
1,2,4-Trimethylbenzene	ND	0.10	20	11/18/2014 00:07
1,3,5-Trimethylbenzene	ND	0.10	20	11/18/2014 00:07
Vinyl Chloride	ND	0.10	20	11/18/2014 00:07
Xylenes, Total	ND	0.10	20	11/18/2014 00:07

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5@14'	1411565-031A	Soil	11/13/2014	GC10	97801

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: a3	
Dibromofluoromethane	96	70-130		11/18/2014 00:07
Toluene-d8	98	70-130		11/18/2014 00:07
4-BFB	98	70-130		11/18/2014 00:07

**Analyst(s):** KF



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5@18'	1411565-032A	Soil	11/13/2014	GC10	97801

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.20	2	11/18/2014 11:20
tert-Amyl methyl ether (TAME)	ND	0.010	2	11/18/2014 11:20
Benzene	ND	0.010	2	11/18/2014 11:20
Bromobenzene	ND	0.010	2	11/18/2014 11:20
Bromochloromethane	ND	0.010	2	11/18/2014 11:20
Bromodichloromethane	ND	0.010	2	11/18/2014 11:20
Bromoform	ND	0.010	2	11/18/2014 11:20
Bromomethane	ND	0.010	2	11/18/2014 11:20
2-Butanone (MEK)	ND	0.040	2	11/18/2014 11:20
t-Butyl alcohol (TBA)	ND	0.10	2	11/18/2014 11:20
n-Butyl benzene	ND	0.010	2	11/18/2014 11:20
sec-Butyl benzene	ND	0.010	2	11/18/2014 11:20
tert-Butyl benzene	ND	0.010	2	11/18/2014 11:20
Carbon Disulfide	ND	0.010	2	11/18/2014 11:20
Carbon Tetrachloride	ND	0.010	2	11/18/2014 11:20
Chlorobenzene	ND	0.010	2	11/18/2014 11:20
Chloroethane	ND	0.010	2	11/18/2014 11:20
Chloroform	ND	0.010	2	11/18/2014 11:20
Chloromethane	ND	0.010	2	11/18/2014 11:20
2-Chlorotoluene	ND	0.010	2	11/18/2014 11:20
4-Chlorotoluene	ND	0.010	2	11/18/2014 11:20
Dibromochloromethane	ND	0.010	2	11/18/2014 11:20
1,2-Dibromo-3-chloropropane	ND	0.0080	2	11/18/2014 11:20
1,2-Dibromoethane (EDB)	ND	0.0080	2	11/18/2014 11:20
Dibromomethane	ND	0.010	2	11/18/2014 11:20
1,2-Dichlorobenzene	ND	0.010	2	11/18/2014 11:20
1,3-Dichlorobenzene	ND	0.010	2	11/18/2014 11:20
1,4-Dichlorobenzene	ND	0.010	2	11/18/2014 11:20
Dichlorodifluoromethane	ND	0.010	2	11/18/2014 11:20
1,1-Dichloroethane	ND	0.010	2	11/18/2014 11:20
1,2-Dichloroethane (1,2-DCA)	ND	0.0080	2	11/18/2014 11:20
1,1-Dichloroethene	ND	0.010	2	11/18/2014 11:20
cis-1,2-Dichloroethene	ND	0.010	2	11/18/2014 11:20
trans-1,2-Dichloroethene	ND	0.010	2	11/18/2014 11:20
1,2-Dichloropropane	ND	0.010	2	11/18/2014 11:20
1,3-Dichloropropane	ND	0.010	2	11/18/2014 11:20
2,2-Dichloropropane	ND	0.010	2	11/18/2014 11:20
1,1-Dichloropropene	ND	0.010	2	11/18/2014 11:20

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5@18'	1411565-032A	Soil	11/13/2014	GC10	97801

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.010	2	11/18/2014 11:20
trans-1,3-Dichloropropene	ND	0.010	2	11/18/2014 11:20
Diisopropyl ether (DIPE)	ND	0.010	2	11/18/2014 11:20
Ethylbenzene	ND	0.010	2	11/18/2014 11:20
Ethyl tert-butyl ether (ETBE)	ND	0.010	2	11/18/2014 11:20
Freon 113	ND	0.20	2	11/18/2014 11:20
Hexachlorobutadiene	ND	0.010	2	11/18/2014 11:20
Hexachloroethane	ND	0.010	2	11/18/2014 11:20
2-Hexanone	ND	0.010	2	11/18/2014 11:20
Isopropylbenzene	ND	0.010	2	11/18/2014 11:20
4-Isopropyl toluene	ND	0.010	2	11/18/2014 11:20
Methyl-t-butyl ether (MTBE)	ND	0.010	2	11/18/2014 11:20
Methylene chloride	ND	0.010	2	11/18/2014 11:20
4-Methyl-2-pentanone (MIBK)	ND	0.010	2	11/18/2014 11:20
Naphthalene	ND	0.010	2	11/18/2014 11:20
n-Propyl benzene	ND	0.010	2	11/18/2014 11:20
Styrene	ND	0.010	2	11/18/2014 11:20
1,1,1,2-Tetrachloroethane	ND	0.010	2	11/18/2014 11:20
1,1,2,2-Tetrachloroethane	ND	0.010	2	11/18/2014 11:20
Tetrachloroethene	ND	0.010	2	11/18/2014 11:20
Toluene	ND	0.010	2	11/18/2014 11:20
1,2,3-Trichlorobenzene	ND	0.010	2	11/18/2014 11:20
1,2,4-Trichlorobenzene	ND	0.010	2	11/18/2014 11:20
1,1,1-Trichloroethane	ND	0.010	2	11/18/2014 11:20
1,1,2-Trichloroethane	ND	0.010	2	11/18/2014 11:20
Trichloroethene	ND	0.010	2	11/18/2014 11:20
Trichlorofluoromethane	ND	0.010	2	11/18/2014 11:20
1,2,3-Trichloropropane	ND	0.010	2	11/18/2014 11:20
1,2,4-Trimethylbenzene	ND	0.010	2	11/18/2014 11:20
1,3,5-Trimethylbenzene	ND	0.010	2	11/18/2014 11:20
Vinyl Chloride	ND	0.010	2	11/18/2014 11:20
Xylenes, Total	ND	0.010	2	11/18/2014 11:20

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## Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW5030B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8260B

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5@18'	1411565-032A	Soil	11/13/2014	GC10	97801

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits	Analytical Comments: a3	
Dibromofluoromethane	98	70-130		11/18/2014 11:20
Toluene-d8	101	70-130		11/18/2014 11:20
4-BFB	105	70-130		11/18/2014 11:20

**Analyst(s):** AK





## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6@2'	1411565-035A	Soil	11/13/2014	GC16	97801

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	11/15/2014 14:40
tert-Amyl methyl ether (TAME)	ND	0.0050	1	11/15/2014 14:40
Benzene	ND	0.0050	1	11/15/2014 14:40
Bromobenzene	ND	0.0050	1	11/15/2014 14:40
Bromochloromethane	ND	0.0050	1	11/15/2014 14:40
Bromodichloromethane	ND	0.0050	1	11/15/2014 14:40
Bromoform	ND	0.0050	1	11/15/2014 14:40
Bromomethane	ND	0.0050	1	11/15/2014 14:40
2-Butanone (MEK)	ND	0.020	1	11/15/2014 14:40
t-Butyl alcohol (TBA)	ND	0.050	1	11/15/2014 14:40
n-Butyl benzene	ND	0.0050	1	11/15/2014 14:40
sec-Butyl benzene	ND	0.0050	1	11/15/2014 14:40
tert-Butyl benzene	ND	0.0050	1	11/15/2014 14:40
Carbon Disulfide	ND	0.0050	1	11/15/2014 14:40
Carbon Tetrachloride	ND	0.0050	1	11/15/2014 14:40
Chlorobenzene	ND	0.0050	1	11/15/2014 14:40
Chloroethane	ND	0.0050	1	11/15/2014 14:40
Chloroform	ND	0.0050	1	11/15/2014 14:40
Chloromethane	ND	0.0050	1	11/15/2014 14:40
2-Chlorotoluene	ND	0.0050	1	11/15/2014 14:40
4-Chlorotoluene	ND	0.0050	1	11/15/2014 14:40
Dibromochloromethane	ND	0.0050	1	11/15/2014 14:40
1,2-Dibromo-3-chloropropane	ND	0.0040	1	11/15/2014 14:40
1,2-Dibromoethane (EDB)	ND	0.0040	1	11/15/2014 14:40
Dibromomethane	ND	0.0050	1	11/15/2014 14:40
1,2-Dichlorobenzene	ND	0.0050	1	11/15/2014 14:40
1,3-Dichlorobenzene	ND	0.0050	1	11/15/2014 14:40
1,4-Dichlorobenzene	ND	0.0050	1	11/15/2014 14:40
Dichlorodifluoromethane	ND	0.0050	1	11/15/2014 14:40
1,1-Dichloroethane	ND	0.0050	1	11/15/2014 14:40
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	11/15/2014 14:40
1,1-Dichloroethene	ND	0.0050	1	11/15/2014 14:40
cis-1,2-Dichloroethene	ND	0.0050	1	11/15/2014 14:40
trans-1,2-Dichloroethene	ND	0.0050	1	11/15/2014 14:40
1,2-Dichloropropane	ND	0.0050	1	11/15/2014 14:40
1,3-Dichloropropane	ND	0.0050	1	11/15/2014 14:40
2,2-Dichloropropane	ND	0.0050	1	11/15/2014 14:40
1,1-Dichloropropene	ND	0.0050	1	11/15/2014 14:40

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6@2'	1411565-035A	Soil	11/13/2014	GC16	97801

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.0050	1	11/15/2014 14:40
trans-1,3-Dichloropropene	ND	0.0050	1	11/15/2014 14:40
Diisopropyl ether (DIPE)	ND	0.0050	1	11/15/2014 14:40
Ethylbenzene	ND	0.0050	1	11/15/2014 14:40
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	11/15/2014 14:40
Freon 113	ND	0.10	1	11/15/2014 14:40
Hexachlorobutadiene	ND	0.0050	1	11/15/2014 14:40
Hexachloroethane	ND	0.0050	1	11/15/2014 14:40
2-Hexanone	ND	0.0050	1	11/15/2014 14:40
Isopropylbenzene	ND	0.0050	1	11/15/2014 14:40
4-Isopropyl toluene	ND	0.0050	1	11/15/2014 14:40
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	11/15/2014 14:40
Methylene chloride	ND	0.0050	1	11/15/2014 14:40
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	11/15/2014 14:40
Naphthalene	ND	0.0050	1	11/15/2014 14:40
n-Propyl benzene	ND	0.0050	1	11/15/2014 14:40
Styrene	ND	0.0050	1	11/15/2014 14:40
1,1,1,2-Tetrachloroethane	ND	0.0050	1	11/15/2014 14:40
1,1,2,2-Tetrachloroethane	ND	0.0050	1	11/15/2014 14:40
Tetrachloroethene	ND	0.0050	1	11/15/2014 14:40
Toluene	ND	0.0050	1	11/15/2014 14:40
1,2,3-Trichlorobenzene	ND	0.0050	1	11/15/2014 14:40
1,2,4-Trichlorobenzene	ND	0.0050	1	11/15/2014 14:40
1,1,1-Trichloroethane	ND	0.0050	1	11/15/2014 14:40
1,1,2-Trichloroethane	ND	0.0050	1	11/15/2014 14:40
Trichloroethene	ND	0.0050	1	11/15/2014 14:40
Trichlorofluoromethane	ND	0.0050	1	11/15/2014 14:40
1,2,3-Trichloropropane	ND	0.0050	1	11/15/2014 14:40
1,2,4-Trimethylbenzene	ND	0.0050	1	11/15/2014 14:40
1,3,5-Trimethylbenzene	ND	0.0050	1	11/15/2014 14:40
Vinyl Chloride	ND	0.0050	1	11/15/2014 14:40
Xylenes, Total	ND	0.0050	1	11/15/2014 14:40

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6@2'	1411565-035A	Soil	11/13/2014	GC16	97801

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	104	70-130		11/15/2014 14:40
Toluene-d8	107	70-130		11/15/2014 14:40
4-BFB	107	70-130		11/15/2014 14:40

**Analyst(s):** KF



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6@9'	1411565-036A	Soil	11/13/2014	GC10	97801

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	11/18/2014 12:01
tert-Amyl methyl ether (TAME)	ND	0.0050	1	11/18/2014 12:01
Benzene	ND	0.0050	1	11/18/2014 12:01
Bromobenzene	ND	0.0050	1	11/18/2014 12:01
Bromochloromethane	ND	0.0050	1	11/18/2014 12:01
Bromodichloromethane	ND	0.0050	1	11/18/2014 12:01
Bromoform	ND	0.0050	1	11/18/2014 12:01
Bromomethane	ND	0.0050	1	11/18/2014 12:01
2-Butanone (MEK)	ND	0.020	1	11/18/2014 12:01
t-Butyl alcohol (TBA)	ND	0.050	1	11/18/2014 12:01
n-Butyl benzene	ND	0.0050	1	11/18/2014 12:01
sec-Butyl benzene	ND	0.0050	1	11/18/2014 12:01
tert-Butyl benzene	ND	0.0050	1	11/18/2014 12:01
Carbon Disulfide	ND	0.0050	1	11/18/2014 12:01
Carbon Tetrachloride	ND	0.0050	1	11/18/2014 12:01
Chlorobenzene	ND	0.0050	1	11/18/2014 12:01
Chloroethane	ND	0.0050	1	11/18/2014 12:01
Chloroform	ND	0.0050	1	11/18/2014 12:01
Chloromethane	ND	0.0050	1	11/18/2014 12:01
2-Chlorotoluene	ND	0.0050	1	11/18/2014 12:01
4-Chlorotoluene	ND	0.0050	1	11/18/2014 12:01
Dibromochloromethane	ND	0.0050	1	11/18/2014 12:01
1,2-Dibromo-3-chloropropane	ND	0.0040	1	11/18/2014 12:01
1,2-Dibromoethane (EDB)	ND	0.0040	1	11/18/2014 12:01
Dibromomethane	ND	0.0050	1	11/18/2014 12:01
1,2-Dichlorobenzene	ND	0.0050	1	11/18/2014 12:01
1,3-Dichlorobenzene	ND	0.0050	1	11/18/2014 12:01
1,4-Dichlorobenzene	ND	0.0050	1	11/18/2014 12:01
Dichlorodifluoromethane	ND	0.0050	1	11/18/2014 12:01
1,1-Dichloroethane	ND	0.0050	1	11/18/2014 12:01
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	11/18/2014 12:01
1,1-Dichloroethene	ND	0.0050	1	11/18/2014 12:01
cis-1,2-Dichloroethene	ND	0.0050	1	11/18/2014 12:01
trans-1,2-Dichloroethene	ND	0.0050	1	11/18/2014 12:01
1,2-Dichloropropane	ND	0.0050	1	11/18/2014 12:01
1,3-Dichloropropane	ND	0.0050	1	11/18/2014 12:01
2,2-Dichloropropane	ND	0.0050	1	11/18/2014 12:01
1,1-Dichloropropene	ND	0.0050	1	11/18/2014 12:01

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6@9'	1411565-036A	Soil	11/13/2014	GC10	97801

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.0050	1	11/18/2014 12:01
trans-1,3-Dichloropropene	ND	0.0050	1	11/18/2014 12:01
Diisopropyl ether (DIPE)	ND	0.0050	1	11/18/2014 12:01
Ethylbenzene	ND	0.0050	1	11/18/2014 12:01
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	11/18/2014 12:01
Freon 113	ND	0.10	1	11/18/2014 12:01
Hexachlorobutadiene	ND	0.0050	1	11/18/2014 12:01
Hexachloroethane	ND	0.0050	1	11/18/2014 12:01
2-Hexanone	ND	0.0050	1	11/18/2014 12:01
Isopropylbenzene	ND	0.0050	1	11/18/2014 12:01
4-Isopropyl toluene	ND	0.0050	1	11/18/2014 12:01
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	11/18/2014 12:01
Methylene chloride	ND	0.0050	1	11/18/2014 12:01
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	11/18/2014 12:01
Naphthalene	ND	0.0050	1	11/18/2014 12:01
n-Propyl benzene	ND	0.0050	1	11/18/2014 12:01
Styrene	ND	0.0050	1	11/18/2014 12:01
1,1,1,2-Tetrachloroethane	ND	0.0050	1	11/18/2014 12:01
1,1,2,2-Tetrachloroethane	ND	0.0050	1	11/18/2014 12:01
Tetrachloroethene	ND	0.0050	1	11/18/2014 12:01
Toluene	ND	0.0050	1	11/18/2014 12:01
1,2,3-Trichlorobenzene	ND	0.0050	1	11/18/2014 12:01
1,2,4-Trichlorobenzene	ND	0.0050	1	11/18/2014 12:01
1,1,1-Trichloroethane	ND	0.0050	1	11/18/2014 12:01
1,1,2-Trichloroethane	ND	0.0050	1	11/18/2014 12:01
Trichloroethene	ND	0.0050	1	11/18/2014 12:01
Trichlorofluoromethane	ND	0.0050	1	11/18/2014 12:01
1,2,3-Trichloropropane	ND	0.0050	1	11/18/2014 12:01
1,2,4-Trimethylbenzene	ND	0.0050	1	11/18/2014 12:01
1,3,5-Trimethylbenzene	ND	0.0050	1	11/18/2014 12:01
Vinyl Chloride	ND	0.0050	1	11/18/2014 12:01
Xylenes, Total	ND	0.0050	1	11/18/2014 12:01

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6@9'	1411565-036A	Soil	11/13/2014	GC10	97801

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	93	70-130		11/18/2014 12:01
Toluene-d8	105	70-130		11/18/2014 12:01
4-BFB	102	70-130		11/18/2014 12:01

**Analyst(s):** AK





## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6@19'	1411565-038A	Soil	11/13/2014	GC28	97801

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	11/20/2014 00:04
tert-Amyl methyl ether (TAME)	ND	0.0050	1	11/20/2014 00:04
Benzene	ND	0.0050	1	11/20/2014 00:04
Bromobenzene	ND	0.0050	1	11/20/2014 00:04
Bromochloromethane	ND	0.0050	1	11/20/2014 00:04
Bromodichloromethane	ND	0.0050	1	11/20/2014 00:04
Bromoform	ND	0.0050	1	11/20/2014 00:04
Bromomethane	ND	0.0050	1	11/20/2014 00:04
2-Butanone (MEK)	ND	0.020	1	11/20/2014 00:04
t-Butyl alcohol (TBA)	ND	0.050	1	11/20/2014 00:04
n-Butyl benzene	ND	0.0050	1	11/20/2014 00:04
sec-Butyl benzene	ND	0.0050	1	11/20/2014 00:04
tert-Butyl benzene	ND	0.0050	1	11/20/2014 00:04
Carbon Disulfide	ND	0.0050	1	11/20/2014 00:04
Carbon Tetrachloride	ND	0.0050	1	11/20/2014 00:04
Chlorobenzene	ND	0.0050	1	11/20/2014 00:04
Chloroethane	ND	0.0050	1	11/20/2014 00:04
Chloroform	ND	0.0050	1	11/20/2014 00:04
Chloromethane	ND	0.0050	1	11/20/2014 00:04
2-Chlorotoluene	ND	0.0050	1	11/20/2014 00:04
4-Chlorotoluene	ND	0.0050	1	11/20/2014 00:04
Dibromochloromethane	ND	0.0050	1	11/20/2014 00:04
1,2-Dibromo-3-chloropropane	ND	0.0040	1	11/20/2014 00:04
1,2-Dibromoethane (EDB)	ND	0.0040	1	11/20/2014 00:04
Dibromomethane	ND	0.0050	1	11/20/2014 00:04
1,2-Dichlorobenzene	ND	0.0050	1	11/20/2014 00:04
1,3-Dichlorobenzene	ND	0.0050	1	11/20/2014 00:04
1,4-Dichlorobenzene	ND	0.0050	1	11/20/2014 00:04
Dichlorodifluoromethane	ND	0.0050	1	11/20/2014 00:04
1,1-Dichloroethane	ND	0.0050	1	11/20/2014 00:04
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	11/20/2014 00:04
1,1-Dichloroethene	ND	0.0050	1	11/20/2014 00:04
cis-1,2-Dichloroethene	ND	0.0050	1	11/20/2014 00:04
trans-1,2-Dichloroethene	ND	0.0050	1	11/20/2014 00:04
1,2-Dichloropropane	ND	0.0050	1	11/20/2014 00:04
1,3-Dichloropropane	ND	0.0050	1	11/20/2014 00:04
2,2-Dichloropropane	ND	0.0050	1	11/20/2014 00:04
1,1-Dichloropropene	ND	0.0050	1	11/20/2014 00:04

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6@19'	1411565-038A	Soil	11/13/2014	GC28	97801

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.0050	1	11/20/2014 00:04
trans-1,3-Dichloropropene	ND	0.0050	1	11/20/2014 00:04
Diisopropyl ether (DIPE)	ND	0.0050	1	11/20/2014 00:04
Ethylbenzene	ND	0.0050	1	11/20/2014 00:04
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	11/20/2014 00:04
Freon 113	ND	0.10	1	11/20/2014 00:04
Hexachlorobutadiene	ND	0.0050	1	11/20/2014 00:04
Hexachloroethane	ND	0.0050	1	11/20/2014 00:04
2-Hexanone	ND	0.0050	1	11/20/2014 00:04
Isopropylbenzene	ND	0.0050	1	11/20/2014 00:04
4-Isopropyl toluene	ND	0.0050	1	11/20/2014 00:04
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	11/20/2014 00:04
Methylene chloride	ND	0.0050	1	11/20/2014 00:04
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	11/20/2014 00:04
Naphthalene	ND	0.0050	1	11/20/2014 00:04
n-Propyl benzene	ND	0.0050	1	11/20/2014 00:04
Styrene	ND	0.0050	1	11/20/2014 00:04
1,1,1,2-Tetrachloroethane	ND	0.0050	1	11/20/2014 00:04
1,1,2,2-Tetrachloroethane	ND	0.0050	1	11/20/2014 00:04
Tetrachloroethene	ND	0.0050	1	11/20/2014 00:04
Toluene	ND	0.0050	1	11/20/2014 00:04
1,2,3-Trichlorobenzene	ND	0.0050	1	11/20/2014 00:04
1,2,4-Trichlorobenzene	ND	0.0050	1	11/20/2014 00:04
1,1,1-Trichloroethane	ND	0.0050	1	11/20/2014 00:04
1,1,2-Trichloroethane	ND	0.0050	1	11/20/2014 00:04
Trichloroethene	ND	0.0050	1	11/20/2014 00:04
Trichlorofluoromethane	ND	0.0050	1	11/20/2014 00:04
1,2,3-Trichloropropane	ND	0.0050	1	11/20/2014 00:04
1,2,4-Trimethylbenzene	ND	0.0050	1	11/20/2014 00:04
1,3,5-Trimethylbenzene	ND	0.0050	1	11/20/2014 00:04
Vinyl Chloride	ND	0.0050	1	11/20/2014 00:04
Xylenes, Total	ND	0.0050	1	11/20/2014 00:04

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# Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW5030B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8260B

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/kg

## Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6@19'	1411565-038A	Soil	11/13/2014	GC28	97801

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	95	70-130		11/20/2014 00:04
Toluene-d8	102	70-130		11/20/2014 00:04
4-BFB	104	70-130		11/20/2014 00:04

**Analyst(s):** KBO



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6@24.5'	1411565-039A	Soil	11/13/2014	GC28	97801

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	11/20/2014 00:43
tert-Amyl methyl ether (TAME)	ND	0.0050	1	11/20/2014 00:43
Benzene	ND	0.0050	1	11/20/2014 00:43
Bromobenzene	ND	0.0050	1	11/20/2014 00:43
Bromochloromethane	ND	0.0050	1	11/20/2014 00:43
Bromodichloromethane	ND	0.0050	1	11/20/2014 00:43
Bromoform	ND	0.0050	1	11/20/2014 00:43
Bromomethane	ND	0.0050	1	11/20/2014 00:43
2-Butanone (MEK)	ND	0.020	1	11/20/2014 00:43
t-Butyl alcohol (TBA)	ND	0.050	1	11/20/2014 00:43
n-Butyl benzene	ND	0.0050	1	11/20/2014 00:43
sec-Butyl benzene	ND	0.0050	1	11/20/2014 00:43
tert-Butyl benzene	ND	0.0050	1	11/20/2014 00:43
Carbon Disulfide	ND	0.0050	1	11/20/2014 00:43
Carbon Tetrachloride	ND	0.0050	1	11/20/2014 00:43
Chlorobenzene	ND	0.0050	1	11/20/2014 00:43
Chloroethane	ND	0.0050	1	11/20/2014 00:43
Chloroform	ND	0.0050	1	11/20/2014 00:43
Chloromethane	ND	0.0050	1	11/20/2014 00:43
2-Chlorotoluene	ND	0.0050	1	11/20/2014 00:43
4-Chlorotoluene	ND	0.0050	1	11/20/2014 00:43
Dibromochloromethane	ND	0.0050	1	11/20/2014 00:43
1,2-Dibromo-3-chloropropane	ND	0.0040	1	11/20/2014 00:43
1,2-Dibromoethane (EDB)	ND	0.0040	1	11/20/2014 00:43
Dibromomethane	ND	0.0050	1	11/20/2014 00:43
1,2-Dichlorobenzene	ND	0.0050	1	11/20/2014 00:43
1,3-Dichlorobenzene	ND	0.0050	1	11/20/2014 00:43
1,4-Dichlorobenzene	ND	0.0050	1	11/20/2014 00:43
Dichlorodifluoromethane	ND	0.0050	1	11/20/2014 00:43
1,1-Dichloroethane	ND	0.0050	1	11/20/2014 00:43
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	11/20/2014 00:43
1,1-Dichloroethene	<b>0.011</b>	0.0050	1	11/20/2014 00:43
cis-1,2-Dichloroethene	ND	0.0050	1	11/20/2014 00:43
trans-1,2-Dichloroethene	ND	0.0050	1	11/20/2014 00:43
1,2-Dichloropropane	ND	0.0050	1	11/20/2014 00:43
1,3-Dichloropropane	ND	0.0050	1	11/20/2014 00:43
2,2-Dichloropropane	ND	0.0050	1	11/20/2014 00:43
1,1-Dichloropropene	ND	0.0050	1	11/20/2014 00:43

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6@24.5'	1411565-039A	Soil	11/13/2014	GC28	97801

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.0050	1	11/20/2014 00:43
trans-1,3-Dichloropropene	ND	0.0050	1	11/20/2014 00:43
Diisopropyl ether (DIPE)	ND	0.0050	1	11/20/2014 00:43
Ethylbenzene	ND	0.0050	1	11/20/2014 00:43
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	11/20/2014 00:43
Freon 113	ND	0.10	1	11/20/2014 00:43
Hexachlorobutadiene	ND	0.0050	1	11/20/2014 00:43
Hexachloroethane	ND	0.0050	1	11/20/2014 00:43
2-Hexanone	ND	0.0050	1	11/20/2014 00:43
Isopropylbenzene	ND	0.0050	1	11/20/2014 00:43
4-Isopropyl toluene	ND	0.0050	1	11/20/2014 00:43
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	11/20/2014 00:43
Methylene chloride	ND	0.0050	1	11/20/2014 00:43
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	11/20/2014 00:43
Naphthalene	ND	0.0050	1	11/20/2014 00:43
n-Propyl benzene	ND	0.0050	1	11/20/2014 00:43
Styrene	ND	0.0050	1	11/20/2014 00:43
1,1,1,2-Tetrachloroethane	ND	0.0050	1	11/20/2014 00:43
1,1,2,2-Tetrachloroethane	ND	0.0050	1	11/20/2014 00:43
Tetrachloroethene	ND	0.0050	1	11/20/2014 00:43
Toluene	ND	0.0050	1	11/20/2014 00:43
1,2,3-Trichlorobenzene	ND	0.0050	1	11/20/2014 00:43
1,2,4-Trichlorobenzene	ND	0.0050	1	11/20/2014 00:43
1,1,1-Trichloroethane	ND	0.0050	1	11/20/2014 00:43
1,1,2-Trichloroethane	ND	0.0050	1	11/20/2014 00:43
Trichloroethene	ND	0.0050	1	11/20/2014 00:43
Trichlorofluoromethane	ND	0.0050	1	11/20/2014 00:43
1,2,3-Trichloropropane	ND	0.0050	1	11/20/2014 00:43
1,2,4-Trimethylbenzene	ND	0.0050	1	11/20/2014 00:43
1,3,5-Trimethylbenzene	ND	0.0050	1	11/20/2014 00:43
Vinyl Chloride	ND	0.0050	1	11/20/2014 00:43
Xylenes, Total	ND	0.0050	1	11/20/2014 00:43

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW5030B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8260B

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6@24.5'	1411565-039A	Soil	11/13/2014	GC28	97801

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	94	70-130		11/20/2014 00:43
Toluene-d8	101	70-130		11/20/2014 00:43
4-BFB	102	70-130		11/20/2014 00:43

**Analyst(s):** KBO





# Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1@2.5'	1411565-001A	Soil	11/13/2014	GC21	97817

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.50	2	11/14/2014 21:11
Acenaphthylene	ND	0.50	2	11/14/2014 21:11
Acetochlor	ND	0.50	2	11/14/2014 21:11
Anthracene	ND	0.50	2	11/14/2014 21:11
Benzidine	ND	2.6	2	11/14/2014 21:11
Benzo (a) anthracene	ND	0.50	2	11/14/2014 21:11
Benzo (b) fluoranthene	ND	0.50	2	11/14/2014 21:11
Benzo (k) fluoranthene	ND	0.50	2	11/14/2014 21:11
Benzo (g,h,i) perylene	ND	0.50	2	11/14/2014 21:11
Benzo (a) pyrene	ND	0.50	2	11/14/2014 21:11
Benzyl Alcohol	ND	2.6	2	11/14/2014 21:11
1,1-Biphenyl	ND	0.50	2	11/14/2014 21:11
Bis (2-chloroethoxy) Methane	ND	0.50	2	11/14/2014 21:11
Bis (2-chloroethyl) Ether	ND	0.50	2	11/14/2014 21:11
Bis (2-chloroisopropyl) Ether	ND	0.50	2	11/14/2014 21:11
Bis (2-ethylhexyl) Adipate	ND	0.50	2	11/14/2014 21:11
Bis (2-ethylhexyl) Phthalate	ND	0.50	2	11/14/2014 21:11
4-Bromophenyl Phenyl Ether	ND	0.50	2	11/14/2014 21:11
Butylbenzyl Phthalate	ND	0.50	2	11/14/2014 21:11
4-Chloroaniline	ND	0.50	2	11/14/2014 21:11
4-Chloro-3-methylphenol	ND	0.50	2	11/14/2014 21:11
2-Chloronaphthalene	ND	0.50	2	11/14/2014 21:11
2-Chlorophenol	ND	0.50	2	11/14/2014 21:11
4-Chlorophenyl Phenyl Ether	ND	0.50	2	11/14/2014 21:11
Chrysene	ND	0.50	2	11/14/2014 21:11
Dibenzo (a,h) anthracene	ND	0.50	2	11/14/2014 21:11
Dibenzofuran	ND	0.50	2	11/14/2014 21:11
Di-n-butyl Phthalate	ND	0.50	2	11/14/2014 21:11
1,2-Dichlorobenzene	ND	0.50	2	11/14/2014 21:11
1,3-Dichlorobenzene	ND	0.50	2	11/14/2014 21:11
1,4-Dichlorobenzene	ND	0.50	2	11/14/2014 21:11
3,3-Dichlorobenzidine	ND	1.0	2	11/14/2014 21:11
2,4-Dichlorophenol	ND	0.50	2	11/14/2014 21:11
Diethyl Phthalate	ND	0.50	2	11/14/2014 21:11
2,4-Dimethylphenol	ND	0.50	2	11/14/2014 21:11
Dimethyl Phthalate	ND	0.50	2	11/14/2014 21:11
4,6-Dinitro-2-methylphenol	ND	2.6	2	11/14/2014 21:11
2,4-Dinitrophenol	ND	13	2	11/14/2014 21:11

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1@2.5'	1411565-001A	Soil	11/13/2014	GC21	97817

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	0.50	2	11/14/2014 21:11
2,6-Dinitrotoluene	ND	0.50	2	11/14/2014 21:11
Di-n-octyl Phthalate	ND	1.0	2	11/14/2014 21:11
1,2-Diphenylhydrazine	ND	0.50	2	11/14/2014 21:11
Fluoranthene	ND	0.50	2	11/14/2014 21:11
Fluorene	ND	0.50	2	11/14/2014 21:11
Hexachlorobenzene	ND	0.50	2	11/14/2014 21:11
Hexachlorobutadiene	ND	0.50	2	11/14/2014 21:11
Hexachlorocyclopentadiene	ND	2.6	2	11/14/2014 21:11
Hexachloroethane	ND	0.50	2	11/14/2014 21:11
Indeno (1,2,3-cd) pyrene	ND	0.50	2	11/14/2014 21:11
Isophorone	ND	0.50	2	11/14/2014 21:11
2-Methylnaphthalene	ND	0.50	2	11/14/2014 21:11
2-Methylphenol (o-Cresol)	ND	0.50	2	11/14/2014 21:11
3 &/or 4-Methylphenol (m,p-Cresol)	ND	0.50	2	11/14/2014 21:11
Naphthalene	ND	0.50	2	11/14/2014 21:11
2-Nitroaniline	ND	2.6	2	11/14/2014 21:11
3-Nitroaniline	ND	2.6	2	11/14/2014 21:11
4-Nitroaniline	ND	2.6	2	11/14/2014 21:11
Nitrobenzene	ND	0.50	2	11/14/2014 21:11
2-Nitrophenol	ND	2.6	2	11/14/2014 21:11
4-Nitrophenol	ND	2.6	2	11/14/2014 21:11
N-Nitrosodiphenylamine	ND	0.50	2	11/14/2014 21:11
N-Nitrosodi-n-propylamine	ND	0.50	2	11/14/2014 21:11
Pentachlorophenol	ND	2.6	2	11/14/2014 21:11
Phenanthrene	ND	0.50	2	11/14/2014 21:11
Phenol	ND	0.50	2	11/14/2014 21:11
Pyrene	ND	0.50	2	11/14/2014 21:11
1,2,4-Trichlorobenzene	ND	0.50	2	11/14/2014 21:11
2,4,5-Trichlorophenol	ND	0.50	2	11/14/2014 21:11
2,4,6-Trichlorophenol	ND	0.50	2	11/14/2014 21:11

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# Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW3550B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8270C

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1@2.5'	1411565-001A	Soil	11/13/2014	GC21	97817

Analytes	Result		RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	Analytical Comments: a3,c2	
2-Fluorophenol	30		30-130		11/14/2014 21:11
Phenol-d5	74		30-130		11/14/2014 21:11
Nitrobenzene-d5	72		30-130		11/14/2014 21:11
2-Fluorobiphenyl	69		30-130		11/14/2014 21:11
2,4,6-Tribromophenol	5	S	16-130		11/14/2014 21:11
4-Terphenyl-d14	73		30-130		11/14/2014 21:11

Analyst(s): HK



# Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1@10'	1411565-002A	Soil	11/13/2014	GC21	97817

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.50	2	11/14/2014 20:43
Acenaphthylene	ND	0.50	2	11/14/2014 20:43
Acetochlor	ND	0.50	2	11/14/2014 20:43
Anthracene	ND	0.50	2	11/14/2014 20:43
Benzidine	ND	2.6	2	11/14/2014 20:43
Benzo (a) anthracene	ND	0.50	2	11/14/2014 20:43
Benzo (b) fluoranthene	ND	0.50	2	11/14/2014 20:43
Benzo (k) fluoranthene	ND	0.50	2	11/14/2014 20:43
Benzo (g,h,i) perylene	ND	0.50	2	11/14/2014 20:43
Benzo (a) pyrene	ND	0.50	2	11/14/2014 20:43
Benzyl Alcohol	ND	2.6	2	11/14/2014 20:43
1,1-Biphenyl	ND	0.50	2	11/14/2014 20:43
Bis (2-chloroethoxy) Methane	ND	0.50	2	11/14/2014 20:43
Bis (2-chloroethyl) Ether	ND	0.50	2	11/14/2014 20:43
Bis (2-chloroisopropyl) Ether	ND	0.50	2	11/14/2014 20:43
Bis (2-ethylhexyl) Adipate	ND	0.50	2	11/14/2014 20:43
Bis (2-ethylhexyl) Phthalate	ND	0.50	2	11/14/2014 20:43
4-Bromophenyl Phenyl Ether	ND	0.50	2	11/14/2014 20:43
Butylbenzyl Phthalate	ND	0.50	2	11/14/2014 20:43
4-Chloroaniline	ND	0.50	2	11/14/2014 20:43
4-Chloro-3-methylphenol	ND	0.50	2	11/14/2014 20:43
2-Chloronaphthalene	ND	0.50	2	11/14/2014 20:43
2-Chlorophenol	ND	0.50	2	11/14/2014 20:43
4-Chlorophenyl Phenyl Ether	ND	0.50	2	11/14/2014 20:43
Chrysene	ND	0.50	2	11/14/2014 20:43
Dibenzo (a,h) anthracene	ND	0.50	2	11/14/2014 20:43
Dibenzofuran	ND	0.50	2	11/14/2014 20:43
Di-n-butyl Phthalate	ND	0.50	2	11/14/2014 20:43
1,2-Dichlorobenzene	ND	0.50	2	11/14/2014 20:43
1,3-Dichlorobenzene	ND	0.50	2	11/14/2014 20:43
1,4-Dichlorobenzene	ND	0.50	2	11/14/2014 20:43
3,3-Dichlorobenzidine	ND	1.0	2	11/14/2014 20:43
2,4-Dichlorophenol	ND	0.50	2	11/14/2014 20:43
Diethyl Phthalate	ND	0.50	2	11/14/2014 20:43
2,4-Dimethylphenol	ND	0.50	2	11/14/2014 20:43
Dimethyl Phthalate	ND	0.50	2	11/14/2014 20:43
4,6-Dinitro-2-methylphenol	ND	2.6	2	11/14/2014 20:43
2,4-Dinitrophenol	ND	13	2	11/14/2014 20:43

(Cont.)



# Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW3550B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8270C

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1@10'	1411565-002A	Soil	11/13/2014	GC21	97817

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	0.50	2	11/14/2014 20:43
2,6-Dinitrotoluene	ND	0.50	2	11/14/2014 20:43
Di-n-octyl Phthalate	ND	1.0	2	11/14/2014 20:43
1,2-Diphenylhydrazine	ND	0.50	2	11/14/2014 20:43
Fluoranthene	ND	0.50	2	11/14/2014 20:43
Fluorene	ND	0.50	2	11/14/2014 20:43
Hexachlorobenzene	ND	0.50	2	11/14/2014 20:43
Hexachlorobutadiene	ND	0.50	2	11/14/2014 20:43
Hexachlorocyclopentadiene	ND	2.6	2	11/14/2014 20:43
Hexachloroethane	ND	0.50	2	11/14/2014 20:43
Indeno (1,2,3-cd) pyrene	ND	0.50	2	11/14/2014 20:43
Isophorone	ND	0.50	2	11/14/2014 20:43
2-Methylnaphthalene	ND	0.50	2	11/14/2014 20:43
2-Methylphenol (o-Cresol)	ND	0.50	2	11/14/2014 20:43
3 &/or 4-Methylphenol (m,p-Cresol)	ND	0.50	2	11/14/2014 20:43
Naphthalene	ND	0.50	2	11/14/2014 20:43
2-Nitroaniline	ND	2.6	2	11/14/2014 20:43
3-Nitroaniline	ND	2.6	2	11/14/2014 20:43
4-Nitroaniline	ND	2.6	2	11/14/2014 20:43
Nitrobenzene	ND	0.50	2	11/14/2014 20:43
2-Nitrophenol	ND	2.6	2	11/14/2014 20:43
4-Nitrophenol	ND	2.6	2	11/14/2014 20:43
N-Nitrosodiphenylamine	ND	0.50	2	11/14/2014 20:43
N-Nitrosodi-n-propylamine	ND	0.50	2	11/14/2014 20:43
Pentachlorophenol	ND	2.6	2	11/14/2014 20:43
Phenanthrene	ND	0.50	2	11/14/2014 20:43
Phenol	ND	0.50	2	11/14/2014 20:43
Pyrene	ND	0.50	2	11/14/2014 20:43
1,2,4-Trichlorobenzene	ND	0.50	2	11/14/2014 20:43
2,4,5-Trichlorophenol	ND	0.50	2	11/14/2014 20:43
2,4,6-Trichlorophenol	ND	0.50	2	11/14/2014 20:43

(Cont.)



# Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW3550B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8270C

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1@10'	1411565-002A	Soil	11/13/2014	GC21	97817

Analytes	Result		RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	Analytical Comments: a3,c2	
2-Fluorophenol	37		30-130		11/14/2014 20:43
Phenol-d5	80		30-130		11/14/2014 20:43
Nitrobenzene-d5	73		30-130		11/14/2014 20:43
2-Fluorobiphenyl	76		30-130		11/14/2014 20:43
2,4,6-Tribromophenol	9	S	16-130		11/14/2014 20:43
4-Terphenyl-d14	77		30-130		11/14/2014 20:43

Analyst(s): HK





## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1@11'	1411565-003A	Soil	11/13/2014	GC21	97817

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	4.0	2	11/15/2014 02:40
Acenaphthylene	ND	4.0	2	11/15/2014 02:40
Acetochlor	ND	4.0	2	11/15/2014 02:40
Anthracene	ND	4.0	2	11/15/2014 02:40
Benzidine	ND	21	2	11/15/2014 02:40
Benzo (a) anthracene	ND	4.0	2	11/15/2014 02:40
Benzo (b) fluoranthene	ND	4.0	2	11/15/2014 02:40
Benzo (k) fluoranthene	ND	4.0	2	11/15/2014 02:40
Benzo (g,h,i) perylene	ND	4.0	2	11/15/2014 02:40
Benzo (a) pyrene	ND	4.0	2	11/15/2014 02:40
Benzyl Alcohol	ND	21	2	11/15/2014 02:40
1,1-Biphenyl	ND	4.0	2	11/15/2014 02:40
Bis (2-chloroethoxy) Methane	ND	4.0	2	11/15/2014 02:40
Bis (2-chloroethyl) Ether	ND	4.0	2	11/15/2014 02:40
Bis (2-chloroisopropyl) Ether	ND	4.0	2	11/15/2014 02:40
Bis (2-ethylhexyl) Adipate	ND	4.0	2	11/15/2014 02:40
Bis (2-ethylhexyl) Phthalate	ND	4.0	2	11/15/2014 02:40
4-Bromophenyl Phenyl Ether	ND	4.0	2	11/15/2014 02:40
Butylbenzyl Phthalate	ND	4.0	2	11/15/2014 02:40
4-Chloroaniline	ND	4.0	2	11/15/2014 02:40
4-Chloro-3-methylphenol	ND	4.0	2	11/15/2014 02:40
2-Chloronaphthalene	ND	4.0	2	11/15/2014 02:40
2-Chlorophenol	ND	4.0	2	11/15/2014 02:40
4-Chlorophenyl Phenyl Ether	ND	4.0	2	11/15/2014 02:40
Chrysene	ND	4.0	2	11/15/2014 02:40
Dibenzo (a,h) anthracene	ND	4.0	2	11/15/2014 02:40
Dibenzofuran	ND	4.0	2	11/15/2014 02:40
Di-n-butyl Phthalate	ND	4.0	2	11/15/2014 02:40
1,2-Dichlorobenzene	ND	4.0	2	11/15/2014 02:40
1,3-Dichlorobenzene	ND	4.0	2	11/15/2014 02:40
1,4-Dichlorobenzene	ND	4.0	2	11/15/2014 02:40
3,3-Dichlorobenzidine	ND	8.0	2	11/15/2014 02:40
2,4-Dichlorophenol	ND	4.0	2	11/15/2014 02:40
Diethyl Phthalate	ND	4.0	2	11/15/2014 02:40
2,4-Dimethylphenol	ND	4.0	2	11/15/2014 02:40
Dimethyl Phthalate	ND	4.0	2	11/15/2014 02:40
4,6-Dinitro-2-methylphenol	ND	21	2	11/15/2014 02:40
2,4-Dinitrophenol	ND	100	2	11/15/2014 02:40

(Cont.)



# Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1@11'	1411565-003A	Soil	11/13/2014	GC21	97817

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	4.0	2	11/15/2014 02:40
2,6-Dinitrotoluene	ND	4.0	2	11/15/2014 02:40
Di-n-octyl Phthalate	ND	8.0	2	11/15/2014 02:40
1,2-Diphenylhydrazine	ND	4.0	2	11/15/2014 02:40
Fluoranthene	ND	4.0	2	11/15/2014 02:40
Fluorene	ND	4.0	2	11/15/2014 02:40
Hexachlorobenzene	ND	4.0	2	11/15/2014 02:40
Hexachlorobutadiene	ND	4.0	2	11/15/2014 02:40
Hexachlorocyclopentadiene	ND	21	2	11/15/2014 02:40
Hexachloroethane	ND	4.0	2	11/15/2014 02:40
Indeno (1,2,3-cd) pyrene	ND	4.0	2	11/15/2014 02:40
Isophorone	ND	4.0	2	11/15/2014 02:40
2-Methylnaphthalene	11	4.0	2	11/15/2014 02:40
2-Methylphenol (o-Cresol)	ND	4.0	2	11/15/2014 02:40
3 &/or 4-Methylphenol (m,p-Cresol)	ND	4.0	2	11/15/2014 02:40
Naphthalene	ND	4.0	2	11/15/2014 02:40
2-Nitroaniline	ND	21	2	11/15/2014 02:40
3-Nitroaniline	ND	21	2	11/15/2014 02:40
4-Nitroaniline	ND	21	2	11/15/2014 02:40
Nitrobenzene	ND	4.0	2	11/15/2014 02:40
2-Nitrophenol	ND	21	2	11/15/2014 02:40
4-Nitrophenol	ND	21	2	11/15/2014 02:40
N-Nitrosodiphenylamine	ND	4.0	2	11/15/2014 02:40
N-Nitrosodi-n-propylamine	ND	4.0	2	11/15/2014 02:40
Pentachlorophenol	ND	21	2	11/15/2014 02:40
Phenanthrene	ND	4.0	2	11/15/2014 02:40
Phenol	ND	4.0	2	11/15/2014 02:40
Pyrene	ND	4.0	2	11/15/2014 02:40
1,2,4-Trichlorobenzene	ND	4.0	2	11/15/2014 02:40
2,4,5-Trichlorophenol	ND	4.0	2	11/15/2014 02:40
2,4,6-Trichlorophenol	ND	4.0	2	11/15/2014 02:40

(Cont.)



# Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW3550B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8270C

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1@11'	1411565-003A	Soil	11/13/2014	GC21	97817

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
2-Fluorophenol	94		30-130	11/15/2014 02:40
Phenol-d5	89		30-130	11/15/2014 02:40
Nitrobenzene-d5	92		30-130	11/15/2014 02:40
2-Fluorobiphenyl	89		30-130	11/15/2014 02:40
2,4,6-Tribromophenol	47		16-130	11/15/2014 02:40
4-Terphenyl-d14	84		30-130	11/15/2014 02:40

Analyst(s): HK



# Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1@22.5'	1411565-005A	Soil	11/13/2014	GC21	97817

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	10	5	11/18/2014 12:47
Acenaphthylene	ND	10	5	11/18/2014 12:47
Acetochlor	ND	10	5	11/18/2014 12:47
Anthracene	ND	10	5	11/18/2014 12:47
Benzidine	ND	52	5	11/18/2014 12:47
Benzo (a) anthracene	ND	10	5	11/18/2014 12:47
Benzo (b) fluoranthene	ND	10	5	11/18/2014 12:47
Benzo (k) fluoranthene	ND	10	5	11/18/2014 12:47
Benzo (g,h,i) perylene	ND	10	5	11/18/2014 12:47
Benzo (a) pyrene	ND	10	5	11/18/2014 12:47
Benzyl Alcohol	ND	52	5	11/18/2014 12:47
1,1-Biphenyl	ND	10	5	11/18/2014 12:47
Bis (2-chloroethoxy) Methane	ND	10	5	11/18/2014 12:47
Bis (2-chloroethyl) Ether	ND	10	5	11/18/2014 12:47
Bis (2-chloroisopropyl) Ether	ND	10	5	11/18/2014 12:47
Bis (2-ethylhexyl) Adipate	ND	10	5	11/18/2014 12:47
Bis (2-ethylhexyl) Phthalate	ND	10	5	11/18/2014 12:47
4-Bromophenyl Phenyl Ether	ND	10	5	11/18/2014 12:47
Butylbenzyl Phthalate	ND	10	5	11/18/2014 12:47
4-Chloroaniline	ND	10	5	11/18/2014 12:47
4-Chloro-3-methylphenol	ND	10	5	11/18/2014 12:47
2-Chloronaphthalene	ND	10	5	11/18/2014 12:47
2-Chlorophenol	ND	10	5	11/18/2014 12:47
4-Chlorophenyl Phenyl Ether	ND	10	5	11/18/2014 12:47
Chrysene	ND	10	5	11/18/2014 12:47
Dibenzo (a,h) anthracene	ND	10	5	11/18/2014 12:47
Dibenzofuran	ND	10	5	11/18/2014 12:47
Di-n-butyl Phthalate	ND	10	5	11/18/2014 12:47
1,2-Dichlorobenzene	ND	10	5	11/18/2014 12:47
1,3-Dichlorobenzene	ND	10	5	11/18/2014 12:47
1,4-Dichlorobenzene	ND	10	5	11/18/2014 12:47
3,3-Dichlorobenzidine	ND	20	5	11/18/2014 12:47
2,4-Dichlorophenol	ND	10	5	11/18/2014 12:47
Diethyl Phthalate	ND	10	5	11/18/2014 12:47
2,4-Dimethylphenol	ND	10	5	11/18/2014 12:47
Dimethyl Phthalate	ND	10	5	11/18/2014 12:47
4,6-Dinitro-2-methylphenol	ND	52	5	11/18/2014 12:47
2,4-Dinitrophenol	ND	250	5	11/18/2014 12:47

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# Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW3550B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8270C

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1@22.5'	1411565-005A	Soil	11/13/2014	GC21	97817

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	10	5	11/18/2014 12:47
2,6-Dinitrotoluene	ND	10	5	11/18/2014 12:47
Di-n-octyl Phthalate	ND	20	5	11/18/2014 12:47
1,2-Diphenylhydrazine	ND	10	5	11/18/2014 12:47
Fluoranthene	ND	10	5	11/18/2014 12:47
Fluorene	ND	10	5	11/18/2014 12:47
Hexachlorobenzene	ND	10	5	11/18/2014 12:47
Hexachlorobutadiene	ND	10	5	11/18/2014 12:47
Hexachlorocyclopentadiene	ND	52	5	11/18/2014 12:47
Hexachloroethane	ND	10	5	11/18/2014 12:47
Indeno (1,2,3-cd) pyrene	ND	10	5	11/18/2014 12:47
Isophorone	ND	10	5	11/18/2014 12:47
2-Methylnaphthalene	ND	10	5	11/18/2014 12:47
2-Methylphenol (o-Cresol)	ND	10	5	11/18/2014 12:47
3 &/or 4-Methylphenol (m,p-Cresol)	ND	10	5	11/18/2014 12:47
Naphthalene	ND	10	5	11/18/2014 12:47
2-Nitroaniline	ND	52	5	11/18/2014 12:47
3-Nitroaniline	ND	52	5	11/18/2014 12:47
4-Nitroaniline	ND	52	5	11/18/2014 12:47
Nitrobenzene	ND	10	5	11/18/2014 12:47
2-Nitrophenol	ND	52	5	11/18/2014 12:47
4-Nitrophenol	ND	52	5	11/18/2014 12:47
N-Nitrosodiphenylamine	ND	10	5	11/18/2014 12:47
N-Nitrosodi-n-propylamine	ND	10	5	11/18/2014 12:47
Pentachlorophenol	ND	52	5	11/18/2014 12:47
Phenanthrene	ND	10	5	11/18/2014 12:47
Phenol	ND	10	5	11/18/2014 12:47
Pyrene	ND	10	5	11/18/2014 12:47
1,2,4-Trichlorobenzene	ND	10	5	11/18/2014 12:47
2,4,5-Trichlorophenol	ND	10	5	11/18/2014 12:47
2,4,6-Trichlorophenol	ND	10	5	11/18/2014 12:47

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# Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW3550B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8270C

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1@22.5'	1411565-005A	Soil	11/13/2014	GC21	97817

Analytes	Result		RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	Analytical Comments: a3,a4,c1	
2-Fluorophenol	131	S	30-130		11/18/2014 12:47
Phenol-d5	105		30-130		11/18/2014 12:47
Nitrobenzene-d5	111		30-130		11/18/2014 12:47
2-Fluorobiphenyl	106		30-130		11/18/2014 12:47
2,4,6-Tribromophenol	0	S	16-130		11/18/2014 12:47
4-Terphenyl-d14	101		30-130		11/18/2014 12:47

Analyst(s): HK





## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2@2.5'	1411565-008A	Soil	11/13/2014	GC17	97817

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.25	1	11/17/2014 22:45
Acenaphthylene	ND	0.25	1	11/17/2014 22:45
Acetochlor	ND	0.25	1	11/17/2014 22:45
Anthracene	ND	0.25	1	11/17/2014 22:45
Benzidine	ND	1.3	1	11/17/2014 22:45
Benzo (a) anthracene	ND	0.25	1	11/17/2014 22:45
Benzo (b) fluoranthene	ND	0.25	1	11/17/2014 22:45
Benzo (k) fluoranthene	ND	0.25	1	11/17/2014 22:45
Benzo (g,h,i) perylene	ND	0.25	1	11/17/2014 22:45
Benzo (a) pyrene	ND	0.25	1	11/17/2014 22:45
Benzyl Alcohol	ND	1.3	1	11/17/2014 22:45
1,1-Biphenyl	ND	0.25	1	11/17/2014 22:45
Bis (2-chloroethoxy) Methane	ND	0.25	1	11/17/2014 22:45
Bis (2-chloroethyl) Ether	ND	0.25	1	11/17/2014 22:45
Bis (2-chloroisopropyl) Ether	ND	0.25	1	11/17/2014 22:45
Bis (2-ethylhexyl) Adipate	ND	0.25	1	11/17/2014 22:45
Bis (2-ethylhexyl) Phthalate	ND	0.25	1	11/17/2014 22:45
4-Bromophenyl Phenyl Ether	ND	0.25	1	11/17/2014 22:45
Butylbenzyl Phthalate	ND	0.25	1	11/17/2014 22:45
4-Chloroaniline	ND	0.25	1	11/17/2014 22:45
4-Chloro-3-methylphenol	ND	0.25	1	11/17/2014 22:45
2-Chloronaphthalene	ND	0.25	1	11/17/2014 22:45
2-Chlorophenol	ND	0.25	1	11/17/2014 22:45
4-Chlorophenyl Phenyl Ether	ND	0.25	1	11/17/2014 22:45
Chrysene	ND	0.25	1	11/17/2014 22:45
Dibenzo (a,h) anthracene	ND	0.25	1	11/17/2014 22:45
Dibenzofuran	ND	0.25	1	11/17/2014 22:45
Di-n-butyl Phthalate	ND	0.25	1	11/17/2014 22:45
1,2-Dichlorobenzene	ND	0.25	1	11/17/2014 22:45
1,3-Dichlorobenzene	ND	0.25	1	11/17/2014 22:45
1,4-Dichlorobenzene	ND	0.25	1	11/17/2014 22:45
3,3-Dichlorobenzidine	ND	0.50	1	11/17/2014 22:45
2,4-Dichlorophenol	ND	0.25	1	11/17/2014 22:45
Diethyl Phthalate	ND	0.25	1	11/17/2014 22:45
2,4-Dimethylphenol	ND	0.25	1	11/17/2014 22:45
Dimethyl Phthalate	ND	0.25	1	11/17/2014 22:45
4,6-Dinitro-2-methylphenol	ND	1.3	1	11/17/2014 22:45
2,4-Dinitrophenol	ND	6.3	1	11/17/2014 22:45

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# Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2@2.5'	1411565-008A	Soil	11/13/2014	GC17	97817

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	0.25	1	11/17/2014 22:45
2,6-Dinitrotoluene	ND	0.25	1	11/17/2014 22:45
Di-n-octyl Phthalate	ND	0.50	1	11/17/2014 22:45
1,2-Diphenylhydrazine	ND	0.25	1	11/17/2014 22:45
Fluoranthene	ND	0.25	1	11/17/2014 22:45
Fluorene	ND	0.25	1	11/17/2014 22:45
Hexachlorobenzene	ND	0.25	1	11/17/2014 22:45
Hexachlorobutadiene	ND	0.25	1	11/17/2014 22:45
Hexachlorocyclopentadiene	ND	1.3	1	11/17/2014 22:45
Hexachloroethane	ND	0.25	1	11/17/2014 22:45
Indeno (1,2,3-cd) pyrene	ND	0.25	1	11/17/2014 22:45
Isophorone	ND	0.25	1	11/17/2014 22:45
2-Methylnaphthalene	ND	0.25	1	11/17/2014 22:45
2-Methylphenol (o-Cresol)	ND	0.25	1	11/17/2014 22:45
3 &/or 4-Methylphenol (m,p-Cresol)	ND	0.25	1	11/17/2014 22:45
Naphthalene	ND	0.25	1	11/17/2014 22:45
2-Nitroaniline	ND	1.3	1	11/17/2014 22:45
3-Nitroaniline	ND	1.3	1	11/17/2014 22:45
4-Nitroaniline	ND	1.3	1	11/17/2014 22:45
Nitrobenzene	ND	0.25	1	11/17/2014 22:45
2-Nitrophenol	ND	1.3	1	11/17/2014 22:45
4-Nitrophenol	ND	1.3	1	11/17/2014 22:45
N-Nitrosodiphenylamine	ND	0.25	1	11/17/2014 22:45
N-Nitrosodi-n-propylamine	ND	0.25	1	11/17/2014 22:45
Pentachlorophenol	ND	1.3	1	11/17/2014 22:45
Phenanthrene	ND	0.25	1	11/17/2014 22:45
Phenol	ND	0.25	1	11/17/2014 22:45
Pyrene	ND	0.25	1	11/17/2014 22:45
1,2,4-Trichlorobenzene	ND	0.25	1	11/17/2014 22:45
2,4,5-Trichlorophenol	ND	0.25	1	11/17/2014 22:45
2,4,6-Trichlorophenol	ND	0.25	1	11/17/2014 22:45

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# Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW3550B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8270C

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2@2.5'	1411565-008A	Soil	11/13/2014	GC17	97817

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
2-Fluorophenol	85		30-130	11/17/2014 22:45
Phenol-d5	80		30-130	11/17/2014 22:45
Nitrobenzene-d5	76		30-130	11/17/2014 22:45
2-Fluorobiphenyl	77		30-130	11/17/2014 22:45
2,4,6-Tribromophenol	57		16-130	11/17/2014 22:45
4-Terphenyl-d14	84		30-130	11/17/2014 22:45

Analyst(s): HK



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2@9.5'	1411565-010A	Soil	11/13/2014	GC21	97817

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	4.0	2	11/18/2014 12:19
Acenaphthylene	ND	4.0	2	11/18/2014 12:19
Acetochlor	ND	4.0	2	11/18/2014 12:19
Anthracene	ND	4.0	2	11/18/2014 12:19
Benzidine	ND	21	2	11/18/2014 12:19
Benzo (a) anthracene	ND	4.0	2	11/18/2014 12:19
Benzo (b) fluoranthene	ND	4.0	2	11/18/2014 12:19
Benzo (k) fluoranthene	ND	4.0	2	11/18/2014 12:19
Benzo (g,h,i) perylene	ND	4.0	2	11/18/2014 12:19
Benzo (a) pyrene	ND	4.0	2	11/18/2014 12:19
Benzyl Alcohol	ND	21	2	11/18/2014 12:19
1,1-Biphenyl	ND	4.0	2	11/18/2014 12:19
Bis (2-chloroethoxy) Methane	ND	4.0	2	11/18/2014 12:19
Bis (2-chloroethyl) Ether	ND	4.0	2	11/18/2014 12:19
Bis (2-chloroisopropyl) Ether	ND	4.0	2	11/18/2014 12:19
Bis (2-ethylhexyl) Adipate	ND	4.0	2	11/18/2014 12:19
Bis (2-ethylhexyl) Phthalate	ND	4.0	2	11/18/2014 12:19
4-Bromophenyl Phenyl Ether	ND	4.0	2	11/18/2014 12:19
Butylbenzyl Phthalate	ND	4.0	2	11/18/2014 12:19
4-Chloroaniline	ND	4.0	2	11/18/2014 12:19
4-Chloro-3-methylphenol	ND	4.0	2	11/18/2014 12:19
2-Chloronaphthalene	ND	4.0	2	11/18/2014 12:19
2-Chlorophenol	ND	4.0	2	11/18/2014 12:19
4-Chlorophenyl Phenyl Ether	ND	4.0	2	11/18/2014 12:19
Chrysene	ND	4.0	2	11/18/2014 12:19
Dibenzo (a,h) anthracene	ND	4.0	2	11/18/2014 12:19
Dibenzofuran	ND	4.0	2	11/18/2014 12:19
Di-n-butyl Phthalate	ND	4.0	2	11/18/2014 12:19
1,2-Dichlorobenzene	ND	4.0	2	11/18/2014 12:19
1,3-Dichlorobenzene	ND	4.0	2	11/18/2014 12:19
1,4-Dichlorobenzene	ND	4.0	2	11/18/2014 12:19
3,3-Dichlorobenzidine	ND	8.0	2	11/18/2014 12:19
2,4-Dichlorophenol	ND	4.0	2	11/18/2014 12:19
Diethyl Phthalate	ND	4.0	2	11/18/2014 12:19
2,4-Dimethylphenol	ND	4.0	2	11/18/2014 12:19
Dimethyl Phthalate	ND	4.0	2	11/18/2014 12:19
4,6-Dinitro-2-methylphenol	ND	21	2	11/18/2014 12:19
2,4-Dinitrophenol	ND	100	2	11/18/2014 12:19

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# Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW3550B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8270C

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2@9.5'	1411565-010A	Soil	11/13/2014	GC21	97817

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	4.0	2	11/18/2014 12:19
2,6-Dinitrotoluene	ND	4.0	2	11/18/2014 12:19
Di-n-octyl Phthalate	ND	8.0	2	11/18/2014 12:19
1,2-Diphenylhydrazine	ND	4.0	2	11/18/2014 12:19
Fluoranthene	ND	4.0	2	11/18/2014 12:19
Fluorene	ND	4.0	2	11/18/2014 12:19
Hexachlorobenzene	ND	4.0	2	11/18/2014 12:19
Hexachlorobutadiene	ND	4.0	2	11/18/2014 12:19
Hexachlorocyclopentadiene	ND	21	2	11/18/2014 12:19
Hexachloroethane	ND	4.0	2	11/18/2014 12:19
Indeno (1,2,3-cd) pyrene	ND	4.0	2	11/18/2014 12:19
Isophorone	ND	4.0	2	11/18/2014 12:19
2-Methylnaphthalene	ND	4.0	2	11/18/2014 12:19
2-Methylphenol (o-Cresol)	ND	4.0	2	11/18/2014 12:19
3 &/or 4-Methylphenol (m,p-Cresol)	ND	4.0	2	11/18/2014 12:19
Naphthalene	ND	4.0	2	11/18/2014 12:19
2-Nitroaniline	ND	21	2	11/18/2014 12:19
3-Nitroaniline	ND	21	2	11/18/2014 12:19
4-Nitroaniline	ND	21	2	11/18/2014 12:19
Nitrobenzene	ND	4.0	2	11/18/2014 12:19
2-Nitrophenol	ND	21	2	11/18/2014 12:19
4-Nitrophenol	ND	21	2	11/18/2014 12:19
N-Nitrosodiphenylamine	ND	4.0	2	11/18/2014 12:19
N-Nitrosodi-n-propylamine	ND	4.0	2	11/18/2014 12:19
Pentachlorophenol	ND	21	2	11/18/2014 12:19
Phenanthrene	ND	4.0	2	11/18/2014 12:19
Phenol	ND	4.0	2	11/18/2014 12:19
Pyrene	ND	4.0	2	11/18/2014 12:19
1,2,4-Trichlorobenzene	ND	4.0	2	11/18/2014 12:19
2,4,5-Trichlorophenol	ND	4.0	2	11/18/2014 12:19
2,4,6-Trichlorophenol	ND	4.0	2	11/18/2014 12:19

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2@9.5'	1411565-010A	Soil	11/13/2014	GC21	97817

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: a3,a4	
2-Fluorophenol	120	30-130		11/18/2014 12:19
Phenol-d5	108	30-130		11/18/2014 12:19
Nitrobenzene-d5	95	30-130		11/18/2014 12:19
2-Fluorobiphenyl	94	30-130		11/18/2014 12:19
2,4,6-Tribromophenol	50	16-130		11/18/2014 12:19
4-Terphenyl-d14	93	30-130		11/18/2014 12:19

Analyst(s): HK





## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2@12.5'	1411565-011A	Soil	11/13/2014	GC21	97817

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	2.0	1	11/18/2014 11:51
Acenaphthylene	ND	2.0	1	11/18/2014 11:51
Acetochlor	ND	2.0	1	11/18/2014 11:51
Anthracene	ND	2.0	1	11/18/2014 11:51
Benzidine	ND	10	1	11/18/2014 11:51
Benzo (a) anthracene	ND	2.0	1	11/18/2014 11:51
Benzo (b) fluoranthene	ND	2.0	1	11/18/2014 11:51
Benzo (k) fluoranthene	ND	2.0	1	11/18/2014 11:51
Benzo (g,h,i) perylene	ND	2.0	1	11/18/2014 11:51
Benzo (a) pyrene	ND	2.0	1	11/18/2014 11:51
Benzyl Alcohol	ND	10	1	11/18/2014 11:51
1,1-Biphenyl	ND	2.0	1	11/18/2014 11:51
Bis (2-chloroethoxy) Methane	ND	2.0	1	11/18/2014 11:51
Bis (2-chloroethyl) Ether	ND	2.0	1	11/18/2014 11:51
Bis (2-chloroisopropyl) Ether	ND	2.0	1	11/18/2014 11:51
Bis (2-ethylhexyl) Adipate	ND	2.0	1	11/18/2014 11:51
Bis (2-ethylhexyl) Phthalate	ND	2.0	1	11/18/2014 11:51
4-Bromophenyl Phenyl Ether	ND	2.0	1	11/18/2014 11:51
Butylbenzyl Phthalate	ND	2.0	1	11/18/2014 11:51
4-Chloroaniline	ND	2.0	1	11/18/2014 11:51
4-Chloro-3-methylphenol	ND	2.0	1	11/18/2014 11:51
2-Chloronaphthalene	ND	2.0	1	11/18/2014 11:51
2-Chlorophenol	ND	2.0	1	11/18/2014 11:51
4-Chlorophenyl Phenyl Ether	ND	2.0	1	11/18/2014 11:51
Chrysene	ND	2.0	1	11/18/2014 11:51
Dibenzo (a,h) anthracene	ND	2.0	1	11/18/2014 11:51
Dibenzofuran	ND	2.0	1	11/18/2014 11:51
Di-n-butyl Phthalate	ND	2.0	1	11/18/2014 11:51
1,2-Dichlorobenzene	ND	2.0	1	11/18/2014 11:51
1,3-Dichlorobenzene	ND	2.0	1	11/18/2014 11:51
1,4-Dichlorobenzene	ND	2.0	1	11/18/2014 11:51
3,3-Dichlorobenzidine	ND	4.0	1	11/18/2014 11:51
2,4-Dichlorophenol	ND	2.0	1	11/18/2014 11:51
Diethyl Phthalate	ND	2.0	1	11/18/2014 11:51
2,4-Dimethylphenol	ND	2.0	1	11/18/2014 11:51
Dimethyl Phthalate	ND	2.0	1	11/18/2014 11:51
4,6-Dinitro-2-methylphenol	ND	10	1	11/18/2014 11:51
2,4-Dinitrophenol	ND	50	1	11/18/2014 11:51

(Cont.)



# Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW3550B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8270C

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2@12.5'	1411565-011A	Soil	11/13/2014	GC21	97817

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	2.0	1	11/18/2014 11:51
2,6-Dinitrotoluene	ND	2.0	1	11/18/2014 11:51
Di-n-octyl Phthalate	ND	4.0	1	11/18/2014 11:51
1,2-Diphenylhydrazine	ND	2.0	1	11/18/2014 11:51
Fluoranthene	ND	2.0	1	11/18/2014 11:51
Fluorene	ND	2.0	1	11/18/2014 11:51
Hexachlorobenzene	ND	2.0	1	11/18/2014 11:51
Hexachlorobutadiene	ND	2.0	1	11/18/2014 11:51
Hexachlorocyclopentadiene	ND	10	1	11/18/2014 11:51
Hexachloroethane	ND	2.0	1	11/18/2014 11:51
Indeno (1,2,3-cd) pyrene	ND	2.0	1	11/18/2014 11:51
Isophorone	ND	2.0	1	11/18/2014 11:51
2-Methylnaphthalene	ND	2.0	1	11/18/2014 11:51
2-Methylphenol (o-Cresol)	ND	2.0	1	11/18/2014 11:51
3 &/or 4-Methylphenol (m,p-Cresol)	ND	2.0	1	11/18/2014 11:51
Naphthalene	ND	2.0	1	11/18/2014 11:51
2-Nitroaniline	ND	10	1	11/18/2014 11:51
3-Nitroaniline	ND	10	1	11/18/2014 11:51
4-Nitroaniline	ND	10	1	11/18/2014 11:51
Nitrobenzene	ND	2.0	1	11/18/2014 11:51
2-Nitrophenol	ND	10	1	11/18/2014 11:51
4-Nitrophenol	ND	10	1	11/18/2014 11:51
N-Nitrosodiphenylamine	ND	2.0	1	11/18/2014 11:51
N-Nitrosodi-n-propylamine	ND	2.0	1	11/18/2014 11:51
Pentachlorophenol	ND	10	1	11/18/2014 11:51
Phenanthrene	ND	2.0	1	11/18/2014 11:51
Phenol	ND	2.0	1	11/18/2014 11:51
Pyrene	ND	2.0	1	11/18/2014 11:51
1,2,4-Trichlorobenzene	ND	2.0	1	11/18/2014 11:51
2,4,5-Trichlorophenol	ND	2.0	1	11/18/2014 11:51
2,4,6-Trichlorophenol	ND	2.0	1	11/18/2014 11:51

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2@12.5'	1411565-011A	Soil	11/13/2014	GC21	97817

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: a4	
2-Fluorophenol	104	30-130		11/18/2014 11:51
Phenol-d5	103	30-130		11/18/2014 11:51
Nitrobenzene-d5	91	30-130		11/18/2014 11:51
2-Fluorobiphenyl	91	30-130		11/18/2014 11:51
2,4,6-Tribromophenol	58	16-130		11/18/2014 11:51
4-Terphenyl-d14	93	30-130		11/18/2014 11:51

Analyst(s): HK



# Analytical Report

Client: Cook Environmental Services, Inc.

WorkOrder: 1411565

Project: #1095; Casentini

Extraction Method: SW3550B

Date Received: 11/14/14 10:51

Analytical Method: SW8270C

Date Prepared: 11/14/14-11/17/14

Unit: mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2@22'	1411565-012A	Soil	11/13/2014	GC17	97817

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	4.0	2	11/17/2014 23:12
Acenaphthylene	ND	4.0	2	11/17/2014 23:12
Acetochlor	ND	4.0	2	11/17/2014 23:12
Anthracene	ND	4.0	2	11/17/2014 23:12
Benzidine	ND	21	2	11/17/2014 23:12
Benzo (a) anthracene	ND	4.0	2	11/17/2014 23:12
Benzo (b) fluoranthene	ND	4.0	2	11/17/2014 23:12
Benzo (k) fluoranthene	ND	4.0	2	11/17/2014 23:12
Benzo (g,h,i) perylene	ND	4.0	2	11/17/2014 23:12
Benzo (a) pyrene	ND	4.0	2	11/17/2014 23:12
Benzyl Alcohol	ND	21	2	11/17/2014 23:12
1,1-Biphenyl	ND	4.0	2	11/17/2014 23:12
Bis (2-chloroethoxy) Methane	ND	4.0	2	11/17/2014 23:12
Bis (2-chloroethyl) Ether	ND	4.0	2	11/17/2014 23:12
Bis (2-chloroisopropyl) Ether	ND	4.0	2	11/17/2014 23:12
Bis (2-ethylhexyl) Adipate	ND	4.0	2	11/17/2014 23:12
Bis (2-ethylhexyl) Phthalate	ND	4.0	2	11/17/2014 23:12
4-Bromophenyl Phenyl Ether	ND	4.0	2	11/17/2014 23:12
Butylbenzyl Phthalate	ND	4.0	2	11/17/2014 23:12
4-Chloroaniline	ND	4.0	2	11/17/2014 23:12
4-Chloro-3-methylphenol	ND	4.0	2	11/17/2014 23:12
2-Chloronaphthalene	ND	4.0	2	11/17/2014 23:12
2-Chlorophenol	ND	4.0	2	11/17/2014 23:12
4-Chlorophenyl Phenyl Ether	ND	4.0	2	11/17/2014 23:12
Chrysene	ND	4.0	2	11/17/2014 23:12
Dibenzo (a,h) anthracene	ND	4.0	2	11/17/2014 23:12
Dibenzofuran	ND	4.0	2	11/17/2014 23:12
Di-n-butyl Phthalate	ND	4.0	2	11/17/2014 23:12
1,2-Dichlorobenzene	ND	4.0	2	11/17/2014 23:12
1,3-Dichlorobenzene	ND	4.0	2	11/17/2014 23:12
1,4-Dichlorobenzene	ND	4.0	2	11/17/2014 23:12
3,3-Dichlorobenzidine	ND	8.0	2	11/17/2014 23:12
2,4-Dichlorophenol	ND	4.0	2	11/17/2014 23:12
Diethyl Phthalate	ND	4.0	2	11/17/2014 23:12
2,4-Dimethylphenol	ND	4.0	2	11/17/2014 23:12
Dimethyl Phthalate	ND	4.0	2	11/17/2014 23:12
4,6-Dinitro-2-methylphenol	ND	21	2	11/17/2014 23:12
2,4-Dinitrophenol	ND	100	2	11/17/2014 23:12

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2@22'	1411565-012A	Soil	11/13/2014	GC17	97817

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	4.0	2	11/17/2014 23:12
2,6-Dinitrotoluene	ND	4.0	2	11/17/2014 23:12
Di-n-octyl Phthalate	ND	8.0	2	11/17/2014 23:12
1,2-Diphenylhydrazine	ND	4.0	2	11/17/2014 23:12
Fluoranthene	ND	4.0	2	11/17/2014 23:12
Fluorene	ND	4.0	2	11/17/2014 23:12
Hexachlorobenzene	ND	4.0	2	11/17/2014 23:12
Hexachlorobutadiene	ND	4.0	2	11/17/2014 23:12
Hexachlorocyclopentadiene	ND	21	2	11/17/2014 23:12
Hexachloroethane	ND	4.0	2	11/17/2014 23:12
Indeno (1,2,3-cd) pyrene	ND	4.0	2	11/17/2014 23:12
Isophorone	ND	4.0	2	11/17/2014 23:12
2-Methylnaphthalene	ND	4.0	2	11/17/2014 23:12
2-Methylphenol (o-Cresol)	ND	4.0	2	11/17/2014 23:12
3 &/or 4-Methylphenol (m,p-Cresol)	ND	4.0	2	11/17/2014 23:12
Naphthalene	ND	4.0	2	11/17/2014 23:12
2-Nitroaniline	ND	21	2	11/17/2014 23:12
3-Nitroaniline	ND	21	2	11/17/2014 23:12
4-Nitroaniline	ND	21	2	11/17/2014 23:12
Nitrobenzene	ND	4.0	2	11/17/2014 23:12
2-Nitrophenol	ND	21	2	11/17/2014 23:12
4-Nitrophenol	ND	21	2	11/17/2014 23:12
N-Nitrosodiphenylamine	ND	4.0	2	11/17/2014 23:12
N-Nitrosodi-n-propylamine	ND	4.0	2	11/17/2014 23:12
Pentachlorophenol	ND	21	2	11/17/2014 23:12
Phenanthrene	ND	4.0	2	11/17/2014 23:12
Phenol	ND	4.0	2	11/17/2014 23:12
Pyrene	ND	4.0	2	11/17/2014 23:12
1,2,4-Trichlorobenzene	ND	4.0	2	11/17/2014 23:12
2,4,5-Trichlorophenol	ND	4.0	2	11/17/2014 23:12
2,4,6-Trichlorophenol	ND	4.0	2	11/17/2014 23:12

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2@22'	1411565-012A	Soil	11/13/2014	GC17	97817

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: a3,a4	
2-Fluorophenol	110	30-130		11/17/2014 23:12
Phenol-d5	107	30-130		11/17/2014 23:12
Nitrobenzene-d5	107	30-130		11/17/2014 23:12
2-Fluorobiphenyl	109	30-130		11/17/2014 23:12
2,4,6-Tribromophenol	76	16-130		11/17/2014 23:12
4-Terphenyl-d14	120	30-130		11/17/2014 23:12

Analyst(s): HK





## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@2.5'	1411565-015A	Soil	11/13/2014	GC17	97817

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.25	1	11/18/2014 12:10
Acenaphthylene	ND	0.25	1	11/18/2014 12:10
Acetochlor	ND	0.25	1	11/18/2014 12:10
Anthracene	ND	0.25	1	11/18/2014 12:10
Benzidine	ND	1.3	1	11/18/2014 12:10
Benzo (a) anthracene	ND	0.25	1	11/18/2014 12:10
Benzo (b) fluoranthene	ND	0.25	1	11/18/2014 12:10
Benzo (k) fluoranthene	ND	0.25	1	11/18/2014 12:10
Benzo (g,h,i) perylene	ND	0.25	1	11/18/2014 12:10
Benzo (a) pyrene	ND	0.25	1	11/18/2014 12:10
Benzyl Alcohol	ND	1.3	1	11/18/2014 12:10
1,1-Biphenyl	ND	0.25	1	11/18/2014 12:10
Bis (2-chloroethoxy) Methane	ND	0.25	1	11/18/2014 12:10
Bis (2-chloroethyl) Ether	ND	0.25	1	11/18/2014 12:10
Bis (2-chloroisopropyl) Ether	ND	0.25	1	11/18/2014 12:10
Bis (2-ethylhexyl) Adipate	ND	0.25	1	11/18/2014 12:10
Bis (2-ethylhexyl) Phthalate	ND	0.25	1	11/18/2014 12:10
4-Bromophenyl Phenyl Ether	ND	0.25	1	11/18/2014 12:10
Butylbenzyl Phthalate	ND	0.25	1	11/18/2014 12:10
4-Chloroaniline	ND	0.25	1	11/18/2014 12:10
4-Chloro-3-methylphenol	ND	0.25	1	11/18/2014 12:10
2-Chloronaphthalene	ND	0.25	1	11/18/2014 12:10
2-Chlorophenol	ND	0.25	1	11/18/2014 12:10
4-Chlorophenyl Phenyl Ether	ND	0.25	1	11/18/2014 12:10
Chrysene	ND	0.25	1	11/18/2014 12:10
Dibenzo (a,h) anthracene	ND	0.25	1	11/18/2014 12:10
Dibenzofuran	ND	0.25	1	11/18/2014 12:10
Di-n-butyl Phthalate	ND	0.25	1	11/18/2014 12:10
1,2-Dichlorobenzene	ND	0.25	1	11/18/2014 12:10
1,3-Dichlorobenzene	ND	0.25	1	11/18/2014 12:10
1,4-Dichlorobenzene	ND	0.25	1	11/18/2014 12:10
3,3-Dichlorobenzidine	ND	0.50	1	11/18/2014 12:10
2,4-Dichlorophenol	ND	0.25	1	11/18/2014 12:10
Diethyl Phthalate	ND	0.25	1	11/18/2014 12:10
2,4-Dimethylphenol	ND	0.25	1	11/18/2014 12:10
Dimethyl Phthalate	ND	0.25	1	11/18/2014 12:10
4,6-Dinitro-2-methylphenol	ND	1.3	1	11/18/2014 12:10
2,4-Dinitrophenol	ND	6.3	1	11/18/2014 12:10

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# Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW3550B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8270C

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@2.5'	1411565-015A	Soil	11/13/2014	GC17	97817

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	0.25	1	11/18/2014 12:10
2,6-Dinitrotoluene	ND	0.25	1	11/18/2014 12:10
Di-n-octyl Phthalate	ND	0.50	1	11/18/2014 12:10
1,2-Diphenylhydrazine	ND	0.25	1	11/18/2014 12:10
Fluoranthene	ND	0.25	1	11/18/2014 12:10
Fluorene	ND	0.25	1	11/18/2014 12:10
Hexachlorobenzene	ND	0.25	1	11/18/2014 12:10
Hexachlorobutadiene	ND	0.25	1	11/18/2014 12:10
Hexachlorocyclopentadiene	ND	1.3	1	11/18/2014 12:10
Hexachloroethane	ND	0.25	1	11/18/2014 12:10
Indeno (1,2,3-cd) pyrene	ND	0.25	1	11/18/2014 12:10
Isophorone	ND	0.25	1	11/18/2014 12:10
2-Methylnaphthalene	ND	0.25	1	11/18/2014 12:10
2-Methylphenol (o-Cresol)	ND	0.25	1	11/18/2014 12:10
3 &/or 4-Methylphenol (m,p-Cresol)	ND	0.25	1	11/18/2014 12:10
Naphthalene	ND	0.25	1	11/18/2014 12:10
2-Nitroaniline	ND	1.3	1	11/18/2014 12:10
3-Nitroaniline	ND	1.3	1	11/18/2014 12:10
4-Nitroaniline	ND	1.3	1	11/18/2014 12:10
Nitrobenzene	ND	0.25	1	11/18/2014 12:10
2-Nitrophenol	ND	1.3	1	11/18/2014 12:10
4-Nitrophenol	ND	1.3	1	11/18/2014 12:10
N-Nitrosodiphenylamine	ND	0.25	1	11/18/2014 12:10
N-Nitrosodi-n-propylamine	ND	0.25	1	11/18/2014 12:10
Pentachlorophenol	ND	1.3	1	11/18/2014 12:10
Phenanthrene	ND	0.25	1	11/18/2014 12:10
Phenol	ND	0.25	1	11/18/2014 12:10
Pyrene	ND	0.25	1	11/18/2014 12:10
1,2,4-Trichlorobenzene	ND	0.25	1	11/18/2014 12:10
2,4,5-Trichlorophenol	ND	0.25	1	11/18/2014 12:10
2,4,6-Trichlorophenol	ND	0.25	1	11/18/2014 12:10

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@2.5'	1411565-015A	Soil	11/13/2014	GC17	97817

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
2-Fluorophenol	89		30-130	11/18/2014 12:10
Phenol-d5	84		30-130	11/18/2014 12:10
Nitrobenzene-d5	78		30-130	11/18/2014 12:10
2-Fluorobiphenyl	81		30-130	11/18/2014 12:10
2,4,6-Tribromophenol	64		16-130	11/18/2014 12:10
4-Terphenyl-d14	88		30-130	11/18/2014 12:10

Analyst(s): HK



# Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@9.5'	1411565-016A	Soil	11/13/2014	GC21	97817

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	100	50	11/15/2014 00:51
Acenaphthylene	ND	100	50	11/15/2014 00:51
Acetochlor	ND	100	50	11/15/2014 00:51
Anthracene	ND	100	50	11/15/2014 00:51
Benzidine	ND	520	50	11/15/2014 00:51
Benzo (a) anthracene	ND	100	50	11/15/2014 00:51
Benzo (b) fluoranthene	ND	100	50	11/15/2014 00:51
Benzo (k) fluoranthene	ND	100	50	11/15/2014 00:51
Benzo (g,h,i) perylene	ND	100	50	11/15/2014 00:51
Benzo (a) pyrene	ND	100	50	11/15/2014 00:51
Benzyl Alcohol	ND	520	50	11/15/2014 00:51
1,1-Biphenyl	ND	100	50	11/15/2014 00:51
Bis (2-chloroethoxy) Methane	ND	100	50	11/15/2014 00:51
Bis (2-chloroethyl) Ether	ND	100	50	11/15/2014 00:51
Bis (2-chloroisopropyl) Ether	ND	100	50	11/15/2014 00:51
Bis (2-ethylhexyl) Adipate	ND	100	50	11/15/2014 00:51
Bis (2-ethylhexyl) Phthalate	ND	100	50	11/15/2014 00:51
4-Bromophenyl Phenyl Ether	ND	100	50	11/15/2014 00:51
Butylbenzyl Phthalate	ND	100	50	11/15/2014 00:51
4-Chloroaniline	ND	100	50	11/15/2014 00:51
4-Chloro-3-methylphenol	ND	100	50	11/15/2014 00:51
2-Chloronaphthalene	ND	100	50	11/15/2014 00:51
2-Chlorophenol	ND	100	50	11/15/2014 00:51
4-Chlorophenyl Phenyl Ether	ND	100	50	11/15/2014 00:51
Chrysene	ND	100	50	11/15/2014 00:51
Dibenzo (a,h) anthracene	ND	100	50	11/15/2014 00:51
Dibenzofuran	ND	100	50	11/15/2014 00:51
Di-n-butyl Phthalate	ND	100	50	11/15/2014 00:51
1,2-Dichlorobenzene	ND	100	50	11/15/2014 00:51
1,3-Dichlorobenzene	ND	100	50	11/15/2014 00:51
1,4-Dichlorobenzene	ND	100	50	11/15/2014 00:51
3,3-Dichlorobenzidine	ND	200	50	11/15/2014 00:51
2,4-Dichlorophenol	ND	100	50	11/15/2014 00:51
Diethyl Phthalate	ND	100	50	11/15/2014 00:51
2,4-Dimethylphenol	ND	100	50	11/15/2014 00:51
Dimethyl Phthalate	ND	100	50	11/15/2014 00:51
4,6-Dinitro-2-methylphenol	ND	520	50	11/15/2014 00:51
2,4-Dinitrophenol	ND	2500	50	11/15/2014 00:51

(Cont.)



# Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@9.5'	1411565-016A	Soil	11/13/2014	GC21	97817

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	100	50	11/15/2014 00:51
2,6-Dinitrotoluene	ND	100	50	11/15/2014 00:51
Di-n-octyl Phthalate	ND	200	50	11/15/2014 00:51
1,2-Diphenylhydrazine	ND	100	50	11/15/2014 00:51
Fluoranthene	ND	100	50	11/15/2014 00:51
Fluorene	ND	100	50	11/15/2014 00:51
Hexachlorobenzene	ND	100	50	11/15/2014 00:51
Hexachlorobutadiene	ND	100	50	11/15/2014 00:51
Hexachlorocyclopentadiene	ND	520	50	11/15/2014 00:51
Hexachloroethane	ND	100	50	11/15/2014 00:51
Indeno (1,2,3-cd) pyrene	ND	100	50	11/15/2014 00:51
Isophorone	ND	100	50	11/15/2014 00:51
2-Methylnaphthalene	ND	100	50	11/15/2014 00:51
2-Methylphenol (o-Cresol)	ND	100	50	11/15/2014 00:51
3 &/or 4-Methylphenol (m,p-Cresol)	ND	100	50	11/15/2014 00:51
Naphthalene	ND	100	50	11/15/2014 00:51
2-Nitroaniline	ND	520	50	11/15/2014 00:51
3-Nitroaniline	ND	520	50	11/15/2014 00:51
4-Nitroaniline	ND	520	50	11/15/2014 00:51
Nitrobenzene	ND	100	50	11/15/2014 00:51
2-Nitrophenol	ND	520	50	11/15/2014 00:51
4-Nitrophenol	ND	520	50	11/15/2014 00:51
N-Nitrosodiphenylamine	ND	100	50	11/15/2014 00:51
N-Nitrosodi-n-propylamine	ND	100	50	11/15/2014 00:51
Pentachlorophenol	ND	520	50	11/15/2014 00:51
Phenanthrene	ND	100	50	11/15/2014 00:51
Phenol	ND	100	50	11/15/2014 00:51
Pyrene	ND	100	50	11/15/2014 00:51
1,2,4-Trichlorobenzene	ND	100	50	11/15/2014 00:51
2,4,5-Trichlorophenol	ND	100	50	11/15/2014 00:51
2,4,6-Trichlorophenol	ND	100	50	11/15/2014 00:51

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@9.5'	1411565-016A	Soil	11/13/2014	GC21	97817

Analytes	Result		RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	Analytical Comments: a3,a4,c1	
2-Fluorophenol	75		30-130		11/15/2014 00:51
Phenol-d5	98		30-130		11/15/2014 00:51
Nitrobenzene-d5	163	S	30-130		11/15/2014 00:51
2-Fluorobiphenyl	68		30-130		11/15/2014 00:51
2,4,6-Tribromophenol	144	S	16-130		11/15/2014 00:51
4-Terphenyl-d14	79		30-130		11/15/2014 00:51

Analyst(s): HK





# Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@17'	1411565-018A	Soil	11/13/2014	GC21	97817

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	10	5	11/18/2014 13:16
Acenaphthylene	ND	10	5	11/18/2014 13:16
Acetochlor	ND	10	5	11/18/2014 13:16
Anthracene	ND	10	5	11/18/2014 13:16
Benzidine	ND	52	5	11/18/2014 13:16
Benzo (a) anthracene	ND	10	5	11/18/2014 13:16
Benzo (b) fluoranthene	ND	10	5	11/18/2014 13:16
Benzo (k) fluoranthene	ND	10	5	11/18/2014 13:16
Benzo (g,h,i) perylene	ND	10	5	11/18/2014 13:16
Benzo (a) pyrene	ND	10	5	11/18/2014 13:16
Benzyl Alcohol	ND	52	5	11/18/2014 13:16
1,1-Biphenyl	ND	10	5	11/18/2014 13:16
Bis (2-chloroethoxy) Methane	ND	10	5	11/18/2014 13:16
Bis (2-chloroethyl) Ether	ND	10	5	11/18/2014 13:16
Bis (2-chloroisopropyl) Ether	ND	10	5	11/18/2014 13:16
Bis (2-ethylhexyl) Adipate	ND	10	5	11/18/2014 13:16
Bis (2-ethylhexyl) Phthalate	ND	10	5	11/18/2014 13:16
4-Bromophenyl Phenyl Ether	ND	10	5	11/18/2014 13:16
Butylbenzyl Phthalate	ND	10	5	11/18/2014 13:16
4-Chloroaniline	ND	10	5	11/18/2014 13:16
4-Chloro-3-methylphenol	ND	10	5	11/18/2014 13:16
2-Chloronaphthalene	ND	10	5	11/18/2014 13:16
2-Chlorophenol	ND	10	5	11/18/2014 13:16
4-Chlorophenyl Phenyl Ether	ND	10	5	11/18/2014 13:16
Chrysene	ND	10	5	11/18/2014 13:16
Dibenzo (a,h) anthracene	ND	10	5	11/18/2014 13:16
Dibenzofuran	ND	10	5	11/18/2014 13:16
Di-n-butyl Phthalate	ND	10	5	11/18/2014 13:16
1,2-Dichlorobenzene	ND	10	5	11/18/2014 13:16
1,3-Dichlorobenzene	ND	10	5	11/18/2014 13:16
1,4-Dichlorobenzene	ND	10	5	11/18/2014 13:16
3,3-Dichlorobenzidine	ND	20	5	11/18/2014 13:16
2,4-Dichlorophenol	ND	10	5	11/18/2014 13:16
Diethyl Phthalate	ND	10	5	11/18/2014 13:16
2,4-Dimethylphenol	ND	10	5	11/18/2014 13:16
Dimethyl Phthalate	ND	10	5	11/18/2014 13:16
4,6-Dinitro-2-methylphenol	ND	52	5	11/18/2014 13:16
2,4-Dinitrophenol	ND	250	5	11/18/2014 13:16

(Cont.)



# Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@17'	1411565-018A	Soil	11/13/2014	GC21	97817

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	10	5	11/18/2014 13:16
2,6-Dinitrotoluene	ND	10	5	11/18/2014 13:16
Di-n-octyl Phthalate	ND	20	5	11/18/2014 13:16
1,2-Diphenylhydrazine	ND	10	5	11/18/2014 13:16
Fluoranthene	ND	10	5	11/18/2014 13:16
Fluorene	ND	10	5	11/18/2014 13:16
Hexachlorobenzene	ND	10	5	11/18/2014 13:16
Hexachlorobutadiene	ND	10	5	11/18/2014 13:16
Hexachlorocyclopentadiene	ND	52	5	11/18/2014 13:16
Hexachloroethane	ND	10	5	11/18/2014 13:16
Indeno (1,2,3-cd) pyrene	ND	10	5	11/18/2014 13:16
Isophorone	ND	10	5	11/18/2014 13:16
2-Methylnaphthalene	ND	10	5	11/18/2014 13:16
2-Methylphenol (o-Cresol)	ND	10	5	11/18/2014 13:16
3 &/or 4-Methylphenol (m,p-Cresol)	ND	10	5	11/18/2014 13:16
Naphthalene	ND	10	5	11/18/2014 13:16
2-Nitroaniline	ND	52	5	11/18/2014 13:16
3-Nitroaniline	ND	52	5	11/18/2014 13:16
4-Nitroaniline	ND	52	5	11/18/2014 13:16
Nitrobenzene	ND	10	5	11/18/2014 13:16
2-Nitrophenol	ND	52	5	11/18/2014 13:16
4-Nitrophenol	ND	52	5	11/18/2014 13:16
N-Nitrosodiphenylamine	ND	10	5	11/18/2014 13:16
N-Nitrosodi-n-propylamine	ND	10	5	11/18/2014 13:16
Pentachlorophenol	ND	52	5	11/18/2014 13:16
Phenanthrene	ND	10	5	11/18/2014 13:16
Phenol	ND	10	5	11/18/2014 13:16
Pyrene	ND	10	5	11/18/2014 13:16
1,2,4-Trichlorobenzene	ND	10	5	11/18/2014 13:16
2,4,5-Trichlorophenol	ND	10	5	11/18/2014 13:16
2,4,6-Trichlorophenol	ND	10	5	11/18/2014 13:16

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@17'	1411565-018A	Soil	11/13/2014	GC21	97817

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: a3,a4	
2-Fluorophenol	120	30-130		11/18/2014 13:16
Phenol-d5	99	30-130		11/18/2014 13:16
Nitrobenzene-d5	119	30-130		11/18/2014 13:16
2-Fluorobiphenyl	91	30-130		11/18/2014 13:16
2,4,6-Tribromophenol	46	16-130		11/18/2014 13:16
4-Terphenyl-d14	112	30-130		11/18/2014 13:16

**Analyst(s):** HK



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@21'	1411565-019A	Soil	11/13/2014	GC21	97817

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	4.0	2	11/14/2014 23:56
Acenaphthylene	ND	4.0	2	11/14/2014 23:56
Acetochlor	ND	4.0	2	11/14/2014 23:56
Anthracene	ND	4.0	2	11/14/2014 23:56
Benzidine	ND	21	2	11/14/2014 23:56
Benzo (a) anthracene	ND	4.0	2	11/14/2014 23:56
Benzo (b) fluoranthene	ND	4.0	2	11/14/2014 23:56
Benzo (k) fluoranthene	ND	4.0	2	11/14/2014 23:56
Benzo (g,h,i) perylene	ND	4.0	2	11/14/2014 23:56
Benzo (a) pyrene	ND	4.0	2	11/14/2014 23:56
Benzyl Alcohol	ND	21	2	11/14/2014 23:56
1,1-Biphenyl	ND	4.0	2	11/14/2014 23:56
Bis (2-chloroethoxy) Methane	ND	4.0	2	11/14/2014 23:56
Bis (2-chloroethyl) Ether	ND	4.0	2	11/14/2014 23:56
Bis (2-chloroisopropyl) Ether	ND	4.0	2	11/14/2014 23:56
Bis (2-ethylhexyl) Adipate	ND	4.0	2	11/14/2014 23:56
Bis (2-ethylhexyl) Phthalate	ND	4.0	2	11/14/2014 23:56
4-Bromophenyl Phenyl Ether	ND	4.0	2	11/14/2014 23:56
Butylbenzyl Phthalate	ND	4.0	2	11/14/2014 23:56
4-Chloroaniline	ND	4.0	2	11/14/2014 23:56
4-Chloro-3-methylphenol	ND	4.0	2	11/14/2014 23:56
2-Chloronaphthalene	ND	4.0	2	11/14/2014 23:56
2-Chlorophenol	ND	4.0	2	11/14/2014 23:56
4-Chlorophenyl Phenyl Ether	ND	4.0	2	11/14/2014 23:56
Chrysene	ND	4.0	2	11/14/2014 23:56
Dibenzo (a,h) anthracene	ND	4.0	2	11/14/2014 23:56
Dibenzofuran	ND	4.0	2	11/14/2014 23:56
Di-n-butyl Phthalate	ND	4.0	2	11/14/2014 23:56
1,2-Dichlorobenzene	ND	4.0	2	11/14/2014 23:56
1,3-Dichlorobenzene	ND	4.0	2	11/14/2014 23:56
1,4-Dichlorobenzene	ND	4.0	2	11/14/2014 23:56
3,3-Dichlorobenzidine	ND	8.0	2	11/14/2014 23:56
2,4-Dichlorophenol	ND	4.0	2	11/14/2014 23:56
Diethyl Phthalate	ND	4.0	2	11/14/2014 23:56
2,4-Dimethylphenol	ND	4.0	2	11/14/2014 23:56
Dimethyl Phthalate	ND	4.0	2	11/14/2014 23:56
4,6-Dinitro-2-methylphenol	ND	21	2	11/14/2014 23:56
2,4-Dinitrophenol	ND	100	2	11/14/2014 23:56

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@21'	1411565-019A	Soil	11/13/2014	GC21	97817

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	4.0	2	11/14/2014 23:56
2,6-Dinitrotoluene	ND	4.0	2	11/14/2014 23:56
Di-n-octyl Phthalate	ND	8.0	2	11/14/2014 23:56
1,2-Diphenylhydrazine	ND	4.0	2	11/14/2014 23:56
Fluoranthene	ND	4.0	2	11/14/2014 23:56
Fluorene	ND	4.0	2	11/14/2014 23:56
Hexachlorobenzene	ND	4.0	2	11/14/2014 23:56
Hexachlorobutadiene	ND	4.0	2	11/14/2014 23:56
Hexachlorocyclopentadiene	ND	21	2	11/14/2014 23:56
Hexachloroethane	ND	4.0	2	11/14/2014 23:56
Indeno (1,2,3-cd) pyrene	ND	4.0	2	11/14/2014 23:56
Isophorone	ND	4.0	2	11/14/2014 23:56
2-Methylnaphthalene	ND	4.0	2	11/14/2014 23:56
2-Methylphenol (o-Cresol)	ND	4.0	2	11/14/2014 23:56
3 &/or 4-Methylphenol (m,p-Cresol)	ND	4.0	2	11/14/2014 23:56
Naphthalene	ND	4.0	2	11/14/2014 23:56
2-Nitroaniline	ND	21	2	11/14/2014 23:56
3-Nitroaniline	ND	21	2	11/14/2014 23:56
4-Nitroaniline	ND	21	2	11/14/2014 23:56
Nitrobenzene	ND	4.0	2	11/14/2014 23:56
2-Nitrophenol	ND	21	2	11/14/2014 23:56
4-Nitrophenol	ND	21	2	11/14/2014 23:56
N-Nitrosodiphenylamine	ND	4.0	2	11/14/2014 23:56
N-Nitrosodi-n-propylamine	ND	4.0	2	11/14/2014 23:56
Pentachlorophenol	ND	21	2	11/14/2014 23:56
Phenanthrene	ND	4.0	2	11/14/2014 23:56
Phenol	ND	4.0	2	11/14/2014 23:56
Pyrene	ND	4.0	2	11/14/2014 23:56
1,2,4-Trichlorobenzene	ND	4.0	2	11/14/2014 23:56
2,4,5-Trichlorophenol	ND	4.0	2	11/14/2014 23:56
2,4,6-Trichlorophenol	ND	4.0	2	11/14/2014 23:56

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@21'	1411565-019A	Soil	11/13/2014	GC21	97817

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: a3,a4	
2-Fluorophenol	99	30-130		11/14/2014 23:56
Phenol-d5	95	30-130		11/14/2014 23:56
Nitrobenzene-d5	85	30-130		11/14/2014 23:56
2-Fluorobiphenyl	79	30-130		11/14/2014 23:56
2,4,6-Tribromophenol	67	16-130		11/14/2014 23:56
4-Terphenyl-d14	85	30-130		11/14/2014 23:56

Analyst(s): HK





# Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@25.5'	1411565-021A	Soil	11/13/2014	GC17	97817

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.25	1	11/18/2014 11:14
Acenaphthylene	ND	0.25	1	11/18/2014 11:14
Acetochlor	ND	0.25	1	11/18/2014 11:14
Anthracene	ND	0.25	1	11/18/2014 11:14
Benzidine	ND	1.3	1	11/18/2014 11:14
Benzo (a) anthracene	ND	0.25	1	11/18/2014 11:14
Benzo (b) fluoranthene	ND	0.25	1	11/18/2014 11:14
Benzo (k) fluoranthene	ND	0.25	1	11/18/2014 11:14
Benzo (g,h,i) perylene	ND	0.25	1	11/18/2014 11:14
Benzo (a) pyrene	ND	0.25	1	11/18/2014 11:14
Benzyl Alcohol	ND	1.3	1	11/18/2014 11:14
1,1-Biphenyl	ND	0.25	1	11/18/2014 11:14
Bis (2-chloroethoxy) Methane	ND	0.25	1	11/18/2014 11:14
Bis (2-chloroethyl) Ether	ND	0.25	1	11/18/2014 11:14
Bis (2-chloroisopropyl) Ether	ND	0.25	1	11/18/2014 11:14
Bis (2-ethylhexyl) Adipate	ND	0.25	1	11/18/2014 11:14
Bis (2-ethylhexyl) Phthalate	ND	0.25	1	11/18/2014 11:14
4-Bromophenyl Phenyl Ether	ND	0.25	1	11/18/2014 11:14
Butylbenzyl Phthalate	ND	0.25	1	11/18/2014 11:14
4-Chloroaniline	ND	0.25	1	11/18/2014 11:14
4-Chloro-3-methylphenol	ND	0.25	1	11/18/2014 11:14
2-Chloronaphthalene	ND	0.25	1	11/18/2014 11:14
2-Chlorophenol	ND	0.25	1	11/18/2014 11:14
4-Chlorophenyl Phenyl Ether	ND	0.25	1	11/18/2014 11:14
Chrysene	ND	0.25	1	11/18/2014 11:14
Dibenzo (a,h) anthracene	ND	0.25	1	11/18/2014 11:14
Dibenzofuran	ND	0.25	1	11/18/2014 11:14
Di-n-butyl Phthalate	ND	0.25	1	11/18/2014 11:14
1,2-Dichlorobenzene	ND	0.25	1	11/18/2014 11:14
1,3-Dichlorobenzene	ND	0.25	1	11/18/2014 11:14
1,4-Dichlorobenzene	ND	0.25	1	11/18/2014 11:14
3,3-Dichlorobenzidine	ND	0.50	1	11/18/2014 11:14
2,4-Dichlorophenol	ND	0.25	1	11/18/2014 11:14
Diethyl Phthalate	ND	0.25	1	11/18/2014 11:14
2,4-Dimethylphenol	ND	0.25	1	11/18/2014 11:14
Dimethyl Phthalate	ND	0.25	1	11/18/2014 11:14
4,6-Dinitro-2-methylphenol	ND	1.3	1	11/18/2014 11:14
2,4-Dinitrophenol	ND	6.3	1	11/18/2014 11:14

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# Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW3550B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8270C

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@25.5'	1411565-021A	Soil	11/13/2014	GC17	97817

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	0.25	1	11/18/2014 11:14
2,6-Dinitrotoluene	ND	0.25	1	11/18/2014 11:14
Di-n-octyl Phthalate	ND	0.50	1	11/18/2014 11:14
1,2-Diphenylhydrazine	ND	0.25	1	11/18/2014 11:14
Fluoranthene	ND	0.25	1	11/18/2014 11:14
Fluorene	ND	0.25	1	11/18/2014 11:14
Hexachlorobenzene	ND	0.25	1	11/18/2014 11:14
Hexachlorobutadiene	ND	0.25	1	11/18/2014 11:14
Hexachlorocyclopentadiene	ND	1.3	1	11/18/2014 11:14
Hexachloroethane	ND	0.25	1	11/18/2014 11:14
Indeno (1,2,3-cd) pyrene	ND	0.25	1	11/18/2014 11:14
Isophorone	ND	0.25	1	11/18/2014 11:14
2-Methylnaphthalene	ND	0.25	1	11/18/2014 11:14
2-Methylphenol (o-Cresol)	ND	0.25	1	11/18/2014 11:14
3 &/or 4-Methylphenol (m,p-Cresol)	ND	0.25	1	11/18/2014 11:14
Naphthalene	ND	0.25	1	11/18/2014 11:14
2-Nitroaniline	ND	1.3	1	11/18/2014 11:14
3-Nitroaniline	ND	1.3	1	11/18/2014 11:14
4-Nitroaniline	ND	1.3	1	11/18/2014 11:14
Nitrobenzene	ND	0.25	1	11/18/2014 11:14
2-Nitrophenol	ND	1.3	1	11/18/2014 11:14
4-Nitrophenol	ND	1.3	1	11/18/2014 11:14
N-Nitrosodiphenylamine	ND	0.25	1	11/18/2014 11:14
N-Nitrosodi-n-propylamine	ND	0.25	1	11/18/2014 11:14
Pentachlorophenol	ND	1.3	1	11/18/2014 11:14
Phenanthrene	ND	0.25	1	11/18/2014 11:14
Phenol	ND	0.25	1	11/18/2014 11:14
Pyrene	ND	0.25	1	11/18/2014 11:14
1,2,4-Trichlorobenzene	ND	0.25	1	11/18/2014 11:14
2,4,5-Trichlorophenol	ND	0.25	1	11/18/2014 11:14
2,4,6-Trichlorophenol	ND	0.25	1	11/18/2014 11:14

(Cont.)



# Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW3550B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8270C

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@25.5'	1411565-021A	Soil	11/13/2014	GC17	97817

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
2-Fluorophenol	79		30-130	11/18/2014 11:14
Phenol-d5	74		30-130	11/18/2014 11:14
Nitrobenzene-d5	70		30-130	11/18/2014 11:14
2-Fluorobiphenyl	71		30-130	11/18/2014 11:14
2,4,6-Tribromophenol	55		16-130	11/18/2014 11:14
4-Terphenyl-d14	79		30-130	11/18/2014 11:14

Analyst(s): HK



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4@2'	1411565-023A	Soil	11/13/2014	GC17	97882

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.25	1	11/17/2014 22:17
Acenaphthylene	ND	0.25	1	11/17/2014 22:17
Acetochlor	ND	0.25	1	11/17/2014 22:17
Anthracene	ND	0.25	1	11/17/2014 22:17
Benzidine	ND	1.3	1	11/17/2014 22:17
Benzo (a) anthracene	ND	0.25	1	11/17/2014 22:17
Benzo (b) fluoranthene	ND	0.25	1	11/17/2014 22:17
Benzo (k) fluoranthene	ND	0.25	1	11/17/2014 22:17
Benzo (g,h,i) perylene	ND	0.25	1	11/17/2014 22:17
Benzo (a) pyrene	ND	0.25	1	11/17/2014 22:17
Benzyl Alcohol	ND	1.3	1	11/17/2014 22:17
1,1-Biphenyl	ND	0.25	1	11/17/2014 22:17
Bis (2-chloroethoxy) Methane	ND	0.25	1	11/17/2014 22:17
Bis (2-chloroethyl) Ether	ND	0.25	1	11/17/2014 22:17
Bis (2-chloroisopropyl) Ether	ND	0.25	1	11/17/2014 22:17
Bis (2-ethylhexyl) Adipate	ND	0.25	1	11/17/2014 22:17
Bis (2-ethylhexyl) Phthalate	ND	0.25	1	11/17/2014 22:17
4-Bromophenyl Phenyl Ether	ND	0.25	1	11/17/2014 22:17
Butylbenzyl Phthalate	ND	0.25	1	11/17/2014 22:17
4-Chloroaniline	ND	0.25	1	11/17/2014 22:17
4-Chloro-3-methylphenol	ND	0.25	1	11/17/2014 22:17
2-Chloronaphthalene	ND	0.25	1	11/17/2014 22:17
2-Chlorophenol	ND	0.25	1	11/17/2014 22:17
4-Chlorophenyl Phenyl Ether	ND	0.25	1	11/17/2014 22:17
Chrysene	ND	0.25	1	11/17/2014 22:17
Dibenzo (a,h) anthracene	ND	0.25	1	11/17/2014 22:17
Dibenzofuran	ND	0.25	1	11/17/2014 22:17
Di-n-butyl Phthalate	ND	0.25	1	11/17/2014 22:17
1,2-Dichlorobenzene	ND	0.25	1	11/17/2014 22:17
1,3-Dichlorobenzene	ND	0.25	1	11/17/2014 22:17
1,4-Dichlorobenzene	ND	0.25	1	11/17/2014 22:17
3,3-Dichlorobenzidine	ND	0.50	1	11/17/2014 22:17
2,4-Dichlorophenol	ND	0.25	1	11/17/2014 22:17
Diethyl Phthalate	ND	0.25	1	11/17/2014 22:17
2,4-Dimethylphenol	ND	0.25	1	11/17/2014 22:17
Dimethyl Phthalate	ND	0.25	1	11/17/2014 22:17
4,6-Dinitro-2-methylphenol	ND	1.3	1	11/17/2014 22:17
2,4-Dinitrophenol	ND	6.3	1	11/17/2014 22:17

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# Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4@2'	1411565-023A	Soil	11/13/2014	GC17	97882

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	0.25	1	11/17/2014 22:17
2,6-Dinitrotoluene	ND	0.25	1	11/17/2014 22:17
Di-n-octyl Phthalate	ND	0.50	1	11/17/2014 22:17
1,2-Diphenylhydrazine	ND	0.25	1	11/17/2014 22:17
Fluoranthene	ND	0.25	1	11/17/2014 22:17
Fluorene	ND	0.25	1	11/17/2014 22:17
Hexachlorobenzene	ND	0.25	1	11/17/2014 22:17
Hexachlorobutadiene	ND	0.25	1	11/17/2014 22:17
Hexachlorocyclopentadiene	ND	1.3	1	11/17/2014 22:17
Hexachloroethane	ND	0.25	1	11/17/2014 22:17
Indeno (1,2,3-cd) pyrene	ND	0.25	1	11/17/2014 22:17
Isophorone	ND	0.25	1	11/17/2014 22:17
2-Methylnaphthalene	ND	0.25	1	11/17/2014 22:17
2-Methylphenol (o-Cresol)	ND	0.25	1	11/17/2014 22:17
3 &/or 4-Methylphenol (m,p-Cresol)	ND	0.25	1	11/17/2014 22:17
Naphthalene	ND	0.25	1	11/17/2014 22:17
2-Nitroaniline	ND	1.3	1	11/17/2014 22:17
3-Nitroaniline	ND	1.3	1	11/17/2014 22:17
4-Nitroaniline	ND	1.3	1	11/17/2014 22:17
Nitrobenzene	ND	0.25	1	11/17/2014 22:17
2-Nitrophenol	ND	1.3	1	11/17/2014 22:17
4-Nitrophenol	ND	1.3	1	11/17/2014 22:17
N-Nitrosodiphenylamine	ND	0.25	1	11/17/2014 22:17
N-Nitrosodi-n-propylamine	ND	0.25	1	11/17/2014 22:17
Pentachlorophenol	ND	1.3	1	11/17/2014 22:17
Phenanthrene	ND	0.25	1	11/17/2014 22:17
Phenol	ND	0.25	1	11/17/2014 22:17
Pyrene	ND	0.25	1	11/17/2014 22:17
1,2,4-Trichlorobenzene	ND	0.25	1	11/17/2014 22:17
2,4,5-Trichlorophenol	ND	0.25	1	11/17/2014 22:17
2,4,6-Trichlorophenol	ND	0.25	1	11/17/2014 22:17

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# Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW3550B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8270C

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4@2'	1411565-023A	Soil	11/13/2014	GC17	97882

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
2-Fluorophenol	101		30-130	11/17/2014 22:17
Phenol-d5	98		30-130	11/17/2014 22:17
Nitrobenzene-d5	91		30-130	11/17/2014 22:17
2-Fluorobiphenyl	90		30-130	11/17/2014 22:17
2,4,6-Tribromophenol	66		16-130	11/17/2014 22:17
4-Terphenyl-d14	90		30-130	11/17/2014 22:17

Analyst(s): HK





# Analytical Report

Client: Cook Environmental Services, Inc.

WorkOrder: 1411565

Project: #1095; Casentini

Extraction Method: SW3550B

Date Received: 11/14/14 10:51

Analytical Method: SW8270C

Date Prepared: 11/14/14-11/17/14

Unit: mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4@9.5'	1411565-024A	Soil	11/13/2014	GC17	97817

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.25	1	11/18/2014 10:47
Acenaphthylene	ND	0.25	1	11/18/2014 10:47
Acetochlor	ND	0.25	1	11/18/2014 10:47
Anthracene	ND	0.25	1	11/18/2014 10:47
Benzidine	ND	1.3	1	11/18/2014 10:47
Benzo (a) anthracene	ND	0.25	1	11/18/2014 10:47
Benzo (b) fluoranthene	ND	0.25	1	11/18/2014 10:47
Benzo (k) fluoranthene	ND	0.25	1	11/18/2014 10:47
Benzo (g,h,i) perylene	ND	0.25	1	11/18/2014 10:47
Benzo (a) pyrene	ND	0.25	1	11/18/2014 10:47
Benzyl Alcohol	ND	1.3	1	11/18/2014 10:47
1,1-Biphenyl	ND	0.25	1	11/18/2014 10:47
Bis (2-chloroethoxy) Methane	ND	0.25	1	11/18/2014 10:47
Bis (2-chloroethyl) Ether	ND	0.25	1	11/18/2014 10:47
Bis (2-chloroisopropyl) Ether	ND	0.25	1	11/18/2014 10:47
Bis (2-ethylhexyl) Adipate	ND	0.25	1	11/18/2014 10:47
Bis (2-ethylhexyl) Phthalate	ND	0.25	1	11/18/2014 10:47
4-Bromophenyl Phenyl Ether	ND	0.25	1	11/18/2014 10:47
Butylbenzyl Phthalate	ND	0.25	1	11/18/2014 10:47
4-Chloroaniline	ND	0.25	1	11/18/2014 10:47
4-Chloro-3-methylphenol	ND	0.25	1	11/18/2014 10:47
2-Chloronaphthalene	ND	0.25	1	11/18/2014 10:47
2-Chlorophenol	ND	0.25	1	11/18/2014 10:47
4-Chlorophenyl Phenyl Ether	ND	0.25	1	11/18/2014 10:47
Chrysene	ND	0.25	1	11/18/2014 10:47
Dibenzo (a,h) anthracene	ND	0.25	1	11/18/2014 10:47
Dibenzofuran	ND	0.25	1	11/18/2014 10:47
Di-n-butyl Phthalate	ND	0.25	1	11/18/2014 10:47
1,2-Dichlorobenzene	ND	0.25	1	11/18/2014 10:47
1,3-Dichlorobenzene	ND	0.25	1	11/18/2014 10:47
1,4-Dichlorobenzene	ND	0.25	1	11/18/2014 10:47
3,3-Dichlorobenzidine	ND	0.50	1	11/18/2014 10:47
2,4-Dichlorophenol	ND	0.25	1	11/18/2014 10:47
Diethyl Phthalate	ND	0.25	1	11/18/2014 10:47
2,4-Dimethylphenol	ND	0.25	1	11/18/2014 10:47
Dimethyl Phthalate	ND	0.25	1	11/18/2014 10:47
4,6-Dinitro-2-methylphenol	ND	1.3	1	11/18/2014 10:47
2,4-Dinitrophenol	ND	6.3	1	11/18/2014 10:47

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# Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW3550B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8270C

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4@9.5'	1411565-024A	Soil	11/13/2014	GC17	97817

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	0.25	1	11/18/2014 10:47
2,6-Dinitrotoluene	ND	0.25	1	11/18/2014 10:47
Di-n-octyl Phthalate	ND	0.50	1	11/18/2014 10:47
1,2-Diphenylhydrazine	ND	0.25	1	11/18/2014 10:47
Fluoranthene	ND	0.25	1	11/18/2014 10:47
Fluorene	ND	0.25	1	11/18/2014 10:47
Hexachlorobenzene	ND	0.25	1	11/18/2014 10:47
Hexachlorobutadiene	ND	0.25	1	11/18/2014 10:47
Hexachlorocyclopentadiene	ND	1.3	1	11/18/2014 10:47
Hexachloroethane	ND	0.25	1	11/18/2014 10:47
Indeno (1,2,3-cd) pyrene	ND	0.25	1	11/18/2014 10:47
Isophorone	ND	0.25	1	11/18/2014 10:47
2-Methylnaphthalene	ND	0.25	1	11/18/2014 10:47
2-Methylphenol (o-Cresol)	ND	0.25	1	11/18/2014 10:47
3 &/or 4-Methylphenol (m,p-Cresol)	ND	0.25	1	11/18/2014 10:47
Naphthalene	ND	0.25	1	11/18/2014 10:47
2-Nitroaniline	ND	1.3	1	11/18/2014 10:47
3-Nitroaniline	ND	1.3	1	11/18/2014 10:47
4-Nitroaniline	ND	1.3	1	11/18/2014 10:47
Nitrobenzene	ND	0.25	1	11/18/2014 10:47
2-Nitrophenol	ND	1.3	1	11/18/2014 10:47
4-Nitrophenol	ND	1.3	1	11/18/2014 10:47
N-Nitrosodiphenylamine	ND	0.25	1	11/18/2014 10:47
N-Nitrosodi-n-propylamine	ND	0.25	1	11/18/2014 10:47
Pentachlorophenol	ND	1.3	1	11/18/2014 10:47
Phenanthrene	ND	0.25	1	11/18/2014 10:47
Phenol	ND	0.25	1	11/18/2014 10:47
Pyrene	ND	0.25	1	11/18/2014 10:47
1,2,4-Trichlorobenzene	ND	0.25	1	11/18/2014 10:47
2,4,5-Trichlorophenol	ND	0.25	1	11/18/2014 10:47
2,4,6-Trichlorophenol	ND	0.25	1	11/18/2014 10:47

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# Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW3550B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8270C

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4@9.5'	1411565-024A	Soil	11/13/2014	GC17	97817

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
2-Fluorophenol	81		30-130	11/18/2014 10:47
Phenol-d5	78		30-130	11/18/2014 10:47
Nitrobenzene-d5	72		30-130	11/18/2014 10:47
2-Fluorobiphenyl	76		30-130	11/18/2014 10:47
2,4,6-Tribromophenol	62		16-130	11/18/2014 10:47
4-Terphenyl-d14	84		30-130	11/18/2014 10:47

Analyst(s): HK



# Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW3550B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8270C

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4@14.5'	1411565-025A	Soil	11/13/2014	GC21	97817

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.25	1	11/14/2014 20:16
Acenaphthylene	ND	0.25	1	11/14/2014 20:16
Acetochlor	ND	0.25	1	11/14/2014 20:16
Anthracene	ND	0.25	1	11/14/2014 20:16
Benzidine	ND	1.3	1	11/14/2014 20:16
Benzo (a) anthracene	ND	0.25	1	11/14/2014 20:16
Benzo (b) fluoranthene	ND	0.25	1	11/14/2014 20:16
Benzo (k) fluoranthene	ND	0.25	1	11/14/2014 20:16
Benzo (g,h,i) perylene	ND	0.25	1	11/14/2014 20:16
Benzo (a) pyrene	ND	0.25	1	11/14/2014 20:16
Benzyl Alcohol	ND	1.3	1	11/14/2014 20:16
1,1-Biphenyl	ND	0.25	1	11/14/2014 20:16
Bis (2-chloroethoxy) Methane	ND	0.25	1	11/14/2014 20:16
Bis (2-chloroethyl) Ether	ND	0.25	1	11/14/2014 20:16
Bis (2-chloroisopropyl) Ether	ND	0.25	1	11/14/2014 20:16
Bis (2-ethylhexyl) Adipate	ND	0.25	1	11/14/2014 20:16
Bis (2-ethylhexyl) Phthalate	ND	0.25	1	11/14/2014 20:16
4-Bromophenyl Phenyl Ether	ND	0.25	1	11/14/2014 20:16
Butylbenzyl Phthalate	ND	0.25	1	11/14/2014 20:16
4-Chloroaniline	ND	0.25	1	11/14/2014 20:16
4-Chloro-3-methylphenol	ND	0.25	1	11/14/2014 20:16
2-Chloronaphthalene	ND	0.25	1	11/14/2014 20:16
2-Chlorophenol	ND	0.25	1	11/14/2014 20:16
4-Chlorophenyl Phenyl Ether	ND	0.25	1	11/14/2014 20:16
Chrysene	ND	0.25	1	11/14/2014 20:16
Dibenzo (a,h) anthracene	ND	0.25	1	11/14/2014 20:16
Dibenzofuran	ND	0.25	1	11/14/2014 20:16
Di-n-butyl Phthalate	ND	0.25	1	11/14/2014 20:16
1,2-Dichlorobenzene	ND	0.25	1	11/14/2014 20:16
1,3-Dichlorobenzene	ND	0.25	1	11/14/2014 20:16
1,4-Dichlorobenzene	ND	0.25	1	11/14/2014 20:16
3,3-Dichlorobenzidine	ND	0.50	1	11/14/2014 20:16
2,4-Dichlorophenol	ND	0.25	1	11/14/2014 20:16
Diethyl Phthalate	ND	0.25	1	11/14/2014 20:16
2,4-Dimethylphenol	ND	0.25	1	11/14/2014 20:16
Dimethyl Phthalate	ND	0.25	1	11/14/2014 20:16
4,6-Dinitro-2-methylphenol	ND	1.3	1	11/14/2014 20:16
2,4-Dinitrophenol	ND	6.3	1	11/14/2014 20:16

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4@14.5'	1411565-025A	Soil	11/13/2014	GC21	97817

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	0.25	1	11/14/2014 20:16
2,6-Dinitrotoluene	ND	0.25	1	11/14/2014 20:16
Di-n-octyl Phthalate	ND	0.50	1	11/14/2014 20:16
1,2-Diphenylhydrazine	ND	0.25	1	11/14/2014 20:16
Fluoranthene	ND	0.25	1	11/14/2014 20:16
Fluorene	ND	0.25	1	11/14/2014 20:16
Hexachlorobenzene	ND	0.25	1	11/14/2014 20:16
Hexachlorobutadiene	ND	0.25	1	11/14/2014 20:16
Hexachlorocyclopentadiene	ND	1.3	1	11/14/2014 20:16
Hexachloroethane	ND	0.25	1	11/14/2014 20:16
Indeno (1,2,3-cd) pyrene	ND	0.25	1	11/14/2014 20:16
Isophorone	ND	0.25	1	11/14/2014 20:16
2-Methylnaphthalene	ND	0.25	1	11/14/2014 20:16
2-Methylphenol (o-Cresol)	ND	0.25	1	11/14/2014 20:16
3 &/or 4-Methylphenol (m,p-Cresol)	ND	0.25	1	11/14/2014 20:16
Naphthalene	ND	0.25	1	11/14/2014 20:16
2-Nitroaniline	ND	1.3	1	11/14/2014 20:16
3-Nitroaniline	ND	1.3	1	11/14/2014 20:16
4-Nitroaniline	ND	1.3	1	11/14/2014 20:16
Nitrobenzene	ND	0.25	1	11/14/2014 20:16
2-Nitrophenol	ND	1.3	1	11/14/2014 20:16
4-Nitrophenol	ND	1.3	1	11/14/2014 20:16
N-Nitrosodiphenylamine	ND	0.25	1	11/14/2014 20:16
N-Nitrosodi-n-propylamine	ND	0.25	1	11/14/2014 20:16
Pentachlorophenol	ND	1.3	1	11/14/2014 20:16
Phenanthrene	ND	0.25	1	11/14/2014 20:16
Phenol	ND	0.25	1	11/14/2014 20:16
Pyrene	ND	0.25	1	11/14/2014 20:16
1,2,4-Trichlorobenzene	ND	0.25	1	11/14/2014 20:16
2,4,5-Trichlorophenol	ND	0.25	1	11/14/2014 20:16
2,4,6-Trichlorophenol	ND	0.25	1	11/14/2014 20:16

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4@14.5'	1411565-025A	Soil	11/13/2014	GC21	97817

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
2-Fluorophenol	46		30-130	11/14/2014 20:16
Phenol-d5	44		30-130	11/14/2014 20:16
Nitrobenzene-d5	39		30-130	11/14/2014 20:16
2-Fluorobiphenyl	40		30-130	11/14/2014 20:16
2,4,6-Tribromophenol	25		16-130	11/14/2014 20:16
4-Terphenyl-d14	40		30-130	11/14/2014 20:16

Analyst(s): HK





## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4@19.5'	1411565-026A	Soil	11/13/2014	GC17	97817

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.25	1	11/18/2014 10:19
Acenaphthylene	ND	0.25	1	11/18/2014 10:19
Acetochlor	ND	0.25	1	11/18/2014 10:19
Anthracene	ND	0.25	1	11/18/2014 10:19
Benzidine	ND	1.3	1	11/18/2014 10:19
Benzo (a) anthracene	ND	0.25	1	11/18/2014 10:19
Benzo (b) fluoranthene	ND	0.25	1	11/18/2014 10:19
Benzo (k) fluoranthene	ND	0.25	1	11/18/2014 10:19
Benzo (g,h,i) perylene	ND	0.25	1	11/18/2014 10:19
Benzo (a) pyrene	ND	0.25	1	11/18/2014 10:19
Benzyl Alcohol	ND	1.3	1	11/18/2014 10:19
1,1-Biphenyl	ND	0.25	1	11/18/2014 10:19
Bis (2-chloroethoxy) Methane	ND	0.25	1	11/18/2014 10:19
Bis (2-chloroethyl) Ether	ND	0.25	1	11/18/2014 10:19
Bis (2-chloroisopropyl) Ether	ND	0.25	1	11/18/2014 10:19
Bis (2-ethylhexyl) Adipate	ND	0.25	1	11/18/2014 10:19
Bis (2-ethylhexyl) Phthalate	ND	0.25	1	11/18/2014 10:19
4-Bromophenyl Phenyl Ether	ND	0.25	1	11/18/2014 10:19
Butylbenzyl Phthalate	ND	0.25	1	11/18/2014 10:19
4-Chloroaniline	ND	0.25	1	11/18/2014 10:19
4-Chloro-3-methylphenol	ND	0.25	1	11/18/2014 10:19
2-Chloronaphthalene	ND	0.25	1	11/18/2014 10:19
2-Chlorophenol	ND	0.25	1	11/18/2014 10:19
4-Chlorophenyl Phenyl Ether	ND	0.25	1	11/18/2014 10:19
Chrysene	ND	0.25	1	11/18/2014 10:19
Dibenzo (a,h) anthracene	ND	0.25	1	11/18/2014 10:19
Dibenzofuran	ND	0.25	1	11/18/2014 10:19
Di-n-butyl Phthalate	ND	0.25	1	11/18/2014 10:19
1,2-Dichlorobenzene	ND	0.25	1	11/18/2014 10:19
1,3-Dichlorobenzene	ND	0.25	1	11/18/2014 10:19
1,4-Dichlorobenzene	ND	0.25	1	11/18/2014 10:19
3,3-Dichlorobenzidine	ND	0.50	1	11/18/2014 10:19
2,4-Dichlorophenol	ND	0.25	1	11/18/2014 10:19
Diethyl Phthalate	ND	0.25	1	11/18/2014 10:19
2,4-Dimethylphenol	ND	0.25	1	11/18/2014 10:19
Dimethyl Phthalate	ND	0.25	1	11/18/2014 10:19
4,6-Dinitro-2-methylphenol	ND	1.3	1	11/18/2014 10:19
2,4-Dinitrophenol	ND	6.3	1	11/18/2014 10:19

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# Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4@19.5'	1411565-026A	Soil	11/13/2014	GC17	97817

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	0.25	1	11/18/2014 10:19
2,6-Dinitrotoluene	ND	0.25	1	11/18/2014 10:19
Di-n-octyl Phthalate	ND	0.50	1	11/18/2014 10:19
1,2-Diphenylhydrazine	ND	0.25	1	11/18/2014 10:19
Fluoranthene	ND	0.25	1	11/18/2014 10:19
Fluorene	ND	0.25	1	11/18/2014 10:19
Hexachlorobenzene	ND	0.25	1	11/18/2014 10:19
Hexachlorobutadiene	ND	0.25	1	11/18/2014 10:19
Hexachlorocyclopentadiene	ND	1.3	1	11/18/2014 10:19
Hexachloroethane	ND	0.25	1	11/18/2014 10:19
Indeno (1,2,3-cd) pyrene	ND	0.25	1	11/18/2014 10:19
Isophorone	ND	0.25	1	11/18/2014 10:19
2-Methylnaphthalene	ND	0.25	1	11/18/2014 10:19
2-Methylphenol (o-Cresol)	ND	0.25	1	11/18/2014 10:19
3 &/or 4-Methylphenol (m,p-Cresol)	ND	0.25	1	11/18/2014 10:19
Naphthalene	ND	0.25	1	11/18/2014 10:19
2-Nitroaniline	ND	1.3	1	11/18/2014 10:19
3-Nitroaniline	ND	1.3	1	11/18/2014 10:19
4-Nitroaniline	ND	1.3	1	11/18/2014 10:19
Nitrobenzene	ND	0.25	1	11/18/2014 10:19
2-Nitrophenol	ND	1.3	1	11/18/2014 10:19
4-Nitrophenol	ND	1.3	1	11/18/2014 10:19
N-Nitrosodiphenylamine	ND	0.25	1	11/18/2014 10:19
N-Nitrosodi-n-propylamine	ND	0.25	1	11/18/2014 10:19
Pentachlorophenol	ND	1.3	1	11/18/2014 10:19
Phenanthrene	ND	0.25	1	11/18/2014 10:19
Phenol	ND	0.25	1	11/18/2014 10:19
Pyrene	ND	0.25	1	11/18/2014 10:19
1,2,4-Trichlorobenzene	ND	0.25	1	11/18/2014 10:19
2,4,5-Trichlorophenol	ND	0.25	1	11/18/2014 10:19
2,4,6-Trichlorophenol	ND	0.25	1	11/18/2014 10:19

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4@19.5'	1411565-026A	Soil	11/13/2014	GC17	97817

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
2-Fluorophenol	102		30-130	11/18/2014 10:19
Phenol-d5	95		30-130	11/18/2014 10:19
Nitrobenzene-d5	90		30-130	11/18/2014 10:19
2-Fluorobiphenyl	89		30-130	11/18/2014 10:19
2,4,6-Tribromophenol	73		16-130	11/18/2014 10:19
4-Terphenyl-d14	95		30-130	11/18/2014 10:19

Analyst(s): HK



# Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5@2'	1411565-029A	Soil	11/13/2014	GC17	97882

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.25	1	11/17/2014 20:27
Acenaphthylene	ND	0.25	1	11/17/2014 20:27
Acetochlor	ND	0.25	1	11/17/2014 20:27
Anthracene	ND	0.25	1	11/17/2014 20:27
Benzidine	ND	1.3	1	11/17/2014 20:27
Benzo (a) anthracene	ND	0.25	1	11/17/2014 20:27
Benzo (b) fluoranthene	ND	0.25	1	11/17/2014 20:27
Benzo (k) fluoranthene	ND	0.25	1	11/17/2014 20:27
Benzo (g,h,i) perylene	ND	0.25	1	11/17/2014 20:27
Benzo (a) pyrene	ND	0.25	1	11/17/2014 20:27
Benzyl Alcohol	ND	1.3	1	11/17/2014 20:27
1,1-Biphenyl	ND	0.25	1	11/17/2014 20:27
Bis (2-chloroethoxy) Methane	ND	0.25	1	11/17/2014 20:27
Bis (2-chloroethyl) Ether	ND	0.25	1	11/17/2014 20:27
Bis (2-chloroisopropyl) Ether	ND	0.25	1	11/17/2014 20:27
Bis (2-ethylhexyl) Adipate	ND	0.25	1	11/17/2014 20:27
Bis (2-ethylhexyl) Phthalate	ND	0.25	1	11/17/2014 20:27
4-Bromophenyl Phenyl Ether	ND	0.25	1	11/17/2014 20:27
Butylbenzyl Phthalate	ND	0.25	1	11/17/2014 20:27
4-Chloroaniline	ND	0.25	1	11/17/2014 20:27
4-Chloro-3-methylphenol	ND	0.25	1	11/17/2014 20:27
2-Chloronaphthalene	ND	0.25	1	11/17/2014 20:27
2-Chlorophenol	ND	0.25	1	11/17/2014 20:27
4-Chlorophenyl Phenyl Ether	ND	0.25	1	11/17/2014 20:27
Chrysene	ND	0.25	1	11/17/2014 20:27
Dibenzo (a,h) anthracene	ND	0.25	1	11/17/2014 20:27
Dibenzofuran	ND	0.25	1	11/17/2014 20:27
Di-n-butyl Phthalate	ND	0.25	1	11/17/2014 20:27
1,2-Dichlorobenzene	ND	0.25	1	11/17/2014 20:27
1,3-Dichlorobenzene	ND	0.25	1	11/17/2014 20:27
1,4-Dichlorobenzene	ND	0.25	1	11/17/2014 20:27
3,3-Dichlorobenzidine	ND	0.50	1	11/17/2014 20:27
2,4-Dichlorophenol	ND	0.25	1	11/17/2014 20:27
Diethyl Phthalate	ND	0.25	1	11/17/2014 20:27
2,4-Dimethylphenol	ND	0.25	1	11/17/2014 20:27
Dimethyl Phthalate	ND	0.25	1	11/17/2014 20:27
4,6-Dinitro-2-methylphenol	ND	1.3	1	11/17/2014 20:27
2,4-Dinitrophenol	ND	6.3	1	11/17/2014 20:27

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# Analytical Report

Client: Cook Environmental Services, Inc.

WorkOrder: 1411565

Project: #1095; Casentini

Extraction Method: SW3550B

Date Received: 11/14/14 10:51

Analytical Method: SW8270C

Date Prepared: 11/14/14-11/17/14

Unit: mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5@2'	1411565-029A	Soil	11/13/2014	GC17	97882

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	0.25	1	11/17/2014 20:27
2,6-Dinitrotoluene	ND	0.25	1	11/17/2014 20:27
Di-n-octyl Phthalate	ND	0.50	1	11/17/2014 20:27
1,2-Diphenylhydrazine	ND	0.25	1	11/17/2014 20:27
Fluoranthene	ND	0.25	1	11/17/2014 20:27
Fluorene	ND	0.25	1	11/17/2014 20:27
Hexachlorobenzene	ND	0.25	1	11/17/2014 20:27
Hexachlorobutadiene	ND	0.25	1	11/17/2014 20:27
Hexachlorocyclopentadiene	ND	1.3	1	11/17/2014 20:27
Hexachloroethane	ND	0.25	1	11/17/2014 20:27
Indeno (1,2,3-cd) pyrene	ND	0.25	1	11/17/2014 20:27
Isophorone	ND	0.25	1	11/17/2014 20:27
2-Methylnaphthalene	ND	0.25	1	11/17/2014 20:27
2-Methylphenol (o-Cresol)	ND	0.25	1	11/17/2014 20:27
3 &/or 4-Methylphenol (m,p-Cresol)	ND	0.25	1	11/17/2014 20:27
Naphthalene	ND	0.25	1	11/17/2014 20:27
2-Nitroaniline	ND	1.3	1	11/17/2014 20:27
3-Nitroaniline	ND	1.3	1	11/17/2014 20:27
4-Nitroaniline	ND	1.3	1	11/17/2014 20:27
Nitrobenzene	ND	0.25	1	11/17/2014 20:27
2-Nitrophenol	ND	1.3	1	11/17/2014 20:27
4-Nitrophenol	ND	1.3	1	11/17/2014 20:27
N-Nitrosodiphenylamine	ND	0.25	1	11/17/2014 20:27
N-Nitrosodi-n-propylamine	ND	0.25	1	11/17/2014 20:27
Pentachlorophenol	ND	1.3	1	11/17/2014 20:27
Phenanthrene	ND	0.25	1	11/17/2014 20:27
Phenol	ND	0.25	1	11/17/2014 20:27
Pyrene	ND	0.25	1	11/17/2014 20:27
1,2,4-Trichlorobenzene	ND	0.25	1	11/17/2014 20:27
2,4,5-Trichlorophenol	ND	0.25	1	11/17/2014 20:27
2,4,6-Trichlorophenol	ND	0.25	1	11/17/2014 20:27

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5@2'	1411565-029A	Soil	11/13/2014	GC17	97882

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
2-Fluorophenol	88		30-130	11/17/2014 20:27
Phenol-d5	83		30-130	11/17/2014 20:27
Nitrobenzene-d5	79		30-130	11/17/2014 20:27
2-Fluorobiphenyl	83		30-130	11/17/2014 20:27
2,4,6-Tribromophenol	63		16-130	11/17/2014 20:27
4-Terphenyl-d14	82		30-130	11/17/2014 20:27

Analyst(s): HK





# Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5@9.5'	1411565-030A	Soil	11/13/2014	GC17	97882

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.25	1	11/17/2014 21:50
Acenaphthylene	ND	0.25	1	11/17/2014 21:50
Acetochlor	ND	0.25	1	11/17/2014 21:50
Anthracene	ND	0.25	1	11/17/2014 21:50
Benzidine	ND	1.3	1	11/17/2014 21:50
Benzo (a) anthracene	ND	0.25	1	11/17/2014 21:50
Benzo (b) fluoranthene	ND	0.25	1	11/17/2014 21:50
Benzo (k) fluoranthene	ND	0.25	1	11/17/2014 21:50
Benzo (g,h,i) perylene	ND	0.25	1	11/17/2014 21:50
Benzo (a) pyrene	ND	0.25	1	11/17/2014 21:50
Benzyl Alcohol	ND	1.3	1	11/17/2014 21:50
1,1-Biphenyl	ND	0.25	1	11/17/2014 21:50
Bis (2-chloroethoxy) Methane	ND	0.25	1	11/17/2014 21:50
Bis (2-chloroethyl) Ether	ND	0.25	1	11/17/2014 21:50
Bis (2-chloroisopropyl) Ether	ND	0.25	1	11/17/2014 21:50
Bis (2-ethylhexyl) Adipate	ND	0.25	1	11/17/2014 21:50
Bis (2-ethylhexyl) Phthalate	ND	0.25	1	11/17/2014 21:50
4-Bromophenyl Phenyl Ether	ND	0.25	1	11/17/2014 21:50
Butylbenzyl Phthalate	ND	0.25	1	11/17/2014 21:50
4-Chloroaniline	ND	0.25	1	11/17/2014 21:50
4-Chloro-3-methylphenol	ND	0.25	1	11/17/2014 21:50
2-Chloronaphthalene	ND	0.25	1	11/17/2014 21:50
2-Chlorophenol	ND	0.25	1	11/17/2014 21:50
4-Chlorophenyl Phenyl Ether	ND	0.25	1	11/17/2014 21:50
Chrysene	ND	0.25	1	11/17/2014 21:50
Dibenzo (a,h) anthracene	ND	0.25	1	11/17/2014 21:50
Dibenzofuran	ND	0.25	1	11/17/2014 21:50
Di-n-butyl Phthalate	ND	0.25	1	11/17/2014 21:50
1,2-Dichlorobenzene	ND	0.25	1	11/17/2014 21:50
1,3-Dichlorobenzene	ND	0.25	1	11/17/2014 21:50
1,4-Dichlorobenzene	ND	0.25	1	11/17/2014 21:50
3,3-Dichlorobenzidine	ND	0.50	1	11/17/2014 21:50
2,4-Dichlorophenol	ND	0.25	1	11/17/2014 21:50
Diethyl Phthalate	ND	0.25	1	11/17/2014 21:50
2,4-Dimethylphenol	ND	0.25	1	11/17/2014 21:50
Dimethyl Phthalate	ND	0.25	1	11/17/2014 21:50
4,6-Dinitro-2-methylphenol	ND	1.3	1	11/17/2014 21:50
2,4-Dinitrophenol	ND	6.3	1	11/17/2014 21:50

(Cont.)



# Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5@9.5'	1411565-030A	Soil	11/13/2014	GC17	97882

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	0.25	1	11/17/2014 21:50
2,6-Dinitrotoluene	ND	0.25	1	11/17/2014 21:50
Di-n-octyl Phthalate	ND	0.50	1	11/17/2014 21:50
1,2-Diphenylhydrazine	ND	0.25	1	11/17/2014 21:50
Fluoranthene	ND	0.25	1	11/17/2014 21:50
Fluorene	ND	0.25	1	11/17/2014 21:50
Hexachlorobenzene	ND	0.25	1	11/17/2014 21:50
Hexachlorobutadiene	ND	0.25	1	11/17/2014 21:50
Hexachlorocyclopentadiene	ND	1.3	1	11/17/2014 21:50
Hexachloroethane	ND	0.25	1	11/17/2014 21:50
Indeno (1,2,3-cd) pyrene	ND	0.25	1	11/17/2014 21:50
Isophorone	ND	0.25	1	11/17/2014 21:50
2-Methylnaphthalene	ND	0.25	1	11/17/2014 21:50
2-Methylphenol (o-Cresol)	ND	0.25	1	11/17/2014 21:50
3 &/or 4-Methylphenol (m,p-Cresol)	ND	0.25	1	11/17/2014 21:50
Naphthalene	ND	0.25	1	11/17/2014 21:50
2-Nitroaniline	ND	1.3	1	11/17/2014 21:50
3-Nitroaniline	ND	1.3	1	11/17/2014 21:50
4-Nitroaniline	ND	1.3	1	11/17/2014 21:50
Nitrobenzene	ND	0.25	1	11/17/2014 21:50
2-Nitrophenol	ND	1.3	1	11/17/2014 21:50
4-Nitrophenol	ND	1.3	1	11/17/2014 21:50
N-Nitrosodiphenylamine	ND	0.25	1	11/17/2014 21:50
N-Nitrosodi-n-propylamine	ND	0.25	1	11/17/2014 21:50
Pentachlorophenol	ND	1.3	1	11/17/2014 21:50
Phenanthrene	ND	0.25	1	11/17/2014 21:50
Phenol	ND	0.25	1	11/17/2014 21:50
Pyrene	ND	0.25	1	11/17/2014 21:50
1,2,4-Trichlorobenzene	ND	0.25	1	11/17/2014 21:50
2,4,5-Trichlorophenol	ND	0.25	1	11/17/2014 21:50
2,4,6-Trichlorophenol	ND	0.25	1	11/17/2014 21:50

(Cont.)



# Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW3550B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8270C

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5@9.5'	1411565-030A	Soil	11/13/2014	GC17	97882

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
2-Fluorophenol	86		30-130	11/17/2014 21:50
Phenol-d5	81		30-130	11/17/2014 21:50
Nitrobenzene-d5	77		30-130	11/17/2014 21:50
2-Fluorobiphenyl	74		30-130	11/17/2014 21:50
2,4,6-Tribromophenol	55		16-130	11/17/2014 21:50
4-Terphenyl-d14	78		30-130	11/17/2014 21:50

Analyst(s): HK



# Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5@14'	1411565-031A	Soil	11/13/2014	GC21	97882

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	4.0	2	11/18/2014 13:44
Acenaphthylene	ND	4.0	2	11/18/2014 13:44
Acetochlor	ND	4.0	2	11/18/2014 13:44
Anthracene	ND	4.0	2	11/18/2014 13:44
Benzidine	ND	21	2	11/18/2014 13:44
Benzo (a) anthracene	ND	4.0	2	11/18/2014 13:44
Benzo (b) fluoranthene	ND	4.0	2	11/18/2014 13:44
Benzo (k) fluoranthene	ND	4.0	2	11/18/2014 13:44
Benzo (g,h,i) perylene	ND	4.0	2	11/18/2014 13:44
Benzo (a) pyrene	ND	4.0	2	11/18/2014 13:44
Benzyl Alcohol	ND	21	2	11/18/2014 13:44
1,1-Biphenyl	ND	4.0	2	11/18/2014 13:44
Bis (2-chloroethoxy) Methane	ND	4.0	2	11/18/2014 13:44
Bis (2-chloroethyl) Ether	ND	4.0	2	11/18/2014 13:44
Bis (2-chloroisopropyl) Ether	ND	4.0	2	11/18/2014 13:44
Bis (2-ethylhexyl) Adipate	ND	4.0	2	11/18/2014 13:44
Bis (2-ethylhexyl) Phthalate	ND	4.0	2	11/18/2014 13:44
4-Bromophenyl Phenyl Ether	ND	4.0	2	11/18/2014 13:44
Butylbenzyl Phthalate	ND	4.0	2	11/18/2014 13:44
4-Chloroaniline	ND	4.0	2	11/18/2014 13:44
4-Chloro-3-methylphenol	ND	4.0	2	11/18/2014 13:44
2-Chloronaphthalene	ND	4.0	2	11/18/2014 13:44
2-Chlorophenol	ND	4.0	2	11/18/2014 13:44
4-Chlorophenyl Phenyl Ether	ND	4.0	2	11/18/2014 13:44
Chrysene	ND	4.0	2	11/18/2014 13:44
Dibenzo (a,h) anthracene	ND	4.0	2	11/18/2014 13:44
Dibenzofuran	ND	4.0	2	11/18/2014 13:44
Di-n-butyl Phthalate	ND	4.0	2	11/18/2014 13:44
1,2-Dichlorobenzene	ND	4.0	2	11/18/2014 13:44
1,3-Dichlorobenzene	ND	4.0	2	11/18/2014 13:44
1,4-Dichlorobenzene	ND	4.0	2	11/18/2014 13:44
3,3-Dichlorobenzidine	ND	8.0	2	11/18/2014 13:44
2,4-Dichlorophenol	ND	4.0	2	11/18/2014 13:44
Diethyl Phthalate	ND	4.0	2	11/18/2014 13:44
2,4-Dimethylphenol	ND	4.0	2	11/18/2014 13:44
Dimethyl Phthalate	ND	4.0	2	11/18/2014 13:44
4,6-Dinitro-2-methylphenol	ND	21	2	11/18/2014 13:44
2,4-Dinitrophenol	ND	100	2	11/18/2014 13:44

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5@14'	1411565-031A	Soil	11/13/2014	GC21	97882

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	4.0	2	11/18/2014 13:44
2,6-Dinitrotoluene	ND	4.0	2	11/18/2014 13:44
Di-n-octyl Phthalate	ND	8.0	2	11/18/2014 13:44
1,2-Diphenylhydrazine	ND	4.0	2	11/18/2014 13:44
Fluoranthene	ND	4.0	2	11/18/2014 13:44
Fluorene	ND	4.0	2	11/18/2014 13:44
Hexachlorobenzene	ND	4.0	2	11/18/2014 13:44
Hexachlorobutadiene	ND	4.0	2	11/18/2014 13:44
Hexachlorocyclopentadiene	ND	21	2	11/18/2014 13:44
Hexachloroethane	ND	4.0	2	11/18/2014 13:44
Indeno (1,2,3-cd) pyrene	ND	4.0	2	11/18/2014 13:44
Isophorone	ND	4.0	2	11/18/2014 13:44
2-Methylnaphthalene	ND	4.0	2	11/18/2014 13:44
2-Methylphenol (o-Cresol)	ND	4.0	2	11/18/2014 13:44
3 &/or 4-Methylphenol (m,p-Cresol)	ND	4.0	2	11/18/2014 13:44
Naphthalene	ND	4.0	2	11/18/2014 13:44
2-Nitroaniline	ND	21	2	11/18/2014 13:44
3-Nitroaniline	ND	21	2	11/18/2014 13:44
4-Nitroaniline	ND	21	2	11/18/2014 13:44
Nitrobenzene	ND	4.0	2	11/18/2014 13:44
2-Nitrophenol	ND	21	2	11/18/2014 13:44
4-Nitrophenol	ND	21	2	11/18/2014 13:44
N-Nitrosodiphenylamine	ND	4.0	2	11/18/2014 13:44
N-Nitrosodi-n-propylamine	ND	4.0	2	11/18/2014 13:44
Pentachlorophenol	ND	21	2	11/18/2014 13:44
Phenanthrene	ND	4.0	2	11/18/2014 13:44
Phenol	ND	4.0	2	11/18/2014 13:44
Pyrene	ND	4.0	2	11/18/2014 13:44
1,2,4-Trichlorobenzene	ND	4.0	2	11/18/2014 13:44
2,4,5-Trichlorophenol	ND	4.0	2	11/18/2014 13:44
2,4,6-Trichlorophenol	ND	4.0	2	11/18/2014 13:44

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5@14'	1411565-031A	Soil	11/13/2014	GC21	97882

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: a3,a4	
2-Fluorophenol	96	30-130		11/18/2014 13:44
Phenol-d5	101	30-130		11/18/2014 13:44
Nitrobenzene-d5	81	30-130		11/18/2014 13:44
2-Fluorobiphenyl	87	30-130		11/18/2014 13:44
2,4,6-Tribromophenol	64	16-130		11/18/2014 13:44
4-Terphenyl-d14	95	30-130		11/18/2014 13:44

Analyst(s): HK



# Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5@18'	1411565-032A	Soil	11/13/2014	GC17	97817

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.25	1	11/18/2014 11:42
Acenaphthylene	ND	0.25	1	11/18/2014 11:42
Acetochlor	ND	0.25	1	11/18/2014 11:42
Anthracene	ND	0.25	1	11/18/2014 11:42
Benzidine	ND	1.3	1	11/18/2014 11:42
Benzo (a) anthracene	ND	0.25	1	11/18/2014 11:42
Benzo (b) fluoranthene	ND	0.25	1	11/18/2014 11:42
Benzo (k) fluoranthene	ND	0.25	1	11/18/2014 11:42
Benzo (g,h,i) perylene	ND	0.25	1	11/18/2014 11:42
Benzo (a) pyrene	ND	0.25	1	11/18/2014 11:42
Benzyl Alcohol	ND	1.3	1	11/18/2014 11:42
1,1-Biphenyl	ND	0.25	1	11/18/2014 11:42
Bis (2-chloroethoxy) Methane	ND	0.25	1	11/18/2014 11:42
Bis (2-chloroethyl) Ether	ND	0.25	1	11/18/2014 11:42
Bis (2-chloroisopropyl) Ether	ND	0.25	1	11/18/2014 11:42
Bis (2-ethylhexyl) Adipate	ND	0.25	1	11/18/2014 11:42
Bis (2-ethylhexyl) Phthalate	ND	0.25	1	11/18/2014 11:42
4-Bromophenyl Phenyl Ether	ND	0.25	1	11/18/2014 11:42
Butylbenzyl Phthalate	ND	0.25	1	11/18/2014 11:42
4-Chloroaniline	ND	0.25	1	11/18/2014 11:42
4-Chloro-3-methylphenol	ND	0.25	1	11/18/2014 11:42
2-Chloronaphthalene	ND	0.25	1	11/18/2014 11:42
2-Chlorophenol	ND	0.25	1	11/18/2014 11:42
4-Chlorophenyl Phenyl Ether	ND	0.25	1	11/18/2014 11:42
Chrysene	ND	0.25	1	11/18/2014 11:42
Dibenzo (a,h) anthracene	ND	0.25	1	11/18/2014 11:42
Dibenzofuran	ND	0.25	1	11/18/2014 11:42
Di-n-butyl Phthalate	ND	0.25	1	11/18/2014 11:42
1,2-Dichlorobenzene	ND	0.25	1	11/18/2014 11:42
1,3-Dichlorobenzene	ND	0.25	1	11/18/2014 11:42
1,4-Dichlorobenzene	ND	0.25	1	11/18/2014 11:42
3,3-Dichlorobenzidine	ND	0.50	1	11/18/2014 11:42
2,4-Dichlorophenol	ND	0.25	1	11/18/2014 11:42
Diethyl Phthalate	ND	0.25	1	11/18/2014 11:42
2,4-Dimethylphenol	ND	0.25	1	11/18/2014 11:42
Dimethyl Phthalate	ND	0.25	1	11/18/2014 11:42
4,6-Dinitro-2-methylphenol	ND	1.3	1	11/18/2014 11:42
2,4-Dinitrophenol	ND	6.3	1	11/18/2014 11:42

(Cont.)





## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5@18'	1411565-032A	Soil	11/13/2014	GC17	97817

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	0.25	1	11/18/2014 11:42
2,6-Dinitrotoluene	ND	0.25	1	11/18/2014 11:42
Di-n-octyl Phthalate	ND	0.50	1	11/18/2014 11:42
1,2-Diphenylhydrazine	ND	0.25	1	11/18/2014 11:42
Fluoranthene	ND	0.25	1	11/18/2014 11:42
Fluorene	ND	0.25	1	11/18/2014 11:42
Hexachlorobenzene	ND	0.25	1	11/18/2014 11:42
Hexachlorobutadiene	ND	0.25	1	11/18/2014 11:42
Hexachlorocyclopentadiene	ND	1.3	1	11/18/2014 11:42
Hexachloroethane	ND	0.25	1	11/18/2014 11:42
Indeno (1,2,3-cd) pyrene	ND	0.25	1	11/18/2014 11:42
Isophorone	ND	0.25	1	11/18/2014 11:42
2-Methylnaphthalene	ND	0.25	1	11/18/2014 11:42
2-Methylphenol (o-Cresol)	ND	0.25	1	11/18/2014 11:42
3 &/or 4-Methylphenol (m,p-Cresol)	ND	0.25	1	11/18/2014 11:42
Naphthalene	ND	0.25	1	11/18/2014 11:42
2-Nitroaniline	ND	1.3	1	11/18/2014 11:42
3-Nitroaniline	ND	1.3	1	11/18/2014 11:42
4-Nitroaniline	ND	1.3	1	11/18/2014 11:42
Nitrobenzene	ND	0.25	1	11/18/2014 11:42
2-Nitrophenol	ND	1.3	1	11/18/2014 11:42
4-Nitrophenol	ND	1.3	1	11/18/2014 11:42
N-Nitrosodiphenylamine	ND	0.25	1	11/18/2014 11:42
N-Nitrosodi-n-propylamine	ND	0.25	1	11/18/2014 11:42
Pentachlorophenol	ND	1.3	1	11/18/2014 11:42
Phenanthrene	ND	0.25	1	11/18/2014 11:42
Phenol	ND	0.25	1	11/18/2014 11:42
Pyrene	ND	0.25	1	11/18/2014 11:42
1,2,4-Trichlorobenzene	ND	0.25	1	11/18/2014 11:42
2,4,5-Trichlorophenol	ND	0.25	1	11/18/2014 11:42
2,4,6-Trichlorophenol	ND	0.25	1	11/18/2014 11:42

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5@18'	1411565-032A	Soil	11/13/2014	GC17	97817

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
2-Fluorophenol	94		30-130	11/18/2014 11:42
Phenol-d5	89		30-130	11/18/2014 11:42
Nitrobenzene-d5	83		30-130	11/18/2014 11:42
2-Fluorobiphenyl	83		30-130	11/18/2014 11:42
2,4,6-Tribromophenol	64		16-130	11/18/2014 11:42
4-Terphenyl-d14	89		30-130	11/18/2014 11:42

Analyst(s): HK



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6@2'	1411565-035A	Soil	11/13/2014	GC17	97882

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.25	1	11/17/2014 21:22
Acenaphthylene	ND	0.25	1	11/17/2014 21:22
Acetochlor	ND	0.25	1	11/17/2014 21:22
Anthracene	ND	0.25	1	11/17/2014 21:22
Benzidine	ND	1.3	1	11/17/2014 21:22
Benzo (a) anthracene	ND	0.25	1	11/17/2014 21:22
Benzo (b) fluoranthene	ND	0.25	1	11/17/2014 21:22
Benzo (k) fluoranthene	ND	0.25	1	11/17/2014 21:22
Benzo (g,h,i) perylene	ND	0.25	1	11/17/2014 21:22
Benzo (a) pyrene	ND	0.25	1	11/17/2014 21:22
Benzyl Alcohol	ND	1.3	1	11/17/2014 21:22
1,1-Biphenyl	ND	0.25	1	11/17/2014 21:22
Bis (2-chloroethoxy) Methane	ND	0.25	1	11/17/2014 21:22
Bis (2-chloroethyl) Ether	ND	0.25	1	11/17/2014 21:22
Bis (2-chloroisopropyl) Ether	ND	0.25	1	11/17/2014 21:22
Bis (2-ethylhexyl) Adipate	ND	0.25	1	11/17/2014 21:22
Bis (2-ethylhexyl) Phthalate	ND	0.25	1	11/17/2014 21:22
4-Bromophenyl Phenyl Ether	ND	0.25	1	11/17/2014 21:22
Butylbenzyl Phthalate	ND	0.25	1	11/17/2014 21:22
4-Chloroaniline	ND	0.25	1	11/17/2014 21:22
4-Chloro-3-methylphenol	ND	0.25	1	11/17/2014 21:22
2-Chloronaphthalene	ND	0.25	1	11/17/2014 21:22
2-Chlorophenol	ND	0.25	1	11/17/2014 21:22
4-Chlorophenyl Phenyl Ether	ND	0.25	1	11/17/2014 21:22
Chrysene	ND	0.25	1	11/17/2014 21:22
Dibenzo (a,h) anthracene	ND	0.25	1	11/17/2014 21:22
Dibenzofuran	ND	0.25	1	11/17/2014 21:22
Di-n-butyl Phthalate	ND	0.25	1	11/17/2014 21:22
1,2-Dichlorobenzene	ND	0.25	1	11/17/2014 21:22
1,3-Dichlorobenzene	ND	0.25	1	11/17/2014 21:22
1,4-Dichlorobenzene	ND	0.25	1	11/17/2014 21:22
3,3-Dichlorobenzidine	ND	0.50	1	11/17/2014 21:22
2,4-Dichlorophenol	ND	0.25	1	11/17/2014 21:22
Diethyl Phthalate	ND	0.25	1	11/17/2014 21:22
2,4-Dimethylphenol	ND	0.25	1	11/17/2014 21:22
Dimethyl Phthalate	ND	0.25	1	11/17/2014 21:22
4,6-Dinitro-2-methylphenol	ND	1.3	1	11/17/2014 21:22
2,4-Dinitrophenol	ND	6.3	1	11/17/2014 21:22

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# Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW3550B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8270C

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6@2'	1411565-035A	Soil	11/13/2014	GC17	97882

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	0.25	1	11/17/2014 21:22
2,6-Dinitrotoluene	ND	0.25	1	11/17/2014 21:22
Di-n-octyl Phthalate	ND	0.50	1	11/17/2014 21:22
1,2-Diphenylhydrazine	ND	0.25	1	11/17/2014 21:22
Fluoranthene	ND	0.25	1	11/17/2014 21:22
Fluorene	ND	0.25	1	11/17/2014 21:22
Hexachlorobenzene	ND	0.25	1	11/17/2014 21:22
Hexachlorobutadiene	ND	0.25	1	11/17/2014 21:22
Hexachlorocyclopentadiene	ND	1.3	1	11/17/2014 21:22
Hexachloroethane	ND	0.25	1	11/17/2014 21:22
Indeno (1,2,3-cd) pyrene	ND	0.25	1	11/17/2014 21:22
Isophorone	ND	0.25	1	11/17/2014 21:22
2-Methylnaphthalene	ND	0.25	1	11/17/2014 21:22
2-Methylphenol (o-Cresol)	ND	0.25	1	11/17/2014 21:22
3 &/or 4-Methylphenol (m,p-Cresol)	ND	0.25	1	11/17/2014 21:22
Naphthalene	ND	0.25	1	11/17/2014 21:22
2-Nitroaniline	ND	1.3	1	11/17/2014 21:22
3-Nitroaniline	ND	1.3	1	11/17/2014 21:22
4-Nitroaniline	ND	1.3	1	11/17/2014 21:22
Nitrobenzene	ND	0.25	1	11/17/2014 21:22
2-Nitrophenol	ND	1.3	1	11/17/2014 21:22
4-Nitrophenol	ND	1.3	1	11/17/2014 21:22
N-Nitrosodiphenylamine	ND	0.25	1	11/17/2014 21:22
N-Nitrosodi-n-propylamine	ND	0.25	1	11/17/2014 21:22
Pentachlorophenol	ND	1.3	1	11/17/2014 21:22
Phenanthrene	ND	0.25	1	11/17/2014 21:22
Phenol	ND	0.25	1	11/17/2014 21:22
Pyrene	ND	0.25	1	11/17/2014 21:22
1,2,4-Trichlorobenzene	ND	0.25	1	11/17/2014 21:22
2,4,5-Trichlorophenol	ND	0.25	1	11/17/2014 21:22
2,4,6-Trichlorophenol	ND	0.25	1	11/17/2014 21:22

(Cont.)



# Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW3550B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8270C

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6@2'	1411565-035A	Soil	11/13/2014	GC17	97882

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
2-Fluorophenol	91		30-130	11/17/2014 21:22
Phenol-d5	86		30-130	11/17/2014 21:22
Nitrobenzene-d5	80		30-130	11/17/2014 21:22
2-Fluorobiphenyl	81		30-130	11/17/2014 21:22
2,4,6-Tribromophenol	62		16-130	11/17/2014 21:22
4-Terphenyl-d14	84		30-130	11/17/2014 21:22

Analyst(s): HK



# Analytical Report

Client: Cook Environmental Services, Inc.

WorkOrder: 1411565

Project: #1095; Casentini

Extraction Method: SW3550B

Date Received: 11/14/14 10:51

Analytical Method: SW8270C

Date Prepared: 11/14/14-11/17/14

Unit: mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6@9'	1411565-036A	Soil	11/13/2014	GC17	97882

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.25	1	11/17/2014 20:55
Acenaphthylene	ND	0.25	1	11/17/2014 20:55
Acetochlor	ND	0.25	1	11/17/2014 20:55
Anthracene	ND	0.25	1	11/17/2014 20:55
Benzidine	ND	1.3	1	11/17/2014 20:55
Benzo (a) anthracene	ND	0.25	1	11/17/2014 20:55
Benzo (b) fluoranthene	ND	0.25	1	11/17/2014 20:55
Benzo (k) fluoranthene	ND	0.25	1	11/17/2014 20:55
Benzo (g,h,i) perylene	ND	0.25	1	11/17/2014 20:55
Benzo (a) pyrene	ND	0.25	1	11/17/2014 20:55
Benzyl Alcohol	ND	1.3	1	11/17/2014 20:55
1,1-Biphenyl	ND	0.25	1	11/17/2014 20:55
Bis (2-chloroethoxy) Methane	ND	0.25	1	11/17/2014 20:55
Bis (2-chloroethyl) Ether	ND	0.25	1	11/17/2014 20:55
Bis (2-chloroisopropyl) Ether	ND	0.25	1	11/17/2014 20:55
Bis (2-ethylhexyl) Adipate	ND	0.25	1	11/17/2014 20:55
Bis (2-ethylhexyl) Phthalate	ND	0.25	1	11/17/2014 20:55
4-Bromophenyl Phenyl Ether	ND	0.25	1	11/17/2014 20:55
Butylbenzyl Phthalate	ND	0.25	1	11/17/2014 20:55
4-Chloroaniline	ND	0.25	1	11/17/2014 20:55
4-Chloro-3-methylphenol	ND	0.25	1	11/17/2014 20:55
2-Chloronaphthalene	ND	0.25	1	11/17/2014 20:55
2-Chlorophenol	ND	0.25	1	11/17/2014 20:55
4-Chlorophenyl Phenyl Ether	ND	0.25	1	11/17/2014 20:55
Chrysene	ND	0.25	1	11/17/2014 20:55
Dibenzo (a,h) anthracene	ND	0.25	1	11/17/2014 20:55
Dibenzofuran	ND	0.25	1	11/17/2014 20:55
Di-n-butyl Phthalate	ND	0.25	1	11/17/2014 20:55
1,2-Dichlorobenzene	ND	0.25	1	11/17/2014 20:55
1,3-Dichlorobenzene	ND	0.25	1	11/17/2014 20:55
1,4-Dichlorobenzene	ND	0.25	1	11/17/2014 20:55
3,3-Dichlorobenzidine	ND	0.50	1	11/17/2014 20:55
2,4-Dichlorophenol	ND	0.25	1	11/17/2014 20:55
Diethyl Phthalate	ND	0.25	1	11/17/2014 20:55
2,4-Dimethylphenol	ND	0.25	1	11/17/2014 20:55
Dimethyl Phthalate	ND	0.25	1	11/17/2014 20:55
4,6-Dinitro-2-methylphenol	ND	1.3	1	11/17/2014 20:55
2,4-Dinitrophenol	ND	6.3	1	11/17/2014 20:55

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# Analytical Report

Client: Cook Environmental Services, Inc.

WorkOrder: 1411565

Project: #1095; Casentini

Extraction Method: SW3550B

Date Received: 11/14/14 10:51

Analytical Method: SW8270C

Date Prepared: 11/14/14-11/17/14

Unit: mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6@9'	1411565-036A	Soil	11/13/2014	GC17	97882

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	0.25	1	11/17/2014 20:55
2,6-Dinitrotoluene	ND	0.25	1	11/17/2014 20:55
Di-n-octyl Phthalate	ND	0.50	1	11/17/2014 20:55
1,2-Diphenylhydrazine	ND	0.25	1	11/17/2014 20:55
Fluoranthene	ND	0.25	1	11/17/2014 20:55
Fluorene	ND	0.25	1	11/17/2014 20:55
Hexachlorobenzene	ND	0.25	1	11/17/2014 20:55
Hexachlorobutadiene	ND	0.25	1	11/17/2014 20:55
Hexachlorocyclopentadiene	ND	1.3	1	11/17/2014 20:55
Hexachloroethane	ND	0.25	1	11/17/2014 20:55
Indeno (1,2,3-cd) pyrene	ND	0.25	1	11/17/2014 20:55
Isophorone	ND	0.25	1	11/17/2014 20:55
2-Methylnaphthalene	ND	0.25	1	11/17/2014 20:55
2-Methylphenol (o-Cresol)	ND	0.25	1	11/17/2014 20:55
3 &/or 4-Methylphenol (m,p-Cresol)	ND	0.25	1	11/17/2014 20:55
Naphthalene	ND	0.25	1	11/17/2014 20:55
2-Nitroaniline	ND	1.3	1	11/17/2014 20:55
3-Nitroaniline	ND	1.3	1	11/17/2014 20:55
4-Nitroaniline	ND	1.3	1	11/17/2014 20:55
Nitrobenzene	ND	0.25	1	11/17/2014 20:55
2-Nitrophenol	ND	1.3	1	11/17/2014 20:55
4-Nitrophenol	ND	1.3	1	11/17/2014 20:55
N-Nitrosodiphenylamine	ND	0.25	1	11/17/2014 20:55
N-Nitrosodi-n-propylamine	ND	0.25	1	11/17/2014 20:55
Pentachlorophenol	ND	1.3	1	11/17/2014 20:55
Phenanthrene	ND	0.25	1	11/17/2014 20:55
Phenol	ND	0.25	1	11/17/2014 20:55
Pyrene	ND	0.25	1	11/17/2014 20:55
1,2,4-Trichlorobenzene	ND	0.25	1	11/17/2014 20:55
2,4,5-Trichlorophenol	ND	0.25	1	11/17/2014 20:55
2,4,6-Trichlorophenol	ND	0.25	1	11/17/2014 20:55

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# Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW3550B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8270C

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6@9'	1411565-036A	Soil	11/13/2014	GC17	97882

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
2-Fluorophenol	90		30-130	11/17/2014 20:55
Phenol-d5	86		30-130	11/17/2014 20:55
Nitrobenzene-d5	82		30-130	11/17/2014 20:55
2-Fluorobiphenyl	79		30-130	11/17/2014 20:55
2,4,6-Tribromophenol	60		16-130	11/17/2014 20:55
4-Terphenyl-d14	81		30-130	11/17/2014 20:55

Analyst(s): HK



# Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6@19'	1411565-038A	Soil	11/13/2014	GC21	97817

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.25	1	11/14/2014 21:38
Acenaphthylene	ND	0.25	1	11/14/2014 21:38
Acetochlor	ND	0.25	1	11/14/2014 21:38
Anthracene	ND	0.25	1	11/14/2014 21:38
Benzidine	ND	1.3	1	11/14/2014 21:38
Benzo (a) anthracene	ND	0.25	1	11/14/2014 21:38
Benzo (b) fluoranthene	ND	0.25	1	11/14/2014 21:38
Benzo (k) fluoranthene	ND	0.25	1	11/14/2014 21:38
Benzo (g,h,i) perylene	ND	0.25	1	11/14/2014 21:38
Benzo (a) pyrene	ND	0.25	1	11/14/2014 21:38
Benzyl Alcohol	ND	1.3	1	11/14/2014 21:38
1,1-Biphenyl	ND	0.25	1	11/14/2014 21:38
Bis (2-chloroethoxy) Methane	ND	0.25	1	11/14/2014 21:38
Bis (2-chloroethyl) Ether	ND	0.25	1	11/14/2014 21:38
Bis (2-chloroisopropyl) Ether	ND	0.25	1	11/14/2014 21:38
Bis (2-ethylhexyl) Adipate	ND	0.25	1	11/14/2014 21:38
Bis (2-ethylhexyl) Phthalate	ND	0.25	1	11/14/2014 21:38
4-Bromophenyl Phenyl Ether	ND	0.25	1	11/14/2014 21:38
Butylbenzyl Phthalate	ND	0.25	1	11/14/2014 21:38
4-Chloroaniline	ND	0.25	1	11/14/2014 21:38
4-Chloro-3-methylphenol	ND	0.25	1	11/14/2014 21:38
2-Chloronaphthalene	ND	0.25	1	11/14/2014 21:38
2-Chlorophenol	ND	0.25	1	11/14/2014 21:38
4-Chlorophenyl Phenyl Ether	ND	0.25	1	11/14/2014 21:38
Chrysene	ND	0.25	1	11/14/2014 21:38
Dibenzo (a,h) anthracene	ND	0.25	1	11/14/2014 21:38
Dibenzofuran	ND	0.25	1	11/14/2014 21:38
Di-n-butyl Phthalate	ND	0.25	1	11/14/2014 21:38
1,2-Dichlorobenzene	ND	0.25	1	11/14/2014 21:38
1,3-Dichlorobenzene	ND	0.25	1	11/14/2014 21:38
1,4-Dichlorobenzene	ND	0.25	1	11/14/2014 21:38
3,3-Dichlorobenzidine	ND	0.50	1	11/14/2014 21:38
2,4-Dichlorophenol	ND	0.25	1	11/14/2014 21:38
Diethyl Phthalate	ND	0.25	1	11/14/2014 21:38
2,4-Dimethylphenol	ND	0.25	1	11/14/2014 21:38
Dimethyl Phthalate	ND	0.25	1	11/14/2014 21:38
4,6-Dinitro-2-methylphenol	ND	1.3	1	11/14/2014 21:38
2,4-Dinitrophenol	ND	6.3	1	11/14/2014 21:38

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6@19'	1411565-038A	Soil	11/13/2014	GC21	97817

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	0.25	1	11/14/2014 21:38
2,6-Dinitrotoluene	ND	0.25	1	11/14/2014 21:38
Di-n-octyl Phthalate	ND	0.50	1	11/14/2014 21:38
1,2-Diphenylhydrazine	ND	0.25	1	11/14/2014 21:38
Fluoranthene	ND	0.25	1	11/14/2014 21:38
Fluorene	ND	0.25	1	11/14/2014 21:38
Hexachlorobenzene	ND	0.25	1	11/14/2014 21:38
Hexachlorobutadiene	ND	0.25	1	11/14/2014 21:38
Hexachlorocyclopentadiene	ND	1.3	1	11/14/2014 21:38
Hexachloroethane	ND	0.25	1	11/14/2014 21:38
Indeno (1,2,3-cd) pyrene	ND	0.25	1	11/14/2014 21:38
Isophorone	ND	0.25	1	11/14/2014 21:38
2-Methylnaphthalene	ND	0.25	1	11/14/2014 21:38
2-Methylphenol (o-Cresol)	ND	0.25	1	11/14/2014 21:38
3 &/or 4-Methylphenol (m,p-Cresol)	ND	0.25	1	11/14/2014 21:38
Naphthalene	ND	0.25	1	11/14/2014 21:38
2-Nitroaniline	ND	1.3	1	11/14/2014 21:38
3-Nitroaniline	ND	1.3	1	11/14/2014 21:38
4-Nitroaniline	ND	1.3	1	11/14/2014 21:38
Nitrobenzene	ND	0.25	1	11/14/2014 21:38
2-Nitrophenol	ND	1.3	1	11/14/2014 21:38
4-Nitrophenol	ND	1.3	1	11/14/2014 21:38
N-Nitrosodiphenylamine	ND	0.25	1	11/14/2014 21:38
N-Nitrosodi-n-propylamine	ND	0.25	1	11/14/2014 21:38
Pentachlorophenol	ND	1.3	1	11/14/2014 21:38
Phenanthrene	ND	0.25	1	11/14/2014 21:38
Phenol	ND	0.25	1	11/14/2014 21:38
Pyrene	ND	0.25	1	11/14/2014 21:38
1,2,4-Trichlorobenzene	ND	0.25	1	11/14/2014 21:38
2,4,5-Trichlorophenol	ND	0.25	1	11/14/2014 21:38
2,4,6-Trichlorophenol	ND	0.25	1	11/14/2014 21:38

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6@19'	1411565-038A	Soil	11/13/2014	GC21	97817

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
2-Fluorophenol	92		30-130	11/14/2014 21:38
Phenol-d5	84		30-130	11/14/2014 21:38
Nitrobenzene-d5	78		30-130	11/14/2014 21:38
2-Fluorobiphenyl	72		30-130	11/14/2014 21:38
2,4,6-Tribromophenol	49		16-130	11/14/2014 21:38
4-Terphenyl-d14	76		30-130	11/14/2014 21:38

Analyst(s): HK



# Analytical Report

Client: Cook Environmental Services, Inc.

WorkOrder: 1411565

Project: #1095; Casentini

Extraction Method: SW3550B

Date Received: 11/14/14 10:51

Analytical Method: SW8270C

Date Prepared: 11/14/14-11/17/14

Unit: mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6@24.5'	1411565-039A	Soil	11/13/2014	GC21	97817

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.25	1	11/14/2014 19:20
Acenaphthylene	ND	0.25	1	11/14/2014 19:20
Acetochlor	ND	0.25	1	11/14/2014 19:20
Anthracene	ND	0.25	1	11/14/2014 19:20
Benzidine	ND	1.3	1	11/14/2014 19:20
Benzo (a) anthracene	ND	0.25	1	11/14/2014 19:20
Benzo (b) fluoranthene	ND	0.25	1	11/14/2014 19:20
Benzo (k) fluoranthene	ND	0.25	1	11/14/2014 19:20
Benzo (g,h,i) perylene	ND	0.25	1	11/14/2014 19:20
Benzo (a) pyrene	ND	0.25	1	11/14/2014 19:20
Benzyl Alcohol	ND	1.3	1	11/14/2014 19:20
1,1-Biphenyl	ND	0.25	1	11/14/2014 19:20
Bis (2-chloroethoxy) Methane	ND	0.25	1	11/14/2014 19:20
Bis (2-chloroethyl) Ether	ND	0.25	1	11/14/2014 19:20
Bis (2-chloroisopropyl) Ether	ND	0.25	1	11/14/2014 19:20
Bis (2-ethylhexyl) Adipate	ND	0.25	1	11/14/2014 19:20
Bis (2-ethylhexyl) Phthalate	ND	0.25	1	11/14/2014 19:20
4-Bromophenyl Phenyl Ether	ND	0.25	1	11/14/2014 19:20
Butylbenzyl Phthalate	ND	0.25	1	11/14/2014 19:20
4-Chloroaniline	ND	0.25	1	11/14/2014 19:20
4-Chloro-3-methylphenol	ND	0.25	1	11/14/2014 19:20
2-Chloronaphthalene	ND	0.25	1	11/14/2014 19:20
2-Chlorophenol	ND	0.25	1	11/14/2014 19:20
4-Chlorophenyl Phenyl Ether	ND	0.25	1	11/14/2014 19:20
Chrysene	ND	0.25	1	11/14/2014 19:20
Dibenzo (a,h) anthracene	ND	0.25	1	11/14/2014 19:20
Dibenzofuran	ND	0.25	1	11/14/2014 19:20
Di-n-butyl Phthalate	ND	0.25	1	11/14/2014 19:20
1,2-Dichlorobenzene	ND	0.25	1	11/14/2014 19:20
1,3-Dichlorobenzene	ND	0.25	1	11/14/2014 19:20
1,4-Dichlorobenzene	ND	0.25	1	11/14/2014 19:20
3,3-Dichlorobenzidine	ND	0.50	1	11/14/2014 19:20
2,4-Dichlorophenol	ND	0.25	1	11/14/2014 19:20
Diethyl Phthalate	ND	0.25	1	11/14/2014 19:20
2,4-Dimethylphenol	ND	0.25	1	11/14/2014 19:20
Dimethyl Phthalate	ND	0.25	1	11/14/2014 19:20
4,6-Dinitro-2-methylphenol	ND	1.3	1	11/14/2014 19:20
2,4-Dinitrophenol	ND	6.3	1	11/14/2014 19:20

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# Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW3550B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8270C

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6@24.5'	1411565-039A	Soil	11/13/2014	GC21	97817

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	0.25	1	11/14/2014 19:20
2,6-Dinitrotoluene	ND	0.25	1	11/14/2014 19:20
Di-n-octyl Phthalate	ND	0.50	1	11/14/2014 19:20
1,2-Diphenylhydrazine	ND	0.25	1	11/14/2014 19:20
Fluoranthene	ND	0.25	1	11/14/2014 19:20
Fluorene	ND	0.25	1	11/14/2014 19:20
Hexachlorobenzene	ND	0.25	1	11/14/2014 19:20
Hexachlorobutadiene	ND	0.25	1	11/14/2014 19:20
Hexachlorocyclopentadiene	ND	1.3	1	11/14/2014 19:20
Hexachloroethane	ND	0.25	1	11/14/2014 19:20
Indeno (1,2,3-cd) pyrene	ND	0.25	1	11/14/2014 19:20
Isophorone	ND	0.25	1	11/14/2014 19:20
2-Methylnaphthalene	ND	0.25	1	11/14/2014 19:20
2-Methylphenol (o-Cresol)	ND	0.25	1	11/14/2014 19:20
3 &/or 4-Methylphenol (m,p-Cresol)	ND	0.25	1	11/14/2014 19:20
Naphthalene	ND	0.25	1	11/14/2014 19:20
2-Nitroaniline	ND	1.3	1	11/14/2014 19:20
3-Nitroaniline	ND	1.3	1	11/14/2014 19:20
4-Nitroaniline	ND	1.3	1	11/14/2014 19:20
Nitrobenzene	ND	0.25	1	11/14/2014 19:20
2-Nitrophenol	ND	1.3	1	11/14/2014 19:20
4-Nitrophenol	ND	1.3	1	11/14/2014 19:20
N-Nitrosodiphenylamine	ND	0.25	1	11/14/2014 19:20
N-Nitrosodi-n-propylamine	ND	0.25	1	11/14/2014 19:20
Pentachlorophenol	ND	1.3	1	11/14/2014 19:20
Phenanthrene	ND	0.25	1	11/14/2014 19:20
Phenol	ND	0.25	1	11/14/2014 19:20
Pyrene	ND	0.25	1	11/14/2014 19:20
1,2,4-Trichlorobenzene	ND	0.25	1	11/14/2014 19:20
2,4,5-Trichlorophenol	ND	0.25	1	11/14/2014 19:20
2,4,6-Trichlorophenol	ND	0.25	1	11/14/2014 19:20

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# Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW3550B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8270C

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6@24.5'	1411565-039A	Soil	11/13/2014	GC21	97817

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
2-Fluorophenol	88	30-130		11/14/2014 19:20
Phenol-d5	83	30-130		11/14/2014 19:20
Nitrobenzene-d5	76	30-130		11/14/2014 19:20
2-Fluorobiphenyl	73	30-130		11/14/2014 19:20
2,4,6-Tribromophenol	51	16-130		11/14/2014 19:20
4-Terphenyl-d14	75	30-130		11/14/2014 19:20

Analyst(s): HK





## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1@2.5'	1411565-001A	Soil	11/13/2014	GC19	97786

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	11/14/2014 21:35
MTBE	---	0.050	1	11/14/2014 21:35
Benzene	---	0.0050	1	11/14/2014 21:35
Toluene	---	0.0050	1	11/14/2014 21:35
Ethylbenzene	---	0.0050	1	11/14/2014 21:35
Xylenes	---	0.0050	1	11/14/2014 21:35
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	105	70-130		11/14/2014 21:35

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1@10'	1411565-002A	Soil	11/13/2014	GC19	97786

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	3.7	1.0	1	11/14/2014 23:35
MTBE	---	0.050	1	11/14/2014 23:35
Benzene	---	0.0050	1	11/14/2014 23:35
Toluene	---	0.0050	1	11/14/2014 23:35
Ethylbenzene	---	0.0050	1	11/14/2014 23:35
Xylenes	---	0.0050	1	11/14/2014 23:35
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: d7	
2-Fluorotoluene	102	70-130		11/14/2014 23:35

Analyst(s): IA



# Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW5030B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8021B/8015Bm

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/Kg

## Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1@11'	1411565-003A	Soil	11/13/2014	GC19	97786

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	310	200	200	11/15/2014 00:05
MTBE	---	10	200	11/15/2014 00:05
Benzene	---	1.0	200	11/15/2014 00:05
Toluene	---	1.0	200	11/15/2014 00:05
Ethylbenzene	---	1.0	200	11/15/2014 00:05
Xylenes	---	1.0	200	11/15/2014 00:05

Surrogates	REC (%)	Qualifiers	Limits	Analytical Comments: d7
2-Fluorotoluene	170	S	70-130	11/15/2014 00:05

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1@22.5'	1411565-005A	Soil	11/13/2014	GC19	97786

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	290	20	20	11/15/2014 01:04
MTBE	---	1.0	20	11/15/2014 01:04
Benzene	---	0.10	20	11/15/2014 01:04
Toluene	---	0.10	20	11/15/2014 01:04
Ethylbenzene	---	0.10	20	11/15/2014 01:04
Xylenes	---	0.10	20	11/15/2014 01:04

Surrogates	REC (%)	Limits	Analytical Comments: d7,d9
2-Fluorotoluene	107	70-130	11/15/2014 01:04

Analyst(s): IA



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2@2.5'	1411565-008A	Soil	11/13/2014	GC19	97786

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	11/15/2014 01:34
MTBE	---	0.050	1	11/15/2014 01:34
Benzene	---	0.0050	1	11/15/2014 01:34
Toluene	---	0.0050	1	11/15/2014 01:34
Ethylbenzene	---	0.0050	1	11/15/2014 01:34
Xylenes	---	0.0050	1	11/15/2014 01:34

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	106	70-130	11/15/2014 01:34

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2@9.5'	1411565-010A	Soil	11/13/2014	GC19	97786

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	<b>200</b>	50	50	11/15/2014 02:04
MTBE	---	2.5	50	11/15/2014 02:04
Benzene	---	0.25	50	11/15/2014 02:04
Toluene	---	0.25	50	11/15/2014 02:04
Ethylbenzene	---	0.25	50	11/15/2014 02:04
Xylenes	---	0.25	50	11/15/2014 02:04

Surrogates	REC (%)	Limits	Analytical Comments: d7	Date Analyzed
2-Fluorotoluene	117	70-130		11/15/2014 02:04

Analyst(s): IA



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2@12.5'	1411565-011A	Soil	11/13/2014	GC19	97786

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	160	10	10	11/17/2014 18:23
MTBE	---	0.50	10	11/17/2014 18:23
Benzene	---	0.050	10	11/17/2014 18:23
Toluene	---	0.050	10	11/17/2014 18:23
Ethylbenzene	---	0.050	10	11/17/2014 18:23
Xylenes	---	0.050	10	11/17/2014 18:23

Surrogates	REC (%)	Limits	Analytical Comments: d7,d9
2-Fluorotoluene	104	70-130	11/17/2014 18:23

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2@22'	1411565-012A	Soil	11/13/2014	GC19	97786

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	290	20	20	11/17/2014 20:23
MTBE	---	1.0	20	11/17/2014 20:23
Benzene	---	0.10	20	11/17/2014 20:23
Toluene	---	0.10	20	11/17/2014 20:23
Ethylbenzene	---	0.10	20	11/17/2014 20:23
Xylenes	---	0.10	20	11/17/2014 20:23

Surrogates	REC (%)	Limits	Analytical Comments: d7,d9
2-Fluorotoluene	98	70-130	11/17/2014 20:23

Analyst(s): IA

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@2.5'	1411565-015A	Soil	11/13/2014	GC19	97875

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	11/18/2014 20:14
MTBE	---	0.050	1	11/18/2014 20:14
Benzene	---	0.0050	1	11/18/2014 20:14
Toluene	---	0.0050	1	11/18/2014 20:14
Ethylbenzene	---	0.0050	1	11/18/2014 20:14
Xylenes	---	0.0050	1	11/18/2014 20:14

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	111	70-130	11/18/2014 20:14

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@9.5'	1411565-016A	Soil	11/13/2014	GC19	97786

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	550	200	200	11/15/2014 05:02
MTBE	---	10	200	11/15/2014 05:02
Benzene	---	1.0	200	11/15/2014 05:02
Toluene	---	1.0	200	11/15/2014 05:02
Ethylbenzene	---	1.0	200	11/15/2014 05:02
Xylenes	---	1.0	200	11/15/2014 05:02

Surrogates	REC (%)	Limits	Analytical Comments: d7	Date Analyzed
aaa-TFT_2	93	70-130		11/15/2014 05:02

Analyst(s): IA

(Cont.)



# Analytical Report

Client: Cook Environmental Services, Inc.

WorkOrder: 1411565

Project: #1095; Casentini

Extraction Method: SW5030B

Date Received: 11/14/14 10:51

Analytical Method: SW8021B/8015Bm

Date Prepared: 11/14/14-11/17/14

Unit: mg/Kg

## Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@17'	1411565-018A	Soil	11/13/2014	GC19	97786

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	430	200	200	11/15/2014 05:31
MTBE	---	10	200	11/15/2014 05:31
Benzene	---	1.0	200	11/15/2014 05:31
Toluene	---	1.0	200	11/15/2014 05:31
Ethylbenzene	---	1.0	200	11/15/2014 05:31
Xylenes	---	1.0	200	11/15/2014 05:31

Surrogates	REC (%)	Limits	Analytical Comments: d7	Date Analyzed
aaa-TFT_2	92	70-130		11/15/2014 05:31

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@21'	1411565-019A	Soil	11/13/2014	GC19	97786

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	250	20	20	11/18/2014 04:48
MTBE	---	1.0	20	11/18/2014 04:48
Benzene	---	0.10	20	11/18/2014 04:48
Toluene	---	0.10	20	11/18/2014 04:48
Ethylbenzene	---	0.10	20	11/18/2014 04:48
Xylenes	---	0.10	20	11/18/2014 04:48

Surrogates	REC (%)	Limits	Analytical Comments: d7,d9	Date Analyzed
2-Fluorotoluene	103	70-130		11/18/2014 04:48

Analyst(s): IA



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@25.5'	1411565-021A	Soil	11/13/2014	GC19	97786

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	11/15/2014 06:01
MTBE	---	0.050	1	11/15/2014 06:01
Benzene	---	0.0050	1	11/15/2014 06:01
Toluene	---	0.0050	1	11/15/2014 06:01
Ethylbenzene	---	0.0050	1	11/15/2014 06:01
Xylenes	---	0.0050	1	11/15/2014 06:01

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	110	70-130	11/15/2014 06:01

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4@2'	1411565-023A	Soil	11/13/2014	GC19	97786

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	11/15/2014 07:00
MTBE	---	0.050	1	11/15/2014 07:00
Benzene	---	0.0050	1	11/15/2014 07:00
Toluene	---	0.0050	1	11/15/2014 07:00
Ethylbenzene	---	0.0050	1	11/15/2014 07:00
Xylenes	---	0.0050	1	11/15/2014 07:00

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	111	70-130	11/15/2014 07:00

Analyst(s): IA





## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4@9.5'	1411565-024A	Soil	11/13/2014	GC7	97786

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	11/14/2014 22:04
MTBE	---	0.050	1	11/14/2014 22:04
Benzene	---	0.0050	1	11/14/2014 22:04
Toluene	---	0.0050	1	11/14/2014 22:04
Ethylbenzene	---	0.0050	1	11/14/2014 22:04
Xylenes	---	0.0050	1	11/14/2014 22:04

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	116	70-130	11/14/2014 22:04

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4@14.5'	1411565-025A	Soil	11/13/2014	GC7	97786

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	<b>38</b>	1.0	1	11/14/2014 22:34
MTBE	---	0.050	1	11/14/2014 22:34
Benzene	---	0.0050	1	11/14/2014 22:34
Toluene	---	0.0050	1	11/14/2014 22:34
Ethylbenzene	---	0.0050	1	11/14/2014 22:34
Xylenes	---	0.0050	1	11/14/2014 22:34

Surrogates	REC (%)	Limits	Analytical Comments: d7,d9	Date Analyzed
2-Fluorotoluene	101	70-130		11/14/2014 22:34

Analyst(s): IA

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4@19.5'	1411565-026A	Soil	11/13/2014	GC19	97875

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	11/17/2014 23:52
MTBE	---	0.050	1	11/17/2014 23:52
Benzene	---	0.0050	1	11/17/2014 23:52
Toluene	---	0.0050	1	11/17/2014 23:52
Ethylbenzene	---	0.0050	1	11/17/2014 23:52
Xylenes	---	0.0050	1	11/17/2014 23:52
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	114	70-130		11/17/2014 23:52

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5@2'	1411565-029A	Soil	11/13/2014	GC7	97786

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	11/15/2014 01:32
MTBE	---	0.050	1	11/15/2014 01:32
Benzene	---	0.0050	1	11/15/2014 01:32
Toluene	---	0.0050	1	11/15/2014 01:32
Ethylbenzene	---	0.0050	1	11/15/2014 01:32
Xylenes	---	0.0050	1	11/15/2014 01:32
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	111	70-130		11/15/2014 01:32

Analyst(s): IA



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5@9.5'	1411565-030A	Soil	11/13/2014	GC7	97803

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	11/15/2014 02:01
MTBE	---	0.050	1	11/15/2014 02:01
Benzene	---	0.0050	1	11/15/2014 02:01
Toluene	---	0.0050	1	11/15/2014 02:01
Ethylbenzene	---	0.0050	1	11/15/2014 02:01
Xylenes	---	0.0050	1	11/15/2014 02:01

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	107	70-130	11/15/2014 02:01

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5@14'	1411565-031A	Soil	11/13/2014	GC7	97803

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	160	100	100	11/15/2014 02:31
MTBE	---	5.0	100	11/15/2014 02:31
Benzene	---	0.50	100	11/15/2014 02:31
Toluene	---	0.50	100	11/15/2014 02:31
Ethylbenzene	---	0.50	100	11/15/2014 02:31
Xylenes	---	0.50	100	11/15/2014 02:31

Surrogates	REC (%)	Limits	Analytical Comments: d7	Date Analyzed
aaa-TFT_2	93	70-130		11/15/2014 02:31

Analyst(s): IA



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5@18'	1411565-032A	Soil	11/13/2014	GC7	97803

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	14	1.0	1	11/15/2014 03:00
MTBE	---	0.050	1	11/15/2014 03:00
Benzene	---	0.0050	1	11/15/2014 03:00
Toluene	---	0.0050	1	11/15/2014 03:00
Ethylbenzene	---	0.0050	1	11/15/2014 03:00
Xylenes	---	0.0050	1	11/15/2014 03:00

Surrogates	REC (%)	Limits	Analytical Comments: d7,d9
2-Fluorotoluene	119	70-130	11/15/2014 03:00

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6@2'	1411565-035A	Soil	11/13/2014	GC7	97803

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	11/15/2014 03:30
MTBE	---	0.050	1	11/15/2014 03:30
Benzene	---	0.0050	1	11/15/2014 03:30
Toluene	---	0.0050	1	11/15/2014 03:30
Ethylbenzene	---	0.0050	1	11/15/2014 03:30
Xylenes	---	0.0050	1	11/15/2014 03:30

Surrogates	REC (%)	Limits
2-Fluorotoluene	114	70-130

Analyst(s): IA



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14-11/17/14

**WorkOrder:** 1411565  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6@9'	1411565-036A	Soil	11/13/2014	GC7	97803

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	11/15/2014 04:00
MTBE	---	0.050	1	11/15/2014 04:00
Benzene	---	0.0050	1	11/15/2014 04:00
Toluene	---	0.0050	1	11/15/2014 04:00
Ethylbenzene	---	0.0050	1	11/15/2014 04:00
Xylenes	---	0.0050	1	11/15/2014 04:00

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	109	70-130	11/15/2014 04:00

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6@19'	1411565-038A	Soil	11/13/2014	GC7	97803

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	11/15/2014 04:29
MTBE	---	0.050	1	11/15/2014 04:29
Benzene	---	0.0050	1	11/15/2014 04:29
Toluene	---	0.0050	1	11/15/2014 04:29
Ethylbenzene	---	0.0050	1	11/15/2014 04:29
Xylenes	---	0.0050	1	11/15/2014 04:29

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	108	70-130	11/15/2014 04:29

Analyst(s): IA



# Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW5030B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8021B/8015Bm

**Date Prepared:** 11/14/14-11/17/14

**Unit:** mg/Kg

## Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6@24.5'	1411565-039A	Soil	11/13/2014	GC7	97803

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	11/15/2014 04:59
MTBE	---	0.050	1	11/15/2014 04:59
Benzene	---	0.0050	1	11/15/2014 04:59
Toluene	---	0.0050	1	11/15/2014 04:59
Ethylbenzene	---	0.0050	1	11/15/2014 04:59
Xylenes	---	0.0050	1	11/15/2014 04:59

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	111	70-130	11/15/2014 04:59

Analyst(s): IA



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg

### Total Extractable Petroleum Hydrocarbons

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1@2.5'	1411565-001A	Soil	11/13/2014	GC6B	97787

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	25	2.0	2	11/17/2014 11:13
TPH-Motor Oil (C18-C36)	81	10	2	11/17/2014 11:13

Surrogates	REC (%)	Limits	Analytical Comments: e7,e2
C9	107	70-130	11/17/2014 11:13

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1@10'	1411565-002A	Soil	11/13/2014	GC9a	97787

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	180	2.0	2	11/14/2014 20:20
TPH-Motor Oil (C18-C36)	300	10	2	11/14/2014 20:20

Surrogates	REC (%)	Limits	Analytical Comments: e7,e2
C9	108	70-130	11/14/2014 20:20

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1@11'	1411565-003A	Soil	11/13/2014	GC11A	97787

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	2900	20	20	11/15/2014 12:48
TPH-Motor Oil (C18-C36)	2700	100	20	11/15/2014 12:48

Surrogates	REC (%)	Limits	Analytical Comments: e8,e7,e2
C9	110	70-130	11/15/2014 12:48

Analyst(s): TK

(Cont.)





## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg

### Total Extractable Petroleum Hydrocarbons

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SB-1@22.5'</b>	<b>1411565-005A</b>	<b>Soil</b>	<b>11/13/2014</b>	<b>GC11B</b>	<b>97787</b>

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	<b>3100</b>	20	20	11/15/2014 07:05
TPH-Motor Oil (C18-C36)	<b>4300</b>	100	20	11/15/2014 07:05

Surrogates	REC (%)	Limits	Analytical Comments: e3,e7
C9	106	70-130	11/15/2014 07:05

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SB-2@2.5'</b>	<b>1411565-008A</b>	<b>Soil</b>	<b>11/13/2014</b>	<b>GC11B</b>	<b>97787</b>

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	11/17/2014 15:03
TPH-Motor Oil (C18-C36)	ND	5.0	1	11/17/2014 15:03

Surrogates	REC (%)	Limits
C9	106	70-130

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SB-2@9.5'</b>	<b>1411565-010A</b>	<b>Soil</b>	<b>11/13/2014</b>	<b>GC9a</b>	<b>97787</b>

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	<b>2000</b>	20	20	11/15/2014 14:14
TPH-Motor Oil (C18-C36)	<b>2600</b>	100	20	11/15/2014 14:14

Surrogates	REC (%)	Limits	Analytical Comments: e7,e3,e8
C9	105	70-130	11/15/2014 14:14

Analyst(s): TK

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg

### Total Extractable Petroleum Hydrocarbons

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SB-2@12.5'</b>	<b>1411565-011A</b>	<b>Soil</b>	<b>11/13/2014</b>	<b>GC9a</b>	<b>97787</b>

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	<b>550</b>	2.0	2	11/15/2014 01:07
TPH-Motor Oil (C18-C36)	<b>560</b>	10	2	11/15/2014 01:07

Surrogates	REC (%)	Limits	Analytical Comments: e1,e8,e7
C9	105	70-130	11/15/2014 01:07

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SB-2@22'</b>	<b>1411565-012A</b>	<b>Soil</b>	<b>11/13/2014</b>	<b>GC11A</b>	<b>97787</b>

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	<b>1900</b>	20	20	11/15/2014 03:39
TPH-Motor Oil (C18-C36)	<b>2200</b>	100	20	11/15/2014 03:39

Surrogates	REC (%)	Limits	Analytical Comments: e8,e3,e7
C9	107	70-130	11/15/2014 03:39

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SB-3@2.5'</b>	<b>1411565-015A</b>	<b>Soil</b>	<b>11/13/2014</b>	<b>GC6A</b>	<b>97787</b>

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	<b>2.9</b>	1.0	1	11/17/2014 13:36
TPH-Motor Oil (C18-C36)	<b>13</b>	5.0	1	11/17/2014 13:36

Surrogates	REC (%)	Limits	Analytical Comments: e7,e2
C9	92	70-130	11/17/2014 13:36

Analyst(s): TK

(Cont.)



# Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg

## Total Extractable Petroleum Hydrocarbons

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@9.5'	1411565-016A	Soil	11/13/2014	GC11A	97787

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	7900	100	100	11/15/2014 08:13
TPH-Motor Oil (C18-C36)	11,000	500	100	11/15/2014 08:13

Surrogates	REC (%)	Limits	Analytical Comments: e3,e7
C9	102	70-130	11/15/2014 08:13

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@17'	1411565-018A	Soil	11/13/2014	GC11B	97787

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	2800	20	20	11/15/2014 11:39
TPH-Motor Oil (C18-C36)	3900	100	20	11/15/2014 11:39

Surrogates	REC (%)	Limits	Analytical Comments: e3,e8,e7
C9	101	70-130	11/15/2014 11:39

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3@21'	1411565-019A	Soil	11/13/2014	GC11B	97787

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	2000	20	20	11/15/2014 02:31
TPH-Motor Oil (C18-C36)	2900	100	20	11/15/2014 02:31

Surrogates	REC (%)	Limits	Analytical Comments: e3,e7
C9	104	70-130	11/15/2014 02:31

Analyst(s): TK

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg

### Total Extractable Petroleum Hydrocarbons

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SB-3@25.5'</b>	<b>1411565-021A</b>	<b>Soil</b>	<b>11/13/2014</b>	<b>GC11B</b>	<b>97787</b>

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	<b>3.9</b>	1.0	1	11/15/2014 00:14
TPH-Motor Oil (C18-C36)	<b>9.7</b>	5.0	1	11/15/2014 00:14

Surrogates	REC (%)	Limits	Analytical Comments: e7,e2
C9	107	70-130	11/15/2014 00:14

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SB-4@2'</b>	<b>1411565-023A</b>	<b>Soil</b>	<b>11/13/2014</b>	<b>GC11A</b>	<b>97787</b>

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	<b>3.2</b>	1.0	1	11/17/2014 15:03
TPH-Motor Oil (C18-C36)	<b>9.9</b>	5.0	1	11/17/2014 15:03

Surrogates	REC (%)	Limits	Analytical Comments: e7,e2
C9	98	70-130	11/17/2014 15:03

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SB-4@9.5'</b>	<b>1411565-024A</b>	<b>Soil</b>	<b>11/13/2014</b>	<b>GC6B</b>	<b>97787</b>

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	<b>4.4</b>	1.0	1	11/15/2014 15:24
TPH-Motor Oil (C18-C36)	<b>5.5</b>	5.0	1	11/15/2014 15:24

Surrogates	REC (%)	Limits	Analytical Comments: e7,e2
C9	94	70-130	11/15/2014 15:24

Analyst(s): TK

(Cont.)



# Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg

## Total Extractable Petroleum Hydrocarbons

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4@14.5'	1411565-025A	Soil	11/13/2014	GC11A	97787

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	180	1.0	1	11/14/2014 18:30
TPH-Motor Oil (C18-C36)	190	5.0	1	11/14/2014 18:30

Surrogates	REC (%)	Limits	Analytical Comments: e8,e7	Date Analyzed
C9	101	70-130		11/14/2014 18:30

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4@19.5'	1411565-026A	Soil	11/13/2014	GC6A	97787

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	11/17/2014 12:25
TPH-Motor Oil (C18-C36)	ND	5.0	1	11/17/2014 12:25

Surrogates	REC (%)	Limits	Date Analyzed
C9	91	70-130	11/17/2014 12:25

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5@2'	1411565-029A	Soil	11/13/2014	GC6B	97787

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	11/15/2014 17:47
TPH-Motor Oil (C18-C36)	ND	5.0	1	11/15/2014 17:47

Surrogates	REC (%)	Limits	Date Analyzed
C9	91	70-130	11/15/2014 17:47

Analyst(s): TK

(Cont.)



# Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg

## Total Extractable Petroleum Hydrocarbons

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5@9.5'	1411565-030A	Soil	11/13/2014	GC9a	97787

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	1.8	1.0	1	11/15/2014 19:01
TPH-Motor Oil (C18-C36)	8.6	5.0	1	11/15/2014 19:01

Surrogates	REC (%)	Limits	Analytical Comments: e7,e2
C9	125	70-130	11/15/2014 19:01

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5@14'	1411565-031A	Soil	11/13/2014	GC9b	97802

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	1600	50	50	11/15/2014 13:02
TPH-Motor Oil (C18-C36)	1600	250	50	11/15/2014 13:02

Surrogates	REC (%)	Limits	Analytical Comments: e10,e2
C9	111	70-130	11/15/2014 13:02

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5@18'	1411565-032A	Soil	11/13/2014	GC11A	97802

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	39	1.0	1	11/14/2014 23:05
TPH-Motor Oil (C18-C36)	46	5.0	1	11/14/2014 23:05

Surrogates	REC (%)	Limits	Analytical Comments: e8,e3,e7
C9	100	70-130	11/14/2014 23:05

Analyst(s): TK

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 10:51  
**Date Prepared:** 11/14/14

**WorkOrder:** 1411565  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg

### Total Extractable Petroleum Hydrocarbons

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6@2'	1411565-035A	Soil	11/13/2014	GC6A	97802

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	1.5	1.0	1	11/14/2014 20:24
TPH-Motor Oil (C18-C36)	5.8	5.0	1	11/14/2014 20:24

Surrogates	REC (%)	Limits	Analytical Comments: e7,e2
C9	98	70-130	11/14/2014 20:24

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6@9'	1411565-036A	Soil	11/13/2014	GC6A	97802

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	11/15/2014 17:47
TPH-Motor Oil (C18-C36)	ND	5.0	1	11/15/2014 17:47

Surrogates	REC (%)	Limits
C9	91	70-130

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6@19'	1411565-038A	Soil	11/13/2014	GC6B	97802

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	11/15/2014 14:12
TPH-Motor Oil (C18-C36)	ND	5.0	1	11/15/2014 14:12

Surrogates	REC (%)	Limits
C9	92	70-130

Analyst(s): TK

(Cont.)





# Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411565

**Project:** #1095; Casentini

**Extraction Method:** SW3550B

**Date Received:** 11/14/14 10:51

**Analytical Method:** SW8015B

**Date Prepared:** 11/14/14

**Unit:** mg/Kg

## Total Extractable Petroleum Hydrocarbons

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6@24.5'	1411565-039A	Soil	11/13/2014	GC9b	97802

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	11/15/2014 09:27
TPH-Motor Oil (C18-C36)	ND	5.0	1	11/15/2014 09:27

Surrogates	REC (%)	Limits	Date Analyzed
C9	108	70-130	11/15/2014 09:27

**Analyst(s):** TK



## Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/13/14  
**Date Analyzed:** 11/17/14  
**Instrument:** GC10  
**Matrix:** Soil  
**Project:** #1095; Casentini

**WorkOrder:** 1411565  
**BatchID:** 97782  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-97782  
 1411549-001AMS/MSD

### QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	0.10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.0446	0.0050	0.050	-	89	59-99
Benzene	ND	0.0490	0.0050	0.050	-	98	68-120
Bromobenzene	ND	-	0.0050	-	-	-	-
Bromochloromethane	ND	-	0.0050	-	-	-	-
Bromodichloromethane	ND	-	0.0050	-	-	-	-
Bromoform	ND	-	0.0050	-	-	-	-
Bromomethane	ND	-	0.0050	-	-	-	-
2-Butanone (MEK)	ND	-	0.020	-	-	-	-
t-Butyl alcohol (TBA)	ND	0.190	0.050	0.20	-	95	56-120
n-Butyl benzene	ND	-	0.0050	-	-	-	-
sec-Butyl benzene	ND	-	0.0050	-	-	-	-
tert-Butyl benzene	ND	-	0.0050	-	-	-	-
Carbon Disulfide	ND	-	0.0050	-	-	-	-
Carbon Tetrachloride	ND	-	0.0050	-	-	-	-
Chlorobenzene	ND	0.0484	0.0050	0.050	-	97	74-112
Chloroethane	ND	-	0.0050	-	-	-	-
Chloroform	ND	-	0.0050	-	-	-	-
Chloromethane	ND	-	0.0050	-	-	-	-
2-Chlorotoluene	ND	-	0.0050	-	-	-	-
4-Chlorotoluene	ND	-	0.0050	-	-	-	-
Dibromochloromethane	ND	-	0.0050	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.0040	-	-	-	-
1,2-Dibromoethane (EDB)	ND	0.0445	0.0040	0.050	-	89	61-108
Dibromomethane	ND	-	0.0050	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.0050	-	-	-	-
Dichlorodifluoromethane	ND	-	0.0050	-	-	-	-
1,1-Dichloroethane	ND	-	0.0050	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.0477	0.0040	0.050	-	95	68-112
1,1-Dichloroethene	ND	0.0455	0.0050	0.050	-	91	61-113
cis-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
1,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,3-Dichloropropane	ND	-	0.0050	-	-	-	-
2,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,1-Dichloropropene	ND	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-

(Cont.)



## Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/13/14  
**Date Analyzed:** 11/17/14  
**Instrument:** GC10  
**Matrix:** Soil  
**Project:** #1095; Casentini

**WorkOrder:** 1411565  
**BatchID:** 97782  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-97782  
 1411549-001AMS/MSD

### QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	0.0476	0.0050	0.050	-	95	61-115
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.0468	0.0050	0.050	-	94	63-108
Freon 113	ND	-	0.0050	-	-	-	-
Hexachlorobutadiene	ND	-	0.0050	-	-	-	-
Hexachloroethane	ND	-	0.0050	-	-	-	-
2-Hexanone	ND	-	0.0050	-	-	-	-
Isopropylbenzene	ND	-	0.0050	-	-	-	-
4-Isopropyl toluene	ND	-	0.0050	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.0455	0.0050	0.050	-	91	63-105
Methylene chloride	ND	-	0.0050	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.0050	-	-	-	-
Naphthalene	ND	-	0.0050	-	-	-	-
n-Propyl benzene	ND	-	0.0050	-	-	-	-
Styrene	ND	-	0.0050	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
Tetrachloroethene	ND	-	0.0050	-	-	-	-
Toluene	ND	0.0513	0.0050	0.050	-	103	76-120
1,2,3-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.0050	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.0050	-	-	-	-
Trichloroethene	ND	0.0480	0.0050	0.050	-	96	66-124
Trichlorofluoromethane	ND	-	0.0050	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.0050	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.0050	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.0050	-	-	-	-
Vinyl Chloride	ND	-	0.0050	-	-	-	-
Xylenes, Total	ND	-	0.0050	-	-	-	-

**Surrogate Recovery**

Dibromofluoromethane	0.110	0.116		0.12	88	93	77-115
Toluene-d8	0.130	0.128		0.12	104	102	83-122
4-BFB	0.0122	0.0127		0.012	97	102	70-118

(Cont.)



## Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/13/14  
**Date Analyzed:** 11/17/14  
**Instrument:** GC10  
**Matrix:** Soil  
**Project:** #1095; Casentini

**WorkOrder:** 1411565  
**BatchID:** 97782  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-97782  
 1411549-001AMS/MSD

### QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	0.0451	0.0461	0.050	ND	90	92	70-130	2.28	30
Benzene	0.0462	0.0466	0.050	ND	92	93	70-130	0.880	30
t-Butyl alcohol (TBA)	0.146	0.160	0.20	ND	73	80	70-130	9.21	30
Chlorobenzene	0.0435	0.0433	0.050	ND	87	87	70-130	0	30
1,2-Dibromoethane (EDB)	0.0450	0.0463	0.050	ND	90	93	70-130	2.88	30
1,2-Dichloroethane (1,2-DCA)	0.0442	0.0452	0.050	ND	88	90	70-130	2.12	30
1,1-Dichloroethene	0.0430	0.0439	0.050	ND	86	88	70-130	2.07	30
Diisopropyl ether (DIPE)	0.0456	0.0456	0.050	ND	91	91	70-130	0	30
Ethyl tert-butyl ether (ETBE)	0.0458	0.0464	0.050	ND	92	93	70-130	1.27	30
Methyl-t-butyl ether (MTBE)	0.0452	0.0455	0.050	ND	90	91	70-130	0.645	30
Toluene	0.0487	0.0481	0.050	ND	97	96	70-130	1.27	30
Trichloroethene	0.0474	0.0471	0.050	ND	95	94	70-130	0.615	30
<b>Surrogate Recovery</b>									
Dibromofluoromethane	0.123	0.122	0.12		99	98	70-130	0.971	30
Toluene-d8	0.131	0.130	0.12		105	104	70-130	0.967	30
4-BFB	0.0140	0.0151	0.012		112	121	70-130	7.37	30

(Cont.)



# Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/14/14  
**Date Analyzed:** 11/15/14  
**Instrument:** GC16  
**Matrix:** Soil  
**Project:** #1095; Casentini

**WorkOrder:** 1411565  
**BatchID:** 97801  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-97801  
 1411565-035AMS/MSD

## QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	0.10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.0376	0.0050	0.050	-	75	59-99
Benzene	ND	0.0479	0.0050	0.050	-	96	68-120
Bromobenzene	ND	-	0.0050	-	-	-	-
Bromochloromethane	ND	-	0.0050	-	-	-	-
Bromodichloromethane	ND	-	0.0050	-	-	-	-
Bromoform	ND	-	0.0050	-	-	-	-
Bromomethane	ND	-	0.0050	-	-	-	-
2-Butanone (MEK)	ND	-	0.020	-	-	-	-
t-Butyl alcohol (TBA)	ND	0.164	0.050	0.20	-	82	56-120
n-Butyl benzene	ND	-	0.0050	-	-	-	-
sec-Butyl benzene	ND	-	0.0050	-	-	-	-
tert-Butyl benzene	ND	-	0.0050	-	-	-	-
Carbon Disulfide	ND	-	0.0050	-	-	-	-
Carbon Tetrachloride	ND	-	0.0050	-	-	-	-
Chlorobenzene	ND	0.0440	0.0050	0.050	-	88	74-112
Chloroethane	ND	-	0.0050	-	-	-	-
Chloroform	ND	-	0.0050	-	-	-	-
Chloromethane	ND	-	0.0050	-	-	-	-
2-Chlorotoluene	ND	-	0.0050	-	-	-	-
4-Chlorotoluene	ND	-	0.0050	-	-	-	-
Dibromochloromethane	ND	-	0.0050	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.0040	-	-	-	-
1,2-Dibromoethane (EDB)	ND	0.0420	0.0040	0.050	-	84	61-108
Dibromomethane	ND	-	0.0050	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.0050	-	-	-	-
Dichlorodifluoromethane	ND	-	0.0050	-	-	-	-
1,1-Dichloroethane	ND	-	0.0050	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.0416	0.0040	0.050	-	83	68-112
1,1-Dichloroethene	ND	0.0411	0.0050	0.050	-	82	61-113
cis-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
1,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,3-Dichloropropane	ND	-	0.0050	-	-	-	-
2,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,1-Dichloropropene	ND	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-

(Cont.)



## Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/14/14  
**Date Analyzed:** 11/15/14  
**Instrument:** GC16  
**Matrix:** Soil  
**Project:** #1095; Casentini

**WorkOrder:** 1411565  
**BatchID:** 97801  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-97801  
 1411565-035AMS/MSD

### QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	0.0416	0.0050	0.050	-	83	61-115
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.0397	0.0050	0.050	-	79	63-108
Freon 113	ND	-	0.0050	-	-	-	-
Hexachlorobutadiene	ND	-	0.0050	-	-	-	-
Hexachloroethane	ND	-	0.0050	-	-	-	-
2-Hexanone	ND	-	0.0050	-	-	-	-
Isopropylbenzene	ND	-	0.0050	-	-	-	-
4-Isopropyl toluene	ND	-	0.0050	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.0388	0.0050	0.050	-	78	63-105
Methylene chloride	ND	-	0.0050	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.0050	-	-	-	-
Naphthalene	ND	-	0.0050	-	-	-	-
n-Propyl benzene	ND	-	0.0050	-	-	-	-
Styrene	ND	-	0.0050	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
Tetrachloroethene	ND	-	0.0050	-	-	-	-
Toluene	ND	0.0458	0.0050	0.050	-	92	76-120
1,2,3-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.0050	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.0050	-	-	-	-
Trichloroethene	ND	0.0442	0.0050	0.050	-	88	66-124
Trichlorofluoromethane	ND	-	0.0050	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.0050	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.0050	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.0050	-	-	-	-
Vinyl Chloride	ND	-	0.0050	-	-	-	-
Xylenes, Total	ND	-	0.0050	-	-	-	-

**Surrogate Recovery**

Dibromofluoromethane	0.128	0.126		0.12	103	101	77-115
Toluene-d8	0.138	0.136		0.12	110	109	83-122
4-BFB	0.0136	0.0139		0.012	109	111	70-118

(Cont.)



## Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/14/14  
**Date Analyzed:** 11/15/14  
**Instrument:** GC16  
**Matrix:** Soil  
**Project:** #1095; Casentini

**WorkOrder:** 1411565  
**BatchID:** 97801  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-97801  
 1411565-035AMS/MSD

### QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	0.0370	0.0360	0.050	ND	74	72	70-130	2.78	30
Benzene	0.0458	0.0442	0.050	ND	92	88	70-130	3.65	30
t-Butyl alcohol (TBA)	0.154	0.150	0.20	ND	77	75	70-130	2.36	30
Chlorobenzene	0.0418	0.0401	0.050	ND	84	80	70-130	4.13	30
1,2-Dibromoethane (EDB)	0.0398	0.0389	0.050	ND	80	78	70-130	2.23	30
1,2-Dichloroethane (1,2-DCA)	0.0376	0.0389	0.050	ND	75	78	70-130	3.50	30
1,1-Dichloroethene	0.0436	0.0416	0.050	ND	87	83	70-130	4.75	30
Diisopropyl ether (DIPE)	0.0408	0.0395	0.050	ND	82	79	70-130	3.38	30
Ethyl tert-butyl ether (ETBE)	0.0392	0.0378	0.050	ND	78	76	70-130	3.51	30
Methyl-t-butyl ether (MTBE)	0.0381	0.0367	0.050	ND	76	73	70-130	3.70	30
Toluene	0.0439	0.0415	0.050	ND	88	83	70-130	5.55	30
Trichloroethene	0.0424	0.0410	0.050	ND	85	82	70-130	3.32	30
<b>Surrogate Recovery</b>									
Dibromofluoromethane	0.126	0.129	0.12		100	103	70-130	2.81	30
Toluene-d8	0.135	0.133	0.12		108	107	70-130	0.987	30
4-BFB	0.0132	0.0135	0.012		105	108	70-130	2.06	30

(Cont.)





## Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/17/14  
**Date Analyzed:** 11/17/14  
**Instrument:** GC10  
**Matrix:** Soil  
**Project:** #1095; Casentini

**WorkOrder:** 1411565  
**BatchID:** 97866  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-97866  
 1411645-002AMS/MSD

### QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	0.10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.0414	0.0050	0.050	-	83	59-99
Benzene	ND	0.0450	0.0050	0.050	-	90	68-120
Bromobenzene	ND	-	0.0050	-	-	-	-
Bromochloromethane	ND	-	0.0050	-	-	-	-
Bromodichloromethane	ND	-	0.0050	-	-	-	-
Bromoform	ND	-	0.0050	-	-	-	-
Bromomethane	ND	-	0.0050	-	-	-	-
2-Butanone (MEK)	ND	-	0.020	-	-	-	-
t-Butyl alcohol (TBA)	ND	0.185	0.050	0.20	-	93	56-120
n-Butyl benzene	ND	-	0.0050	-	-	-	-
sec-Butyl benzene	ND	-	0.0050	-	-	-	-
tert-Butyl benzene	ND	-	0.0050	-	-	-	-
Carbon Disulfide	ND	-	0.0050	-	-	-	-
Carbon Tetrachloride	ND	-	0.0050	-	-	-	-
Chlorobenzene	ND	0.0452	0.0050	0.050	-	91	74-112
Chloroethane	ND	-	0.0050	-	-	-	-
Chloroform	ND	-	0.0050	-	-	-	-
Chloromethane	ND	-	0.0050	-	-	-	-
2-Chlorotoluene	ND	-	0.0050	-	-	-	-
4-Chlorotoluene	ND	-	0.0050	-	-	-	-
Dibromochloromethane	ND	-	0.0050	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.0040	-	-	-	-
1,2-Dibromoethane (EDB)	ND	0.0417	0.0040	0.050	-	83	61-108
Dibromomethane	ND	-	0.0050	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.0050	-	-	-	-
Dichlorodifluoromethane	ND	-	0.0050	-	-	-	-
1,1-Dichloroethane	ND	-	0.0050	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.0436	0.0040	0.050	-	87	68-112
1,1-Dichloroethene	ND	0.0403	0.0050	0.050	-	81	61-113
cis-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
1,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,3-Dichloropropane	ND	-	0.0050	-	-	-	-
2,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,1-Dichloropropene	ND	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-

(Cont.)



## Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/17/14  
**Date Analyzed:** 11/17/14  
**Instrument:** GC10  
**Matrix:** Soil  
**Project:** #1095; Casentini

**WorkOrder:** 1411565  
**BatchID:** 97866  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-97866  
 1411645-002AMS/MSD

### QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	0.0437	0.0050	0.050	-	87	61-115
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.0425	0.0050	0.050	-	85	63-108
Freon 113	ND	-	0.0050	-	-	-	-
Hexachlorobutadiene	ND	-	0.0050	-	-	-	-
Hexachloroethane	ND	-	0.0050	-	-	-	-
2-Hexanone	ND	-	0.0050	-	-	-	-
Isopropylbenzene	ND	-	0.0050	-	-	-	-
4-Isopropyl toluene	ND	-	0.0050	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.0408	0.0050	0.050	-	82	63-105
Methylene chloride	ND	-	0.0050	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.0050	-	-	-	-
Naphthalene	ND	-	0.0050	-	-	-	-
n-Propyl benzene	ND	-	0.0050	-	-	-	-
Styrene	ND	-	0.0050	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
Tetrachloroethene	ND	-	0.0050	-	-	-	-
Toluene	ND	0.0473	0.0050	0.050	-	95	76-120
1,2,3-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.0050	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.0050	-	-	-	-
Trichloroethene	ND	0.0434	0.0050	0.050	-	87	66-124
Trichlorofluoromethane	ND	-	0.0050	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.0050	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.0050	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.0050	-	-	-	-
Vinyl Chloride	ND	-	0.0050	-	-	-	-
Xylenes, Total	ND	-	0.0050	-	-	-	-

**Surrogate Recovery**

Dibromofluoromethane	0.114	0.116		0.12	92	93	77-115
Toluene-d8	0.132	0.128		0.12	106	102	83-122
4-BFB	0.0129	0.0132		0.012	103	105	70-118

(Cont.)



## Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/17/14  
**Date Analyzed:** 11/17/14  
**Instrument:** GC10  
**Matrix:** Soil  
**Project:** #1095; Casentini

**WorkOrder:** 1411565  
**BatchID:** 97866  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-97866  
 1411645-002AMS/MSD

### QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	0.0394	0.0411	0.050	ND	79	82	70-130	4.13	30
Benzene	0.0417	0.0419	0.050	ND	83	84	70-130	0.656	30
t-Butyl alcohol (TBA)	0.155	0.138	0.20	ND	77	69,F1	70-130	11.7	30
Chlorobenzene	0.0412	0.0409	0.050	ND	83	82	70-130	0.912	30
1,2-Dibromoethane (EDB)	0.0399	0.0428	0.050	ND	80	86	70-130	6.98	30
1,2-Dichloroethane (1,2-DCA)	0.0401	0.0402	0.050	ND	80	81	70-130	0.453	30
1,1-Dichloroethene	0.0387	0.0380	0.050	ND	77	76	70-130	2.03	30
Diisopropyl ether (DIPE)	0.0409	0.0415	0.050	ND	82	83	70-130	1.29	30
Ethyl tert-butyl ether (ETBE)	0.0405	0.0419	0.050	ND	81	84	70-130	3.60	30
Methyl-t-butyl ether (MTBE)	0.0398	0.0406	0.050	ND	80	81	70-130	1.99	30
Toluene	0.0442	0.0447	0.050	ND	88	89	70-130	1.24	30
Trichloroethene	0.0413	0.0415	0.050	ND	83	83	70-130	0	30
<b>Surrogate Recovery</b>									
Dibromofluoromethane	0.120	0.124	0.12		96	99	70-130	3.30	30
Toluene-d8	0.131	0.134	0.12		105	107	70-130	2.42	30
4-BFB	0.0131	0.0152	0.012		105	122	70-130	14.8	30



## Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/14/14  
**Date Analyzed:** 11/17/14  
**Instrument:** GC17  
**Matrix:** Soil  
**Project:** #1095; Casentini

**WorkOrder:** 1411565  
**BatchID:** 97817  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-97817  
 1411549-001AMS/MSD

### QC Summary Report for SW8270C

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acenaphthene	ND	3.93	0.25	5	-	79	30-130
Acenaphthylene	ND	-	0.25	-	-	-	-
Acetochlor	ND	-	0.25	-	-	-	-
Anthracene	ND	-	0.25	-	-	-	-
Benzidine	ND	-	1.3	-	-	-	-
Benzo (a) anthracene	ND	-	0.25	-	-	-	-
Benzo (b) fluoranthene	ND	-	0.25	-	-	-	-
Benzo (k) fluoranthene	ND	-	0.25	-	-	-	-
Benzo (g,h,i) perylene	ND	-	0.25	-	-	-	-
Benzo (a) pyrene	ND	-	0.25	-	-	-	-
Benzyl Alcohol	ND	-	1.3	-	-	-	-
1,1-Biphenyl	ND	-	0.25	-	-	-	-
Bis (2-chloroethoxy) Methane	ND	-	0.25	-	-	-	-
Bis (2-chloroethyl) Ether	ND	-	0.25	-	-	-	-
Bis (2-chloroisopropyl) Ether	ND	-	0.25	-	-	-	-
Bis (2-ethylhexyl) Adipate	ND	-	0.25	-	-	-	-
Bis (2-ethylhexyl) Phthalate	ND	-	0.25	-	-	-	-
4-Bromophenyl Phenyl Ether	ND	-	0.25	-	-	-	-
Butylbenzyl Phthalate	ND	-	0.25	-	-	-	-
4-Chloroaniline	ND	-	0.25	-	-	-	-
4-Chloro-3-methylphenol	ND	4.30	0.25	5	-	86	30-130
2-Chloronaphthalene	ND	-	0.25	-	-	-	-
2-Chlorophenol	ND	4.15	0.25	5	-	83	30-130
4-Chlorophenyl Phenyl Ether	ND	-	0.25	-	-	-	-
Chrysene	ND	-	0.25	-	-	-	-
Dibenzo (a,h) anthracene	ND	-	0.25	-	-	-	-
Dibenzofuran	ND	-	0.25	-	-	-	-
Di-n-butyl Phthalate	ND	-	0.25	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.25	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.25	-	-	-	-
1,4-Dichlorobenzene	ND	3.57	0.25	5	-	71	30-130
3,3-Dichlorobenzidine	ND	-	0.50	-	-	-	-
2,4-Dichlorophenol	ND	-	0.25	-	-	-	-
Diethyl Phthalate	ND	-	0.25	-	-	-	-
2,4-Dimethylphenol	ND	-	0.25	-	-	-	-
Dimethyl Phthalate	ND	-	0.25	-	-	-	-
4,6-Dinitro-2-methylphenol	ND	-	1.3	-	-	-	-
2,4-Dinitrophenol	ND	-	6.3	-	-	-	-
2,4-Dinitrotoluene	ND	4.19	0.25	5	-	84	30-130
2,6-Dinitrotoluene	ND	-	0.25	-	-	-	-

(Cont.)



## Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/14/14  
**Date Analyzed:** 11/17/14  
**Instrument:** GC17  
**Matrix:** Soil  
**Project:** #1095; Casentini

**WorkOrder:** 1411565  
**BatchID:** 97817  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-97817  
 1411549-001AMS/MSD

### QC Summary Report for SW8270C

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Di-n-octyl Phthalate	ND	-	0.50	-	-	-	-
1,2-Diphenylhydrazine	ND	-	0.25	-	-	-	-
Fluoranthene	ND	-	0.25	-	-	-	-
Fluorene	ND	-	0.25	-	-	-	-
Hexachlorobenzene	ND	-	0.25	-	-	-	-
Hexachlorobutadiene	ND	-	0.25	-	-	-	-
Hexachlorocyclopentadiene	ND	-	1.3	-	-	-	-
Hexachloroethane	ND	-	0.25	-	-	-	-
Indeno (1,2,3-cd) pyrene	ND	-	0.25	-	-	-	-
Isophorone	ND	-	0.25	-	-	-	-
2-Methylnaphthalene	ND	-	0.25	-	-	-	-
2-Methylphenol (o-Cresol)	ND	-	0.25	-	-	-	-
3 &/or 4-Methylphenol (m,p-Cresol)	ND	-	0.25	-	-	-	-
Naphthalene	ND	-	0.25	-	-	-	-
2-Nitroaniline	ND	-	1.3	-	-	-	-
3-Nitroaniline	ND	-	1.3	-	-	-	-
4-Nitroaniline	ND	-	1.3	-	-	-	-
Nitrobenzene	ND	-	0.25	-	-	-	-
2-Nitrophenol	ND	-	1.3	-	-	-	-
4-Nitrophenol	ND	3.74	1.3	5	-	75	30-130
N-Nitrosodiphenylamine	ND	-	0.25	-	-	-	-
N-Nitrosodi-n-propylamine	ND	3.30	0.25	5	-	66	30-130
Pentachlorophenol	ND	2.98	1.3	5	-	60	30-130
Phenanthrene	ND	-	0.25	-	-	-	-
Phenol	ND	3.97	0.25	5	-	79	30-130
Pyrene	ND	4.23	0.25	5	-	85	30-130
1,2,4-Trichlorobenzene	ND	4.25	0.25	5	-	85	30-130
2,4,5-Trichlorophenol	ND	-	0.25	-	-	-	-
2,4,6-Trichlorophenol	ND	-	0.25	-	-	-	-

#### Surrogate Recovery

2-Fluorophenol	3.72	3.96		5	75	79	30-130
Phenol-d5	3.55	3.69		5	71	74	30-130
Nitrobenzene-d5	3.41	3.86		5	68	77	30-130
2-Fluorobiphenyl	3.63	3.86		5	73	77	30-130
2,4,6-Tribromophenol	2.49	2.92		5	50	58	16-130
4-Terphenyl-d14	3.60	4.22		5	72	84	30-130

(Cont.)



## Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/14/14  
**Date Analyzed:** 11/17/14  
**Instrument:** GC17  
**Matrix:** Soil  
**Project:** #1095; Casentini

**WorkOrder:** 1411565  
**BatchID:** 97817  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-97817  
 1411549-001AMS/MSD

### QC Summary Report for SW8270C

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Acenaphthene	NR	NR		ND<10	NR	NR	-	NR	
4-Chloro-3-methylphenol	NR	NR		ND<10	NR	NR	-	NR	
2-Chlorophenol	NR	NR		ND<10	NR	NR	-	NR	
1,4-Dichlorobenzene	NR	NR		ND<10	NR	NR	-	NR	
2,4-Dinitrotoluene	NR	NR		ND<10	NR	NR	-	NR	
4-Nitrophenol	NR	NR		ND<52	NR	NR	-	NR	
N-Nitrosodi-n-propylamine	NR	NR		ND<10	NR	NR	-	NR	
Pentachlorophenol	NR	NR		ND<52	NR	NR	-	NR	
Phenol	NR	NR		ND<10	NR	NR	-	NR	
Pyrene	NR	NR		ND<10	NR	NR	-	NR	
1,2,4-Trichlorobenzene	NR	NR		ND<10	NR	NR	-	NR	
<b>Surrogate Recovery</b>									
2-Fluorophenol	NR	NR			NR	NR	-	NR	
Phenol-d5	NR	NR			NR	NR	-	NR	
Nitrobenzene-d5	NR	NR			NR	NR	-	NR	
2-Fluorobiphenyl	NR	NR			NR	NR	-	NR	
2,4,6-Tribromophenol	NR	NR			NR	NR	-	NR	
4-Terphenyl-d14	NR	NR			NR	NR	-	NR	

(Cont.)



## Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/17/14  
**Date Analyzed:** 11/17/14  
**Instrument:** GC17  
**Matrix:** Soil  
**Project:** #1095; Casentini

**WorkOrder:** 1411565  
**BatchID:** 97882  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-97882  
 1411595-001AMS/MSD

### QC Summary Report for SW8270C

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acenaphthene	ND	3.95	0.25	5	-	79	30-130
Acenaphthylene	ND	-	0.25	-	-	-	-
Acetochlor	ND	-	0.25	-	-	-	-
Anthracene	ND	-	0.25	-	-	-	-
Benzidine	ND	-	1.3	-	-	-	-
Benzo (a) anthracene	ND	-	0.25	-	-	-	-
Benzo (b) fluoranthene	ND	-	0.25	-	-	-	-
Benzo (k) fluoranthene	ND	-	0.25	-	-	-	-
Benzo (g,h,i) perylene	ND	-	0.25	-	-	-	-
Benzo (a) pyrene	ND	-	0.25	-	-	-	-
Benzyl Alcohol	ND	-	1.3	-	-	-	-
1,1-Biphenyl	ND	-	0.25	-	-	-	-
Bis (2-chloroethoxy) Methane	ND	-	0.25	-	-	-	-
Bis (2-chloroethyl) Ether	ND	-	0.25	-	-	-	-
Bis (2-chloroisopropyl) Ether	ND	-	0.25	-	-	-	-
Bis (2-ethylhexyl) Adipate	ND	-	0.25	-	-	-	-
Bis (2-ethylhexyl) Phthalate	ND	-	0.25	-	-	-	-
4-Bromophenyl Phenyl Ether	ND	-	0.25	-	-	-	-
Butylbenzyl Phthalate	ND	-	0.25	-	-	-	-
4-Chloroaniline	ND	-	0.25	-	-	-	-
4-Chloro-3-methylphenol	ND	4.29	0.25	5	-	86	30-130
2-Chloronaphthalene	ND	-	0.25	-	-	-	-
2-Chlorophenol	ND	4.16	0.25	5	-	83	30-130
4-Chlorophenyl Phenyl Ether	ND	-	0.25	-	-	-	-
Chrysene	ND	-	0.25	-	-	-	-
Dibenzo (a,h) anthracene	ND	-	0.25	-	-	-	-
Dibenzofuran	ND	-	0.25	-	-	-	-
Di-n-butyl Phthalate	ND	-	0.25	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.25	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.25	-	-	-	-
1,4-Dichlorobenzene	ND	3.59	0.25	5	-	72	30-130
3,3-Dichlorobenzidine	ND	-	0.50	-	-	-	-
2,4-Dichlorophenol	ND	-	0.25	-	-	-	-
Diethyl Phthalate	ND	-	0.25	-	-	-	-
2,4-Dimethylphenol	ND	-	0.25	-	-	-	-
Dimethyl Phthalate	ND	-	0.25	-	-	-	-
4,6-Dinitro-2-methylphenol	ND	-	1.3	-	-	-	-
2,4-Dinitrophenol	ND	-	6.3	-	-	-	-
2,4-Dinitrotoluene	ND	4.23	0.25	5	-	85	30-130
2,6-Dinitrotoluene	ND	-	0.25	-	-	-	-

(Cont.)





## Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/17/14  
**Date Analyzed:** 11/17/14  
**Instrument:** GC17  
**Matrix:** Soil  
**Project:** #1095; Casentini

**WorkOrder:** 1411565  
**BatchID:** 97882  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-97882  
 1411595-001AMS/MSD

### QC Summary Report for SW8270C

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Di-n-octyl Phthalate	ND	-	0.50	-	-	-	-
1,2-Diphenylhydrazine	ND	-	0.25	-	-	-	-
Fluoranthene	ND	-	0.25	-	-	-	-
Fluorene	ND	-	0.25	-	-	-	-
Hexachlorobenzene	ND	-	0.25	-	-	-	-
Hexachlorobutadiene	ND	-	0.25	-	-	-	-
Hexachlorocyclopentadiene	ND	-	1.3	-	-	-	-
Hexachloroethane	ND	-	0.25	-	-	-	-
Indeno (1,2,3-cd) pyrene	ND	-	0.25	-	-	-	-
Isophorone	ND	-	0.25	-	-	-	-
2-Methylnaphthalene	ND	-	0.25	-	-	-	-
2-Methylphenol (o-Cresol)	ND	-	0.25	-	-	-	-
3 &/or 4-Methylphenol (m,p-Cresol)	ND	-	0.25	-	-	-	-
Naphthalene	ND	-	0.25	-	-	-	-
2-Nitroaniline	ND	-	1.3	-	-	-	-
3-Nitroaniline	ND	-	1.3	-	-	-	-
4-Nitroaniline	ND	-	1.3	-	-	-	-
Nitrobenzene	ND	-	0.25	-	-	-	-
2-Nitrophenol	ND	-	1.3	-	-	-	-
4-Nitrophenol	ND	3.76	1.3	5	-	75	30-130
N-Nitrosodiphenylamine	ND	-	0.25	-	-	-	-
N-Nitrosodi-n-propylamine	ND	3.23	0.25	5	-	65	30-130
Pentachlorophenol	ND	2.91	1.3	5	-	58	30-130
Phenanthrene	ND	-	0.25	-	-	-	-
Phenol	ND	4.03	0.25	5	-	81	30-130
Pyrene	ND	3.90	0.25	5	-	78	30-130
1,2,4-Trichlorobenzene	ND	4.31	0.25	5	-	86	30-130
2,4,5-Trichlorophenol	ND	-	0.25	-	-	-	-
2,4,6-Trichlorophenol	ND	-	0.25	-	-	-	-

**Surrogate Recovery**

2-Fluorophenol	4.08	4.05		5	82	81	30-130
Phenol-d5	3.88	3.74		5	78	75	30-130
Nitrobenzene-d5	3.79	3.89		5	76	78	30-130
2-Fluorobiphenyl	3.79	3.91		5	76	78	30-130
2,4,6-Tribromophenol	2.60	2.90		5	52	58	16-130
4-Terphenyl-d14	3.96	4.02		5	79	80	30-130

(Cont.)



## Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/17/14  
**Date Analyzed:** 11/17/14  
**Instrument:** GC17  
**Matrix:** Soil  
**Project:** #1095; Casentini

**WorkOrder:** 1411565  
**BatchID:** 97882  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-97882  
 1411595-001AMS/MSD

### QC Summary Report for SW8270C

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Acenaphthene	NR	NR		ND<2	NR	NR	-	NR	
4-Chloro-3-methylphenol	NR	NR		ND<2	NR	NR	-	NR	
2-Chlorophenol	NR	NR		ND<2	NR	NR	-	NR	
1,4-Dichlorobenzene	NR	NR		ND<2	NR	NR	-	NR	
2,4-Dinitrotoluene	NR	NR		ND<2	NR	NR	-	NR	
4-Nitrophenol	NR	NR		ND<10	NR	NR	-	NR	
N-Nitrosodi-n-propylamine	NR	NR		ND<2	NR	NR	-	NR	
Pentachlorophenol	NR	NR		ND<10	NR	NR	-	NR	
Phenol	NR	NR		ND<2	NR	NR	-	NR	
Pyrene	NR	NR		ND<2	NR	NR	-	NR	
1,2,4-Trichlorobenzene	NR	NR		ND<2	NR	NR	-	NR	

#### Surrogate Recovery

2-Fluorophenol	NR	NR			NR	NR	-	NR	
Phenol-d5	NR	NR			NR	NR	-	NR	
Nitrobenzene-d5	NR	NR			NR	NR	-	NR	
2-Fluorobiphenyl	NR	NR			NR	NR	-	NR	
2,4,6-Tribromophenol	NR	NR			NR	NR	-	NR	
4-Terphenyl-d14	NR	NR			NR	NR	-	NR	



## Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/13/14  
**Date Analyzed:** 11/14/14  
**Instrument:** GC3  
**Matrix:** Soil  
**Project:** #1095; Casentini

**WorkOrder:** 1411565  
**BatchID:** 97786  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-97786  
 1411555-002AMS/MSD

### QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.690	0.40	0.60	-	115	70-130
MTBE	ND	0.0921	0.050	0.10	-	92	70-130
Benzene	ND	0.110	0.0050	0.10	-	110	70-130
Toluene	ND	0.112	0.0050	0.10	-	112	70-130
Ethylbenzene	ND	0.113	0.0050	0.10	-	113	70-130
Xylenes	ND	0.340	0.0050	0.30	-	113	70-130

**Surrogate Recovery**

2-Fluorotoluene	0.103	0.102		0.10	103	103	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	NR	NR		2.1	NR	NR	-	NR	
MTBE	NR	NR		ND	NR	NR	-	NR	
Benzene	NR	NR		ND	NR	NR	-	NR	
Toluene	NR	NR		0.039	NR	NR	-	NR	
Ethylbenzene	NR	NR		0.0091	NR	NR	-	NR	
Xylenes	NR	NR		0.011	NR	NR	-	NR	

**Surrogate Recovery**

2-Fluorotoluene	NR	NR			NR	NR	-	NR	
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(Cont.)



# Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/14/14  
**Date Analyzed:** 11/15/14  
**Instrument:** GC3  
**Matrix:** Soil  
**Project:** #1095; Casentini

**WorkOrder:** 1411565  
**BatchID:** 97803  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-97803  
 1411592-001AMS/MSD

## QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.650	0.40	0.60	-	108	70-130
MTBE	ND	0.0846	0.050	0.10	-	85	70-130
Benzene	ND	0.106	0.0050	0.10	-	106	70-130
Toluene	ND	0.108	0.0050	0.10	-	108	70-130
Ethylbenzene	ND	0.109	0.0050	0.10	-	109	70-130
Xylenes	ND	0.329	0.0050	0.30	-	110	70-130

### Surrogate Recovery

2-Fluorotoluene	0.105	0.0989		0.10	105	99	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	NR	NR		39	NR	NR	-	NR	
MTBE	NR	NR		ND<0.29	NR	NR	-	NR	
Benzene	NR	NR		0.036	NR	NR	-	NR	
Toluene	NR	NR		1.5	NR	NR	-	NR	
Ethylbenzene	NR	NR		0.19	NR	NR	-	NR	
Xylenes	NR	NR		0.64	NR	NR	-	NR	

### Surrogate Recovery

2-Fluorotoluene	NR	NR			NR	NR	-	NR	
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(Cont.)



# Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/17/14  
**Date Analyzed:** 11/18/14  
**Instrument:** GC19  
**Matrix:** Soil  
**Project:** #1095; Casentini

**WorkOrder:** 1411565  
**BatchID:** 97875  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-97875  
 1411299-001AMS/MSD

## QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.598	0.40	0.60	-	100	70-130
MTBE	ND	0.0822	0.050	0.10	-	82	70-130
Benzene	ND	0.106	0.0050	0.10	-	106	70-130
Toluene	ND	0.107	0.0050	0.10	-	107	70-130
Ethylbenzene	ND	0.111	0.0050	0.10	-	111	70-130
Xylenes	ND	0.356	0.0050	0.30	-	119	70-130

### Surrogate Recovery

2-Fluorotoluene	0.114	0.112		0.10	114	113	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	0.578	0.571	0.60	ND	96	95	70-130	1.30	20
MTBE	0.0803	0.0852	0.10	ND	80	85	70-130	5.93	20
Benzene	0.0986	0.106	0.10	ND	99	106	70-130	6.85	20
Toluene	0.100	0.107	0.10	ND	101	107	70-130	6.48	20
Ethylbenzene	0.105	0.112	0.10	ND	105	112	70-130	6.56	20
Xylenes	0.340	0.359	0.30	ND	113	120	70-130	5.50	20

### Surrogate Recovery

2-Fluorotoluene	0.102	0.110	0.10		102	110	70-130	7.23	20
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## Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/13/14  
**Date Analyzed:** 11/14/14  
**Instrument:** GC2A  
**Matrix:** Soil  
**Project:** #1095; Casentini

**WorkOrder:** 1411565  
**BatchID:** 97787  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-97787  
 1411555-002AMS/MSD

### QC Summary Report for SW8015B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	40.8	1.0	40	-	102	70-130
<b>Surrogate Recovery</b>							
C9	26.8	26.8		25	107	107	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	NR	NR		120	NR	NR	-	NR	
<b>Surrogate Recovery</b>									
C9	NR	NR			NR	NR	-	NR	

(Cont.)



## Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/14/14  
**Date Analyzed:** 11/15/14  
**Instrument:** GC6B  
**Matrix:** Soil  
**Project:** #1095; Casentini

**WorkOrder:** 1411565  
**BatchID:** 97802  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-97802  
 1411565-035AMS/MSD

### QC Summary Report for SW8015B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	42.7	1.0	40	-	105	70-130

**Surrogate Recovery**

C9	21.2	21.1		25	85	85	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	46.4	45.6	40	1.494	112	110	70-130	1.59	30

**Surrogate Recovery**

C9	24.4	24.2	25		98	97	70-130	0.816	30
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(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1411565

ClientCode: CESW

WaterTrax     WriteOn     EDF     Excel     EQUIS     Email     HardCopy     ThirdParty     J-flag

**Report to:**

Tim Cook  
Cook Environmental Services, Inc.  
1485 Treat Blvd, Ste. 203A  
Walnut Creek, CA 94597  
(925) 478-8390    FAX: 925-937-1759

Email: tcook@cookenvironmental.com  
cc/3rd Party:  
PO:  
ProjectNo: #1095; Casentini

**Bill to:**

Tim Cook  
Cook Environmental Services, Inc.  
1485 Treat Blvd, Ste. 203A  
Walnut Creek, CA 94597

**Requested TAT:**

**5 days**

**Date Received: 11/14/2014**

**Date Printed: 11/21/2014**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1411565-001	SB-1@2.5'	Soil	11/13/2014	<input type="checkbox"/>	A	A	A	A								
1411565-002	SB-1@10'	Soil	11/13/2014	<input type="checkbox"/>	A	A		A								
1411565-003	SB-1@11'	Soil	11/13/2014	<input type="checkbox"/>	A	A		A								
1411565-005	SB-1@22.5'	Soil	11/13/2014	<input type="checkbox"/>	A	A		A								
1411565-008	SB-2@2.5'	Soil	11/13/2014	<input type="checkbox"/>	A	A		A								
1411565-010	SB-2@9.5'	Soil	11/13/2014	<input type="checkbox"/>	A	A		A								
1411565-011	SB-2@12.5'	Soil	11/13/2014	<input type="checkbox"/>	A	A		A								
1411565-012	SB-2@22'	Soil	11/13/2014	<input type="checkbox"/>	A	A		A								
1411565-015	SB-3@2.5'	Soil	11/13/2014	<input type="checkbox"/>	A	A		A								
1411565-016	SB-3@9.5'	Soil	11/13/2014	<input type="checkbox"/>	A	A		A								
1411565-018	SB-3@17'	Soil	11/13/2014	<input type="checkbox"/>	A	A		A								
1411565-019	SB-3@21'	Soil	11/13/2014	<input type="checkbox"/>	A	A		A								
1411565-021	SB-3@25.5'	Soil	11/13/2014	<input type="checkbox"/>	A	A		A								
1411565-023	SB-4@2'	Soil	11/13/2014	<input type="checkbox"/>	A	A		A								
1411565-024	SB-4@9.5'	Soil	11/13/2014	<input type="checkbox"/>	A	A		A								
1411565-025	SB-4@14.5'	Soil	11/13/2014	<input type="checkbox"/>	A	A		A								

**Test Legend:**

1	8260B_S	2	8270D_S	3	PREDF REPORT	4	TPH(DMO)_S	5	
6		7		8		9		10	
11		12							

The following SamplIDs: 001A, 002A, 003A, 005A, 008A, 010A, 011A, 012A, 015A, 016A, 018A, 019A, 021A, 023A, 024A, 025A, 026A, 029A, 030A, 031A, 032A, 035A, 036A, 038A, 039A contain testgroup.

**Prepared by: Maria Venegas**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.

1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262



# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1411565

ClientCode: CESW

WaterTrax   
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  EQUS   
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**Report to:**

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Cook Environmental Services, Inc.  
1485 Treat Blvd, Ste. 203A  
Walnut Creek, CA 94597  
(925) 478-8390    FAX: 925-937-1759

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Walnut Creek, CA 94597

**Requested TAT:**

**5 days**

**Date Received: 11/14/2014**

**Date Printed: 11/21/2014**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1411565-026	SB-4@19.5'	Soil	11/13/2014	<input type="checkbox"/>	A	A		A									
1411565-029	SB-5@2'	Soil	11/13/2014	<input type="checkbox"/>	A	A		A									
1411565-030	SB-5@9.5'	Soil	11/13/2014	<input type="checkbox"/>	A	A		A									
1411565-031	SB-5@14'	Soil	11/13/2014	<input type="checkbox"/>	A	A		A									
1411565-032	SB-5@18'	Soil	11/13/2014	<input type="checkbox"/>	A	A		A									
1411565-035	SB-6@2'	Soil	11/13/2014	<input type="checkbox"/>	A	A		A									
1411565-036	SB-6@9'	Soil	11/13/2014	<input type="checkbox"/>	A	A		A									
1411565-038	SB-6@19'	Soil	11/13/2014	<input type="checkbox"/>	A	A		A									
1411565-039	SB-6@24.5'	Soil	11/13/2014	<input type="checkbox"/>	A	A		A									

**Test Legend:**

1	8260B_S	2	8270D_S	3	PREFD REPORT	4	TPH(DMO)_S	5	
6		7		8		9		10	
11		12							

The following SamplIDs: 001A, 002A, 003A, 005A, 008A, 010A, 011A, 012A, 015A, 016A, 018A, 019A, 021A, 023A, 024A, 025A, 026A, 029A, 030A, 031A, 032A, 035A, 036A, 038A, 039A contain testgroup.

**Prepared by: Maria Venegas**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



## WORK ORDER SUMMARY

**Client Name:** COOK ENVIRONMENTAL SERVICES, INC.

**QC Level:** LEVEL 2

**Work Order:** 1411565

**Project:** #1095; Casentini

**Client Contact:** Tim Cook

**Date Received:** 11/14/2014

**Comments:**

**Contact's Email:** tcook@cookenvironmental.com

WaterTrax   
  WriteOn   
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  Fax   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1411565-001A	SB-1@2.5'	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Steel tube 2"x6"	<input type="checkbox"/>	11/13/2014	5 days		<input type="checkbox"/>	
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days			
			SW8260B (VOCs)			<input type="checkbox"/>		5 days			
1411565-002A	SB-1@10'	Soil	Multi-Range TPH(g,d,mo)	1	Acetate Liner	<input type="checkbox"/>	11/13/2014	5 days		<input type="checkbox"/>	
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days			
			SW8260B (VOCs)			<input type="checkbox"/>		5 days			
1411565-003A	SB-1@11'	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Steel tube 2"x6"	<input type="checkbox"/>	11/13/2014	5 days		<input type="checkbox"/>	
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days			
			SW8260B (VOCs)			<input type="checkbox"/>		5 days			
1411565-004A	SB-1@15'	Soil		1	Stainless Steel tube 2"x6"	<input type="checkbox"/>	11/13/2014			<input checked="" type="checkbox"/>	
1411565-005A	SB-1@22.5'	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Steel tube 2"x6"	<input type="checkbox"/>	11/13/2014	5 days		<input type="checkbox"/>	
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days			
			SW8260B (VOCs)			<input type="checkbox"/>		5 days			
1411565-006A	SB-1@25'	Soil		1	Stainless Steel tube 2"x6"	<input type="checkbox"/>	11/13/2014			<input checked="" type="checkbox"/>	
1411565-007A	SB-1@34'	Soil		1	Stainless Steel tube 2"x6"	<input type="checkbox"/>	11/13/2014			<input checked="" type="checkbox"/>	
1411565-008A	SB-2@2.5'	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Steel tube 2"x6"	<input type="checkbox"/>	11/13/2014	5 days		<input type="checkbox"/>	
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days			

**\* NOTE: STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).**



## WORK ORDER SUMMARY

**Client Name:** COOK ENVIRONMENTAL SERVICES, INC.

**QC Level:** LEVEL 2

**Work Order:** 1411565

**Project:** #1095; Casentini

**Client Contact:** Tim Cook

**Date Received:** 11/14/2014

**Comments:**

**Contact's Email:** tcook@cookenvironmental.com

WaterTrax   
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  Excel   
  Fax   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1411565-008A	SB-2@2.5'	Soil	SW8260B (VOCs)	1	Stainless Steel tube 2"x6"	<input type="checkbox"/>	11/13/2014	5 days		<input type="checkbox"/>	
1411565-009A	SB-2@4'	Soil		1	Stainless Steel tube 2"x6"	<input type="checkbox"/>	11/13/2014			<input checked="" type="checkbox"/>	
1411565-010A	SB-2@9.5'	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Steel tube 2"x6"	<input type="checkbox"/>	11/13/2014	5 days		<input type="checkbox"/>	
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1411565-011A	SB-2@12.5'	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Steel tube 2"x6"	<input type="checkbox"/>	11/13/2014	5 days		<input type="checkbox"/>	
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1411565-012A	SB-2@22'	Soil	Multi-Range TPH(g,d,mo)	1	Acetate Liner	<input type="checkbox"/>	11/13/2014	5 days		<input type="checkbox"/>	
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1411565-013A	SB-2@24.5'	Soil		1	Stainless Steel tube 2"x6"	<input type="checkbox"/>	11/13/2014			<input checked="" type="checkbox"/>	
1411565-014A	SB-2@30'	Soil		1	Acetate Liner	<input type="checkbox"/>	11/13/2014			<input checked="" type="checkbox"/>	
1411565-015A	SB-3@2.5'	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Steel tube 2"x6"	<input type="checkbox"/>	11/13/2014	5 days		<input type="checkbox"/>	
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1411565-016A	SB-3@9.5'	Soil	Multi-Range TPH(g,d,mo)	1	Acetate Liner	<input type="checkbox"/>	11/13/2014	5 days		<input type="checkbox"/>	

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## WORK ORDER SUMMARY

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**QC Level:** LEVEL 2

**Work Order:** 1411565

**Project:** #1095; Casentini

**Client Contact:** Tim Cook

**Date Received:** 11/14/2014

**Comments:**

**Contact's Email:** tcook@cookenvironmental.com

WaterTrax     WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1411565-016A	SB-3@9.5'	Soil	SW8270C (SVOCs)	1	Acetate Liner	<input type="checkbox"/>	11/13/2014	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
1411565-017A	SB-3@11.5'	Soil		1	Acetate Liner	<input type="checkbox"/>	11/13/2014			<input checked="" type="checkbox"/>	
1411565-018A	SB-3@17'	Soil	Multi-Range TPH(g,d,mo)	1	Acetate Liner	<input type="checkbox"/>	11/13/2014	5 days		<input type="checkbox"/>	
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
			SW8260B (VOCs)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
1411565-019A	SB-3@21'	Soil	Multi-Range TPH(g,d,mo)	1	Acetate Liner	<input type="checkbox"/>	11/13/2014	5 days		<input type="checkbox"/>	
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
			SW8260B (VOCs)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
1411565-020A	SB-3@24'	Soil		1	Acetate Liner	<input type="checkbox"/>	11/13/2014			<input checked="" type="checkbox"/>	
1411565-021A	SB-3@25.5'	Soil	Multi-Range TPH(g,d,mo)	1	Acetate Liner	<input type="checkbox"/>	11/13/2014	5 days		<input type="checkbox"/>	
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
			SW8260B (VOCs)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
1411565-022A	SB-3@27.5'	Soil		1	Acetate Liner	<input type="checkbox"/>	11/13/2014			<input checked="" type="checkbox"/>	
1411565-023A	SB-4@2'	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Steel tube 2"x6"	<input type="checkbox"/>	11/13/2014	5 days		<input type="checkbox"/>	
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
			SW8260B (VOCs)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		

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## WORK ORDER SUMMARY

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**QC Level:** LEVEL 2

**Work Order:** 1411565

**Project:** #1095; Casentini

**Client Contact:** Tim Cook

**Date Received:** 11/14/2014

**Comments:**

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WaterTrax   
  WriteOn   
  EDF   
  Excel   
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  ThirdParty   
  J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut	
1411565-024A	SB-4@9.5'	Soil	Multi-Range TPH(g,d,mo)	1	Acetate Liner	<input type="checkbox"/>	11/13/2014	5 days			<input type="checkbox"/>	
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days				<input type="checkbox"/>
			SW8260B (VOCs)			<input type="checkbox"/>		5 days				<input type="checkbox"/>
1411565-025A	SB-4@14.5'	Soil	Multi-Range TPH(g,d,mo)	1	Acetate Liner	<input type="checkbox"/>	11/13/2014	5 days			<input type="checkbox"/>	
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days				<input type="checkbox"/>
			SW8260B (VOCs)			<input type="checkbox"/>		5 days				<input type="checkbox"/>
1411565-026A	SB-4@19.5'	Soil	Multi-Range TPH(g,d,mo)	1	Acetate Liner	<input type="checkbox"/>	11/13/2014	5 days			<input type="checkbox"/>	
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days				<input type="checkbox"/>
			SW8260B (VOCs)			<input type="checkbox"/>		5 days				<input type="checkbox"/>
1411565-027A	SB-4@24.5'	Soil		1	Acetate Liner	<input type="checkbox"/>	11/13/2014				<input checked="" type="checkbox"/>	
1411565-028A	SB-4@27.5'	Soil		1	Acetate Liner	<input type="checkbox"/>	11/13/2014				<input checked="" type="checkbox"/>	
1411565-029A	SB-5@2'	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Steel tube 2"x6"	<input type="checkbox"/>	11/13/2014	5 days			<input type="checkbox"/>	
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days				<input type="checkbox"/>
			SW8260B (VOCs)			<input type="checkbox"/>		5 days				<input type="checkbox"/>
1411565-030A	SB-5@9.5'	Soil	Multi-Range TPH(g,d,mo)	1	Acetate Liner	<input type="checkbox"/>	11/13/2014	5 days			<input type="checkbox"/>	
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days				<input type="checkbox"/>
			SW8260B (VOCs)			<input type="checkbox"/>		5 days				<input type="checkbox"/>

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**Comments:**

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WaterTrax     WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1411565-031A	SB-5@14'	Soil	Multi-Range TPH(g,d,mo)	1	Acetate Liner	<input type="checkbox"/>	11/13/2014	5 days		<input type="checkbox"/>	
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days			
			SW8260B (VOCs)			<input type="checkbox"/>		5 days			
1411565-032A	SB-5@18'	Soil	Multi-Range TPH(g,d,mo)	1	Acetate Liner	<input type="checkbox"/>	11/13/2014	5 days		<input type="checkbox"/>	
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days			
			SW8260B (VOCs)			<input type="checkbox"/>		5 days			
1411565-033A	SB-5@24'	Soil		1	Acetate Liner	<input type="checkbox"/>	11/13/2014			<input checked="" type="checkbox"/>	
1411565-034A	SB-5@25'	Soil		1	Acetate Liner	<input type="checkbox"/>	11/13/2014			<input checked="" type="checkbox"/>	
1411565-035A	SB-6@2'	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Steel tube 2"x6"	<input type="checkbox"/>	11/13/2014	5 days		<input type="checkbox"/>	
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days			
			SW8260B (VOCs)			<input type="checkbox"/>		5 days			
1411565-036A	SB-6@9'	Soil	Multi-Range TPH(g,d,mo)	1	Acetate Liner	<input type="checkbox"/>	11/13/2014	5 days		<input type="checkbox"/>	
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days			
			SW8260B (VOCs)			<input type="checkbox"/>		5 days			
1411565-037A	SB-6@14'	Soil		1	Acetate Liner	<input type="checkbox"/>	11/13/2014			<input checked="" type="checkbox"/>	
1411565-038A	SB-6@19'	Soil	Multi-Range TPH(g,d,mo)	1	Acetate Liner	<input type="checkbox"/>	11/13/2014	5 days		<input type="checkbox"/>	
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days			

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**Work Order:** 1411565

**Project:** #1095; Casentini

**Client Contact:** Tim Cook

**Date Received:** 11/14/2014

**Comments:**

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WaterTrax   
  WriteOn   
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  Email   
  HardCopy   
  ThirdParty   
  J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1411565-038A	SB-6@19'	Soil	SW8260B (VOCs)	1	Acetate Liner	<input type="checkbox"/>	11/13/2014	5 days		<input type="checkbox"/>	
1411565-039A	SB-6@24.5'	Soil	Multi-Range TPH(g,d,mo)	1	Acetate Liner	<input type="checkbox"/>	11/13/2014	5 days		<input type="checkbox"/>	
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1411565-040A	SB-6@26'	Soil		1	Acetate Liner	<input type="checkbox"/>	11/13/2014			<input checked="" type="checkbox"/>	
1411565-041A	SB-6@28.5'	Soil		1	Acetate Liner	<input type="checkbox"/>	11/13/2014			<input checked="" type="checkbox"/>	

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1411565

McCAMPBELL ANALYTICAL, INC.  
 1534 Willow Pass Rd  
 Pittsburg, CA 94565-1701  
 Website: [www.mccampbell.com](http://www.mccampbell.com) Email: main@mccampbell.com  
 Telephone: (877) 252-9262 Fax: (925) 252-9269

**CHAIN OF CUSTODY RECORD**  
**TURN AROUND TIME**       
 RUSH 24 HR 48 HR 72 HR 5 DAY  
 EDF Required? YES Coelt (Normal) No Write On (DW) No

Report To: Tim Cook Bill To: Same  
 Company: Cook Environmental Services  
 1485 Treat Blvd, Suite 203A  
 Walnut Creek, CA 94597 E-Mail: tcook@cookenvironmental.com  
 Tele: (925) 478-8390 Fax: (925) 478-8394  
 Project #: 1095 Project Name: Casentinni  
 Project Location: Oakland  
 Sampler Name & Signature: T. Cook

Analysis Request										Other	Comments	
TPH multi-range (8015 mod)	TPH multi-range (8015 mod)	TPH multi-range (8015 mod)	TPH multi-range (8015 mod)	TPH multi-range (8015 mod)	TPH multi-range (8015 mod)	TPH multi-range (8015 mod)	TPH multi-range (8015 mod)	TPH multi-range (8015 mod)	TPH multi-range (8015 mod)	TPH multi-range (8015 mod)		Filter Samples for Metals analysis: Yes / No
PAHs, VOCs including naphthalene (8260B)	PAHs, VOCs including naphthalene (8260B)	PAHs, VOCs including naphthalene (8260B)	PAHs, VOCs including naphthalene (8260B)	PAHs, VOCs including naphthalene (8260B)	PAHs, VOCs including naphthalene (8260B)	PAHs, VOCs including naphthalene (8260B)	PAHs, VOCs including naphthalene (8260B)	PAHs, VOCs including naphthalene (8260B)	PAHs, VOCs including naphthalene (8260B)	PAHs, VOCs including naphthalene (8260B)		
SVOCs including naphthalene & PAHs (8270)	SVOCs including naphthalene & PAHs (8270)	SVOCs including naphthalene & PAHs (8270)	SVOCs including naphthalene & PAHs (8270)	SVOCs including naphthalene & PAHs (8270)	SVOCs including naphthalene & PAHs (8270)	SVOCs including naphthalene & PAHs (8270)	SVOCs including naphthalene & PAHs (8270)	SVOCs including naphthalene & PAHs (8270)	SVOCs including naphthalene & PAHs (8270)	SVOCs including naphthalene & PAHs (8270)		
CAM 17 metals	CAM 17 metals	CAM 17 metals	CAM 17 metals	CAM 17 metals	CAM 17 metals	CAM 17 metals	CAM 17 metals	CAM 17 metals	CAM 17 metals	CAM 17 metals		
EPA 601 / 8010 / 8021	EPA 601 / 8010 / 8021	EPA 601 / 8010 / 8021	EPA 601 / 8010 / 8021	EPA 601 / 8010 / 8021	EPA 601 / 8010 / 8021	EPA 601 / 8010 / 8021	EPA 601 / 8010 / 8021	EPA 601 / 8010 / 8021	EPA 601 / 8010 / 8021	EPA 601 / 8010 / 8021		
BTEX ONLY (EPA 602 / 8020)	BTEX ONLY (EPA 602 / 8020)	BTEX ONLY (EPA 602 / 8020)	BTEX ONLY (EPA 602 / 8020)	BTEX ONLY (EPA 602 / 8020)	BTEX ONLY (EPA 602 / 8020)	BTEX ONLY (EPA 602 / 8020)	BTEX ONLY (EPA 602 / 8020)	BTEX ONLY (EPA 602 / 8020)	BTEX ONLY (EPA 602 / 8020)	BTEX ONLY (EPA 602 / 8020)		
EPA 608 / 8081	EPA 608 / 8081	EPA 608 / 8081	EPA 608 / 8081	EPA 608 / 8081	EPA 608 / 8081	EPA 608 / 8081	EPA 608 / 8081	EPA 608 / 8081	EPA 608 / 8081	EPA 608 / 8081		
EPA 608 / 8082 PCB's ONLY	EPA 608 / 8082 PCB's ONLY	EPA 608 / 8082 PCB's ONLY	EPA 608 / 8082 PCB's ONLY	EPA 608 / 8082 PCB's ONLY	EPA 608 / 8082 PCB's ONLY	EPA 608 / 8082 PCB's ONLY	EPA 608 / 8082 PCB's ONLY	EPA 608 / 8082 PCB's ONLY	EPA 608 / 8082 PCB's ONLY	EPA 608 / 8082 PCB's ONLY		
EPA 8140 / 8141	EPA 8140 / 8141	EPA 8140 / 8141	EPA 8140 / 8141	EPA 8140 / 8141	EPA 8140 / 8141	EPA 8140 / 8141	EPA 8140 / 8141	EPA 8140 / 8141	EPA 8140 / 8141	EPA 8140 / 8141		
EPA 8150 / 8151	EPA 8150 / 8151	EPA 8150 / 8151	EPA 8150 / 8151	EPA 8150 / 8151	EPA 8150 / 8151	EPA 8150 / 8151	EPA 8150 / 8151	EPA 8150 / 8151	EPA 8150 / 8151	EPA 8150 / 8151		
EPA 524.2 / 624 / 8260 (9 oxys only)	EPA 524.2 / 624 / 8260 (9 oxys only)	EPA 524.2 / 624 / 8260 (9 oxys only)	EPA 524.2 / 624 / 8260 (9 oxys only)	EPA 524.2 / 624 / 8260 (9 oxys only)	EPA 524.2 / 624 / 8260 (9 oxys only)	EPA 524.2 / 624 / 8260 (9 oxys only)	EPA 524.2 / 624 / 8260 (9 oxys only)	EPA 524.2 / 624 / 8260 (9 oxys only)	EPA 524.2 / 624 / 8260 (9 oxys only)	EPA 524.2 / 624 / 8260 (9 oxys only)		
EPA 525 / 625 / 8270	EPA 525 / 625 / 8270	EPA 525 / 625 / 8270	EPA 525 / 625 / 8270	EPA 525 / 625 / 8270	EPA 525 / 625 / 8270	EPA 525 / 625 / 8270	EPA 525 / 625 / 8270	EPA 525 / 625 / 8270	EPA 525 / 625 / 8270	EPA 525 / 625 / 8270		
PAH's / PNA's by EPA 625 / 8270 / 8310	PAH's / PNA's by EPA 625 / 8270 / 8310	PAH's / PNA's by EPA 625 / 8270 / 8310	PAH's / PNA's by EPA 625 / 8270 / 8310	PAH's / PNA's by EPA 625 / 8270 / 8310	PAH's / PNA's by EPA 625 / 8270 / 8310	PAH's / PNA's by EPA 625 / 8270 / 8310	PAH's / PNA's by EPA 625 / 8270 / 8310	PAH's / PNA's by EPA 625 / 8270 / 8310	PAH's / PNA's by EPA 625 / 8270 / 8310	PAH's / PNA's by EPA 625 / 8270 / 8310		
CAM-17 Metals (6010 / 6020)	CAM-17 Metals (6010 / 6020)	CAM-17 Metals (6010 / 6020)	CAM-17 Metals (6010 / 6020)	CAM-17 Metals (6010 / 6020)	CAM-17 Metals (6010 / 6020)	CAM-17 Metals (6010 / 6020)	CAM-17 Metals (6010 / 6020)	CAM-17 Metals (6010 / 6020)	CAM-17 Metals (6010 / 6020)	CAM-17 Metals (6010 / 6020)		
LUFT 5 Metals (6010 / 6020)	LUFT 5 Metals (6010 / 6020)	LUFT 5 Metals (6010 / 6020)	LUFT 5 Metals (6010 / 6020)	LUFT 5 Metals (6010 / 6020)	LUFT 5 Metals (6010 / 6020)	LUFT 5 Metals (6010 / 6020)	LUFT 5 Metals (6010 / 6020)	LUFT 5 Metals (6010 / 6020)	LUFT 5 Metals (6010 / 6020)	LUFT 5 Metals (6010 / 6020)		
Lead (200.8 / 200.9 / 6010)	Lead (200.8 / 200.9 / 6010)	Lead (200.8 / 200.9 / 6010)	Lead (200.8 / 200.9 / 6010)	Lead (200.8 / 200.9 / 6010)	Lead (200.8 / 200.9 / 6010)	Lead (200.8 / 200.9 / 6010)	Lead (200.8 / 200.9 / 6010)	Lead (200.8 / 200.9 / 6010)	Lead (200.8 / 200.9 / 6010)	Lead (200.8 / 200.9 / 6010)		

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED							
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO <sub>3</sub>	Other				
SB-1@2.5'		11/13	8:40	1	ST		X					X						
SB-1@10'				1	A		X					X	X	X				
SB-1@11'				1	ST		X					X	X	X				
SB-1@15'																		hold
SB-1@22.5'							X					X	X	X				
SB-1@25'																		hold
SB-1@31'																		hold
SB-2@2.5'							X					X	X	X				
SB-2@4'												X	X	X				hold
SB-2@9.5'												X	X	X				
SB-2@12.5'												X	X	X				
SB-2@22'					A		X					X	X	X				
SB-2@24.5'					ST													hold
SB-2@30'					A													hold

Relinquished By: *[Signature]* Date: 11/14 Time: 8:50 Received By: *[Signature]*  
 Relinquished By: Date: Time: Received By:  
 Relinquished By: Date: Time: Received By:

ICE/° 10.5 COMMENTS:  
 GOOD CONDITION \_\_\_\_\_ GUAGE & SAMPLE WELLS IN ORDER PRESENTED ON CHAIN  
 HEAD SPACE ABSENT \_\_\_\_\_  
 DECHLORINATED IN LAB \_\_\_\_\_  
 APPROPRIATE CONTAINERS \_\_\_\_\_  
 PRESERVED IN LAB \_\_\_\_\_  
 PRESERVATION VOAS O&G METALS OTHER  
 pH<2



McCAMPBELL ANALYTICAL, INC.  
 1534 Willow Pass Rd  
 Pittsburg, CA 94565-1701  
 Website: [www.mccampbell.com](http://www.mccampbell.com) Email: main@mccampbell.com  
 Telephone: (877) 252-9262 Fax: (925) 252-9269

**CHAIN OF CUSTODY RECORD**  
**TURN AROUND TIME**       
 RUSH 24 HR 48 HR 72 HR 5 DAY  
 EDF Required? YES Coelt (Normal) No Write On (DW) No

Report To: Tim Cook Bill To: Same  
 Company: Cook Environmental Services  
 1485 Treat Blvd, Suite 203A  
 Walnut Creek, CA 94597 E-Mail: tcook@cookenvironmental.com  
 Tele: (925) 478-8390 Fax: (925) 478-8394  
 Project #:1095 Project Name: Casentinni  
 Project Location: Oakland  
 Sampler Name & Signature: T. Cook

Analysis Request Other Comments

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED				TPH multi-range (8015 mod) BTEX, VOCs and naphthalene(8260B) SVOCs including naphthalene & PAHs (8270) CAM 17 metals EPA 601 / 8010 / 8021 BTEX ONLY (EPA 602 / 8020) EPA 608 / 8081 EPA 608 / 8082 PCB's ONLY EPA 8140 / 8141 EPA 8150 / 8151 EPA 524.2 / 624 / 8260 (9 oxygens only) EPA 525 / 625 / 8270 PAH's / PNA's by EPA 625 / 8270 / 8310 CAM-17 Metals (6010 / 6020) LUFT 5 Metals (6010 / 6020) Lead (200.8 / 200.9 / 6010)	Filter Samples for Metals analysis: Yes / No				
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO <sub>3</sub>	Other						
SB-3@2.5'		11/13/14			ST															
<del>SB-3@7'</del>																				hold
SB-3@9.5'					A															hold
SB-3@11.5'																				
SB-3@17'																				
SB-3@21'																				
SB-3@24'																				hold
SB-3@25.5'																				hold
SB-3@27.5'																				hold
SB-4@2'					ST															
SB-4@9.5'					A															
SB-4@14.5'																				
SB-4@19.5'																				
SB-4@24.5'																				hold

Relinquished By: *Tim Cook* Date: 11/14 Time: 850 Received By: *Maura*  
 Relinquished By: Date: Time: Received By:  
 Relinquished By: Date: Time: Received By:

ICE/° \_\_\_\_\_ COMMENTS:  
 GOOD CONDITION \_\_\_\_\_ GUAGE & SAMPLE WELLS IN ORDER PRESENTED ON CHAIN  
 HEAD SPACE ABSENT \_\_\_\_\_  
 DECHLORINATED IN LAB \_\_\_\_\_  
 APPROPRIATE CONTAINERS \_\_\_\_\_  
 PRESERVED IN LAB \_\_\_\_\_  
 PRESERVATION VOAS | O&G | METALS | OTHER  
 pH<2



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Telephone: (877) 252-9262

Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH  24 HR  48 HR  72 HR  5 DAY

EDF Required? YES Coelt (Normal) No Write On (DW) No

Report To: Tim Cook Bill To: Same  
Company: Cook Environmental Services  
1485 Treat Blvd, Suite 203A  
Walnut Creek, CA 94597 E-Mail: [tcCook@cookenvironmental.com](mailto:tcCook@cookenvironmental.com)  
Tele: (925) 478-8390 Fax: (925) 478-8394  
Project #: 1095 Project Name: Casentinni  
Project Location: Oakland  
Sampler Name & Signature: T. Cook

Analysis Request													Other	Comments					
SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED				TPH multi-range (8015 mod) BTEX, VOCs and naphthalene(8260B) SVOCs including naphthalene & PAHs (8270) CAM 17 metals EPA 601 / 8010 / 8021 BTEX ONLY (EPA 602 / 8020) EPA 608 / 8081 EPA 608 / 8082 PCB's ONLY EPA 8140 / 8141 EPA 8150 / 8151 EPA 524.2 / 624 / 8260 (9 oxys only) EPA 525 / 625 / 8270 PAH's / PNA's by EPA 625 / 8270 / 8310 CAM-17 Metals (6010 / 6020) LUFT 5 Metals (6010 / 6020) Lead (200.8 / 200.9 / 6010)				
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO <sub>3</sub>	Other					
SB-4@27.5'		11/13			A														hold
SB-5@2'					ST														
SB-5@9.5'					A														
SB-5@4'																			
SB-5@18'																			
SB-5@24'																			hold
SB-5@25'																			hold
SB-6@2'					ST														
SB-6@9'					A														
SB-6@14'																			hold
SB-6@19'																			
SB-6@24.5'																			
SB-6@26'																			hold
SB-6@28.5'																			hold

Relinquished By: *Tim Cook* Date: 11/14 Time: 8:00 Received By: *M... ..*  
Relinquished By: Date: Time: Received By:  
Relinquished By: Date: Time: Received By:

ICE/° \_\_\_\_\_ COMMENTS:  
GOOD CONDITION \_\_\_\_\_ GUAGE & SAMPLE WELLS IN ORDER PRESENTED ON CHAIN  
HEAD SPACE ABSENT \_\_\_\_\_  
DECHLORINATED IN LAB \_\_\_\_\_  
APPROPRIATE CONTAINERS \_\_\_\_\_  
PRESERVED IN LAB \_\_\_\_\_  
PRESERVATION VOAS | O&G | METALS | OTHER  
pH<2



### Sample Receipt Checklist

Client Name: **Cook Environmental Services, Inc.**

Date and Time Received: **11/14/2014 10:51:48 AM**

Project Name: **#1095; Casentini**

LogIn Reviewed by: **Maria Venegas**

WorkOrder No: **1411565** Matrix: Soil

Carrier: Client Drop-In

**Chain of Custody (COC) Information**

- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Sample IDs noted by Client on COC? Yes  No
- Date and Time of collection noted by Client on COC? Yes  No
- Sampler's name noted on COC? Yes  No

**Sample Receipt Information**

- Custody seals intact on shipping container/cooler? Yes  No  NA
- Shipping container/cooler in good condition? Yes  No
- Samples in proper containers/bottles? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No

**Sample Preservation and Hold Time (HT) Information**

- All samples received within holding time? Yes  No
- Sample/Temp Blank temperature Temp: 10.5°C NA
- Water - VOA vials have zero headspace / no bubbles? Yes  No  NA
- Sample labels checked for correct preservation? Yes  No
- pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? Yes  No  NA
- Samples Received on Ice? Yes  No

(Ice Type: WET ICE )

**UCMR3 Samples:**

- Total Chlorine tested and acceptable upon receipt for EPA 522? Yes  No  NA
- Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? Yes  No  NA

\* NOTE: If the "No" box is checked, see comments below.

-----  
 Comments:

**APPENDIX F**  
**Laboratory Analytical Report**  
**for Groundwater Samples**

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# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1411602

**Report Created for:** Cook Environmental Services, Inc.  
1485 Treat Blvd, Ste. 203A  
Walnut Creek, CA 94597

**Project Contact:** Tim Cook  
**Project P.O.:**  
**Project Name:** #1095; Casentini

**Project Received:** 11/14/2014

Analytical Report reviewed & approved for release on 11/21/2014 by:

*Question about  
your data?*

[Click here to email  
McC Campbell](#)

Angela Rydelius,  
Laboratory Manager

***The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.***







## Glossary of Terms & Qualifier Definitions

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**WorkOrder:** 1411602

### Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
TEQ	Toxicity Equivalence

### Analytical Qualifiers

S	spike recovery outside accepted recovery limits
a1	sample diluted due to matrix interference
c1	surrogate recovery outside of the control limits due to the dilution of the sample.
c4	surrogate recovery outside of the control limits due to coelution with another peak(s) / cluttered chromatogram.
d7	strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram
e2/e3	diesel range compounds are significant; no recognizable pattern; and/or aged diesel is significant
e2	diesel range compounds are significant; no recognizable pattern
e4	gasoline range compounds are significant.
e7	oil range compounds are significant
e10/e7	fuel oil; and/or oil range compounds are significant



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/18/14-11/21/14

**WorkOrder:** 1411602  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1	1411602-001B	Water	11/13/2014	GC18	97977
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		10	1	11/20/2014 02:17
tert-Amyl methyl ether (TAME)	ND		0.50	1	11/20/2014 02:17
Benzene	ND		0.50	1	11/20/2014 02:17
Bromobenzene	ND		0.50	1	11/20/2014 02:17
Bromochloromethane	ND		0.50	1	11/20/2014 02:17
Bromodichloromethane	ND		0.50	1	11/20/2014 02:17
Bromoform	ND		0.50	1	11/20/2014 02:17
Bromomethane	ND		0.50	1	11/20/2014 02:17
2-Butanone (MEK)	ND		2.0	1	11/20/2014 02:17
t-Butyl alcohol (TBA)	ND		2.0	1	11/20/2014 02:17
n-Butyl benzene	ND		0.50	1	11/20/2014 02:17
sec-Butyl benzene	ND		0.50	1	11/20/2014 02:17
tert-Butyl benzene	ND		0.50	1	11/20/2014 02:17
Carbon Disulfide	ND		0.50	1	11/20/2014 02:17
Carbon Tetrachloride	ND		0.50	1	11/20/2014 02:17
Chlorobenzene	ND		0.50	1	11/20/2014 02:17
Chloroethane	ND		0.50	1	11/20/2014 02:17
Chloroform	ND		0.50	1	11/20/2014 02:17
Chloromethane	ND		0.50	1	11/20/2014 02:17
2-Chlorotoluene	ND		0.50	1	11/20/2014 02:17
4-Chlorotoluene	ND		0.50	1	11/20/2014 02:17
Dibromochloromethane	ND		0.50	1	11/20/2014 02:17
1,2-Dibromo-3-chloropropane	ND		0.20	1	11/20/2014 02:17
1,2-Dibromoethane (EDB)	ND		0.50	1	11/20/2014 02:17
Dibromomethane	ND		0.50	1	11/20/2014 02:17
1,2-Dichlorobenzene	ND		0.50	1	11/20/2014 02:17
1,3-Dichlorobenzene	ND		0.50	1	11/20/2014 02:17
1,4-Dichlorobenzene	ND		0.50	1	11/20/2014 02:17
Dichlorodifluoromethane	ND		0.50	1	11/20/2014 02:17
1,1-Dichloroethane	ND		0.50	1	11/20/2014 02:17
1,2-Dichloroethane (1,2-DCA)	ND		0.50	1	11/20/2014 02:17
1,1-Dichloroethene	ND		0.50	1	11/20/2014 02:17
cis-1,2-Dichloroethene	ND		0.50	1	11/20/2014 02:17
trans-1,2-Dichloroethene	ND		0.50	1	11/20/2014 02:17
1,2-Dichloropropane	ND		0.50	1	11/20/2014 02:17
1,3-Dichloropropane	ND		0.50	1	11/20/2014 02:17
2,2-Dichloropropane	ND		0.50	1	11/20/2014 02:17
1,1-Dichloropropene	ND		0.50	1	11/20/2014 02:17

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/18/14-11/21/14

**WorkOrder:** 1411602  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1	1411602-001B	Water	11/13/2014	GC18	97977
<b>Analytes</b>	<b>Result</b>		<b>RL</b>	<b>DF</b>	<b>Date Analyzed</b>
cis-1,3-Dichloropropene	ND		0.50	1	11/20/2014 02:17
trans-1,3-Dichloropropene	ND		0.50	1	11/20/2014 02:17
Diisopropyl ether (DIPE)	ND		0.50	1	11/20/2014 02:17
Ethylbenzene	ND		0.50	1	11/20/2014 02:17
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	11/20/2014 02:17
Freon 113	ND		0.50	1	11/20/2014 02:17
Hexachlorobutadiene	ND		0.50	1	11/20/2014 02:17
Hexachloroethane	ND		0.50	1	11/20/2014 02:17
2-Hexanone	ND		0.50	1	11/20/2014 02:17
Isopropylbenzene	ND		0.50	1	11/20/2014 02:17
4-Isopropyl toluene	ND		0.50	1	11/20/2014 02:17
Methyl-t-butyl ether (MTBE)	ND		0.50	1	11/20/2014 02:17
Methylene chloride	ND		0.50	1	11/20/2014 02:17
4-Methyl-2-pentanone (MIBK)	<b>0.68</b>		0.50	1	11/20/2014 02:17
Naphthalene	ND		0.50	1	11/20/2014 02:17
n-Propyl benzene	ND		0.50	1	11/20/2014 02:17
Styrene	ND		0.50	1	11/20/2014 02:17
1,1,1,2-Tetrachloroethane	ND		0.50	1	11/20/2014 02:17
1,1,2,2-Tetrachloroethane	ND		0.50	1	11/20/2014 02:17
Tetrachloroethene	ND		0.50	1	11/20/2014 02:17
Toluene	<b>2.6</b>		0.50	1	11/20/2014 02:17
1,2,3-Trichlorobenzene	ND		0.50	1	11/20/2014 02:17
1,2,4-Trichlorobenzene	ND		0.50	1	11/20/2014 02:17
1,1,1-Trichloroethane	ND		0.50	1	11/20/2014 02:17
1,1,2-Trichloroethane	ND		0.50	1	11/20/2014 02:17
Trichloroethene	ND		0.50	1	11/20/2014 02:17
Trichlorofluoromethane	ND		0.50	1	11/20/2014 02:17
1,2,3-Trichloropropane	ND		0.50	1	11/20/2014 02:17
1,2,4-Trimethylbenzene	ND		0.50	1	11/20/2014 02:17
1,3,5-Trimethylbenzene	ND		0.50	1	11/20/2014 02:17
Vinyl Chloride	ND		0.50	1	11/20/2014 02:17
Xylenes, Total	<b>0.89</b>		0.50	1	11/20/2014 02:17

(Cont.)



# Analytical Report

**Client:** Cook Environmental Services, Inc.

**WorkOrder:** 1411602

**Project:** #1095; Casentini

**Extraction Method:** SW5030B

**Date Received:** 11/14/14 18:07

**Analytical Method:** SW8260B

**Date Prepared:** 11/18/14-11/21/14

**Unit:** µg/L

## Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1	1411602-001B	Water	11/13/2014	GC18	97977

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	88	73-131		11/20/2014 02:17
Toluene-d8	111	72-117		11/20/2014 02:17
4-BFB	97	74-116		11/18/2014 15:47

**Analyst(s):** KBO, KF



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/18/14-11/21/14

**WorkOrder:** 1411602  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2	1411602-002B	Water	11/14/2014	GC28	97977

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	11/18/2014 16:26
tert-Amyl methyl ether (TAME)	ND	0.50	1	11/18/2014 16:26
Benzene	ND	0.50	1	11/18/2014 16:26
Bromobenzene	ND	0.50	1	11/18/2014 16:26
Bromochloromethane	ND	0.50	1	11/18/2014 16:26
Bromodichloromethane	ND	0.50	1	11/18/2014 16:26
Bromoform	ND	0.50	1	11/18/2014 16:26
Bromomethane	ND	0.50	1	11/18/2014 16:26
2-Butanone (MEK)	ND	2.0	1	11/18/2014 16:26
t-Butyl alcohol (TBA)	<b>9.0</b>	2.0	1	11/18/2014 16:26
n-Butyl benzene	ND	0.50	1	11/18/2014 16:26
sec-Butyl benzene	ND	0.50	1	11/18/2014 16:26
tert-Butyl benzene	ND	0.50	1	11/18/2014 16:26
Carbon Disulfide	ND	0.50	1	11/18/2014 16:26
Carbon Tetrachloride	ND	0.50	1	11/18/2014 16:26
Chlorobenzene	ND	0.50	1	11/18/2014 16:26
Chloroethane	ND	0.50	1	11/18/2014 16:26
Chloroform	ND	0.50	1	11/18/2014 16:26
Chloromethane	ND	0.50	1	11/18/2014 16:26
2-Chlorotoluene	ND	0.50	1	11/18/2014 16:26
4-Chlorotoluene	ND	0.50	1	11/18/2014 16:26
Dibromochloromethane	ND	0.50	1	11/18/2014 16:26
1,2-Dibromo-3-chloropropane	ND	0.20	1	11/18/2014 16:26
1,2-Dibromoethane (EDB)	ND	0.50	1	11/18/2014 16:26
Dibromomethane	ND	0.50	1	11/18/2014 16:26
1,2-Dichlorobenzene	ND	0.50	1	11/18/2014 16:26
1,3-Dichlorobenzene	ND	0.50	1	11/18/2014 16:26
1,4-Dichlorobenzene	ND	0.50	1	11/18/2014 16:26
Dichlorodifluoromethane	ND	0.50	1	11/18/2014 16:26
1,1-Dichloroethane	ND	0.50	1	11/18/2014 16:26
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	11/18/2014 16:26
1,1-Dichloroethene	ND	0.50	1	11/18/2014 16:26
cis-1,2-Dichloroethene	ND	0.50	1	11/18/2014 16:26
trans-1,2-Dichloroethene	ND	0.50	1	11/18/2014 16:26
1,2-Dichloropropane	ND	0.50	1	11/18/2014 16:26
1,3-Dichloropropane	ND	0.50	1	11/18/2014 16:26
2,2-Dichloropropane	ND	0.50	1	11/18/2014 16:26
1,1-Dichloropropene	ND	0.50	1	11/18/2014 16:26

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/18/14-11/21/14

**WorkOrder:** 1411602  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2	1411602-002B	Water	11/14/2014	GC28	97977

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.50	1	11/18/2014 16:26
trans-1,3-Dichloropropene	ND	0.50	1	11/18/2014 16:26
Diisopropyl ether (DIPE)	ND	0.50	1	11/18/2014 16:26
Ethylbenzene	ND	0.50	1	11/18/2014 16:26
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	11/18/2014 16:26
Freon 113	ND	0.50	1	11/18/2014 16:26
Hexachlorobutadiene	ND	0.50	1	11/18/2014 16:26
Hexachloroethane	ND	0.50	1	11/18/2014 16:26
2-Hexanone	ND	0.50	1	11/18/2014 16:26
Isopropylbenzene	ND	0.50	1	11/18/2014 16:26
4-Isopropyl toluene	ND	0.50	1	11/18/2014 16:26
Methyl-t-butyl ether (MTBE)	ND	0.50	1	11/18/2014 16:26
Methylene chloride	ND	0.50	1	11/18/2014 16:26
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	11/18/2014 16:26
Naphthalene	ND	0.50	1	11/18/2014 16:26
n-Propyl benzene	ND	0.50	1	11/18/2014 16:26
Styrene	ND	0.50	1	11/18/2014 16:26
1,1,1,2-Tetrachloroethane	ND	0.50	1	11/18/2014 16:26
1,1,2,2-Tetrachloroethane	ND	0.50	1	11/18/2014 16:26
Tetrachloroethene	ND	0.50	1	11/18/2014 16:26
Toluene	ND	0.50	1	11/18/2014 16:26
1,2,3-Trichlorobenzene	ND	0.50	1	11/18/2014 16:26
1,2,4-Trichlorobenzene	ND	0.50	1	11/18/2014 16:26
1,1,1-Trichloroethane	ND	0.50	1	11/18/2014 16:26
1,1,2-Trichloroethane	ND	0.50	1	11/18/2014 16:26
Trichloroethene	ND	0.50	1	11/18/2014 16:26
Trichlorofluoromethane	ND	0.50	1	11/18/2014 16:26
1,2,3-Trichloropropane	ND	0.50	1	11/18/2014 16:26
1,2,4-Trimethylbenzene	ND	0.50	1	11/18/2014 16:26
1,3,5-Trimethylbenzene	ND	0.50	1	11/18/2014 16:26
Vinyl Chloride	ND	0.50	1	11/18/2014 16:26
Xylenes, Total	ND	0.50	1	11/18/2014 16:26

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/18/14-11/21/14

**WorkOrder:** 1411602  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2	1411602-002B	Water	11/14/2014	GC28	97977

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	100	73-131		11/18/2014 16:26
Toluene-d8	96	72-117		11/18/2014 16:26
4-BFB	100	74-116		11/18/2014 16:26

**Analyst(s):** KBO





## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/18/14-11/21/14

**WorkOrder:** 1411602  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3	1411602-003B	Water	11/14/2014	GC18	98035

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	11/20/2014 02:56
tert-Amyl methyl ether (TAME)	ND	0.50	1	11/20/2014 02:56
Benzene	ND	0.50	1	11/20/2014 02:56
Bromobenzene	ND	0.50	1	11/20/2014 02:56
Bromochloromethane	ND	0.50	1	11/20/2014 02:56
Bromodichloromethane	ND	0.50	1	11/20/2014 02:56
Bromoform	ND	0.50	1	11/20/2014 02:56
Bromomethane	ND	0.50	1	11/20/2014 02:56
2-Butanone (MEK)	ND	2.0	1	11/20/2014 02:56
t-Butyl alcohol (TBA)	2.1	2.0	1	11/20/2014 02:56
n-Butyl benzene	ND	0.50	1	11/20/2014 02:56
sec-Butyl benzene	ND	0.50	1	11/20/2014 02:56
tert-Butyl benzene	ND	0.50	1	11/20/2014 02:56
Carbon Disulfide	ND	0.50	1	11/20/2014 02:56
Carbon Tetrachloride	ND	0.50	1	11/20/2014 02:56
Chlorobenzene	ND	0.50	1	11/20/2014 02:56
Chloroethane	ND	0.50	1	11/20/2014 02:56
Chloroform	ND	0.50	1	11/20/2014 02:56
Chloromethane	ND	0.50	1	11/20/2014 02:56
2-Chlorotoluene	ND	0.50	1	11/20/2014 02:56
4-Chlorotoluene	ND	0.50	1	11/20/2014 02:56
Dibromochloromethane	ND	0.50	1	11/20/2014 02:56
1,2-Dibromo-3-chloropropane	ND	0.20	1	11/20/2014 02:56
1,2-Dibromoethane (EDB)	ND	0.50	1	11/20/2014 02:56
Dibromomethane	ND	0.50	1	11/20/2014 02:56
1,2-Dichlorobenzene	ND	0.50	1	11/20/2014 02:56
1,3-Dichlorobenzene	ND	0.50	1	11/20/2014 02:56
1,4-Dichlorobenzene	ND	0.50	1	11/20/2014 02:56
Dichlorodifluoromethane	ND	0.50	1	11/20/2014 02:56
1,1-Dichloroethane	ND	0.50	1	11/20/2014 02:56
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	11/20/2014 02:56
1,1-Dichloroethene	ND	0.50	1	11/20/2014 02:56
cis-1,2-Dichloroethene	ND	0.50	1	11/20/2014 02:56
trans-1,2-Dichloroethene	ND	0.50	1	11/20/2014 02:56
1,2-Dichloropropane	ND	0.50	1	11/20/2014 02:56
1,3-Dichloropropane	ND	0.50	1	11/20/2014 02:56
2,2-Dichloropropane	ND	0.50	1	11/20/2014 02:56
1,1-Dichloropropene	ND	0.50	1	11/20/2014 02:56

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/18/14-11/21/14

**WorkOrder:** 1411602  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3	1411602-003B	Water	11/14/2014	GC18	98035
<b>Analytes</b>	<b>Result</b>		<b>RL</b>	<b>DF</b>	<b>Date Analyzed</b>
cis-1,3-Dichloropropene	ND		0.50	1	11/20/2014 02:56
trans-1,3-Dichloropropene	ND		0.50	1	11/20/2014 02:56
Diisopropyl ether (DIPE)	ND		0.50	1	11/20/2014 02:56
Ethylbenzene	ND		0.50	1	11/20/2014 02:56
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	11/20/2014 02:56
Freon 113	ND		0.50	1	11/20/2014 02:56
Hexachlorobutadiene	ND		0.50	1	11/20/2014 02:56
Hexachloroethane	ND		0.50	1	11/20/2014 02:56
2-Hexanone	ND		0.50	1	11/20/2014 02:56
Isopropylbenzene	ND		0.50	1	11/20/2014 02:56
4-Isopropyl toluene	ND		0.50	1	11/20/2014 02:56
Methyl-t-butyl ether (MTBE)	ND		0.50	1	11/20/2014 02:56
Methylene chloride	ND		0.50	1	11/20/2014 02:56
4-Methyl-2-pentanone (MIBK)	ND		0.50	1	11/20/2014 02:56
Naphthalene	ND		0.50	1	11/20/2014 02:56
n-Propyl benzene	ND		0.50	1	11/20/2014 02:56
Styrene	ND		0.50	1	11/20/2014 02:56
1,1,1,2-Tetrachloroethane	ND		0.50	1	11/20/2014 02:56
1,1,2,2-Tetrachloroethane	ND		0.50	1	11/20/2014 02:56
Tetrachloroethene	ND		0.50	1	11/20/2014 02:56
Toluene	ND		0.50	1	11/20/2014 02:56
1,2,3-Trichlorobenzene	ND		0.50	1	11/20/2014 02:56
1,2,4-Trichlorobenzene	ND		0.50	1	11/20/2014 02:56
1,1,1-Trichloroethane	ND		0.50	1	11/20/2014 02:56
1,1,2-Trichloroethane	ND		0.50	1	11/20/2014 02:56
Trichloroethene	ND		0.50	1	11/20/2014 02:56
Trichlorofluoromethane	ND		0.50	1	11/20/2014 02:56
1,2,3-Trichloropropane	ND		0.50	1	11/20/2014 02:56
1,2,4-Trimethylbenzene	ND		0.50	1	11/20/2014 02:56
1,3,5-Trimethylbenzene	ND		0.50	1	11/20/2014 02:56
Vinyl Chloride	ND		0.50	1	11/20/2014 02:56
Xylenes, Total	ND		0.50	1	11/20/2014 02:56

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/18/14-11/21/14

**WorkOrder:** 1411602  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3	1411602-003B	Water	11/14/2014	GC18	98035

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	87	73-131		11/20/2014 02:56
Toluene-d8	113	72-117		11/20/2014 02:56
4-BFB	100	74-116		11/20/2014 02:56

**Analyst(s):** KF



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/18/14-11/21/14

**WorkOrder:** 1411602  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4	1411602-004B	Water	11/14/2014	GC28	97977
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		10	1	11/18/2014 17:43
tert-Amyl methyl ether (TAME)	ND		0.50	1	11/18/2014 17:43
Benzene	ND		0.50	1	11/18/2014 17:43
Bromobenzene	ND		0.50	1	11/18/2014 17:43
Bromochloromethane	ND		0.50	1	11/18/2014 17:43
Bromodichloromethane	ND		0.50	1	11/18/2014 17:43
Bromoform	ND		0.50	1	11/18/2014 17:43
Bromomethane	ND		0.50	1	11/18/2014 17:43
2-Butanone (MEK)	ND		2.0	1	11/18/2014 17:43
t-Butyl alcohol (TBA)	ND		2.0	1	11/18/2014 17:43
n-Butyl benzene	ND		0.50	1	11/18/2014 17:43
sec-Butyl benzene	ND		0.50	1	11/18/2014 17:43
tert-Butyl benzene	ND		0.50	1	11/18/2014 17:43
Carbon Disulfide	ND		0.50	1	11/18/2014 17:43
Carbon Tetrachloride	ND		0.50	1	11/18/2014 17:43
Chlorobenzene	ND		0.50	1	11/18/2014 17:43
Chloroethane	ND		0.50	1	11/18/2014 17:43
Chloroform	ND		0.50	1	11/18/2014 17:43
Chloromethane	ND		0.50	1	11/18/2014 17:43
2-Chlorotoluene	ND		0.50	1	11/18/2014 17:43
4-Chlorotoluene	ND		0.50	1	11/18/2014 17:43
Dibromochloromethane	ND		0.50	1	11/18/2014 17:43
1,2-Dibromo-3-chloropropane	ND		0.20	1	11/18/2014 17:43
1,2-Dibromoethane (EDB)	ND		0.50	1	11/18/2014 17:43
Dibromomethane	ND		0.50	1	11/18/2014 17:43
1,2-Dichlorobenzene	ND		0.50	1	11/18/2014 17:43
1,3-Dichlorobenzene	ND		0.50	1	11/18/2014 17:43
1,4-Dichlorobenzene	ND		0.50	1	11/18/2014 17:43
Dichlorodifluoromethane	ND		0.50	1	11/18/2014 17:43
1,1-Dichloroethane	ND		0.50	1	11/18/2014 17:43
1,2-Dichloroethane (1,2-DCA)	ND		0.50	1	11/18/2014 17:43
1,1-Dichloroethene	ND		0.50	1	11/18/2014 17:43
cis-1,2-Dichloroethene	ND		0.50	1	11/18/2014 17:43
trans-1,2-Dichloroethene	ND		0.50	1	11/18/2014 17:43
1,2-Dichloropropane	ND		0.50	1	11/18/2014 17:43
1,3-Dichloropropane	ND		0.50	1	11/18/2014 17:43
2,2-Dichloropropane	ND		0.50	1	11/18/2014 17:43
1,1-Dichloropropene	ND		0.50	1	11/18/2014 17:43

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/18/14-11/21/14

**WorkOrder:** 1411602  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4	1411602-004B	Water	11/14/2014	GC28	97977

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.50	1	11/18/2014 17:43
trans-1,3-Dichloropropene	ND	0.50	1	11/18/2014 17:43
Diisopropyl ether (DIPE)	ND	0.50	1	11/18/2014 17:43
Ethylbenzene	ND	0.50	1	11/18/2014 17:43
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	11/18/2014 17:43
Freon 113	ND	0.50	1	11/18/2014 17:43
Hexachlorobutadiene	ND	0.50	1	11/18/2014 17:43
Hexachloroethane	ND	0.50	1	11/18/2014 17:43
2-Hexanone	ND	0.50	1	11/18/2014 17:43
Isopropylbenzene	ND	0.50	1	11/18/2014 17:43
4-Isopropyl toluene	ND	0.50	1	11/18/2014 17:43
Methyl-t-butyl ether (MTBE)	ND	0.50	1	11/18/2014 17:43
Methylene chloride	ND	0.50	1	11/18/2014 17:43
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	11/18/2014 17:43
Naphthalene	ND	0.50	1	11/18/2014 17:43
n-Propyl benzene	ND	0.50	1	11/18/2014 17:43
Styrene	ND	0.50	1	11/18/2014 17:43
1,1,1,2-Tetrachloroethane	ND	0.50	1	11/18/2014 17:43
1,1,2,2-Tetrachloroethane	ND	0.50	1	11/18/2014 17:43
Tetrachloroethene	ND	0.50	1	11/18/2014 17:43
Toluene	ND	0.50	1	11/18/2014 17:43
1,2,3-Trichlorobenzene	ND	0.50	1	11/18/2014 17:43
1,2,4-Trichlorobenzene	ND	0.50	1	11/18/2014 17:43
1,1,1-Trichloroethane	ND	0.50	1	11/18/2014 17:43
1,1,2-Trichloroethane	ND	0.50	1	11/18/2014 17:43
Trichloroethene	ND	0.50	1	11/18/2014 17:43
Trichlorofluoromethane	ND	0.50	1	11/18/2014 17:43
1,2,3-Trichloropropane	ND	0.50	1	11/18/2014 17:43
1,2,4-Trimethylbenzene	ND	0.50	1	11/18/2014 17:43
1,3,5-Trimethylbenzene	ND	0.50	1	11/18/2014 17:43
Vinyl Chloride	ND	0.50	1	11/18/2014 17:43
Xylenes, Total	ND	0.50	1	11/18/2014 17:43

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/18/14-11/21/14

**WorkOrder:** 1411602  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4	1411602-004B	Water	11/14/2014	GC28	97977

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	101	73-131		11/18/2014 17:43
Toluene-d8	95	72-117		11/18/2014 17:43
4-BFB	102	74-116		11/18/2014 17:43

**Analyst(s):** KBO



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/18/14-11/21/14

**WorkOrder:** 1411602  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5	1411602-005B	Water	11/14/2014	GC28	97977
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		10	1	11/19/2014 03:21
tert-Amyl methyl ether (TAME)	ND		0.50	1	11/19/2014 03:21
Benzene	ND		0.50	1	11/19/2014 03:21
Bromobenzene	ND		0.50	1	11/19/2014 03:21
Bromochloromethane	ND		0.50	1	11/19/2014 03:21
Bromodichloromethane	ND		0.50	1	11/19/2014 03:21
Bromoform	ND		0.50	1	11/19/2014 03:21
Bromomethane	ND		0.50	1	11/19/2014 03:21
2-Butanone (MEK)	ND		2.0	1	11/19/2014 03:21
t-Butyl alcohol (TBA)	ND		2.0	1	11/19/2014 03:21
n-Butyl benzene	ND		0.50	1	11/19/2014 03:21
sec-Butyl benzene	ND		0.50	1	11/19/2014 03:21
tert-Butyl benzene	ND		0.50	1	11/19/2014 03:21
Carbon Disulfide	ND		0.50	1	11/19/2014 03:21
Carbon Tetrachloride	ND		0.50	1	11/19/2014 03:21
Chlorobenzene	ND		0.50	1	11/19/2014 03:21
Chloroethane	ND		0.50	1	11/19/2014 03:21
Chloroform	ND		0.50	1	11/19/2014 03:21
Chloromethane	ND		0.50	1	11/19/2014 03:21
2-Chlorotoluene	ND		0.50	1	11/19/2014 03:21
4-Chlorotoluene	ND		0.50	1	11/19/2014 03:21
Dibromochloromethane	ND		0.50	1	11/19/2014 03:21
1,2-Dibromo-3-chloropropane	ND		0.20	1	11/19/2014 03:21
1,2-Dibromoethane (EDB)	ND		0.50	1	11/19/2014 03:21
Dibromomethane	ND		0.50	1	11/19/2014 03:21
1,2-Dichlorobenzene	ND		0.50	1	11/19/2014 03:21
1,3-Dichlorobenzene	ND		0.50	1	11/19/2014 03:21
1,4-Dichlorobenzene	ND		0.50	1	11/19/2014 03:21
Dichlorodifluoromethane	ND		0.50	1	11/19/2014 03:21
1,1-Dichloroethane	ND		0.50	1	11/19/2014 03:21
1,2-Dichloroethane (1,2-DCA)	ND		0.50	1	11/19/2014 03:21
1,1-Dichloroethene	ND		0.50	1	11/19/2014 03:21
cis-1,2-Dichloroethene	ND		0.50	1	11/19/2014 03:21
trans-1,2-Dichloroethene	ND		0.50	1	11/19/2014 03:21
1,2-Dichloropropane	ND		0.50	1	11/19/2014 03:21
1,3-Dichloropropane	ND		0.50	1	11/19/2014 03:21
2,2-Dichloropropane	ND		0.50	1	11/19/2014 03:21
1,1-Dichloropropene	ND		0.50	1	11/19/2014 03:21

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/18/14-11/21/14

**WorkOrder:** 1411602  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5	1411602-005B	Water	11/14/2014	GC28	97977
<b>Analytes</b>	<b>Result</b>		<b>RL</b>	<b>DF</b>	<b>Date Analyzed</b>
cis-1,3-Dichloropropene	ND		0.50	1	11/19/2014 03:21
trans-1,3-Dichloropropene	ND		0.50	1	11/19/2014 03:21
Diisopropyl ether (DIPE)	ND		0.50	1	11/19/2014 03:21
Ethylbenzene	ND		0.50	1	11/19/2014 03:21
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	11/19/2014 03:21
Freon 113	ND		0.50	1	11/19/2014 03:21
Hexachlorobutadiene	ND		0.50	1	11/19/2014 03:21
Hexachloroethane	ND		0.50	1	11/19/2014 03:21
2-Hexanone	ND		0.50	1	11/19/2014 03:21
Isopropylbenzene	ND		0.50	1	11/19/2014 03:21
4-Isopropyl toluene	ND		0.50	1	11/19/2014 03:21
Methyl-t-butyl ether (MTBE)	ND		0.50	1	11/19/2014 03:21
Methylene chloride	ND		0.50	1	11/19/2014 03:21
4-Methyl-2-pentanone (MIBK)	ND		0.50	1	11/19/2014 03:21
Naphthalene	ND		0.50	1	11/19/2014 03:21
n-Propyl benzene	ND		0.50	1	11/19/2014 03:21
Styrene	ND		0.50	1	11/19/2014 03:21
1,1,1,2-Tetrachloroethane	ND		0.50	1	11/19/2014 03:21
1,1,2,2-Tetrachloroethane	ND		0.50	1	11/19/2014 03:21
Tetrachloroethene	ND		0.50	1	11/19/2014 03:21
Toluene	ND		0.50	1	11/19/2014 03:21
1,2,3-Trichlorobenzene	ND		0.50	1	11/19/2014 03:21
1,2,4-Trichlorobenzene	ND		0.50	1	11/19/2014 03:21
1,1,1-Trichloroethane	ND		0.50	1	11/19/2014 03:21
1,1,2-Trichloroethane	ND		0.50	1	11/19/2014 03:21
Trichloroethene	ND		0.50	1	11/19/2014 03:21
Trichlorofluoromethane	ND		0.50	1	11/19/2014 03:21
1,2,3-Trichloropropane	ND		0.50	1	11/19/2014 03:21
1,2,4-Trimethylbenzene	ND		0.50	1	11/19/2014 03:21
1,3,5-Trimethylbenzene	ND		0.50	1	11/19/2014 03:21
Vinyl Chloride	ND		0.50	1	11/19/2014 03:21
Xylenes, Total	ND		0.50	1	11/19/2014 03:21

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/18/14-11/21/14

**WorkOrder:** 1411602  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5	1411602-005B	Water	11/14/2014	GC28	97977

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	101	73-131		11/19/2014 03:21
Toluene-d8	96	72-117		11/19/2014 03:21
4-BFB	102	74-116		11/19/2014 03:21

**Analyst(s):** KBO



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/18/14-11/21/14

**WorkOrder:** 1411602  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6	1411602-006B	Water	11/13/2014	GC28	97977
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		100	10	11/21/2014 12:22
tert-Amyl methyl ether (TAME)	ND		5.0	10	11/21/2014 12:22
Benzene	ND		5.0	10	11/21/2014 12:22
Bromobenzene	ND		5.0	10	11/21/2014 12:22
Bromochloromethane	ND		5.0	10	11/21/2014 12:22
Bromodichloromethane	ND		5.0	10	11/21/2014 12:22
Bromoform	ND		5.0	10	11/21/2014 12:22
Bromomethane	ND		5.0	10	11/21/2014 12:22
2-Butanone (MEK)	ND		20	10	11/21/2014 12:22
t-Butyl alcohol (TBA)	ND		20	10	11/21/2014 12:22
n-Butyl benzene	ND		5.0	10	11/21/2014 12:22
sec-Butyl benzene	ND		5.0	10	11/21/2014 12:22
tert-Butyl benzene	ND		5.0	10	11/21/2014 12:22
Carbon Disulfide	ND		5.0	10	11/21/2014 12:22
Carbon Tetrachloride	ND		5.0	10	11/21/2014 12:22
Chlorobenzene	ND		5.0	10	11/21/2014 12:22
Chloroethane	ND		5.0	10	11/21/2014 12:22
Chloroform	ND		5.0	10	11/21/2014 12:22
Chloromethane	ND		5.0	10	11/21/2014 12:22
2-Chlorotoluene	ND		5.0	10	11/21/2014 12:22
4-Chlorotoluene	ND		5.0	10	11/21/2014 12:22
Dibromochloromethane	ND		5.0	10	11/21/2014 12:22
1,2-Dibromo-3-chloropropane	ND		2.0	10	11/21/2014 12:22
1,2-Dibromoethane (EDB)	ND		5.0	10	11/21/2014 12:22
Dibromomethane	ND		5.0	10	11/21/2014 12:22
1,2-Dichlorobenzene	ND		5.0	10	11/21/2014 12:22
1,3-Dichlorobenzene	ND		5.0	10	11/21/2014 12:22
1,4-Dichlorobenzene	ND		5.0	10	11/21/2014 12:22
Dichlorodifluoromethane	ND		5.0	10	11/21/2014 12:22
1,1-Dichloroethane	<b>22</b>		5.0	10	11/21/2014 12:22
1,2-Dichloroethane (1,2-DCA)	<b>6.6</b>		5.0	10	11/21/2014 12:22
1,1-Dichloroethene	<b>390</b>		5.0	10	11/21/2014 12:22
cis-1,2-Dichloroethene	<b>6.8</b>		5.0	10	11/21/2014 12:22
trans-1,2-Dichloroethene	ND		5.0	10	11/21/2014 12:22
1,2-Dichloropropane	ND		5.0	10	11/21/2014 12:22
1,3-Dichloropropane	ND		5.0	10	11/21/2014 12:22
2,2-Dichloropropane	ND		5.0	10	11/21/2014 12:22
1,1-Dichloropropene	ND		5.0	10	11/21/2014 12:22

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/18/14-11/21/14

**WorkOrder:** 1411602  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6	1411602-006B	Water	11/13/2014	GC28	97977
<b>Analytes</b>	<b>Result</b>		<b>RL</b>	<b>DF</b>	<b>Date Analyzed</b>
cis-1,3-Dichloropropene	ND		5.0	10	11/21/2014 12:22
trans-1,3-Dichloropropene	ND		5.0	10	11/21/2014 12:22
Diisopropyl ether (DIPE)	ND		5.0	10	11/21/2014 12:22
Ethylbenzene	ND		5.0	10	11/21/2014 12:22
Ethyl tert-butyl ether (ETBE)	ND		5.0	10	11/21/2014 12:22
Freon 113	ND		5.0	10	11/21/2014 12:22
Hexachlorobutadiene	ND		5.0	10	11/21/2014 12:22
Hexachloroethane	ND		5.0	10	11/21/2014 12:22
2-Hexanone	ND		5.0	10	11/21/2014 12:22
Isopropylbenzene	ND		5.0	10	11/21/2014 12:22
4-Isopropyl toluene	ND		5.0	10	11/21/2014 12:22
Methyl-t-butyl ether (MTBE)	ND		5.0	10	11/21/2014 12:22
Methylene chloride	ND		5.0	10	11/21/2014 12:22
4-Methyl-2-pentanone (MIBK)	ND		5.0	10	11/21/2014 12:22
Naphthalene	ND		5.0	10	11/21/2014 12:22
n-Propyl benzene	ND		5.0	10	11/21/2014 12:22
Styrene	ND		5.0	10	11/21/2014 12:22
1,1,1,2-Tetrachloroethane	ND		5.0	10	11/21/2014 12:22
1,1,2,2-Tetrachloroethane	ND		5.0	10	11/21/2014 12:22
Tetrachloroethene	ND		5.0	10	11/21/2014 12:22
Toluene	ND		5.0	10	11/21/2014 12:22
1,2,3-Trichlorobenzene	ND		5.0	10	11/21/2014 12:22
1,2,4-Trichlorobenzene	ND		5.0	10	11/21/2014 12:22
1,1,1-Trichloroethane	ND		5.0	10	11/21/2014 12:22
1,1,2-Trichloroethane	<b>38</b>		5.0	10	11/21/2014 12:22
Trichloroethene	<b>78</b>		5.0	10	11/21/2014 12:22
Trichlorofluoromethane	ND		5.0	10	11/21/2014 12:22
1,2,3-Trichloropropane	ND		5.0	10	11/21/2014 12:22
1,2,4-Trimethylbenzene	ND		5.0	10	11/21/2014 12:22
1,3,5-Trimethylbenzene	ND		5.0	10	11/21/2014 12:22
Vinyl Chloride	ND		5.0	10	11/21/2014 12:22
Xylenes, Total	ND		5.0	10	11/21/2014 12:22

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/18/14-11/21/14

**WorkOrder:** 1411602  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6	1411602-006B	Water	11/13/2014	GC28	97977

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	102	73-131		11/21/2014 12:22
Toluene-d8	97	72-117		11/21/2014 12:22
4-BFB	97	74-116		11/21/2014 12:22

**Analyst(s):** KF



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/17/14

**WorkOrder:** 1411602  
**Extraction Method:** E625  
**Analytical Method:** SW8270C  
**Unit:** µg/L

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1	1411602-001C	Water	11/13/2014	GC21	97899
Analytes	Result	RL	DF	Date Analyzed	
Acenaphthene	ND	2.0	1	11/18/2014 14:41	
Acenaphthylene	ND	2.0	1	11/18/2014 14:41	
Acetochlor	ND	2.0	1	11/18/2014 14:41	
Anthracene	ND	2.0	1	11/18/2014 14:41	
Benzidine	ND	10	1	11/18/2014 14:41	
Benzo (a) anthracene	ND	2.0	1	11/18/2014 14:41	
Benzo (b) fluoranthene	ND	2.0	1	11/18/2014 14:41	
Benzo (k) fluoranthene	ND	2.0	1	11/18/2014 14:41	
Benzo (g,h,i) perylene	ND	2.0	1	11/18/2014 14:41	
Benzo (a) pyrene	ND	2.0	1	11/18/2014 14:41	
Benzyl Alcohol	ND	10	1	11/18/2014 14:41	
1,1-Biphenyl	ND	2.0	1	11/18/2014 14:41	
Bis (2-chloroethoxy) Methane	ND	2.0	1	11/18/2014 14:41	
Bis (2-chloroethyl) Ether	ND	2.0	1	11/18/2014 14:41	
Bis (2-chloroisopropyl) Ether	ND	2.0	1	11/18/2014 14:41	
Bis (2-ethylhexyl) Adipate	ND	2.0	1	11/18/2014 14:41	
Bis (2-ethylhexyl) Phthalate	ND	4.1	1	11/18/2014 14:41	
4-Bromophenyl Phenyl Ether	ND	10	1	11/18/2014 14:41	
Butylbenzyl Phthalate	ND	2.0	1	11/18/2014 14:41	
4-Chloroaniline	ND	4.1	1	11/18/2014 14:41	
4-Chloro-3-methylphenol	ND	10	1	11/18/2014 14:41	
2-Chloronaphthalene	ND	2.0	1	11/18/2014 14:41	
2-Chlorophenol	ND	2.0	1	11/18/2014 14:41	
4-Chlorophenyl Phenyl Ether	ND	2.0	1	11/18/2014 14:41	
Chrysene	ND	2.0	1	11/18/2014 14:41	
Dibenzo (a,h) anthracene	ND	2.0	1	11/18/2014 14:41	
Dibenzofuran	ND	2.0	1	11/18/2014 14:41	
Di-n-butyl Phthalate	ND	2.0	1	11/18/2014 14:41	
1,2-Dichlorobenzene	ND	2.0	1	11/18/2014 14:41	
1,3-Dichlorobenzene	ND	2.0	1	11/18/2014 14:41	
1,4-Dichlorobenzene	ND	2.0	1	11/18/2014 14:41	
3,3-Dichlorobenzidine	ND	4.1	1	11/18/2014 14:41	
2,4-Dichlorophenol	ND	2.0	1	11/18/2014 14:41	
Diethyl Phthalate	ND	2.0	1	11/18/2014 14:41	
2,4-Dimethylphenol	ND	2.0	1	11/18/2014 14:41	
Dimethyl Phthalate	ND	2.0	1	11/18/2014 14:41	
4,6-Dinitro-2-methylphenol	ND	10	1	11/18/2014 14:41	
2,4-Dinitrophenol	ND	26	1	11/18/2014 14:41	

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/17/14

**WorkOrder:** 1411602  
**Extraction Method:** E625  
**Analytical Method:** SW8270C  
**Unit:** µg/L

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1	1411602-001C	Water	11/13/2014	GC21	97899

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	2.0	1	11/18/2014 14:41
2,6-Dinitrotoluene	ND	2.0	1	11/18/2014 14:41
Di-n-octyl Phthalate	ND	2.0	1	11/18/2014 14:41
1,2-Diphenylhydrazine	ND	2.0	1	11/18/2014 14:41
Fluoranthene	ND	2.0	1	11/18/2014 14:41
Fluorene	ND	2.0	1	11/18/2014 14:41
Hexachlorobenzene	ND	2.0	1	11/18/2014 14:41
Hexachlorobutadiene	ND	2.0	1	11/18/2014 14:41
Hexachlorocyclopentadiene	ND	10	1	11/18/2014 14:41
Hexachloroethane	ND	2.0	1	11/18/2014 14:41
Indeno (1,2,3-cd) pyrene	ND	2.0	1	11/18/2014 14:41
Isophorone	ND	2.0	1	11/18/2014 14:41
2-Methylnaphthalene	ND	2.0	1	11/18/2014 14:41
2-Methylphenol (o-Cresol)	ND	2.0	1	11/18/2014 14:41
3 &/or 4-Methylphenol (m,p-Cresol)	ND	2.0	1	11/18/2014 14:41
Naphthalene	ND	2.0	1	11/18/2014 14:41
2-Nitroaniline	ND	10	1	11/18/2014 14:41
3-Nitroaniline	ND	10	1	11/18/2014 14:41
4-Nitroaniline	ND	10	1	11/18/2014 14:41
Nitrobenzene	ND	2.0	1	11/18/2014 14:41
2-Nitrophenol	ND	10	1	11/18/2014 14:41
4-Nitrophenol	ND	10	1	11/18/2014 14:41
N-Nitrosodiphenylamine	ND	2.0	1	11/18/2014 14:41
N-Nitrosodi-n-propylamine	ND	2.0	1	11/18/2014 14:41
Pentachlorophenol	ND	10	1	11/18/2014 14:41
Phenanthrene	ND	2.0	1	11/18/2014 14:41
Phenol	ND	2.0	1	11/18/2014 14:41
Pyrene	ND	2.0	1	11/18/2014 14:41
1,2,4-Trichlorobenzene	ND	2.0	1	11/18/2014 14:41
2,4,5-Trichlorophenol	ND	2.0	1	11/18/2014 14:41
2,4,6-Trichlorophenol	ND	2.0	1	11/18/2014 14:41

(Cont.)





## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/17/14

**WorkOrder:** 1411602  
**Extraction Method:** E625  
**Analytical Method:** SW8270C  
**Unit:** µg/L

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1	1411602-001C	Water	11/13/2014	GC21	97899

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
2-Fluorophenol	86	8-130		11/18/2014 14:41
Phenol-d5	103	5-130		11/18/2014 14:41
Nitrobenzene-d5	86	20-140		11/18/2014 14:41
2-Fluorobiphenyl	94	40-140		11/18/2014 14:41
2,4,6-Tribromophenol	102	16-180		11/18/2014 14:41
4-Terphenyl-d14	122	40-170		11/18/2014 14:41

Analyst(s): HK



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/17/14

**WorkOrder:** 1411602  
**Extraction Method:** E625  
**Analytical Method:** SW8270C  
**Unit:** µg/L

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2	1411602-002C	Water	11/14/2014	GC21	97899
Analytes	Result	RL	DF	Date Analyzed	
Acenaphthene	ND	2.1	1	11/18/2014 15:09	
Acenaphthylene	ND	2.1	1	11/18/2014 15:09	
Acetochlor	ND	2.1	1	11/18/2014 15:09	
Anthracene	ND	2.1	1	11/18/2014 15:09	
Benzidine	ND	10	1	11/18/2014 15:09	
Benzo (a) anthracene	ND	2.1	1	11/18/2014 15:09	
Benzo (b) fluoranthene	ND	2.1	1	11/18/2014 15:09	
Benzo (k) fluoranthene	ND	2.1	1	11/18/2014 15:09	
Benzo (g,h,i) perylene	ND	2.1	1	11/18/2014 15:09	
Benzo (a) pyrene	ND	2.1	1	11/18/2014 15:09	
Benzyl Alcohol	ND	10	1	11/18/2014 15:09	
1,1-Biphenyl	ND	2.1	1	11/18/2014 15:09	
Bis (2-chloroethoxy) Methane	ND	2.1	1	11/18/2014 15:09	
Bis (2-chloroethyl) Ether	ND	2.1	1	11/18/2014 15:09	
Bis (2-chloroisopropyl) Ether	ND	2.1	1	11/18/2014 15:09	
Bis (2-ethylhexyl) Adipate	ND	2.1	1	11/18/2014 15:09	
Bis (2-ethylhexyl) Phthalate	ND	4.2	1	11/18/2014 15:09	
4-Bromophenyl Phenyl Ether	ND	10	1	11/18/2014 15:09	
Butylbenzyl Phthalate	ND	2.1	1	11/18/2014 15:09	
4-Chloroaniline	ND	4.2	1	11/18/2014 15:09	
4-Chloro-3-methylphenol	ND	10	1	11/18/2014 15:09	
2-Chloronaphthalene	ND	2.1	1	11/18/2014 15:09	
2-Chlorophenol	ND	2.1	1	11/18/2014 15:09	
4-Chlorophenyl Phenyl Ether	ND	2.1	1	11/18/2014 15:09	
Chrysene	ND	2.1	1	11/18/2014 15:09	
Dibenzo (a,h) anthracene	ND	2.1	1	11/18/2014 15:09	
Dibenzofuran	ND	2.1	1	11/18/2014 15:09	
Di-n-butyl Phthalate	ND	2.1	1	11/18/2014 15:09	
1,2-Dichlorobenzene	ND	2.1	1	11/18/2014 15:09	
1,3-Dichlorobenzene	ND	2.1	1	11/18/2014 15:09	
1,4-Dichlorobenzene	ND	2.1	1	11/18/2014 15:09	
3,3-Dichlorobenzidine	ND	4.2	1	11/18/2014 15:09	
2,4-Dichlorophenol	ND	2.1	1	11/18/2014 15:09	
Diethyl Phthalate	ND	2.1	1	11/18/2014 15:09	
2,4-Dimethylphenol	ND	2.1	1	11/18/2014 15:09	
Dimethyl Phthalate	ND	2.1	1	11/18/2014 15:09	
4,6-Dinitro-2-methylphenol	ND	10	1	11/18/2014 15:09	
2,4-Dinitrophenol	ND	26	1	11/18/2014 15:09	

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/17/14

**WorkOrder:** 1411602  
**Extraction Method:** E625  
**Analytical Method:** SW8270C  
**Unit:** µg/L

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2	1411602-002C	Water	11/14/2014	GC21	97899
Analytes	Result	RL	DF	Date Analyzed	
2,4-Dinitrotoluene	ND	2.1	1	11/18/2014 15:09	
2,6-Dinitrotoluene	ND	2.1	1	11/18/2014 15:09	
Di-n-octyl Phthalate	ND	2.1	1	11/18/2014 15:09	
1,2-Diphenylhydrazine	ND	2.1	1	11/18/2014 15:09	
Fluoranthene	ND	2.1	1	11/18/2014 15:09	
Fluorene	ND	2.1	1	11/18/2014 15:09	
Hexachlorobenzene	ND	2.1	1	11/18/2014 15:09	
Hexachlorobutadiene	ND	2.1	1	11/18/2014 15:09	
Hexachlorocyclopentadiene	ND	10	1	11/18/2014 15:09	
Hexachloroethane	ND	2.1	1	11/18/2014 15:09	
Indeno (1,2,3-cd) pyrene	ND	2.1	1	11/18/2014 15:09	
Isophorone	ND	2.1	1	11/18/2014 15:09	
2-Methylnaphthalene	ND	2.1	1	11/18/2014 15:09	
2-Methylphenol (o-Cresol)	ND	2.1	1	11/18/2014 15:09	
3 &/or 4-Methylphenol (m,p-Cresol)	ND	2.1	1	11/18/2014 15:09	
Naphthalene	ND	2.1	1	11/18/2014 15:09	
2-Nitroaniline	ND	10	1	11/18/2014 15:09	
3-Nitroaniline	ND	10	1	11/18/2014 15:09	
4-Nitroaniline	ND	10	1	11/18/2014 15:09	
Nitrobenzene	ND	2.1	1	11/18/2014 15:09	
2-Nitrophenol	ND	10	1	11/18/2014 15:09	
4-Nitrophenol	ND	10	1	11/18/2014 15:09	
N-Nitrosodiphenylamine	ND	2.1	1	11/18/2014 15:09	
N-Nitrosodi-n-propylamine	ND	2.1	1	11/18/2014 15:09	
Pentachlorophenol	ND	10	1	11/18/2014 15:09	
Phenanthrene	ND	2.1	1	11/18/2014 15:09	
Phenol	ND	2.1	1	11/18/2014 15:09	
Pyrene	ND	2.1	1	11/18/2014 15:09	
1,2,4-Trichlorobenzene	ND	2.1	1	11/18/2014 15:09	
2,4,5-Trichlorophenol	ND	2.1	1	11/18/2014 15:09	
2,4,6-Trichlorophenol	ND	2.1	1	11/18/2014 15:09	

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/17/14

**WorkOrder:** 1411602  
**Extraction Method:** E625  
**Analytical Method:** SW8270C  
**Unit:** µg/L

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2	1411602-002C	Water	11/14/2014	GC21	97899

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
2-Fluorophenol	90	8-130		11/18/2014 15:09
Phenol-d5	108	5-130		11/18/2014 15:09
Nitrobenzene-d5	94	20-140		11/18/2014 15:09
2-Fluorobiphenyl	97	40-140		11/18/2014 15:09
2,4,6-Tribromophenol	102	16-180		11/18/2014 15:09
4-Terphenyl-d14	129	40-170		11/18/2014 15:09

**Analyst(s):** HK



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/17/14

**WorkOrder:** 1411602  
**Extraction Method:** E625  
**Analytical Method:** SW8270C  
**Unit:** µg/L

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3	1411602-003C	Water	11/14/2014	GC21	97899
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acenaphthene	ND		2.1	1	11/18/2014 15:37
Acenaphthylene	ND		2.1	1	11/18/2014 15:37
Acetochlor	ND		2.1	1	11/18/2014 15:37
Anthracene	ND		2.1	1	11/18/2014 15:37
Benzidine	ND		10	1	11/18/2014 15:37
Benzo (a) anthracene	ND		2.1	1	11/18/2014 15:37
Benzo (b) fluoranthene	ND		2.1	1	11/18/2014 15:37
Benzo (k) fluoranthene	ND		2.1	1	11/18/2014 15:37
Benzo (g,h,i) perylene	ND		2.1	1	11/18/2014 15:37
Benzo (a) pyrene	ND		2.1	1	11/18/2014 15:37
Benzyl Alcohol	ND		10	1	11/18/2014 15:37
1,1-Biphenyl	ND		2.1	1	11/18/2014 15:37
Bis (2-chloroethoxy) Methane	ND		2.1	1	11/18/2014 15:37
Bis (2-chloroethyl) Ether	ND		2.1	1	11/18/2014 15:37
Bis (2-chloroisopropyl) Ether	ND		2.1	1	11/18/2014 15:37
Bis (2-ethylhexyl) Adipate	ND		2.1	1	11/18/2014 15:37
Bis (2-ethylhexyl) Phthalate	ND		4.2	1	11/18/2014 15:37
4-Bromophenyl Phenyl Ether	ND		10	1	11/18/2014 15:37
Butylbenzyl Phthalate	ND		2.1	1	11/18/2014 15:37
4-Chloroaniline	ND		4.2	1	11/18/2014 15:37
4-Chloro-3-methylphenol	ND		10	1	11/18/2014 15:37
2-Chloronaphthalene	ND		2.1	1	11/18/2014 15:37
2-Chlorophenol	ND		2.1	1	11/18/2014 15:37
4-Chlorophenyl Phenyl Ether	ND		2.1	1	11/18/2014 15:37
Chrysene	ND		2.1	1	11/18/2014 15:37
Dibenzo (a,h) anthracene	ND		2.1	1	11/18/2014 15:37
Dibenzofuran	ND		2.1	1	11/18/2014 15:37
Di-n-butyl Phthalate	ND		2.1	1	11/18/2014 15:37
1,2-Dichlorobenzene	ND		2.1	1	11/18/2014 15:37
1,3-Dichlorobenzene	ND		2.1	1	11/18/2014 15:37
1,4-Dichlorobenzene	ND		2.1	1	11/18/2014 15:37
3,3-Dichlorobenzidine	ND		4.2	1	11/18/2014 15:37
2,4-Dichlorophenol	ND		2.1	1	11/18/2014 15:37
Diethyl Phthalate	ND		2.1	1	11/18/2014 15:37
2,4-Dimethylphenol	ND		2.1	1	11/18/2014 15:37
Dimethyl Phthalate	ND		2.1	1	11/18/2014 15:37
4,6-Dinitro-2-methylphenol	ND		10	1	11/18/2014 15:37
2,4-Dinitrophenol	ND		26	1	11/18/2014 15:37

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/17/14

**WorkOrder:** 1411602  
**Extraction Method:** E625  
**Analytical Method:** SW8270C  
**Unit:** µg/L

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3	1411602-003C	Water	11/14/2014	GC21	97899

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	2.1	1	11/18/2014 15:37
2,6-Dinitrotoluene	ND	2.1	1	11/18/2014 15:37
Di-n-octyl Phthalate	ND	2.1	1	11/18/2014 15:37
1,2-Diphenylhydrazine	ND	2.1	1	11/18/2014 15:37
Fluoranthene	ND	2.1	1	11/18/2014 15:37
Fluorene	ND	2.1	1	11/18/2014 15:37
Hexachlorobenzene	ND	2.1	1	11/18/2014 15:37
Hexachlorobutadiene	ND	2.1	1	11/18/2014 15:37
Hexachlorocyclopentadiene	ND	10	1	11/18/2014 15:37
Hexachloroethane	ND	2.1	1	11/18/2014 15:37
Indeno (1,2,3-cd) pyrene	ND	2.1	1	11/18/2014 15:37
Isophorone	ND	2.1	1	11/18/2014 15:37
2-Methylnaphthalene	ND	2.1	1	11/18/2014 15:37
2-Methylphenol (o-Cresol)	ND	2.1	1	11/18/2014 15:37
3 &/or 4-Methylphenol (m,p-Cresol)	ND	2.1	1	11/18/2014 15:37
Naphthalene	ND	2.1	1	11/18/2014 15:37
2-Nitroaniline	ND	10	1	11/18/2014 15:37
3-Nitroaniline	ND	10	1	11/18/2014 15:37
4-Nitroaniline	ND	10	1	11/18/2014 15:37
Nitrobenzene	ND	2.1	1	11/18/2014 15:37
2-Nitrophenol	ND	10	1	11/18/2014 15:37
4-Nitrophenol	ND	10	1	11/18/2014 15:37
N-Nitrosodiphenylamine	ND	2.1	1	11/18/2014 15:37
N-Nitrosodi-n-propylamine	ND	2.1	1	11/18/2014 15:37
Pentachlorophenol	ND	10	1	11/18/2014 15:37
Phenanthrene	ND	2.1	1	11/18/2014 15:37
Phenol	ND	2.1	1	11/18/2014 15:37
Pyrene	ND	2.1	1	11/18/2014 15:37
1,2,4-Trichlorobenzene	ND	2.1	1	11/18/2014 15:37
2,4,5-Trichlorophenol	ND	2.1	1	11/18/2014 15:37
2,4,6-Trichlorophenol	ND	2.1	1	11/18/2014 15:37

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/17/14

**WorkOrder:** 1411602  
**Extraction Method:** E625  
**Analytical Method:** SW8270C  
**Unit:** µg/L

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3	1411602-003C	Water	11/14/2014	GC21	97899

Analytes	Result		RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	Analytical Comments: c1	
2-Fluorophenol	111		8-130		11/18/2014 15:37
Phenol-d5	135	S	5-130		11/18/2014 15:37
Nitrobenzene-d5	113		20-140		11/18/2014 15:37
2-Fluorobiphenyl	122		40-140		11/18/2014 15:37
2,4,6-Tribromophenol	126		16-180		11/18/2014 15:37
4-Terphenyl-d14	163		40-170		11/18/2014 15:37

Analyst(s): HK





## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/17/14

**WorkOrder:** 1411602  
**Extraction Method:** E625  
**Analytical Method:** SW8270C  
**Unit:** µg/L

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4	1411602-004C	Water	11/14/2014	GC21	97899
Analytes	Result	RL	DF	Date Analyzed	
Acenaphthene	ND	2.2	1	11/18/2014 16:05	
Acenaphthylene	ND	2.2	1	11/18/2014 16:05	
Acetochlor	ND	2.2	1	11/18/2014 16:05	
Anthracene	ND	2.2	1	11/18/2014 16:05	
Benzidine	ND	11	1	11/18/2014 16:05	
Benzo (a) anthracene	ND	2.2	1	11/18/2014 16:05	
Benzo (b) fluoranthene	ND	2.2	1	11/18/2014 16:05	
Benzo (k) fluoranthene	ND	2.2	1	11/18/2014 16:05	
Benzo (g,h,i) perylene	ND	2.2	1	11/18/2014 16:05	
Benzo (a) pyrene	ND	2.2	1	11/18/2014 16:05	
Benzyl Alcohol	ND	11	1	11/18/2014 16:05	
1,1-Biphenyl	ND	2.2	1	11/18/2014 16:05	
Bis (2-chloroethoxy) Methane	ND	2.2	1	11/18/2014 16:05	
Bis (2-chloroethyl) Ether	ND	2.2	1	11/18/2014 16:05	
Bis (2-chloroisopropyl) Ether	ND	2.2	1	11/18/2014 16:05	
Bis (2-ethylhexyl) Adipate	ND	2.2	1	11/18/2014 16:05	
Bis (2-ethylhexyl) Phthalate	ND	4.4	1	11/18/2014 16:05	
4-Bromophenyl Phenyl Ether	ND	11	1	11/18/2014 16:05	
Butylbenzyl Phthalate	ND	2.2	1	11/18/2014 16:05	
4-Chloroaniline	ND	4.4	1	11/18/2014 16:05	
4-Chloro-3-methylphenol	ND	11	1	11/18/2014 16:05	
2-Chloronaphthalene	ND	2.2	1	11/18/2014 16:05	
2-Chlorophenol	ND	2.2	1	11/18/2014 16:05	
4-Chlorophenyl Phenyl Ether	ND	2.2	1	11/18/2014 16:05	
Chrysene	ND	2.2	1	11/18/2014 16:05	
Dibenzo (a,h) anthracene	ND	2.2	1	11/18/2014 16:05	
Dibenzofuran	ND	2.2	1	11/18/2014 16:05	
Di-n-butyl Phthalate	ND	2.2	1	11/18/2014 16:05	
1,2-Dichlorobenzene	ND	2.2	1	11/18/2014 16:05	
1,3-Dichlorobenzene	ND	2.2	1	11/18/2014 16:05	
1,4-Dichlorobenzene	ND	2.2	1	11/18/2014 16:05	
3,3-Dichlorobenzidine	ND	4.4	1	11/18/2014 16:05	
2,4-Dichlorophenol	ND	2.2	1	11/18/2014 16:05	
Diethyl Phthalate	ND	2.2	1	11/18/2014 16:05	
2,4-Dimethylphenol	ND	2.2	1	11/18/2014 16:05	
Dimethyl Phthalate	ND	2.2	1	11/18/2014 16:05	
4,6-Dinitro-2-methylphenol	ND	11	1	11/18/2014 16:05	
2,4-Dinitrophenol	ND	27	1	11/18/2014 16:05	

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/17/14

**WorkOrder:** 1411602  
**Extraction Method:** E625  
**Analytical Method:** SW8270C  
**Unit:** µg/L

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4	1411602-004C	Water	11/14/2014	GC21	97899

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	2.2	1	11/18/2014 16:05
2,6-Dinitrotoluene	ND	2.2	1	11/18/2014 16:05
Di-n-octyl Phthalate	ND	2.2	1	11/18/2014 16:05
1,2-Diphenylhydrazine	ND	2.2	1	11/18/2014 16:05
Fluoranthene	ND	2.2	1	11/18/2014 16:05
Fluorene	ND	2.2	1	11/18/2014 16:05
Hexachlorobenzene	ND	2.2	1	11/18/2014 16:05
Hexachlorobutadiene	ND	2.2	1	11/18/2014 16:05
Hexachlorocyclopentadiene	ND	11	1	11/18/2014 16:05
Hexachloroethane	ND	2.2	1	11/18/2014 16:05
Indeno (1,2,3-cd) pyrene	ND	2.2	1	11/18/2014 16:05
Isophorone	ND	2.2	1	11/18/2014 16:05
2-Methylnaphthalene	ND	2.2	1	11/18/2014 16:05
2-Methylphenol (o-Cresol)	ND	2.2	1	11/18/2014 16:05
3 &/or 4-Methylphenol (m,p-Cresol)	ND	2.2	1	11/18/2014 16:05
Naphthalene	ND	2.2	1	11/18/2014 16:05
2-Nitroaniline	ND	11	1	11/18/2014 16:05
3-Nitroaniline	ND	11	1	11/18/2014 16:05
4-Nitroaniline	ND	11	1	11/18/2014 16:05
Nitrobenzene	ND	2.2	1	11/18/2014 16:05
2-Nitrophenol	ND	11	1	11/18/2014 16:05
4-Nitrophenol	ND	11	1	11/18/2014 16:05
N-Nitrosodiphenylamine	ND	2.2	1	11/18/2014 16:05
N-Nitrosodi-n-propylamine	ND	2.2	1	11/18/2014 16:05
Pentachlorophenol	ND	11	1	11/18/2014 16:05
Phenanthrene	ND	2.2	1	11/18/2014 16:05
Phenol	ND	2.2	1	11/18/2014 16:05
Pyrene	ND	2.2	1	11/18/2014 16:05
1,2,4-Trichlorobenzene	ND	2.2	1	11/18/2014 16:05
2,4,5-Trichlorophenol	ND	2.2	1	11/18/2014 16:05
2,4,6-Trichlorophenol	ND	2.2	1	11/18/2014 16:05

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/17/14

**WorkOrder:** 1411602  
**Extraction Method:** E625  
**Analytical Method:** SW8270C  
**Unit:** µg/L

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4	1411602-004C	Water	11/14/2014	GC21	97899

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorophenol	83	8-130		11/18/2014 16:05
Phenol-d5	96	5-130		11/18/2014 16:05
Nitrobenzene-d5	82	20-140		11/18/2014 16:05
2-Fluorobiphenyl	88	40-140		11/18/2014 16:05
2,4,6-Tribromophenol	86	16-180		11/18/2014 16:05
4-Terphenyl-d14	116	40-170		11/18/2014 16:05

**Analyst(s):** HK



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/17/14

**WorkOrder:** 1411602  
**Extraction Method:** E625  
**Analytical Method:** SW8270C  
**Unit:** µg/L

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5	1411602-005C	Water	11/14/2014	GC21	97899
Analytes	Result	RL	DF	Date Analyzed	
Acenaphthene	ND	2.1	1	11/18/2014 16:34	
Acenaphthylene	ND	2.1	1	11/18/2014 16:34	
Acetochlor	ND	2.1	1	11/18/2014 16:34	
Anthracene	ND	2.1	1	11/18/2014 16:34	
Benzidine	ND	11	1	11/18/2014 16:34	
Benzo (a) anthracene	ND	2.1	1	11/18/2014 16:34	
Benzo (b) fluoranthene	ND	2.1	1	11/18/2014 16:34	
Benzo (k) fluoranthene	ND	2.1	1	11/18/2014 16:34	
Benzo (g,h,i) perylene	ND	2.1	1	11/18/2014 16:34	
Benzo (a) pyrene	ND	2.1	1	11/18/2014 16:34	
Benzyl Alcohol	ND	11	1	11/18/2014 16:34	
1,1-Biphenyl	ND	2.1	1	11/18/2014 16:34	
Bis (2-chloroethoxy) Methane	ND	2.1	1	11/18/2014 16:34	
Bis (2-chloroethyl) Ether	ND	2.1	1	11/18/2014 16:34	
Bis (2-chloroisopropyl) Ether	ND	2.1	1	11/18/2014 16:34	
Bis (2-ethylhexyl) Adipate	ND	2.1	1	11/18/2014 16:34	
Bis (2-ethylhexyl) Phthalate	ND	4.3	1	11/18/2014 16:34	
4-Bromophenyl Phenyl Ether	ND	11	1	11/18/2014 16:34	
Butylbenzyl Phthalate	ND	2.1	1	11/18/2014 16:34	
4-Chloroaniline	ND	4.3	1	11/18/2014 16:34	
4-Chloro-3-methylphenol	ND	11	1	11/18/2014 16:34	
2-Chloronaphthalene	ND	2.1	1	11/18/2014 16:34	
2-Chlorophenol	ND	2.1	1	11/18/2014 16:34	
4-Chlorophenyl Phenyl Ether	ND	2.1	1	11/18/2014 16:34	
Chrysene	ND	2.1	1	11/18/2014 16:34	
Dibenzo (a,h) anthracene	ND	2.1	1	11/18/2014 16:34	
Dibenzofuran	ND	2.1	1	11/18/2014 16:34	
Di-n-butyl Phthalate	ND	2.1	1	11/18/2014 16:34	
1,2-Dichlorobenzene	ND	2.1	1	11/18/2014 16:34	
1,3-Dichlorobenzene	ND	2.1	1	11/18/2014 16:34	
1,4-Dichlorobenzene	ND	2.1	1	11/18/2014 16:34	
3,3-Dichlorobenzidine	ND	4.3	1	11/18/2014 16:34	
2,4-Dichlorophenol	ND	2.1	1	11/18/2014 16:34	
Diethyl Phthalate	ND	2.1	1	11/18/2014 16:34	
2,4-Dimethylphenol	ND	2.1	1	11/18/2014 16:34	
Dimethyl Phthalate	ND	2.1	1	11/18/2014 16:34	
4,6-Dinitro-2-methylphenol	ND	11	1	11/18/2014 16:34	
2,4-Dinitrophenol	ND	27	1	11/18/2014 16:34	

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/17/14

**WorkOrder:** 1411602  
**Extraction Method:** E625  
**Analytical Method:** SW8270C  
**Unit:** µg/L

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5	1411602-005C	Water	11/14/2014	GC21	97899
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
2,4-Dinitrotoluene	ND		2.1	1	11/18/2014 16:34
2,6-Dinitrotoluene	ND		2.1	1	11/18/2014 16:34
Di-n-octyl Phthalate	ND		2.1	1	11/18/2014 16:34
1,2-Diphenylhydrazine	ND		2.1	1	11/18/2014 16:34
Fluoranthene	ND		2.1	1	11/18/2014 16:34
Fluorene	ND		2.1	1	11/18/2014 16:34
Hexachlorobenzene	ND		2.1	1	11/18/2014 16:34
Hexachlorobutadiene	ND		2.1	1	11/18/2014 16:34
Hexachlorocyclopentadiene	ND		11	1	11/18/2014 16:34
Hexachloroethane	ND		2.1	1	11/18/2014 16:34
Indeno (1,2,3-cd) pyrene	ND		2.1	1	11/18/2014 16:34
Isophorone	ND		2.1	1	11/18/2014 16:34
2-Methylnaphthalene	ND		2.1	1	11/18/2014 16:34
2-Methylphenol (o-Cresol)	ND		2.1	1	11/18/2014 16:34
3 &/or 4-Methylphenol (m,p-Cresol)	ND		2.1	1	11/18/2014 16:34
Naphthalene	ND		2.1	1	11/18/2014 16:34
2-Nitroaniline	ND		11	1	11/18/2014 16:34
3-Nitroaniline	ND		11	1	11/18/2014 16:34
4-Nitroaniline	ND		11	1	11/18/2014 16:34
Nitrobenzene	ND		2.1	1	11/18/2014 16:34
2-Nitrophenol	ND		11	1	11/18/2014 16:34
4-Nitrophenol	ND		11	1	11/18/2014 16:34
N-Nitrosodiphenylamine	ND		2.1	1	11/18/2014 16:34
N-Nitrosodi-n-propylamine	ND		2.1	1	11/18/2014 16:34
Pentachlorophenol	ND		11	1	11/18/2014 16:34
Phenanthrene	ND		2.1	1	11/18/2014 16:34
Phenol	ND		2.1	1	11/18/2014 16:34
Pyrene	ND		2.1	1	11/18/2014 16:34
1,2,4-Trichlorobenzene	ND		2.1	1	11/18/2014 16:34
2,4,5-Trichlorophenol	ND		2.1	1	11/18/2014 16:34
2,4,6-Trichlorophenol	ND		2.1	1	11/18/2014 16:34

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/17/14

**WorkOrder:** 1411602  
**Extraction Method:** E625  
**Analytical Method:** SW8270C  
**Unit:** µg/L

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5	1411602-005C	Water	11/14/2014	GC21	97899

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
2-Fluorophenol	83	8-130		11/18/2014 16:34
Phenol-d5	94	5-130		11/18/2014 16:34
Nitrobenzene-d5	87	20-140		11/18/2014 16:34
2-Fluorobiphenyl	87	40-140		11/18/2014 16:34
2,4,6-Tribromophenol	91	16-180		11/18/2014 16:34
4-Terphenyl-d14	112	40-170		11/18/2014 16:34

**Analyst(s):** HK



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/17/14

**WorkOrder:** 1411602  
**Extraction Method:** E625  
**Analytical Method:** SW8270C  
**Unit:** µg/L

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6	1411602-006C	Water	11/13/2014	GC21	97899
Analytes	Result	RL	DF	Date Analyzed	
Acenaphthene	ND	2.3	1	11/18/2014 17:02	
Acenaphthylene	ND	2.3	1	11/18/2014 17:02	
Acetochlor	ND	2.3	1	11/18/2014 17:02	
Anthracene	ND	2.3	1	11/18/2014 17:02	
Benzidine	ND	12	1	11/18/2014 17:02	
Benzo (a) anthracene	ND	2.3	1	11/18/2014 17:02	
Benzo (b) fluoranthene	ND	2.3	1	11/18/2014 17:02	
Benzo (k) fluoranthene	ND	2.3	1	11/18/2014 17:02	
Benzo (g,h,i) perylene	ND	2.3	1	11/18/2014 17:02	
Benzo (a) pyrene	ND	2.3	1	11/18/2014 17:02	
Benzyl Alcohol	ND	12	1	11/18/2014 17:02	
1,1-Biphenyl	ND	2.3	1	11/18/2014 17:02	
Bis (2-chloroethoxy) Methane	ND	2.3	1	11/18/2014 17:02	
Bis (2-chloroethyl) Ether	ND	2.3	1	11/18/2014 17:02	
Bis (2-chloroisopropyl) Ether	ND	2.3	1	11/18/2014 17:02	
Bis (2-ethylhexyl) Adipate	ND	2.3	1	11/18/2014 17:02	
Bis (2-ethylhexyl) Phthalate	ND	4.6	1	11/18/2014 17:02	
4-Bromophenyl Phenyl Ether	ND	12	1	11/18/2014 17:02	
Butylbenzyl Phthalate	ND	2.3	1	11/18/2014 17:02	
4-Chloroaniline	ND	4.6	1	11/18/2014 17:02	
4-Chloro-3-methylphenol	ND	12	1	11/18/2014 17:02	
2-Chloronaphthalene	ND	2.3	1	11/18/2014 17:02	
2-Chlorophenol	ND	2.3	1	11/18/2014 17:02	
4-Chlorophenyl Phenyl Ether	ND	2.3	1	11/18/2014 17:02	
Chrysene	ND	2.3	1	11/18/2014 17:02	
Dibenzo (a,h) anthracene	ND	2.3	1	11/18/2014 17:02	
Dibenzofuran	ND	2.3	1	11/18/2014 17:02	
Di-n-butyl Phthalate	ND	2.3	1	11/18/2014 17:02	
1,2-Dichlorobenzene	ND	2.3	1	11/18/2014 17:02	
1,3-Dichlorobenzene	ND	2.3	1	11/18/2014 17:02	
1,4-Dichlorobenzene	ND	2.3	1	11/18/2014 17:02	
3,3-Dichlorobenzidine	ND	4.6	1	11/18/2014 17:02	
2,4-Dichlorophenol	ND	2.3	1	11/18/2014 17:02	
Diethyl Phthalate	ND	2.3	1	11/18/2014 17:02	
2,4-Dimethylphenol	ND	2.3	1	11/18/2014 17:02	
Dimethyl Phthalate	ND	2.3	1	11/18/2014 17:02	
4,6-Dinitro-2-methylphenol	ND	12	1	11/18/2014 17:02	
2,4-Dinitrophenol	ND	29	1	11/18/2014 17:02	

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## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/17/14

**WorkOrder:** 1411602  
**Extraction Method:** E625  
**Analytical Method:** SW8270C  
**Unit:** µg/L

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6	1411602-006C	Water	11/13/2014	GC21	97899
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
2,4-Dinitrotoluene	ND		2.3	1	11/18/2014 17:02
2,6-Dinitrotoluene	ND		2.3	1	11/18/2014 17:02
Di-n-octyl Phthalate	ND		2.3	1	11/18/2014 17:02
1,2-Diphenylhydrazine	ND		2.3	1	11/18/2014 17:02
Fluoranthene	ND		2.3	1	11/18/2014 17:02
Fluorene	ND		2.3	1	11/18/2014 17:02
Hexachlorobenzene	ND		2.3	1	11/18/2014 17:02
Hexachlorobutadiene	ND		2.3	1	11/18/2014 17:02
Hexachlorocyclopentadiene	ND		12	1	11/18/2014 17:02
Hexachloroethane	ND		2.3	1	11/18/2014 17:02
Indeno (1,2,3-cd) pyrene	ND		2.3	1	11/18/2014 17:02
Isophorone	ND		2.3	1	11/18/2014 17:02
2-Methylnaphthalene	ND		2.3	1	11/18/2014 17:02
2-Methylphenol (o-Cresol)	ND		2.3	1	11/18/2014 17:02
3 &/or 4-Methylphenol (m,p-Cresol)	ND		2.3	1	11/18/2014 17:02
Naphthalene	ND		2.3	1	11/18/2014 17:02
2-Nitroaniline	ND		12	1	11/18/2014 17:02
3-Nitroaniline	ND		12	1	11/18/2014 17:02
4-Nitroaniline	ND		12	1	11/18/2014 17:02
Nitrobenzene	ND		2.3	1	11/18/2014 17:02
2-Nitrophenol	ND		12	1	11/18/2014 17:02
4-Nitrophenol	ND		12	1	11/18/2014 17:02
N-Nitrosodiphenylamine	ND		2.3	1	11/18/2014 17:02
N-Nitrosodi-n-propylamine	ND		2.3	1	11/18/2014 17:02
Pentachlorophenol	ND		12	1	11/18/2014 17:02
Phenanthrene	ND		2.3	1	11/18/2014 17:02
Phenol	ND		2.3	1	11/18/2014 17:02
Pyrene	ND		2.3	1	11/18/2014 17:02
1,2,4-Trichlorobenzene	ND		2.3	1	11/18/2014 17:02
2,4,5-Trichlorophenol	ND		2.3	1	11/18/2014 17:02
2,4,6-Trichlorophenol	ND		2.3	1	11/18/2014 17:02

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/17/14

**WorkOrder:** 1411602  
**Extraction Method:** E625  
**Analytical Method:** SW8270C  
**Unit:** µg/L

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6	1411602-006C	Water	11/13/2014	GC21	97899

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
2-Fluorophenol	90		8-130	11/18/2014 17:02
Phenol-d5	104		5-130	11/18/2014 17:02
Nitrobenzene-d5	94		20-140	11/18/2014 17:02
2-Fluorobiphenyl	94		40-140	11/18/2014 17:02
2,4,6-Tribromophenol	97		16-180	11/18/2014 17:02
4-Terphenyl-d14	119		40-170	11/18/2014 17:02

**Analyst(s):** HK



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/14/14

**WorkOrder:** 1411602  
**Extraction Method:** E200.8  
**Analytical Method:** E200.8  
**Unit:** µg/L

### CAM / CCR 17 Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1	1411602-001D	Water/TOTAL	11/13/2014	ICP-MS2	97831

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	11/18/2014 01:27
Arsenic	<b>0.83</b>	0.50	1	11/18/2014 01:27
Barium	<b>190</b>	5.0	1	11/18/2014 01:27
Beryllium	ND	0.50	1	11/18/2014 01:27
Cadmium	ND	0.25	1	11/18/2014 01:27
Chromium	ND	0.50	1	11/18/2014 01:27
Cobalt	<b>9.3</b>	0.50	1	11/18/2014 01:27
Copper	ND	2.0	1	11/18/2014 01:27
Lead	ND	0.50	1	11/18/2014 01:27
Mercury	ND	0.025	1	11/18/2014 01:27
Molybdenum	<b>16</b>	0.50	1	11/18/2014 01:27
Nickel	<b>22</b>	0.50	1	11/18/2014 01:27
Selenium	ND	0.50	1	11/18/2014 01:27
Silver	ND	0.19	1	11/18/2014 01:27
Thallium	ND	0.50	1	11/18/2014 01:27
Vanadium	<b>1.5</b>	0.50	1	11/18/2014 01:27
Zinc	ND	15	1	11/18/2014 01:27
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Tb 350.917	95	70-130		11/18/2014 01:27

**Analyst(s):** DB



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/14/14

**WorkOrder:** 1411602  
**Extraction Method:** E200.8  
**Analytical Method:** E200.8  
**Unit:** µg/L

### CAM / CCR 17 Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2	1411602-002D	Water/TOTAL	11/14/2014	ICP-MS2	97831

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	11/18/2014 01:33
Arsenic	1.2	0.50	1	11/18/2014 01:33
Barium	160	5.0	1	11/18/2014 01:33
Beryllium	ND	0.50	1	11/18/2014 01:33
Cadmium	ND	0.25	1	11/18/2014 01:33
Chromium	ND	0.50	1	11/18/2014 01:33
Cobalt	4.2	0.50	1	11/18/2014 01:33
Copper	ND	2.0	1	11/18/2014 01:33
Lead	ND	0.50	1	11/18/2014 01:33
Mercury	ND	0.025	1	11/18/2014 01:33
Molybdenum	85	0.50	1	11/18/2014 01:33
Nickel	16	0.50	1	11/18/2014 01:33
Selenium	ND	0.50	1	11/18/2014 01:33
Silver	ND	0.19	1	11/18/2014 01:33
Thallium	ND	0.50	1	11/18/2014 01:33
Vanadium	2.0	0.50	1	11/18/2014 01:33
Zinc	ND	15	1	11/18/2014 01:33
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Tb 350.917	95	70-130		11/18/2014 01:33

**Analyst(s):** DB



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/14/14

**WorkOrder:** 1411602  
**Extraction Method:** E200.8  
**Analytical Method:** E200.8  
**Unit:** µg/L

### CAM / CCR 17 Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3	1411602-003D	Water/TOTAL	11/14/2014	ICP-MS2	97831

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	11/18/2014 01:39
Arsenic	<b>0.53</b>	0.50	1	11/18/2014 01:39
Barium	<b>180</b>	5.0	1	11/18/2014 01:39
Beryllium	ND	0.50	1	11/18/2014 01:39
Cadmium	ND	0.25	1	11/18/2014 01:39
Chromium	ND	0.50	1	11/18/2014 01:39
Cobalt	<b>4.1</b>	0.50	1	11/18/2014 01:39
Copper	ND	2.0	1	11/18/2014 01:39
Lead	ND	0.50	1	11/18/2014 01:39
Mercury	ND	0.025	1	11/18/2014 01:39
Molybdenum	<b>130</b>	5.0	10	11/18/2014 10:03
Nickel	<b>18</b>	0.50	1	11/18/2014 01:39
Selenium	ND	0.50	1	11/18/2014 01:39
Silver	ND	0.19	1	11/18/2014 01:39
Thallium	ND	0.50	1	11/18/2014 01:39
Vanadium	<b>1.8</b>	0.50	1	11/18/2014 01:39
Zinc	ND	15	1	11/18/2014 01:39
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Tb 350.917	94	70-130		11/18/2014 01:39

**Analyst(s):** DB



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/14/14

**WorkOrder:** 1411602  
**Extraction Method:** E200.8  
**Analytical Method:** E200.8  
**Unit:** µg/L

### CAM / CCR 17 Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4	1411602-004D	Water/TOTAL	11/14/2014	ICP-MS1	97831

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	10	20	11/18/2014 09:57
Arsenic	ND	10	20	11/18/2014 09:57
Barium	<b>1100</b>	100	20	11/18/2014 09:57
Beryllium	ND	10	20	11/18/2014 09:57
Cadmium	ND	5.0	20	11/18/2014 09:57
Chromium	<b>280</b>	10	20	11/18/2014 09:57
Cobalt	<b>130</b>	10	20	11/18/2014 09:57
Copper	<b>130</b>	40	20	11/18/2014 09:57
Lead	<b>51</b>	10	20	11/18/2014 09:57
Mercury	ND	0.50	20	11/18/2014 09:57
Molybdenum	<b>12</b>	10	20	11/18/2014 09:57
Nickel	<b>580</b>	10	20	11/18/2014 09:57
Selenium	ND	10	20	11/18/2014 09:57
Silver	ND	3.8	20	11/18/2014 09:57
Thallium	ND	10	20	11/18/2014 09:57
Vanadium	<b>170</b>	10	20	11/18/2014 09:57
Zinc	ND	300	20	11/18/2014 09:57

Surrogates	REC (%)	Limits	Analytical Comments: a1
Tb 350.917	85	70-130	11/18/2014 09:57

Analyst(s): DB



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/14/14

**WorkOrder:** 1411602  
**Extraction Method:** E200.8  
**Analytical Method:** E200.8  
**Unit:** µg/L

### CAM / CCR 17 Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5	1411602-005D	Water/TOTAL	11/14/2014	ICP-MS2	97831

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	11/18/2014 01:51
Arsenic	<b>0.53</b>	0.50	1	11/18/2014 01:51
Barium	<b>90</b>	5.0	1	11/18/2014 01:51
Beryllium	ND	0.50	1	11/18/2014 01:51
Cadmium	ND	0.25	1	11/18/2014 01:51
Chromium	<b>2.5</b>	0.50	1	11/18/2014 01:51
Cobalt	<b>5.1</b>	0.50	1	11/18/2014 01:51
Copper	<b>2.4</b>	2.0	1	11/18/2014 01:51
Lead	<b>0.56</b>	0.50	1	11/18/2014 01:51
Mercury	ND	0.025	1	11/18/2014 01:51
Molybdenum	<b>23</b>	0.50	1	11/18/2014 01:51
Nickel	<b>27</b>	0.50	1	11/18/2014 01:51
Selenium	ND	0.50	1	11/18/2014 01:51
Silver	ND	0.19	1	11/18/2014 01:51
Thallium	ND	0.50	1	11/18/2014 01:51
Vanadium	<b>4.0</b>	0.50	1	11/18/2014 01:51
Zinc	ND	15	1	11/18/2014 01:51
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Tb 350.917	100	70-130		11/18/2014 01:51

**Analyst(s):** DB





## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/14/14

**WorkOrder:** 1411602  
**Extraction Method:** E200.8  
**Analytical Method:** E200.8  
**Unit:** µg/L

### CAM / CCR 17 Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6	1411602-006D	Water/TOTAL	11/13/2014	ICP-MS2	97831

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	11/18/2014 01:58
Arsenic	2.0	0.50	1	11/18/2014 01:58
Barium	140	5.0	1	11/18/2014 01:58
Beryllium	ND	0.50	1	11/18/2014 01:58
Cadmium	ND	0.25	1	11/18/2014 01:58
Chromium	25	0.50	1	11/18/2014 01:58
Cobalt	25	0.50	1	11/18/2014 01:58
Copper	9.6	2.0	1	11/18/2014 01:58
Lead	3.2	0.50	1	11/18/2014 01:58
Mercury	0.080	0.025	1	11/18/2014 01:58
Molybdenum	3.0	0.50	1	11/18/2014 01:58
Nickel	85	0.50	1	11/18/2014 01:58
Selenium	ND	0.50	1	11/18/2014 01:58
Silver	ND	0.19	1	11/18/2014 01:58
Thallium	ND	0.50	1	11/18/2014 01:58
Vanadium	21	0.50	1	11/18/2014 01:58
Zinc	24	15	1	11/18/2014 01:58
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Tb 350.917	98	70-130		11/18/2014 01:58

**Analyst(s):** DB



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/18/14

**WorkOrder:** 1411602  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** µg/L

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1	1411602-001A	Water	11/13/2014	GC3	97914

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	50	1	11/18/2014 22:56
MTBE	---	5.0	1	11/18/2014 22:56
Benzene	---	0.50	1	11/18/2014 22:56
Toluene	---	0.50	1	11/18/2014 22:56
Ethylbenzene	---	0.50	1	11/18/2014 22:56
Xylenes	---	0.50	1	11/18/2014 22:56
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
aaa-TFT_2	101	70-130		11/18/2014 22:56

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2	1411602-002A	Water	11/14/2014	GC3	97914

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	91	50	1	11/18/2014 07:53
MTBE	---	5.0	1	11/18/2014 07:53
Benzene	---	0.50	1	11/18/2014 07:53
Toluene	---	0.50	1	11/18/2014 07:53
Ethylbenzene	---	0.50	1	11/18/2014 07:53
Xylenes	---	0.50	1	11/18/2014 07:53
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: d7	
aaa-TFT_2	97	70-130		11/18/2014 07:53

Analyst(s): IA



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/18/14

**WorkOrder:** 1411602  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** µg/L

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3	1411602-003A	Water	11/14/2014	GC3	97914

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	50	1	11/18/2014 02:02
MTBE	---	5.0	1	11/18/2014 02:02
Benzene	---	0.50	1	11/18/2014 02:02
Toluene	---	0.50	1	11/18/2014 02:02
Ethylbenzene	---	0.50	1	11/18/2014 02:02
Xylenes	---	0.50	1	11/18/2014 02:02

Surrogates	REC (%)	Limits	Date Analyzed
aaa-TFT_2	111	70-130	11/18/2014 02:02

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4	1411602-004A	Water	11/14/2014	GC3	97914

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	50	1	11/18/2014 07:23
MTBE	---	5.0	1	11/18/2014 07:23
Benzene	---	0.50	1	11/18/2014 07:23
Toluene	---	0.50	1	11/18/2014 07:23
Ethylbenzene	---	0.50	1	11/18/2014 07:23
Xylenes	---	0.50	1	11/18/2014 07:23

Surrogates	REC (%)	Limits	Date Analyzed
aaa-TFT_2	105	70-130	11/18/2014 07:23

Analyst(s): IA



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/18/14

**WorkOrder:** 1411602  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** µg/L

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5	1411602-005A	Water	11/14/2014	GC3	97914

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	50	1	11/18/2014 01:03
MTBE	---	5.0	1	11/18/2014 01:03
Benzene	---	0.50	1	11/18/2014 01:03
Toluene	---	0.50	1	11/18/2014 01:03
Ethylbenzene	---	0.50	1	11/18/2014 01:03
Xylenes	---	0.50	1	11/18/2014 01:03

Surrogates	REC (%)	Limits	Date Analyzed
aaa-TFT_2	113	70-130	11/18/2014 01:03

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6	1411602-006A	Water	11/13/2014	GC3	97914

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	50	1	11/18/2014 08:52
MTBE	---	10	1	11/18/2014 08:52
Benzene	---	0.50	1	11/18/2014 08:52
Toluene	---	0.50	1	11/18/2014 08:52
Ethylbenzene	---	0.50	1	11/18/2014 08:52
Xylenes	---	0.50	1	11/18/2014 08:52

Surrogates	REC (%)	Qualifiers	Limits	Analytical Comments: c4	Date Analyzed
aaa-TFT_2	794	S	70-130		11/18/2014 08:52

Analyst(s): IA



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/14/14

**WorkOrder:** 1411602  
**Extraction Method:** SW3510C  
**Analytical Method:** SW8015B  
**Unit:** µg/L

### Total Extractable Petroleum Hydrocarbons

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1	1411602-001A	Water	11/13/2014	GC2B	97832

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	260	50	1	11/17/2014 10:35
TPH-Motor Oil (C18-C36)	ND	250	1	11/17/2014 10:35

Surrogates	REC (%)	Limits	Analytical Comments: e2	Date Analyzed
C9	109	70-130		11/17/2014 10:35

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-2	1411602-002A	Water	11/14/2014	GC2B	97832

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	1100	50	1	11/17/2014 11:52
TPH-Motor Oil (C18-C36)	1100	250	1	11/17/2014 11:52

Surrogates	REC (%)	Limits	Analytical Comments: e7,e2/e3	Date Analyzed
C9	106	70-130		11/17/2014 11:52

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-3	1411602-003A	Water	11/14/2014	GC2B	97832

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	430	50	1	11/18/2014 15:34
TPH-Motor Oil (C18-C36)	390	250	1	11/18/2014 15:34

Surrogates	REC (%)	Limits	Analytical Comments: e10/e7,e4	Date Analyzed
C9	116	70-130		11/18/2014 15:34

Analyst(s): TK

(Cont.)



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 18:07  
**Date Prepared:** 11/14/14

**WorkOrder:** 1411602  
**Extraction Method:** SW3510C  
**Analytical Method:** SW8015B  
**Unit:** µg/L

### Total Extractable Petroleum Hydrocarbons

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-4	1411602-004A	Water	11/14/2014	GC2A	97832

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	85	50	1	11/17/2014 10:35
TPH-Motor Oil (C18-C36)	ND	250	1	11/17/2014 10:35

Surrogates	REC (%)	Limits	Analytical Comments: e2	Date Analyzed
C9	107	70-130		11/17/2014 10:35

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-5	1411602-005A	Water	11/14/2014	GC2A	97832

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	50	1	11/17/2014 11:52
TPH-Motor Oil (C18-C36)	ND	250	1	11/17/2014 11:52

Surrogates	REC (%)	Limits	Date Analyzed
C9	108	70-130	11/17/2014 11:52

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-6	1411602-006A	Water	11/13/2014	GC2A	97832

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	50	1	11/17/2014 13:08
TPH-Motor Oil (C18-C36)	ND	250	1	11/17/2014 13:08

Surrogates	REC (%)	Limits	Date Analyzed
C9	106	70-130	11/17/2014 13:08

Analyst(s): TK



# Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/18/14  
**Date Analyzed:** 11/18/14  
**Instrument:** GC28  
**Matrix:** Water  
**Project:** #1095; Casentini

**WorkOrder:** 1411602  
**BatchID:** 97977  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L  
**Sample ID:** MB/LCS-97977  
 1411602-004BMS/MSD

## QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	10.3	0.50	10	-	103	54-140
Benzene	ND	10.5	0.50	10	-	105	47-158
Bromobenzene	ND	-	0.50	-	-	-	-
Bromochloromethane	ND	-	0.50	-	-	-	-
Bromodichloromethane	ND	-	0.50	-	-	-	-
Bromoform	ND	-	0.50	-	-	-	-
Bromomethane	ND	-	0.50	-	-	-	-
2-Butanone (MEK)	ND	-	2.0	-	-	-	-
t-Butyl alcohol (TBA)	ND	37.2	2.0	40	-	93	42-140
n-Butyl benzene	ND	-	0.50	-	-	-	-
sec-Butyl benzene	ND	-	0.50	-	-	-	-
tert-Butyl benzene	ND	-	0.50	-	-	-	-
Carbon Disulfide	ND	-	0.50	-	-	-	-
Carbon Tetrachloride	ND	-	0.50	-	-	-	-
Chlorobenzene	ND	10.2	0.50	10	-	102	43-157
Chloroethane	ND	-	0.50	-	-	-	-
Chloroform	ND	-	0.50	-	-	-	-
Chloromethane	ND	-	0.50	-	-	-	-
2-Chlorotoluene	ND	-	0.50	-	-	-	-
4-Chlorotoluene	ND	-	0.50	-	-	-	-
Dibromochloromethane	ND	-	0.50	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.20	-	-	-	-
1,2-Dibromoethane (EDB)	ND	9.59	0.50	10	-	96	44-155
Dibromomethane	ND	-	0.50	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.50	-	-	-	-
Dichlorodifluoromethane	ND	-	0.50	-	-	-	-
1,1-Dichloroethane	ND	-	0.50	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	9.44	0.50	10	-	94	66-125
1,1-Dichloroethene	ND	10.7	0.50	10	-	107	47-149
cis-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
1,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,3-Dichloropropane	ND	-	0.50	-	-	-	-
2,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,1-Dichloropropene	ND	-	0.50	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.50	-	-	-	-

(Cont.)





# Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/18/14  
**Date Analyzed:** 11/18/14  
**Instrument:** GC28  
**Matrix:** Water  
**Project:** #1095; Casentini

**WorkOrder:** 1411602  
**BatchID:** 97977  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L  
**Sample ID:** MB/LCS-97977  
 1411602-004BMS/MSD

## QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	9.54	0.50	10	-	95	57-136
Ethylbenzene	ND	-	0.50	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	10.1	0.50	10	-	101	55-137
Freon 113	ND	-	0.50	-	-	-	-
Hexachlorobutadiene	ND	-	0.50	-	-	-	-
Hexachloroethane	ND	-	0.50	-	-	-	-
2-Hexanone	ND	-	0.50	-	-	-	-
Isopropylbenzene	ND	-	0.50	-	-	-	-
4-Isopropyl toluene	ND	-	0.50	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	10.1	0.50	10	-	101	53-139
Methylene chloride	ND	-	0.50	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.50	-	-	-	-
Naphthalene	ND	-	0.50	-	-	-	-
n-Propyl benzene	ND	-	0.50	-	-	-	-
Styrene	ND	-	0.50	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
Tetrachloroethene	ND	-	0.50	-	-	-	-
Toluene	ND	10.0	0.50	10	-	100	52-137
1,2,3-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.50	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.50	-	-	-	-
Trichloroethene	ND	11.0	0.50	10	-	110	43-157
Trichlorofluoromethane	ND	-	0.50	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.50	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.50	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.50	-	-	-	-
Vinyl Chloride	ND	-	0.50	-	-	-	-
Xylenes, Total	ND	-	0.50	-	-	-	-

### Surrogate Recovery

Dibromofluoromethane	24.4	25.3		25	98	101	65-135
Toluene-d8	23.5	23.7		25	94	95	64-127
4-BFB	2.41	2.58		2.5	96	103	59-139

(Cont.)



## Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/18/14  
**Date Analyzed:** 11/18/14  
**Instrument:** GC28  
**Matrix:** Water  
**Project:** #1095; Casentini

**WorkOrder:** 1411602  
**BatchID:** 97977  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L  
**Sample ID:** MB/LCS-97977  
 1411602-004BMS/MSD

### QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	10.1	10.2	10	ND	101	102	70-130	1.43	20
Benzene	9.70	9.80	10	ND	96	97	70-130	1.00	20
t-Butyl alcohol (TBA)	39.9	40.5	40	ND	95	97	70-130	1.54	20
Chlorobenzene	9.77	9.96	10	ND	98	100	70-130	1.91	20
1,2-Dibromoethane (EDB)	10.0	10.2	10	ND	100	103	70-130	2.22	20
1,2-Dichloroethane (1,2-DCA)	8.97	9.02	10	ND	90	90	70-130	0	20
1,1-Dichloroethene	10.0	9.92	10	ND	100	99	70-130	0.781	20
Diisopropyl ether (DIPE)	8.79	8.95	10	ND	88	89	70-130	1.83	20
Ethyl tert-butyl ether (ETBE)	9.32	9.68	10	ND	93	97	70-130	3.73	20
Methyl-t-butyl ether (MTBE)	9.97	10.1	10	ND	100	101	70-130	1.26	20
Toluene	9.51	9.75	10	ND	94	97	70-130	2.45	20
Trichloroethene	10.2	10.4	10	ND	102	104	70-130	1.75	20
<b>Surrogate Recovery</b>									
Dibromofluoromethane	25.8	25.3	25		103	101	73-131	2.00	20
Toluene-d8	23.7	23.9	25		95	95	72-117	0	20
4-BFB	2.50	2.51	2.5		100	101	74-116	0.660	20

(Cont.)



# Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/20/14  
**Date Analyzed:** 11/19/14  
**Instrument:** GC18  
**Matrix:** Water  
**Project:** #1095; Casentini

**WorkOrder:** 1411602  
**BatchID:** 98035  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L  
**Sample ID:** MB/LCS-98035  
 1411753-005BMS/MSD

## QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	9.18	0.50	10	-	92	54-140
Benzene	ND	9.46	0.50	10	-	95	47-158
Bromobenzene	ND	-	0.50	-	-	-	-
Bromochloromethane	ND	-	0.50	-	-	-	-
Bromodichloromethane	ND	-	0.50	-	-	-	-
Bromoform	ND	-	0.50	-	-	-	-
Bromomethane	ND	-	0.50	-	-	-	-
2-Butanone (MEK)	ND	-	2.0	-	-	-	-
t-Butyl alcohol (TBA)	ND	34.3	2.0	40	-	86	42-140
n-Butyl benzene	ND	-	0.50	-	-	-	-
sec-Butyl benzene	ND	-	0.50	-	-	-	-
tert-Butyl benzene	ND	-	0.50	-	-	-	-
Carbon Disulfide	ND	-	0.50	-	-	-	-
Carbon Tetrachloride	ND	-	0.50	-	-	-	-
Chlorobenzene	ND	8.89	0.50	10	-	89	43-157
Chloroethane	ND	-	0.50	-	-	-	-
Chloroform	ND	-	0.50	-	-	-	-
Chloromethane	ND	-	0.50	-	-	-	-
2-Chlorotoluene	ND	-	0.50	-	-	-	-
4-Chlorotoluene	ND	-	0.50	-	-	-	-
Dibromochloromethane	ND	-	0.50	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.20	-	-	-	-
1,2-Dibromoethane (EDB)	ND	9.44	0.50	10	-	94	44-155
Dibromomethane	ND	-	0.50	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.50	-	-	-	-
Dichlorodifluoromethane	ND	-	0.50	-	-	-	-
1,1-Dichloroethane	ND	-	0.50	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	8.90	0.50	10	-	89	66-125
1,1-Dichloroethene	ND	9.29	0.50	10	-	93	47-149
cis-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
1,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,3-Dichloropropane	ND	-	0.50	-	-	-	-
2,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,1-Dichloropropene	ND	-	0.50	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.50	-	-	-	-

(Cont.)



# Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/20/14  
**Date Analyzed:** 11/19/14  
**Instrument:** GC18  
**Matrix:** Water  
**Project:** #1095; Casentini

**WorkOrder:** 1411602  
**BatchID:** 98035  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L  
**Sample ID:** MB/LCS-98035  
 1411753-005BMS/MSD

## QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	9.56	0.50	10	-	96	57-136
Ethylbenzene	ND	-	0.50	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	9.70	0.50	10	-	97	55-137
Freon 113	ND	-	0.50	-	-	-	-
Hexachlorobutadiene	ND	-	0.50	-	-	-	-
Hexachloroethane	ND	-	0.50	-	-	-	-
2-Hexanone	ND	-	0.50	-	-	-	-
Isopropylbenzene	ND	-	0.50	-	-	-	-
4-Isopropyl toluene	ND	-	0.50	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	9.22	0.50	10	-	92	53-139
Methylene chloride	ND	-	0.50	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.50	-	-	-	-
Naphthalene	ND	-	0.50	-	-	-	-
n-Propyl benzene	ND	-	0.50	-	-	-	-
Styrene	ND	-	0.50	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
Tetrachloroethene	ND	-	0.50	-	-	-	-
Toluene	ND	9.00	0.50	10	-	90	52-137
1,2,3-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.50	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.50	-	-	-	-
Trichloroethene	ND	9.00	0.50	10	-	90	43-157
Trichlorofluoromethane	ND	-	0.50	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.50	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.50	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.50	-	-	-	-
Vinyl Chloride	ND	-	0.50	-	-	-	-
Xylenes, Total	ND	-	0.50	-	-	-	-

### Surrogate Recovery

Dibromofluoromethane	23.6	25.7		25	94	103	65-135
Toluene-d8	29.3	26.1		25	117	104	64-127
4-BFB	1.99	2.30		2.5	80	92	59-139

(Cont.)



## Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/20/14  
**Date Analyzed:** 11/19/14  
**Instrument:** GC18  
**Matrix:** Water  
**Project:** #1095; Casentini

**WorkOrder:** 1411602  
**BatchID:** 98035  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L  
**Sample ID:** MB/LCS-98035  
 1411753-005BMS/MSD

### QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	8.50	9.19	10	ND	85	92	70-130	7.87	20
Benzene	8.04	8.91	10	ND	80	88	70-130	10.2	20
t-Butyl alcohol (TBA)	33.0	35.2	40	ND	82	88	70-130	6.38	20
Chlorobenzene	7.51	8.35	10	ND	75	83	70-130	10.5	20
1,2-Dibromoethane (EDB)	8.11	8.70	10	ND	81	87	70-130	7.02	20
1,2-Dichloroethane (1,2-DCA)	8.02	8.68	10	ND	80	87	70-130	7.91	20
1,1-Dichloroethene	7.73	8.67	10	ND	77	87	70-130	11.5	20
Diisopropyl ether (DIPE)	8.67	9.42	10	ND	87	94	70-130	8.33	20
Ethyl tert-butyl ether (ETBE)	8.78	9.48	10	ND	88	95	70-130	7.67	20
Methyl-t-butyl ether (MTBE)	8.58	9.19	10	1.367	72	78	70-130	6.91	20
Toluene	7.52	8.37	10	ND	74	83	70-130	10.8	20
Trichloroethene	7.29	8.15	10	ND	73	81	70-130	11.1	20
<b>Surrogate Recovery</b>									
Dibromofluoromethane	24.9	25.0	25		100	100	73-131	0	20
Toluene-d8	25.3	25.4	25		101	102	72-117	0.525	20
4-BFB	2.33	2.31	2.5		93	92	74-116	0.975	20



## Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/17/14  
**Date Analyzed:** 11/17/14 - 11/18/14  
**Instrument:** GC17  
**Matrix:** Water  
**Project:** #1095; Casentini

**WorkOrder:** 1411602  
**BatchID:** 97899  
**Extraction Method:** E625  
**Analytical Method:** SW8270C  
**Unit:** µg/L  
**Sample ID:** MB/LCS-97899

### QC Summary Report for SW8270C

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acenaphthene	ND	17.7	1.0	20	-	89	47-145
Acenaphthylene	ND	-	1.0	-	-	-	-
Anthracene	ND	-	1.0	-	-	-	-
Benzidine	ND	-	5.0	-	-	-	-
Benzo (a) anthracene	ND	-	1.0	-	-	-	-
Benzo (b) fluoranthene	ND	-	1.0	-	-	-	-
Benzo (k) fluoranthene	ND	-	1.0	-	-	-	-
Benzo (g,h,i) perylene	ND	-	1.0	-	-	-	-
Benzo (a) pyrene	ND	-	1.0	-	-	-	-
Bis (2-chloroethoxy) Methane	ND	-	1.0	-	-	-	-
Bis (2-chloroethyl) Ether	ND	-	1.0	-	-	-	-
Bis (2-chloroisopropyl) Ether	ND	-	1.0	-	-	-	-
Bis (2-ethylhexyl) Adipate	ND	-	1.0	-	-	-	-
Bis (2-ethylhexyl) Phthalate	ND	-	2.0	-	-	-	-
4-Bromophenyl Phenyl Ether	ND	-	5.0	-	-	-	-
Butylbenzyl Phthalate	ND	-	1.0	-	-	-	-
4-Chloro-3-methylphenol	ND	19.2	1.0	20	-	96	22-147
2-Chloronaphthalene	ND	-	1.0	-	-	-	-
2-Chlorophenol	ND	16.2	1.0	20	-	81	23-134
4-Chlorophenyl Phenyl Ether	ND	-	1.0	-	-	-	-
Chrysene	ND	-	1.0	-	-	-	-
Dibenzo (a,h) anthracene	ND	-	1.0	-	-	-	-
Di-n-butyl Phthalate	ND	-	1.0	-	-	-	-
1,2-Dichlorobenzene	ND	-	1.0	-	-	-	-
1,3-Dichlorobenzene	ND	-	1.0	-	-	-	-
1,4-Dichlorobenzene	ND	15.4	1.0	20	-	77	20-124
3,3-Dichlorobenzidine	ND	-	2.0	-	-	-	-
2,4-Dichlorophenol	ND	-	1.0	-	-	-	-
Diethyl Phthalate	ND	-	1.0	-	-	-	-
2,4-Dimethylphenol	ND	-	1.0	-	-	-	-
Dimethyl Phthalate	ND	-	1.0	-	-	-	-
4,6-Dinitro-2-methylphenol	ND	-	5.0	-	-	-	-
2,4-Dinitrophenol	ND	-	5.0	-	-	-	-
2,4-Dinitrotoluene	ND	18.9	1.0	20	-	95	39-139
2,6-Dinitrotoluene	ND	-	1.0	-	-	-	-
Di-n-octyl Phthalate	ND	-	2.0	-	-	-	-
1,2-Diphenylhydrazine	ND	-	1.0	-	-	-	-
Fluoranthene	ND	-	1.0	-	-	-	-
Fluorene	ND	-	1.0	-	-	-	-
Hexachlorobenzene	ND	-	1.0	-	-	-	-

(Cont.)



## Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/17/14  
**Date Analyzed:** 11/17/14 - 11/18/14  
**Instrument:** GC17  
**Matrix:** Water  
**Project:** #1095; Casentini

**WorkOrder:** 1411602  
**BatchID:** 97899  
**Extraction Method:** E625  
**Analytical Method:** SW8270C  
**Unit:** µg/L  
**Sample ID:** MB/LCS-97899

### QC Summary Report for SW8270C

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Hexachlorobutadiene	ND	-	1.0	-	-	-	-
Hexachlorocyclopentadiene	ND	-	5.0	-	-	-	-
Hexachloroethane	ND	-	1.0	-	-	-	-
Indeno (1,2,3-cd) pyrene	ND	-	1.0	-	-	-	-
Isophorone	ND	-	1.0	-	-	-	-
2-Methylphenol (o-cresol)	ND	-	1.0	-	-	-	-
3 &/or 4-Methylphenol (m,p-Cresol)	ND	-	1.0	-	-	-	-
Naphthalene	ND	-	1.0	-	-	-	-
Nitrobenzene	ND	-	1.0	-	-	-	-
2-Nitrophenol	ND	-	5.0	-	-	-	-
4-Nitrophenol	ND	90.7	5.0	100	-	91	0-132
N-Nitrosodimethylamine	ND	-	5.0	-	-	-	-
N-Nitrosodiphenylamine	ND	-	1.0	-	-	-	-
N-Nitrosodi-n-propylamine	ND	16.8	1.0	20	-	84	0-230
Pentachlorophenol	ND	34.7	5.0	40	-	87	14-176
Phenanthrene	ND	-	1.0	-	-	-	-
Phenol	ND	16.9	1.0	20	-	84	5-112
Pyrene	ND	17.4	1.0	20	-	87	52-115
1,2,4-Trichlorobenzene	ND	17.0	1.0	20	-	85	44-142
2,4,6-Trichlorophenol	ND	-	1.0	-	-	-	-
<b>Surrogate Recovery</b>							
2-Fluorophenol	17.7	16.5		20	89	83	8-130
Phenol-d5	19.1	18.4		20	95	92	5-130
Nitrobenzene-d5	18.4	19.4		20	92	97	20-140
2-Fluorobiphenyl	18.9	19.6		20	95	98	40-140
2,4,6-Tribromophenol	18.9	19.4		20	94	97	30-180
Terphenyl-d14	20.8	20.8		20	104	104	40-170





## Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/14/14  
**Date Analyzed:** 11/17/14  
**Instrument:** ICP-MS2  
**Matrix:** Water  
**Project:** #1095; Casentini

**WorkOrder:** 1411602  
**BatchID:** 97831  
**Extraction Method:** E200.8  
**Analytical Method:** E200.8  
**Unit:** µg/L  
**Sample ID:** MB/LCS-97831  
 1411568-006AMS/MSD

### QC Summary Report for E200.8

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Antimony	ND	50.0	0.50	50	-	100	85-115
Arsenic	ND	51.8	0.50	50	-	104	85-115
Barium	ND	499	5.0	500	-	100	85-115
Beryllium	ND	52.1	0.50	50	-	104	85-115
Cadmium	ND	50.5	0.25	50	-	101	85-115
Chromium	ND	52.9	0.50	50	-	106	85-115
Cobalt	ND	50.9	0.50	50	-	102	85-115
Copper	ND	53.4	2.0	50	-	107	85-115
Lead	ND	53.1	0.50	50	-	106	85-115
Mercury	ND	1.30	0.025	1.25	-	104	85-115
Molybdenum	ND	48.8	0.50	50	-	98	85-115
Nickel	ND	52.4	0.50	50	-	105	85-115
Selenium	ND	52.6	0.50	50	-	105	85-115
Silver	ND	49.6	0.19	50	-	99	85-115
Thallium	ND	52.8	0.50	50	-	106	85-115
Vanadium	ND	53.7	0.50	50	-	107	85-115
Zinc	ND	531	15	500	-	105	85-115
<b>Surrogate Recovery</b>							
Tb 350.917	675	721		750	90	96	70-130

(Cont.)



## Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/14/14  
**Date Analyzed:** 11/17/14  
**Instrument:** ICP-MS2  
**Matrix:** Water  
**Project:** #1095; Casentini

**WorkOrder:** 1411602  
**BatchID:** 97831  
**Extraction Method:** E200.8  
**Analytical Method:** E200.8  
**Unit:** µg/L  
**Sample ID:** MB/LCS-97831  
 1411568-006AMS/MSD

### QC Summary Report for E200.8

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Antimony	48.1	47.2	50	ND	96	94	70-130	1.89	20
Arsenic	51.7	50.8	50	1.406	101	99	70-130	1.91	20
Barium	474	462	500	5.260	94	91	70-130	2.52	20
Beryllium	48.4	47.1	50	ND	97	94	70-130	2.83	20
Cadmium	46.9	45.6	50	ND	94	91	70-130	2.72	20
Chromium	49.6	48.7	50	ND	99	97	70-130	1.81	20
Cobalt	44.8	43.6	50	ND	89	87	70-130	2.69	20
Copper	54.1	52.7	50	5.744	97	94	70-130	2.58	20
Lead	50.7	49.4	50	ND	101	98	70-130	2.62	20
Mercury	1.28	1.27	1.25	ND	103	101	70-130	1.33	20
Molybdenum	47.6	46.7	50	ND	94	93	70-130	1.87	20
Nickel	49.1	48.1	50	0.5226	97	95	70-130	2.16	20
Selenium	64.0	63.4	50	14	101	100	70-130	0.911	20
Silver	45.9	44.8	50	ND	92	90	70-130	2.51	20
Thallium	50.6	49.5	50	ND	101	99	70-130	2.14	20
Vanadium	52.2	50.9	50	0.97	102	100	70-130	2.56	20
Zinc	505	486	500	ND	98	95	70-130	3.69	20
<b>Surrogate Recovery</b>									
Tb 350.917	696	682	750		93	91	70-130	2.10	20



# Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/17/14  
**Date Analyzed:** 11/17/14  
**Instrument:** GC3  
**Matrix:** Water  
**Project:** #1095; Casentini

**WorkOrder:** 1411602  
**BatchID:** 97914  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** µg/L  
**Sample ID:** MB/LCS-97914  
 1411556-001AMS/MSD

## QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	61.6	40	60	-	103	70-130
MTBE	ND	9.91	5.0	10	-	99	70-130
Benzene	ND	10.6	0.50	10	-	106	70-130
Toluene	ND	10.6	0.50	10	-	106	70-130
Ethylbenzene	ND	10.8	0.50	10	-	108	70-130
Xylenes	ND	32.5	0.50	30	-	108	70-130

**Surrogate Recovery**

aaa-TFT_2	10.4	10.1		10	104	101	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	65.4	71.3	60	ND	109	119	70-130	8.56	20
MTBE	9.61	10.4	10	ND	96	104	70-130	8.02	20
Benzene	10.9	10.7	10	ND	109	107	70-130	1.99	20
Toluene	11.2	10.9	10	ND	112	109	70-130	2.52	20
Ethylbenzene	11.2	11.1	10	ND	112	111	70-130	0.925	20
Xylenes	33.5	33.3	30	ND	112	111	70-130	0.625	20

**Surrogate Recovery**

aaa-TFT_2	11.0	10.4	10		109	104	70-130	5.38	20
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## Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/14/14  
**Date Analyzed:** 11/17/14  
**Instrument:** GC11A  
**Matrix:** Water  
**Project:** #1095; Casentini

**WorkOrder:** 1411602  
**BatchID:** 97832  
**Extraction Method:** SW3510C  
**Analytical Method:** SW8015B  
**Unit:** µg/L  
**Sample ID:** MB/LCS-97832

### QC Summary Report for SW8015B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	954	50	1000	-	95	61-157
<b>Surrogate Recovery</b>							
C9	632	620		625	101	99	70-134

1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262



# CHAIN-OF-CUSTODY RECORD

**WorkOrder: 1411602**

**ClientCode: CESW**

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  EQUIS   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

**Report to:**  
 Tim Cook  
 Cook Environmental Services, Inc.  
 1485 Treat Blvd, Ste. 203A  
 Walnut Creek, CA 94597  
 (925) 478-8390    FAX: 925-937-1759

**Email:** tcook@cookenvironmental.com  
 cc/3rd Party:  
**PO:**  
 ProjectNo: #1095; Casentini

**Bill to:**  
 Tim Cook  
 Cook Environmental Services, Inc.  
 1485 Treat Blvd, Ste. 203A  
 Walnut Creek, CA 94597

**Requested TAT: 5 days**  
  
**Date Received: 11/14/2014**  
**Date Printed: 11/21/2014**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1411602-001	SB-1	Water	11/13/2014	<input type="checkbox"/>	B	C	D	A	A								
1411602-002	SB-2	Water	11/14/2014	<input type="checkbox"/>	B	C	D		A								
1411602-003	SB-3	Water	11/14/2014	<input type="checkbox"/>	B	C	D		A								
1411602-004	SB-4	Water	11/14/2014	<input type="checkbox"/>	B	C	D		A								
1411602-005	SB-5	Water	11/14/2014	<input type="checkbox"/>	B	C	D		A								
1411602-006	SB-6	Water	11/13/2014	<input type="checkbox"/>	B	C	D		A								

**Test Legend:**

1	8260B_W	2	8270D_W	3	CAM17(T)MS_W	4	PREDF REPORT	5	TPH(DMO)_W
6		7		8		9		10	
11		12							

The following SampIDs: 001A, 002A, 003A, 004A, 005A, 006A contain testgroup.

**Prepared by: Jena Alfaro**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



## WORK ORDER SUMMARY

**Client Name:** COOK ENVIRONMENTAL SERVICES, INC.

**QC Level:** LEVEL 2

**Work Order:** 1411602

**Project:** #1095; Casentini

**Client Contact:** Tim Cook

**Date Received:** 11/14/2014

**Comments:**

**Contact's Email:** tcook@cookenvironmental.com

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1411602-001A	SB-1	Water	Multi-Range TPH(g,d,mo)	2	VOA w/ HCl	<input type="checkbox"/>	11/13/2014	5 days	Present	<input type="checkbox"/>	
1411602-001B	SB-1	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	11/13/2014	5 days	Present	<input type="checkbox"/>	
1411602-001C	SB-1	Water	SW8270C (SVOCs)	1	1LA	<input type="checkbox"/>	11/13/2014	5 days	Present	<input type="checkbox"/>	
1411602-001D	SB-1	Water	E200.8 (CAM 17)	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	11/13/2014	5 days	Present	<input type="checkbox"/>	
1411602-002A	SB-2	Water	Multi-Range TPH(g,d,mo)	2	VOA w/ HCl	<input type="checkbox"/>	11/14/2014	5 days	Present	<input type="checkbox"/>	
1411602-002B	SB-2	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	11/14/2014	5 days	Present	<input type="checkbox"/>	
1411602-002C	SB-2	Water	SW8270C (SVOCs)	1	1LA	<input type="checkbox"/>	11/14/2014	5 days	Present	<input type="checkbox"/>	
1411602-002D	SB-2	Water	E200.8 (CAM 17)	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	11/14/2014	5 days	Present	<input type="checkbox"/>	
1411602-003A	SB-3	Water	Multi-Range TPH(g,d,mo)	2	VOA w/ HCl	<input type="checkbox"/>	11/14/2014	5 days	Present	<input type="checkbox"/>	
1411602-003B	SB-3	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	11/14/2014	5 days	Present	<input type="checkbox"/>	
1411602-003C	SB-3	Water	SW8270C (SVOCs)	1	1LA	<input type="checkbox"/>	11/14/2014	5 days	Present	<input type="checkbox"/>	
1411602-003D	SB-3	Water	E200.8 (CAM 17)	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	11/14/2014	5 days	Present	<input type="checkbox"/>	
1411602-004A	SB-4	Water	Multi-Range TPH(g,d,mo)	2	VOA w/ HCl	<input type="checkbox"/>	11/14/2014	5 days	Present	<input type="checkbox"/>	
1411602-004B	SB-4	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	11/14/2014	5 days	Present	<input type="checkbox"/>	
1411602-004C	SB-4	Water	SW8270C (SVOCs)	1	1LA	<input type="checkbox"/>	11/14/2014	5 days	Present	<input type="checkbox"/>	
1411602-004D	SB-4	Water	E200.8 (CAM 17)	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	11/14/2014	5 days	Present	<input type="checkbox"/>	
1411602-005A	SB-5	Water	Multi-Range TPH(g,d,mo)	2	VOA w/ HCl	<input type="checkbox"/>	11/14/2014	5 days	Present	<input type="checkbox"/>	

**\* NOTE: STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).**



## WORK ORDER SUMMARY

**Client Name:** COOK ENVIRONMENTAL SERVICES, INC.

**QC Level:** LEVEL 2

**Work Order:** 1411602

**Project:** #1095; Casentini

**Client Contact:** Tim Cook

**Date Received:** 11/14/2014

**Comments:**

**Contact's Email:** [tcook@cookenvironmental.com](mailto:tcook@cookenvironmental.com)

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1411602-005B	SB-5	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	11/14/2014	5 days	Present	<input type="checkbox"/>	
1411602-005C	SB-5	Water	SW8270C (SVOCs)	1	1LA	<input type="checkbox"/>	11/14/2014	5 days	Present	<input type="checkbox"/>	
1411602-005D	SB-5	Water	E200.8 (CAM 17)	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	11/14/2014	5 days	Present	<input type="checkbox"/>	
1411602-006A	SB-6	Water	Multi-Range TPH(g,d,mo)	2	VOA w/ HCl	<input type="checkbox"/>	11/13/2014	5 days	Present	<input type="checkbox"/>	
1411602-006B	SB-6	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	11/13/2014	5 days	Present	<input type="checkbox"/>	
1411602-006C	SB-6	Water	SW8270C (SVOCs)	1	1LA	<input type="checkbox"/>	11/13/2014	5 days	Present	<input type="checkbox"/>	
1411602-006D	SB-6	Water	E200.8 (CAM 17)	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	11/13/2014	5 days	Present	<input type="checkbox"/>	

**\* NOTE: STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).**





# McCcampbell Analytical, Inc.

1534 Willow Pass Rd. / Pittsburg, Ca. 94565-1701  
 www.mcccampbell.com / main@mcccampbell.com  
 Telephone: (877) 252-9262 / Fax: (925) 252-9269

## CHAIN OF CUSTODY RECORD

TURN AROUND TIME: RUSH  24 HR  48 HR  72 HR  5 DAY   
 GeoTracker EDF  PDF  EDD  Write On (DW)  EQuIS  10 DAY   
 Effluent Sample Requiring "J" flag  UST Clean Up Fund Project  ; Claim # \_\_\_\_\_

Report To: Tim Cook Bill To: same  
 Company: Cook Environmental Services  
 E-Mail: \_\_\_\_\_  
 Tele: ( ) \_\_\_\_\_ Fax: ( ) \_\_\_\_\_  
 Project #: 1095 Project Name: CASANTINI  
 Project Location: Oakland Purchase Order# \_\_\_\_\_  
 Sampler Signature: \_\_\_\_\_

### Analysis Request

SAMPLE ID	Location/Field Point Name	SAMPLING		# Containers	MATRIX											METHOD PRESERVED			Filter sample for DISSOLVED metals analysis	TPH - multi use 8015	VOCs including Napthalene 8260b	SVOCs including PAHs 8270	CAM 17 METALS
		Date	Time		Ground Water	Waste Water	Drinking Water	Sea / Water	Soil	Air	Sludge	Other	HCL VOCS only	HNO <sub>3</sub> METALS only	Other								
SB-1		11/3		6	X											X	X			X	X	X	X
SB-2		11/4		6	X											X	X			X	X	X	X
SB-3		11/4		6	X											X	X			X	X	X	X
SB-4		11/4		6	X											X	X			X	X	X	X
SB-5		11/4		6	X											X	X			X	X	X	X
SB-6		11/3		6	X											X	X			X	X	X	X

\*\*MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate \$250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

Relinquished By: <u>[Signature]</u>	Date: <u>11/4</u>	Time: <u>4:50p</u>	Received By: <u>[Signature]</u>
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/# 16.5 COMMENTS:  
 GOOD CONDITION \_\_\_\_\_  
 HEAD SPACE ABSENT \_\_\_\_\_  
 DECHLORINATED IN LAB \_\_\_\_\_  
 APPROPRIATE CONTAINERS \_\_\_\_\_  
 PRESERVED IN LAB \_\_\_\_\_  
 VOAS O&G METALS OTHER HAZARDOUS:  
 PRESERVATION \_\_\_\_\_ pH <2 \_\_\_\_\_



### Sample Receipt Checklist

Client Name: **Cook Environmental Services, Inc.** Date and Time Received: **11/14/2014 6:07:19 PM**  
 Project Name: **#1095; Casentini** LogIn Reviewed by: **Jena Alfaro**  
 WorkOrder No: **1411602** Matrix: Water Carrier: Client Drop-In

**Chain of Custody (COC) Information**

Chain of custody present? Yes  No   
 Chain of custody signed when relinquished and received? Yes  No   
 Chain of custody agrees with sample labels? Yes  No   
 Sample IDs noted by Client on COC? Yes  No   
 Date and Time of collection noted by Client on COC? Yes  No   
 Sampler's name noted on COC? Yes  No

**Sample Receipt Information**

Custody seals intact on shipping container/cooler? Yes  No  NA   
 Shipping container/cooler in good condition? Yes  No   
 Samples in proper containers/bottles? Yes  No   
 Sample containers intact? Yes  No   
 Sufficient sample volume for indicated test? Yes  No

**Sample Preservation and Hold Time (HT) Information**

All samples received within holding time? Yes  No   
 Sample/Temp Blank temperature Temp: 16.5°C NA   
 Water - VOA vials have zero headspace / no bubbles? Yes  No  NA   
 Sample labels checked for correct preservation? Yes  No   
 pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? Yes  No  NA   
 Samples Received on Ice? Yes  No   
 (Ice Type: WET ICE )

**UCMR3 Samples:**

Total Chlorine tested and acceptable upon receipt for EPA 522? Yes  No  NA   
 Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? Yes  No  NA

\* NOTE: If the "No" box is checked, see comments below.

-----  
 Comments:

**APPENDIX G**  
**Laboratory Analytical Report**  
**for Soil Vapor Samples**

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# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1411601 **Amended:** 12/31/2014

**Report Created for:** Cook Environmental Services, Inc.  
1485 Treat Blvd, Ste. 203A  
Walnut Creek, CA 94597

**Project Contact:** Tim Cook  
**Project P.O.:**  
**Project Name:** #1095; Casentini

**Project Received:** 11/14/2014

Analytical Report reviewed & approved for release on 11/21/2014 by:

*Question about  
your data?*

[Click here to email  
McC Campbell](#)

Angela Rydelius,  
Laboratory Manager

***The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.***







## Glossary of Terms & Qualifier Definitions

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**WorkOrder:** 1411601

### Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
TEQ	Toxicity Equivalence

### Analytical Qualifiers

S	spike recovery outside accepted recovery limits
c3	the efficiency of elemental Platinum & Gold recovery by our digestion method is unknown but is suspected to be low to very low
j1	see attached narrative

### Quality Control Qualifiers

F2	LCS recovery for this compound is outside of acceptance limits.
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## Case Narrative

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini

**Work Order:** 1411601  
December 31, 2014

### Helium Analysis:

The Helium data is estimated due to a CCV and LCS failing higher than the acceptance criteria. The helium data analyzed after the fact (12/19/14-12/20/14) was not usable as the samples were inadvertently contaminated with Helium.

### TO-15 ANALYSIS

All summa canisters are EVACUATED 5 days after the reporting of the results. Please call or email if a longer retention time is required.

In an effort to attain the lowest reporting limits possible for the majority of the TO-15 target list, high level compounds may be analyzed using EPA Method 8260B.

Polymer (Tedlar) bags are not recommended for TO15 samples. The disadvantages are listed in Appendix B of the DTSC Advisory of April 2012.



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 17:58  
**Date Prepared:** 11/17/14

**WorkOrder:** 1411601  
**Extraction Method:** ASTM D 1946-90  
**Analytical Method:** ASTM D 1946-90  
**Unit:** %

### Helium

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-1	1411601-001A	SoilGas	11/14/2014 11:15	GC26	98124

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
7.42	18.00	GM

Analytes	Result	RL	DF	Date Analyzed
Helium	0.0088	0.0061	1	11/17/2014 18:17

Analytical Comments: j1

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-1 TO-17	1411601-002A	SoilGas	11/14/2014 13:04	GC26	98124

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
7.47	18.00	GM

Analytes	Result	RL	DF	Date Analyzed
Helium	ND	0.0060	1	11/17/2014 18:30

Analytical Comments: j1

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-2	1411601-003A	SoilGas	11/14/2014 13:28	GC26	98124

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.43	24.76	GM

Analytes	Result	RL	DF	Date Analyzed
Helium	0.037	0.0050	1	11/17/2014 18:43

Analytical Comments: j1





## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 17:58  
**Date Prepared:** 11/18/14

**WorkOrder:** 1411601  
**Extraction Method:** ASTM D 1946-90  
**Analytical Method:** ASTM D 1946-90  
**Unit:** uL/L

### Light Gases

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-1	1411601-001A	SoilGas	11/14/2014 11:15	GC26	97968

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
7.42	18.00	AK

Analytes	Result	RL	DF	Date Analyzed
Carbon Dioxide	130	61	1	11/18/2014 15:35
Methane	2.9	2.4	1	11/18/2014 15:35
Oxygen	170,000	4900	1	11/18/2014 12:26

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-2	1411601-003A	SoilGas	11/14/2014 13:28	GC26	97968

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.43	24.76	AK

Analytes	Result	RL	DF	Date Analyzed
Carbon Dioxide	ND	50	1	11/18/2014 16:09
Methane	150	2.0	1	11/18/2014 16:09
Oxygen	31,000	4000	1	11/18/2014 12:47



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 17:58  
**Date Prepared:** 11/15/14-11/18/14

**WorkOrder:** 1411601  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:** µg/m<sup>3</sup>

### TPH gas in µg/m<sup>3</sup>

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-1	1411601-001A	SoilGas	11/14/2014 11:15	GC24	98005

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
7.42	18.00	AK

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	11,000	870	1	11/18/2014 19:34
Surrogates	REC (%)	Limits		
1,2-DCA-d4	101	70-130		11/18/2014 19:34

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-2	1411601-003A	SoilGas	11/14/2014 13:28	GC24	97884

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.43	24.76	AK

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	98,000	2900	4	11/15/2014 13:47
Surrogates	REC (%)	Limits		
1,2-DCA-d4	119	70-130		11/15/2014 13:47



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 17:58  
**Date Prepared:** 11/15/14-11/18/14

**WorkOrder:** 1411601  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:** µg/m<sup>3</sup>

### Volatile Organic Compounds in µg/m<sup>3</sup>

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-1	1411601-001A	SoilGas	11/14/2014 11:15	GC24	98005

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
1.00	1.00	AK

Analytes	Result	RL	DF	Date Analyzed
Benzene	7.1	1.6	1	11/18/2014 19:34
Ethylbenzene	2.9	2.2	1	11/18/2014 19:34
Naphthalene	12	5.3	1	11/18/2014 19:34
Toluene	7.4	1.9	1	11/18/2014 19:34
Xylenes, Total	21	6.6	1	11/18/2014 19:34
<b>Surrogates</b>	<b>REC (%)</b>	<b>Limits</b>		
1,2-DCA-d4	97	70-130		11/18/2014 19:34
Toluene-d8	108	70-130		11/18/2014 19:34
4-BFB	100	70-130		11/18/2014 19:34

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-2	1411601-003A	SoilGas	11/14/2014 13:28	GC24	97884

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.43	24.76	AK

Analytes	Result	RL	DF	Date Analyzed
Benzene	68	6.4	4	11/15/2014 13:47
Ethylbenzene	20	8.8	4	11/15/2014 13:47
Naphthalene	ND	21	4	11/15/2014 13:47
Toluene	47	7.6	4	11/15/2014 13:47
Xylenes, Total	65	26	4	11/15/2014 13:47
<b>Surrogates</b>	<b>REC (%)</b>	<b>Qualifiers</b>	<b>Limits</b>	<b>Analytical Comments: c3</b>
1,2-DCA-d4	114		70-130	11/15/2014 13:47
Toluene-d8	95		70-130	11/15/2014 13:47
4-BFB	143	S	70-130	11/15/2014 13:47



## Analytical Report

**Client:** Cook Environmental Services, Inc.  
**Project:** #1095; Casentini  
**Date Received:** 11/14/14 17:58  
**Date Prepared:** 11/26/14

**WorkOrder:** 1411601  
**Extraction Method:** TO17  
**Analytical Method:** TO17  
**Unit:** µg/m<sup>3</sup>

### Volatile Organic Compounds in µg/m<sup>3</sup>

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-1 TO-17	1411601-002A	SoilGas	11/14/2014 13:04	GC37	98325

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	1600	1000	1	11/26/2014 16:49
Naphthalene	13	2.6	1	11/26/2014 16:49
Surrogates	REC (%)	Limits		
1,2-DCA-d4	84	70-130		11/26/2014 16:49
toluene-d8	87	70-130		11/26/2014 16:49
4-BFB	94	70-130		11/26/2014 16:49

**Analyst(s):** GM



## Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/21/14  
**Date Analyzed:** 11/17/14  
**Instrument:** GC26  
**Matrix:** Soilgas  
**Project:** #1095; Casentini

**WorkOrder:** 1411601  
**BatchID:** 98124  
**Extraction Method:** ASTM D 1946-90  
**Analytical Method:** ASTM D 1946-90  
**Unit:** %  
**Sample ID:** MB/LCS-98124

### QC Summary Report for ASTM D1946-90

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Helium	ND	0.0193	0.0050	0.010	-	193, F2	60-140



## Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/19/14  
**Date Analyzed:** 11/18/14  
**Instrument:** GC26  
**Matrix:** SoilGas  
**Project:** #1095; Casentini

**WorkOrder:** 1411601  
**BatchID:** 97968  
**Extraction Method:** ASTM D 1946-90  
**Analytical Method:** ASTM D 1946-90  
**Unit:** uL/L  
**Sample ID:** MB/LCS-97968

### QC Summary Report for ASTM D1946-90

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Carbon Dioxide	ND	118	50	100	-	118	70-130
Methane	ND	107	2.0	100	-	107	70-130
Oxygen	ND	5670	4000	7000	-	81	70-130



## Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/17/14  
**Date Analyzed:** 11/14/14  
**Instrument:** GC24  
**Matrix:** Soilgas  
**Project:** #1095; Casentini

**WorkOrder:** 1411601  
**BatchID:** 97884  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:** nL/L  
**Sample ID:** MB/LCS-97884

### QC Summary Report for TO15

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	ND	25	25	-	95	60-140
Acrolein	ND	26.0	0.50	25	-	104	60-140
Acrylonitrile	ND	24.8	0.50	25	-	99	60-140
tert-Amyl methyl ether (TAME)	ND	22.2	0.50	25	-	89	60-140
Benzene	ND	21.7	0.50	25	-	87	60-140
Benzyl chloride	ND	21.0	0.50	25	-	84	60-140
Bromodichloromethane	ND	23.3	0.50	25	-	93	60-140
Bromoform	ND	21.3	0.50	25	-	85	60-140
Bromomethane	ND	40.6	0.50	25	-	163, F2	60-140
1,3-Butadiene	ND	31.2	0.50	25	-	125	60-140
2-Butanone (MEK)	ND	ND	25	25	-	99	60-140
t-Butyl alcohol (TBA)	ND	20.3	10	25	-	81	60-140
Carbon Disulfide	ND	24.3	0.50	25	-	97	60-140
Carbon Tetrachloride	ND	24.4	0.50	25	-	98	60-140
Chlorobenzene	ND	21.1	0.50	25	-	84	60-140
Chloroethane	ND	38.0	0.50	25	-	152, F2	60-140
Chloroform	ND	20.5	0.50	25	-	82	60-140
Chloromethane	ND	24.4	0.50	25	-	97	60-140
Cyclohexane	ND	22.2	5.0	25	-	89	60-140
Dibromochloromethane	ND	23.9	0.50	25	-	96	60-140
1,2-Dibromo-3-chloropropane	ND	21.4	0.012	25	-	86	60-140
1,2-Dibromoethane (EDB)	ND	22.7	0.50	25	-	91	60-140
1,2-Dichlorobenzene	ND	21.0	0.50	25	-	84	60-140
1,3-Dichlorobenzene	ND	21.8	0.50	25	-	87	60-140
1,4-Dichlorobenzene	ND	20.5	0.50	25	-	82	60-140
Dichlorodifluoromethane	ND	21.6	0.50	25	-	86	60-140
1,1-Dichloroethane	ND	22.0	0.50	25	-	88	60-140
1,2-Dichloroethane (1,2-DCA)	ND	18.8	0.50	25	-	75	60-140
1,1-Dichloroethene	ND	22.8	0.50	25	-	91	60-140
cis-1,2-Dichloroethene	ND	22.7	0.50	25	-	91	60-140
trans-1,2-Dichloroethene	ND	23.4	0.50	25	-	94	60-140
1,2-Dichloropropane	ND	21.6	0.50	25	-	87	60-140
cis-1,3-Dichloropropene	ND	25.3	0.50	25	-	101	60-140
trans-1,3-Dichloropropene	ND	24.0	0.50	25	-	96	60-140
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	23.7	0.50	25	-	95	60-140
Diisopropyl ether (DIPE)	ND	23.6	0.50	25	-	94	60-140
1,4-Dioxane	ND	20.8	0.50	25	-	83	60-140
Ethanol	ND	-	50	-	-	-	-
Ethyl acetate	ND	24.2	0.50	25	-	97	60-140
Ethyl tert-butyl ether (ETBE)	ND	25.4	0.50	25	-	101	60-140

(Cont.)





## Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/17/14  
**Date Analyzed:** 11/14/14  
**Instrument:** GC24  
**Matrix:** Soilgas  
**Project:** #1095; Casentini

**WorkOrder:** 1411601  
**BatchID:** 97884  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:** nL/L  
**Sample ID:** MB/LCS-97884

### QC Summary Report for TO15

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Ethylbenzene	ND	22.2	0.50	25	-	89	60-140
4-Ethyltoluene	ND	23.1	0.50	25	-	92	60-140
Freon 113	ND	22.2	0.50	25	-	89	60-140
Heptane	ND	23.2	5.0	25	-	93	60-140
Hexachlorobutadiene	ND	24.4	0.50	25	-	97	60-140
Hexane	ND	25.0	5.0	25	-	100	60-140
2-Hexanone	ND	24.0	0.50	25	-	96	60-140
4-Methyl-2-pentanone (MIBK)	ND	23.6	0.50	25	-	94	60-140
Methyl-t-butyl ether (MTBE)	ND	25.7	0.50	25	-	103	60-140
Methylene chloride	ND	22.8	0.50	25	-	91	60-140
Methyl methacrylate	ND	25.1	0.50	25	-	100	60-140
Naphthalene	ND	45.0	1.0	50	-	90	60-140
Propene	ND	-	50	-	-	-	-
Styrene	ND	24.1	0.50	25	-	97	60-140
1,1,1,2-Tetrachloroethane	ND	22.7	0.50	25	-	91	60-140
1,1,2,2-Tetrachloroethane	ND	24.8	0.50	25	-	99	60-140
Tetrachloroethene	ND	21.1	0.50	25	-	84	60-140
Tetrahydrofuran	ND	21.2	0.50	25	-	85	60-140
Toluene	ND	22.2	0.50	25	-	89	60-140
1,2,4-Trichlorobenzene	ND	23.4	0.50	25	-	94	60-140
1,1,1-Trichloroethane	ND	19.0	0.50	25	-	76	60-140
1,1,2-Trichloroethane	ND	21.2	0.50	25	-	85	60-140
Trichloroethene	ND	20.5	0.50	25	-	82	60-140
Trichlorofluoromethane	ND	22.7	0.50	25	-	91	60-140
1,2,4-Trimethylbenzene	ND	22.1	0.50	25	-	88	60-140
1,3,5-Trimethylbenzene	ND	21.1	0.50	25	-	84	60-140
Vinyl Acetate	ND	31.4	0.50	25	-	126	60-140
Vinyl Chloride	ND	24.2	0.50	25	-	97	60-140
Xylenes, Total	ND	69.5	1.5	75	-	93	60-140

**Surrogate Recovery**

1,2-DCA-d4	532	524		500	106	105	60-140
Toluene-d8	553	560		500	111	112	60-140
4-BFB	490	505		500	98	101	60-140

(Cont.)



# Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/19/14  
**Date Analyzed:** 11/18/14  
**Instrument:** GC24  
**Matrix:** Soilgas  
**Project:** #1095; Casentini

**WorkOrder:** 1411601  
**BatchID:** 98005  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:** nL/L  
**Sample ID:** MB/LCS-98005

## QC Summary Report for TO15

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	ND	25	25	-	94	60-140
Acrolein	ND	28.0	0.50	25	-	112	60-140
Acrylonitrile	ND	24.2	0.50	25	-	97	60-140
tert-Amyl methyl ether (TAME)	ND	23.0	0.50	25	-	91	60-140
Benzene	ND	22.2	0.50	25	-	89	60-140
Benzyl chloride	ND	21.0	0.50	25	-	84	60-140
Bromodichloromethane	ND	23.6	0.50	25	-	95	60-140
Bromoform	ND	22.3	0.50	25	-	89	60-140
Bromomethane	ND	37.3	0.50	25	-	149, F2	60-140
1,3-Butadiene	ND	30.9	0.50	25	-	123	60-140
2-Butanone (MEK)	ND	25.4	25	25	-	101	60-140
t-Butyl alcohol (TBA)	ND	21.1	10	25	-	84	60-140
Carbon Disulfide	ND	25.0	0.50	25	-	100	60-140
Carbon Tetrachloride	ND	24.7	0.50	25	-	99	60-140
Chlorobenzene	ND	21.7	0.50	25	-	87	60-140
Chloroethane	ND	46.6	0.50	25	-	186, F2	60-140
Chloroform	ND	20.9	0.50	25	-	83	60-140
Chloromethane	ND	23.8	0.50	25	-	95	60-140
Cyclohexane	ND	17.1	5.0	25	-	69	60-140
Dibromochloromethane	ND	24.2	0.50	25	-	97	60-140
1,2-Dibromo-3-chloropropane	ND	21.7	0.012	25	-	87	60-140
1,2-Dibromoethane (EDB)	ND	23.2	0.50	25	-	93	60-140
1,2-Dichlorobenzene	ND	21.6	0.50	25	-	86	60-140
1,3-Dichlorobenzene	ND	22.4	0.50	25	-	89	60-140
1,4-Dichlorobenzene	ND	21.1	0.50	25	-	84	60-140
Dichlorodifluoromethane	ND	21.6	0.50	25	-	87	60-140
1,1-Dichloroethane	ND	22.5	0.50	25	-	90	60-140
1,2-Dichloroethane (1,2-DCA)	ND	19.0	0.50	25	-	76	60-140
1,1-Dichloroethene	ND	24.8	0.50	25	-	99	60-140
cis-1,2-Dichloroethene	ND	23.1	0.50	25	-	92	60-140
trans-1,2-Dichloroethene	ND	24.0	0.50	25	-	96	60-140
1,2-Dichloropropane	ND	22.0	0.50	25	-	88	60-140
cis-1,3-Dichloropropene	ND	25.6	0.50	25	-	102	60-140
trans-1,3-Dichloropropene	ND	24.3	0.50	25	-	97	60-140
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	24.2	0.50	25	-	97	60-140
Diisopropyl ether (DIPE)	ND	23.6	0.50	25	-	94	60-140
1,4-Dioxane	ND	21.5	0.50	25	-	86	60-140
Ethanol	ND	-	50	-	-	-	-
Ethyl acetate	ND	24.2	0.50	25	-	97	60-140
Ethyl tert-butyl ether (ETBE)	ND	25.6	0.50	25	-	102	60-140

(Cont.)



# Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/19/14  
**Date Analyzed:** 11/18/14  
**Instrument:** GC24  
**Matrix:** Soilgas  
**Project:** #1095; Casentini

**WorkOrder:** 1411601  
**BatchID:** 98005  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:** nL/L  
**Sample ID:** MB/LCS-98005

## QC Summary Report for TO15

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Ethylbenzene	ND	22.6	0.50	25	-	90	60-140
4-Ethyltoluene	ND	23.9	0.50	25	-	96	60-140
Freon 113	ND	23.1	0.50	25	-	92	60-140
Heptane	ND	23.1	5.0	25	-	92	60-140
Hexachlorobutadiene	ND	24.8	0.50	25	-	99	60-140
Hexane	ND	25.4	5.0	25	-	102	60-140
2-Hexanone	ND	24.0	0.50	25	-	96	60-140
4-Methyl-2-pentanone (MIBK)	ND	23.6	0.50	25	-	94	60-140
Methyl-t-butyl ether (MTBE)	ND	26.4	0.50	25	-	106	60-140
Methylene chloride	ND	23.2	0.50	25	-	93	60-140
Methyl methacrylate	ND	25.7	0.50	25	-	103	60-140
Naphthalene	ND	46.8	1.0	50	-	94	60-140
Propene	ND	-	50	-	-	-	-
Styrene	ND	25.0	0.50	25	-	100	60-140
1,1,1,2-Tetrachloroethane	ND	23.1	0.50	25	-	92	60-140
1,1,2,2-Tetrachloroethane	ND	25.3	0.50	25	-	101	60-140
Tetrachloroethene	ND	21.5	0.50	25	-	86	60-140
Tetrahydrofuran	ND	20.9	0.50	25	-	84	60-140
Toluene	ND	22.8	0.50	25	-	91	60-140
1,2,4-Trichlorobenzene	ND	24.3	0.50	25	-	97	60-140
1,1,1-Trichloroethane	ND	19.5	0.50	25	-	78	60-140
1,1,2-Trichloroethane	ND	21.8	0.50	25	-	87	60-140
Trichloroethene	ND	21.0	0.50	25	-	84	60-140
Trichlorofluoromethane	ND	24.4	0.50	25	-	97	60-140
1,2,4-Trimethylbenzene	ND	22.6	0.50	25	-	91	60-140
1,3,5-Trimethylbenzene	ND	21.6	0.50	25	-	87	60-140
Vinyl Acetate	ND	31.6	0.50	25	-	127	60-140
Vinyl Chloride	ND	24.0	0.50	25	-	96	60-140
Xylenes, Total	ND	71.7	1.5	75	-	96	60-140

### Surrogate Recovery

1,2-DCA-d4	486	548		500	97	110	60-140
Toluene-d8	546	556		500	109	111	60-140
4-BFB	485	500		500	97	100	60-140



## Quality Control Report

**Client:** Cook Environmental Services, Inc.  
**Date Prepared:** 11/26/14  
**Date Analyzed:** 11/26/14  
**Instrument:** GC37  
**Matrix:** Sorbent Tube  
**Project:** #1095; Casentini

**WorkOrder:** 1411601  
**BatchID:** 98325  
**Extraction Method:** TO17  
**Analytical Method:** TO17  
**Unit:** nL/L  
**Sample ID:** MB/LCS-98325

### QC Summary Report for TO17

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	23,000	1000	20000	-	114	60-140
Naphthalene	ND	6.49	0.50	5	-	130	60-140
<b>Surrogate Recovery</b>							
1,2-DCA-d4	92.0	102		100	92	102	60-140
toluene-d8	91.6	101		100	92	101	60-140
4-BFB	95.6	97.2		100	96	97	60-140

1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1411601

ClientCode: CESW

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  EQuIS   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

**Report to:**  
 Tim Cook  
 Cook Environmental Services, Inc.  
 1485 Treat Blvd, Ste. 203A  
 Walnut Creek, CA 94597  
 (925) 478-8390    FAX: 925-937-1759

Email: tcook@cookenvironmental.com  
 cc/3rd Party:  
 PO:  
 ProjectNo: #1095; Casentini

**Bill to:**  
 Tim Cook  
 Cook Environmental Services, Inc.  
 1485 Treat Blvd, Ste. 203A  
 Walnut Creek, CA 94597

**Requested TAT: 5 days**  
  
**Date Received: 11/14/2014**  
**Date Printed: 12/31/2014**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1411601-001	SV-1	SoilGas	11/14/2014 11:15	<input type="checkbox"/>	A	A	A	A	A	A						
1411601-002	SV-1 TO-17	SoilGas	11/14/2014 13:04	<input type="checkbox"/>	A						A					
1411601-003	SV-2	SoilGas	11/14/2014 13:28	<input type="checkbox"/>	A	A		A	A	A						

**Test Legend:**

1	HELIUM_LC_SOILGAS(%)	2	LG_SUMMA_SOILGAS	3	PREFDF REPORT	4	O15_Scan-SIM_SOIL(UG/M3)	5	TO15-8260_SOIL(UG/M3)
6	5GAS_Scan-SIM_SOIL(UG/	7	TO17_ST(UG/M3)	8		9		10	
11		12							

The following SampIDs: 001A, 002A, 003A contain testgroup.

**Prepared by: Jena Alfaro**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



## WORK ORDER SUMMARY

**Client Name:** COOK ENVIRONMENTAL SERVICES, INC.

**QC Level:** LEVEL 2

**Work Order:** 1411601

**Project:** #1095; Casentini

**Client Contact:** Tim Cook

**Date Received:** 11/14/2014

**Comments:**

**Contact's Email:** tcook@cookenvironmental.com

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De- chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1411601-001A	SV-1	SoilGas	TO15 + Gas w/ Helium ASTM D1946-90 (Light Gases) <Carbon Dioxide_2, Methane_4, Oxygen>	1	1L Summa	<input type="checkbox"/>	11/14/2014 11:15	5 days		<input type="checkbox"/>	
1411601-002A	SV-1 TO-17	SoilGas	TO17 with Helium as a Leak Check	1	Sorbent Tube & 1-1L Summa	<input type="checkbox"/>	11/14/2014 13:04	5 days		<input type="checkbox"/>	
1411601-003A	SV-2	SoilGas	TO15 + Gas w/ Helium ASTM D1946-90 (Light Gases) <Carbon Dioxide_2, Methane_4, Oxygen>	1	1L Summa	<input type="checkbox"/>	11/14/2014 13:28	5 days		<input type="checkbox"/>	

**NOTES:** - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).  
 - MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.



707-299 0336

1411601



**McCAMPBELL ANALYTICAL INC.**  
 1534 WILLOW PASS ROAD / PITTSBURG, CA 94565-1701  
 Website: [www.mccampbell.com](http://www.mccampbell.com) / Email: [main@mccampbell.com](mailto:main@mccampbell.com)  
 Telephone: (877) 252-9262 / Fax: (925) 252-9269

**CHAIN OF CUSTODY RECORD**

**TURN AROUND TIME**       
 RUSH 24 HR 48 HR 72 HR 5 DAY  
 EDF Required? Coelt (Normal) No Write On (DW) No

Report To: **Tim Cook** Bill To: **Same**  
 Company: **Cook Environmental Services**  
 1485 Treat Blvd., Ste 203A  
 Walnut Creek, CA 94597 E-Mail: [tcook@cookenvironmental.com](mailto:tcook@cookenvironmental.com)  
 Tele: (925) 478-8390 Fax: (925) 478-8394

Lab Use Only  

Pressurized By	Date	Pressurization Gas	
		N2	He

Project #: **1095** Project Name: **Casentinni**

Helium Shroud SN#:  
 Other:

Project Location: **Oakland**

Sampler Signature: *Tim Cook*

Notes: Analytes = TPH-g, TPH-d, BTEX, naphthalene, helium, fixed gases: oxygen, CO2, methane by ASTM D-1946. ~~Fractionated analysis APH method (MADEP). Quantitative data for aliphatics and aromatics by carbon ranges.~~

Field Sample ID (Location)	Collection		Canister SN#	Manifold / Sampler Kit SN#	Analysis Requested	Indoor Air	Soil Gas	Canister Pressure/Vacuum			
	Date	Time						Initial	Final	Receipt	Final (psi)
SV-1	11/14	11:15	J1932	316T-T19	TO-15 see above		X	-30	-16		
SV-1	11/14	11:04	J1928	316-711	TO-17 for naphthalene		X	-30	-16		
SV-2	11/14	11:28	J1930	316-667	TO-15 see above		X	-30	-5		
SV-1 T-017	11/14	11:04	J1928	316-711	He Leakcheck						

Relinquished By: *Tim Cook* Date: 11/14 Time: 4:50p Received By: *Mina*

Temp (°C): \_\_\_\_\_ Work Order #: \_\_\_\_\_

Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_

Equipment Condition: \_\_\_\_\_

Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_

Shipped Via: \_\_\_\_\_





### Sample Receipt Checklist

Client Name: **Cook Environmental Services, Inc.** Date and Time Received: **11/14/2014 5:58:06 PM**  
 Project Name: **#1095; Casentini** LogIn Reviewed by: **Jena Alfaro**  
 WorkOrder No: **1411601** Matrix: SoilGas Carrier: Client Drop-In

**Chain of Custody (COC) Information**

Chain of custody present? Yes  No   
 Chain of custody signed when relinquished and received? Yes  No   
 Chain of custody agrees with sample labels? Yes  No   
 Sample IDs noted by Client on COC? Yes  No   
 Date and Time of collection noted by Client on COC? Yes  No   
 Sampler's name noted on COC? Yes  No

**Sample Receipt Information**

Custody seals intact on shipping container/cooler? Yes  No  NA   
 Shipping container/cooler in good condition? Yes  No   
 Samples in proper containers/bottles? Yes  No   
 Sample containers intact? Yes  No   
 Sufficient sample volume for indicated test? Yes  No

**Sample Preservation and Hold Time (HT) Information**

All samples received within holding time? Yes  No   
 Sample/Temp Blank temperature Temp: NA   
 Water - VOA vials have zero headspace / no bubbles? Yes  No  NA   
 Sample labels checked for correct preservation? Yes  No   
 pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? Yes  No  NA   
 Samples Received on Ice? Yes  No

**UCMR3 Samples:**

Total Chlorine tested and acceptable upon receipt for EPA 522? Yes  No  NA   
 Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? Yes  No  NA

\* NOTE: If the "No" box is checked, see comments below.

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 Comments:

**APPENDIX H**  
**Alameda County Public Works Agency**  
**Well Inventory**

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## **Well Legend**

DOM=Domestic well

IRR=Irrigation well

MUN= Municipal well

IND=Industrial well

CAT=Cathodic well

DES=well destroyed (through permit)

ABN=Abandoned and not being used (but has not been destroyed through permit process)

TES=Test well

BOR= Geotechnical investigation

MON= Monitoring well

EXT=Extraction/ Vapor wells

PIE=Piezometers

REC=Recovery well (extraction/ vapor)

? = Unknown or no information found or given

**Alameda County Public Works Agency  
Well Inventory**

<u>Address</u>	<u>Longcity</u>	<u>Owner</u>	<u>Xcoord</u>	<u>Ycoord</u>	<u>Tsrgg</u>	<u>Drilldate</u>	<u>Depth</u>	<u>Water depth</u>	<u>Diam (in)</u>	<u>Use</u>
2730 Peralta Street	Oakland	Custom Alloy Scrap Sales	122285770	37820963	1S/4W 22R	2/91	65	20	0	DES
2730 Peralta St	Oakland	Custom Alloy Scrap Sales	122285770	37820963	1S/4W 22R	10/1/90	12	11	8	BOR*
2730 PERALTA ST	Oakland	CUSTOM ALLOY SCRAP SALES	122285770	37820963	1S/4W 22R	10/1/90	19	10	4	MON
2730 PERALTA ST	Oakland	CUSTOM ALLOY SCRAP SALES	122285770	37820963	1S/4W 22R	10/1/90	18	12	4	MON
MARKET & APGAR ST	Oakland	PG&E	122273800	37829200	1S/4W 23F	4/74	120	11	0	CAT
3924 Market St	Oakland	San Francisco French Brea	122273422	37830332	1S/4W 23F	5/95	21	15	2	MON
3924 Market St	Oakland	San Francisco French Brea	122273422	37830332	1S/4W 23F	5/95	24	17	2	MON
3924 Market St	Oakland	San Francisco French Brea	122273422	37830332	1S/4W 23F	5/95	24	14	2	MON
3924 Martin Luther King J	Oakland	BART	122267914	37829557	1S/4W 23G	7/95	17	11	2	MON
3924 Martin Luther King J	Oakland	BART	122267914	37829557	1S/4W 23G	7/95	13	7	2	MON
3924 Martin Luther King J	Oakland	BART	122267914	37829557	1S/4W 23G	7/95	13	7	2	MON
		Charlotte Woodward, Youth in								
752 40th Street	Oakland	Our Midst Foundation			1S/4W 23G	1/10/11	22		50	DOM DES
500 40TH ST.	Oakland	SHELL OIL CO.	122264333	37829644	1S/4W 23H	12/1/88	27	0	0	DES
			0	0	1S/4W 23H	9/1/86	10	0	0	BOR
			0	0	1S/4W 23H	9/1/86	10	0	0	BOR
			0	0	1S/4W 23H	9/1/86	10	0	0	BOR
			0	0	1S/4W 23H	9/1/86	10	0	0	BOR
500 40TH ST	Oakland	SHELL OIL	122264333	37829644	1S/4W 23H	2/1/89	20	15	4	MON
500 40TH ST	Oakland	SHELL OIL	122264333	37829644	1S/4W 23H	5/1/89	19	15	4	MON
500 40TH ST	Oakland	SHELL OIL	122264333	37829644	1S/4W 23H	5/1/89	16	13	4	MON
500 40th Street	Oakland	Shell Oil Company	122264333	37829644	1S/4W 23H	9/1/89	20	0	8	MON
500 40th Street	Oakland	Shell Oil Company	122264333	37829644	1S/4W 23H	6/1/90	25	13	2	MON
500 40th Street	Oakland	Shell Oil Company	122264333	37829644	1S/4W 23H	6/1/90	44	19	4	MON
500 40th St	Oakland	Shell Oil Co OMW-11	122264333	37829644	1S/4W 23H	11/1/91	24	12	4	MON
500 40th St	Oakland	Shell Oil Co OMW12	122264333	37829644	1S/4W 23H	11/1/91	24	10	4	MON
500 40th St	Oakland	Shell Oil Co OMW-13	122264333	37829644	1S/4W 23H	11/1/91	24	12	4	MON
San Pablo Ave & 41th St	Emeryville	Bay Rock Oaks, LLC-1300 Clay S	0	0	1S/4W 23H	4/2/04	20	7.6	2	DES
731 W. MACARTHUR & WEST	Oakland	ARCO SVCE. STA. #4931	122269236	37827456	1S/4W 23K	12/1/87	40	10	6	MON
731 W MACARTHUR & WEST	Oakland	ARCO SVCE. STA. # 4931	122269236	37827456	1S/4W 23K	12/1/87	30	11	3	MON
731 W MACARTHUR & WEST	Oakland	ARCO SVCE. STA. #4931	122269236	37827456	1S/4W 23K	12/1/87	30	10	3	MON
731 W MacArthur	Oakland	ARCO Prod. Co AV-1	122269236	37827456	1S/4W 23K	1/92	16	0	2	MON

**Alameda County Public Works Agency**

**Well Inventory**

731 W MacArthur	Oakland	ARCO Prod. Co	122269867	37827510	1S/4W 23K	6/92	30	11	6 MON
731 W MacArthur	Oakland	ARCO Prod. Co	122269867	37827510	1S/4W 23K	6/92	28	7	6 MON
731 W MacArthur	Oakland	ARCO Prod. Co	122269867	37827510	1S/4W 23K	6/92	30	11	4 MON
731 W MacArthur	Oakland	ARCO Prod. Co	122269867	37827510	1S/4W 23K	6/92	30	10	3 MON
731 W MACARTHUR & WEST	Oakland	ARCO SVCE. STA. #4931	122269236	37827456	1S/4W 23K	12/1/87	30	10	3 MON
<b>3516 ADELINE ST</b>	<b>Oakland</b>	<b>FRANK CHAMPION</b>	<b>122279297</b>	<b>37826484</b>	<b>1S/4W 23M</b>	<b>/36</b>	<b>97</b>	<b>13</b>	<b>0 IND</b>
3400 SAN PABLO AVE	Oakland	ARCO PETROLEUM	122277468	37825787	1S/4W 23M	7/1/86	25	10	2 TES
3400 SAN PABLO AVE	Oakland	ARCO PETROLEUM	122277468	37825787	1S/4W 23M	7/1/86	25	10	2 TES
3400 SAN PABLO AVE	Oakland	ARCO PETROLEUM	122277468	37825787	1S/4W 23M	7/1/86	25	10	2 TES
3400 SAN PABLO AVE	Oakland	THRIFTY OIL	122277468	37825787	1S/4W 23M	11/1/86	15	6	4 MON
3400 SAN PABLO AVE	Oakland	THRIFTY OIL	122277468	37825787	1S/4W 23M	11/1/86	15	8	2 MON
3400 SAN PABLO AVE	Oakland	THRIFTY OIL	122277468	37825787	1S/4W 23M	11/1/86	15	9	2 MON
3400 SAN PABLO AVE	Oakland	THRIFTY OIL	122277468	37825787	1S/4W 23M	11/1/86	15	8	4 MON
3420 SAN PABLO AVE	Oakland	SHELL OIL CO.	122277524	37825927	1S/4W 23M	4/1/89	25	6	4 MON
3420 SAN PABLO AVE	Oakland	SHELL OIL CO.	122277524	37825927	1S/4W 23M	4/1/89	19	6	4 MON
3420 SAN PABLO AVE	Oakland	SHELL OIL CO.	122277524	37825927	1S/4W 23M	4/1/89	27	6	4 MON
3420 SAN PABLO AVE	Oakland	SHELL OIL CO.	122277524	37825927	1S/4W 23M	4/1/89	25	6	4 MON
3420 San Pablo Avenue	Oakland	Shell Oil Company	122277524	37825927	1S/4W 23M	1/90	25	8	4 MON
3420 San Pablo Avenue	Oakland	Shell Oil Company	122277524	37825927	1S/4W 23M	1/90	20	8	4 MON
3420 San Pablo Avenue	Oakland	Shell Oil Company	122277524	37825927	1S/4W 23M	1/90	20	9	4 MON
3420 San Pablo Avenue	Oakland	Shell Oil Company	122277524	37825927	1S/4W 23M	1/90	20	7	4 MON
34200 San Pablo Avenue	Oakland	Shell Oil Company	122277524	37825927	1S/4W 23M	1/90	20	9	4 MON
3400 San Pablo Avenue	Oakland	Thrifty Oil Company	122277468	37825787	1S/4W 23M	10/1/89	25	9	6 MON
3420 San Pablo Ave	Oakland	Shell Oil Co. MW10	122277524	37825927	1S/4W 23M	10/1/91	19	9	4 TES
3420 San Pablo Ave	Oakland	Shell Oil Co. MW11	122277524	37825927	1S/4W 23M	10/1/91	22	14	4 TES
34th St. & Linden St.	Oakland	Dougco Metal Finish. MW1	122277937	37825122	1S/4W 23M	4/93	14	0	4 MON
34th St. & Linden St.	Oakland	Dougco Metal Finish. MW2	122277937	37825122	1S/4W 23M	4/93	16	0	4 MON
34th St. & Linden St.	Oakland	Dougco Metal Finish. MW3	122277937	37825122	1S/4W 23M	4/93	14	0	4 MON
3516 Adeline St.	Oakland	Champion Estate MW-1	122279279	37826441	1S/4W 23M	10/1/92	30	14	2 MON
3516 Adeline St.	Oakland	Champion Estate MW-2	122279279	37826441	1S/4W 23M	10/1/92	30	13	2 MON
3516 Adeline St.	Oakland	Champion Estate MW-3	122279279	37826441	1S/4W 23M	10/1/92	30	14	2 MON
3623 Adeline St	Emeryville	Owens Financial	122278974	37828046	1S/4W 23M	12/1/95	25	11	6 MON
2926/2942 San Pablo Ave	Oakland	DTSC			1S/4W 23M	various	various		various
990 28 ST	Oakland	OAKLAND TOWEL CO.	122278990	37820128	1S/4W 23N	/27	146	0	8 ABN
936 Brockhurst Street	Oakland	Loomis Armored, Inc.	122275799	37823757	1S/4W 23N	8/90	17	14	2 MON

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936 Brockhurst Street	Oakland	Loomis Armored, Inc.	122275799	37823757	1S/4W 23N	8/90	35	16	4 MON
936 Brockhurst Street	Oakland	Loomis Armored, Inc.	122275799	37823757	1S/4W 23N	8/90	35	15	4 MON
3032 Market St	Oakland	C.H.O.C. Inc	122275421	37821171	1S/4W 23N	3/95	20	12	2 MON
3032 Market St	Oakland	WSB Electric	122275421	37821144	1S/4W 23N	8/94	25	14	2 MON
3032 Market St	Oakland	WSB Electric	122275421	37821144	1S/4W 23N	8/94	25	14	2 MON
3032 Market St	Oakland	WSB Electric	122275421	37821144	1S/4W 23N	8/94	20	10	2 MON
34TH & ELM STS	Oakland	MERRITT PERALTA INSTITUTE	122265800	37822800	1S/4W 23R	6/1/88	30	14	0 BOR
3300 WEBSTER ST	Oakland	PAUL FABERMAN & CO	122262011	37821412	1S/4W 23R	5/1/89	24	23	6 BOR
3300 WEBSTER ST	Oakland	PAUL FABERMAN & CO.	122262011	37821412	1S/4W 23R	5/1/89	24	0	6 BOR
			0	0	1S/4W 23R	5/1/89	24	23	6 BOR
			0	0	1S/4W 23R	3/1/89	0	0	8 BOR*
HAWTHORNE AV	Oakland	MERRITT HOSPITAL	122261400	37821150	1S/4W 23R	3/75	0	0	0 GEO*
HAWTHORNE AV	Oakland	MERRITT HOSPITAL	122261400	37821150	1S/4W 23R	4/74	345	0	0 GEO
3300 WEBSTER ST	Oakland	PAUL FABERMAN & CO.	122262011	37821412	1S/4W 23R	3/1/89	35	22	2 MON
3300 WEBSTER ST	Oakland	PAUL FABERMAN & CO.	122262011	37821412	1S/4W 23R	3/1/89	32	28	2 MON
3300 WEBSTER ST	Oakland	PAUL FABERMAN & CO	122262011	37821412	1S/4W 23R	3/1/89	28	25	2 MON
			0	0	1S/4W 23R	5/1/89	30	22	2 MON
350 Hawthorne Ave	Oakland	Summit Medical Center MW1	122263410	37822068	1S/4W 23R	4/92	40	23	0 MON
360 42 ST	Oakland	LADIES RELIEF SOCIETY	122257966	37831318	1S/4W 24E	?	65	9	12 IRR
42nd St && Webster St	Oakland	EBMUD	122259583	37831300	1S/4W 24E	12/1/97	130	0	5 CAT
4045 Broadway	Oakland	Accu-Tune	122256094	37828372	1S/4W 24E	9/97	20	12	2 MON
MANILA & 42ND ST	Oakland	EBMUD	122256600	37831400	1S/4W 24E	5/75	50	0	0 CAT
42ND & WEBSTER STS.	Oakland	EBMUD	122259600	37831300	1S/4W 24E	5/75	50	0	0 CAT
462 43 ST	Oakland	ROBERT WESTWOOD	122259030	37831318	1S/4W 24E	9/77	0	0	4 DOM
368 42nd St	Oakland	Park Day School	122257233	37831428	1S/4W 24E	2/94	28	0	2 MON
4045 Broadway	Oakland	Accu-Tune	122256094	37828372	1S/4W 24E	9/96	19	12	2 MON
4045 Broadway	Oakland	Accu-Tune	122256094	37828372	1S/4W 24E	9/96	19	13	2 MON
4045 Broadway	Oakland	Accu-Tune	122256094	37828372	1S/4W 24E	9/96	20	13	2 MON
42nd St && Manila Av	Oakland	EBMUD	122256583	37831400	1S/4W 24E	1/98	130	0	5 CAT
14 Glen Ave.	Oakland	Erma Delluchi	122252230	37826192	1S/4W 24L	7/92	25	0	0 BOR
4100 BROADWAY	Oakland	SOUTHLAND CORP	122255481	37828956	1S/4W 24L	9/1/86	30	10	0 BOR
4082 PIEDMONT AV	Oakland	JOHN BOND	122251924	37826741	1S/4W 24L	/79	198	21	8 IRR
3943 Broadway	Oakland	Unocal Corp.	122256665	37827497	1S/4W 24L	1/90	20	11	2 MON
3943 Broadway	Oakland	Unocal Corp.	122256665	37827497	1S/4W 24L	1/90	20	12	2 MON
3943 Broadway	Oakland	Unocal Corporation	122256665	37827497	1S/4W 24L	10/1/89	20	11	2 MON

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3943 Broadway	Oakland	Unocal Corporation	122256665	37827497	1S/4W 24L	10/1/89	20	13	2 MON
3943 Broadway	Oakland	Unocal Corporation	122256665	37827497	1S/4W 24L	10/1/89	23	12	2 MON
3943 Broadway	Oakland	Unocal Corporation	122256665	37827497	1S/4W 24L	10/1/90	55	45	2 TES
3943 Broadway	Oakland	Unocal Corporation	122256665	37827497	1S/4W 24L	10/1/90	20	12	2 MON
3943 Broadway	Oakland	Unocal Corporation	122256665	37827497	1S/4W 24L	10/1/90	20	12	2 MON
3943 Broadway	Oakland	Unocal Corporation	122256665	37827497	1S/4W 24L	10/1/90	22	12	2 MON
3810 Broadway	Oakland	Friedkin-Becker	122257041	37826496	1S/4W 24L	10/1/91	36	12	2 MON
3810 Broadway	Oakland	Friedkin - Becker MW-2	122256859	37826420	1S/4W 24L	1/92	35	31	2 MON
3943 Broadway	Oakland	Unocal Corp MW10	122256665	37827497	1S/4W 24L	1/92	22	20	2 MON
3943 Broadway	Oakland	Unocal Corp MW11	122256665	37827497	1S/4W 24L	1/92	21	11	2 MON
175 41 Street	Oakland	Piedmont Plaza MW1	122252753	37827099	1S/4W 24L	1/93	40	15	2 MON
175 41 Street	Oakland	Piedmont Plaza MW-2	122252753	37827099	1S/4W 24L	1/93	41	13	2 MON
175 41 Street	Oakland	Piedmont Plaza MW-3	122252753	37827099	1S/4W 24L	1/93	40	11	2 MON
3943 Broadway	Oakland	Unocal Corp MW12	122256656	37827497	1S/4W 24L	6/92	18	12	2 MON
3943 Broadway	Oakland	Unocal Corp RW1	122256656	37827497	1S/4W 24L	6/92	18	0	6 BOR
14 Glen Ave.	Oakland	Erma Delluchi MW-3C	122252230	37826192	1S/4W 24L	7/92	37	26	2 MON
3900 Piedmont Ave	Oakland	Chevron Products Co	122253851	37825261	1S/4W 24L	7/98	18	11	2 MON
3900 Piedmont Ave	Oakland	Chevron Products Co	122253851	37825261	1S/4W 24L	7/98	17	10	2 MON
3900 Piedmont Ave	Oakland	Chevron Products Co	122253851	37825261	1S/4W 24L	7/98	17	12	2 MON
3900 Piedmont Ave	Oakland	Chevron Products Co	122253851	37825261	1S/4W 24L	7/98	17	12	2 MON
411 W. MacArthur Blvd.	Oakland	Unocal Corporation	122261603	37825545	1S/4W 24M	9/89	29	19	2 MON
411 W. MacArthur Blvd.	Oakland	Unocal Corporation	122261603	37825545	1S/4W 24M	9/89	29	19	2 MON
411 W. MacArthur Blvd.	Oakland	Unocal Corporation	122261603	37825545	1S/4W 24M	9/89	29	19	2 MON
411 W. MacArthur Blvd.	Oakland	Unocal Corporation	122261603	37825545	1S/4W 24M	9/89	29	19	2 MON
3785 Broadway	Oakland	Firestone Tire & Rubber	122257261	37826500	1S/4W 24M	2/91	30	10	2 MON
411 W. MacArthur Blvd.	Oakland	Unocal Corporation MW-5	122261593	37825545	1S/4W 24M	11/1/92	30	22	2 MON
411 W. MacArthur Blvd.	Oakland	Unocal Corporation MW-6	122261593	37825545	1S/4W 24M	11/1/92	30	20	2 MON
3810 Broadway	Oakland	Friedkin	122257017	37826492	1S/4W 24M	9/96	35	18	2 MON
3810 Broadway	Oakland	Friedkin	122257017	37826492	1S/4W 24M	9/96	35	23	2 MON
3810 Broadway	Oakland	Friedkin	122257017	37826492	1S/4W 24M	9/96	35	33	2 MON
3810 Broadway	Oakland	Friedkin	122257017	37826492	1S/4W 24M	9/96	35	33	2 MON
3810 Broadway	Oakland	Friedkin	122257017	37826492	1S/4W 24M	9/96	35	33	2 MON
3810 Broadway	Oakland	Friedkin	122257017	37826492	1S/4W 24M	9/96	35	28	2 MON
3810 Broadway	Oakland	Friedkin/Becker	122257017	37826492	1S/4W 24M	10/1/95	28	20	2 MON
3810 Broadway	Oakland	Friedkin/Becker	122257017	37826492	1S/4W 24M	10/1/95	37	35	2 MON



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Broadway area	Oakland	EBMUD		1S/4W 24N	1/6/98	130			CATH
3701 MACARTHUR BLVD	Oakland	CHEVRON USA	122258885	37822953 1S/4W 24N	4/1/88	35	15	4	MON
3701 Broadway	Oakland	Chevron, USA	122258150	37824976 1S/4W 24N	4/91	17	2	2	MON
3701 MACARTHUR BLVD	Oakland	CHEVRON USA	122258885	37822953 1S/4W 24N	4/1/88	30	16	4	MON
3701 Broadway	Oakland	Chevron, USA	122258150	37824976 1S/4W 24N	6/91	0	0	6	DES
3505 Broadway	Oakland	Kaiser Foundation	122259457	37823077 1S/4W 24N	10/1/89	27	22	2	MON
3505 Broadway	Oakland	Kaiser Foundation	122259457	37823077 1S/4W 24N	11/1/89	24	20	2	MON
3505 Broadway	Oakland	Kaiser Foundation	122259457	37823077 1S/4W 24N	11/1/89	22	16	2	MON
3505 Broadway	Oakland	Kaiser Foundation	122259457	37823077 1S/4W 24N	4/1/90	35	0	2	MON
3505 Broadway	Oakland	Kaiser Foundation	122259457	37823077 1S/4W 24N	11/1/90	14	9	8	BOR*
280 W. MacArthur Blvd.	Oakland	Kaiser Hospital	122257574	37824547 1S/4W 24N	3/91	25	7	4	MON
280 W. MacArthur Blvd.	Oakland	Kaiser Hospital	122257574	37824547 1S/4W 24N	3/91	25	12	4	MON
280 W. MacArthur	Oakland	Kaiser Hospital	122257574	37824547 1S/4W 24N	3/91	33	20	2	MON
280 W. MacArthur	Oakland	Kaiser Hospital	122257574	37824547 1S/4W 24N	3/91	35	25	2	MON
280 W. MacArthur	Oakland	Kaiser Hospital	122257574	37824547 1S/4W 24N	12/1/90	52	13	10	BOR
280 W. MacArthur	Oakland	Kaiser Hospital	122257574	37824547 1S/4W 24N	2/91	35	20	2	PIE
3701 Broadway	Oakland	Chevron USA	122258150	37824976 1S/4W 24N	3/91	20	6	2	MON
3505 Broadway	Oakland	Kaiser Health Fdn LF-1	122259457	37823077 1S/4W 24N	1/92	29	0	8	DES
3505 Broadway	Oakland	Kaiser Health Fdn LF-5	122259457	37823077 1S/4W 24N	1/92	28	0	10	DES
3701 Broadway	Oakland	Chevron USA B-1	122258150	37824984 1S/4W 24N	10/1/92	36	14	4	MON
3701 Broadway	Oakland	Chevron USA MW-E	122258150	37824984 1S/4W 24N	10/1/92	35	12	2	MON
3701 Broadway	Oakland	Chevron USA MW-F	122258150	37824984 1S/4W 24N	10/1/92	30	15	2	MON
3505 Broadway	Oakland	Kaiser Foundation MW5R	122259447	37823085 1S/4W 24N	8/92	29	29	4	MON
327 34th St	Oakland	Val Strough Chevrolet	122260619	37822151 1S/4W 24N	7/93	32	25	2	MON
327 34th St	Oakland	Val Strough Chevrolet	122260619	37822151 1S/4W 24N	7/93	33	22	2	MON
327 34th St	Oakland	Val Strough Chevrolet	122260619	37822151 1S/4W 24N	7/93	34	23	2	MON
240 W. MacArthur Blvd	Oakland		122256525	37823977 1S/4W 24N	8/97	25	19	4	MON
240 W. MacArthur Blvd	Oakland		122256525	37823977 1S/4W 24N	8/97	25	0	4	MON
240 W. MacArthur Blvd	Oakland		122256525	37823977 1S/4W 24N	8/97	25	19	4	MON
240 W. MacArthur Blvd	Oakland		122256525	37823977 1S/4W 24N	8/97	25	19	4	MON
230 MAC ARTHUR BLVD	Oakland	GETTLER-RYAN (SHELL)	122252335	37817343 1S/4W 24P	4/86	20	13	0	BOR
230 MacArthur Blvd	Oakland	Shell Oil Company	122256380	37823860 1S/4W 24P	8/89	13	0	8	BOR*
230 MacArthur Boulevard	Oakland	Shell Service Station	122256380	37823860 1S/4W 24P	7/1/88	18	0	1	BOR
230 MACARTHUR BOULEVAR	Oakland	SHELL SERVICE STATION	122256380	37823860 1S/4W 24P	4/86	15	12	4	MON
230 MACARTHUR BOULEVAR	Oakland	SHELL SERVICE STATION	122256380	37823860 1S/4W 24P	4/86	15	12	4	MON

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230 MACARTHUR BVLD	Oakland	SHELL OIL CO	122256380	37823860	1S/4W 24P	7/1/88	31	13	4 MON
230 MACARTHUR BVLD	Oakland	SHELL OIL CO	122256380	37823860	1S/4W 24P	7/1/88	30	0	4 MON
230 MACARTHUR BVLD	Oakland	SHELL OIL CO	122256380	37823860	1S/4W 24P	7/1/88	30	15	4 MON
230 MacArthur Blvd.	Oakland	Shell Oil Company	122256380	37823860	1S/4W 24P	1/90	25	15	4 MON
MOUTELL ST	Oakland	PG&E	122253276	37824619	1S/4W 24Q	6/74	120	0	0 CAT
29 Wildwood Avenue	Piedmont	Shell Oil Company	122242572	37819286	1S/4W 25A	7/89	0	4	10 BOR*
29 Wildwood Avenue	Piedmont	Shell Oil Company	122242572	37819286	1S/4W 25A	1/90	16	6	4 MON
29 Wildwood Avenue	Piedmont	Shell Oil Company	122242572	37819286	1S/4W 25A	7/89	15	4	4 MON
29 Wildwood Avenue	Piedmont	Shell Oil Company	122242572	37819286	1S/4W 25A	7/89	12	4	4 MON
29 Wildwood Avenue	Piedmont	Shell Oil Company	122242572	37819286	1S/4W 25A	7/89	10	4	4 MON
29 Wildwood Avenue	Piedmont	Shell Oil Company	122242572	37819286	1S/4W 25A	1/90	17	6	4 MON
172 SANTA CLARA ST	Oakland	EAGAN & CO.	122251845	37818796	1S/4W 25B	6/1/89	27	15	2 MON
5175 Broadway	Oakland	Mohammad M. Mehdizadeh	122251412	37835727	1S/4W 25B	6/91	325	0	0 DOM
5175 Broadway	Oakland	Mohammad M. Mehdizadeh	122251412	37835727	1S/4W 25B	6/91	290	90	6 DOM
CRN OF CLAY & 14TH ST	Oakland	FIVE CITY CENTER	122253773	37819428	1S/4W 25C		0	0	0
3093 Broadway	Oakland	Connell Oldsmobile	122260708	37820808	1S/4W 25D	10/1/92	35	28	0 BOR
3093 Broadway	Oakland	Connell Oldsmobile B-8	122260708	37820808	1S/4W 25D	10/1/92	40	0	6 MON
3093 Broadway	Oakland	Connell Oldsmobile B-9	122260708	37820808	1S/4W 25D	10/1/92	32	0	2 MON
3093 Broadway	Oakland	Connell Oldsmobile B-10	122260708	37820808	1S/4W 25D	10/1/92	35	0	6 MON
3093 Broadway	Oakland	Connell Oldsmobile B-13	122260708	37820808	1S/4W 25D	10/1/92	40	36	2 BOR
3080 Broadway	Oakland	Gereld Shirar	122260795	37820262	1S/4W 25D	7/94	40	26	2 MON
3669 Grand Avenue	Oakland	Martini Company	122245014	37816226	1S/4W 25H	10/1/90	40	6	2 MON
3329 Lakeshore Av	Oakland	Lamorinda Development	122244409	37810719	1S/4W 25J	9/94	17	9	2 MON
ADAMS & LEE ST	Oakland	PG&E	122257500	37813700	1S/4W 25L	8/74	120	0	0 CAT
225 27TH ST	Oakland	EHLER CONTRACTORS	122261532	37813806	1S/4W 25M	6/1/89	13	7	4 MON
225 27TH ST	Oakland	EHLER CONTRACTORS	122261532	37813806	1S/4W 25M	6/1/89	11	4	4 MON
225 27TH ST	Oakland	EHLER CONTRACTORS	122261532	37813806	1S/4W 25M	6/1/89	8	4	4 MON
210 GRAND AVE	Oakland	CHEVRON USA	122260568	37811384	1S/4W 25M	3/1/89	15	7	4 MON
210 GRAND AVE	Oakland	CHEVRON USA	122260568	37811384	1S/4W 25M	3/1/89	17	7	4 MON
210 GRAND AVE	Oakland	CHEVRON USA	122260568	37811384	1S/4W 25M	3/1/89	20	12	4 MON
210 GRAND AVE	Oakland	CHEVRON USA	122260568	37811384	1S/4W 25M	3/1/89	17	11	4 MON
210 GRAND AVE	Oakland	CHEVRON USA	122260568	37811384	1S/4W 25M	3/1/89	17	11	4 MON
210 Grand Ave	Oakland	Chevron SS #90019	122260568	37811384	1S/4W 25M	6/1/90	12	0	2 MON
210 Grand Ave	Oakland	Chevron SS #90019	122260568	37811384	1S/4W 25M	6/1/90	12	0	2 MON
210 Grand Ave	Oakland	Chevron S/S #90019	122260568	37811384	1S/4W 25M	6/1/90	14	0	2 MON

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210 Grand Ave	Oakland	Chevron SS #90019	122260568	37811384	1S/4W 25M	6/1/90	12	0	2 MON
210 Grand Ave	Oakland	Former Chevron 9-0019MW-2	122260568	37811384	1S/4W 25M	11/1/91	0	0	0 DES
230 Bay Place	Oakland	Wells Fargo Bank MW-1	122260316	37812135	1S/4W 25M	2/93	20	3	2 MON
363 GRAND AV.	Oakland	QUICK STOP MKTS.	122255000	37809442	1S/4W 25P		0	0	0
			0	0	1S/4W 25P	11/1/88	30	24	2 MON
350 Grand Ave.	Oakland	Shell Oil Company	122255440	37809678	1S/4W 25P	1/91	17	11	3 MON
350 Grand Ave.	Oakland	Shell Oil Company	122255440	37809678	1S/4W 25P	1/91	15	11	3 MON
363 Grand Ave	Oakland	Quik Stop Markets	122255000	37809442	1S/4W 25P	8/90	20	12	2 MON
460 Grand Ave.	Oakland	Chevron C-1	122251821	37809129	1S/4W 25P	12/1/92	15	5	2 MON
460 Grand Ave.	Oakland	Chevron C-2	122251821	37809129	1S/4W 25P	12/1/92	15	8	2 MON
460 Grand Ave.	Oakland	Chevron C-3	122251821	37809129	1S/4W 25P	12/1/92	15	6	2 MON
460 Grand Av	Oakland	Chevron USA	122251950	37809297	1S/4W 25P	5/95	20	18	2 MON
363 GRAND AV.	Oakland	QUICK STOP MKTS.	122255000	37809442	1S/4W 25P	11/1/88	36	30	2 MON
363 GRAND AV.	Oakland	QUICK STOP MKTS.	122255000	37809442	1S/4W 25P	11/1/88	36	25	2 MON
363 Grand Avenue	Oakland	Quik Stop Markets, Inc.	122255000	37809442	1S/4W 25P	3/90	30	3	2 MON
363 Grand Avenue	Oakland	Quik Stop Markets, Inc.	122255000	37809442	1S/4W 25P	3/90	30	25	2 MON
363 Grand Avenue	Oakland	Quik Stop Markets, Inc.	122255000	37809442	1S/4W 25P	3/90	30	23	2 MON
363 Grand Avenue	Oakland	Quik Stop Markets, Inc.	122255000	37809442	1S/4W 25P	3/90	24	15	2 MON
363 Grand Avenue	Oakland	Quik Stop Markets, Inc.	122255000	37809442	1S/4W 25P	3/90	29	20	2 MON
350 Grand Ave.	Oakland	Shell Oil Company	122255440	37809678	1S/4W 25P	11/1/90	39	0	2 PIE
500 Grand Avenue	Oakland	Texaco Refining & Mrkting	122251176	37809214	1S/4W 25Q	10/1/89	0	0	8 BOR*
500 GRAND AVE.	Oakland	TEXACO INC.	122251176	37809214	1S/4W 25Q	3/1/89	17	12	4 MON
500 GRAND AVE.	Oakland	TEXACO INC.	122251176	37809214	1S/4W 25Q	3/1/89	17	9	4 MON
500 Grand Avenue	Oakland	Texaco Refining & Mrkting	122251176	37809214	1S/4W 25Q	1/90	15	4	4 MON
500 Grand Avenue	Oakland	Texaco Refining & Mrkting	122251176	37809214	1S/4W 25Q	1/90	15	6	4 MON
500 Grand Avenue	Oakland	Texaco Refining & Mrkting	122251176	37809214	1S/4W 25Q	1/90	15	6	4 MON
500 Grand Ave	Oakland	Texaco Rfng & Mktg MW8A	122251176	37809214	1S/4W 25Q	8/92	16	0	2 DES
500 Grand Ave	Oakland	Texaco Rfng & Mktg MW8E	122251176	37809214	1S/4W 25Q	8/92	20	0	4 DES
500 Grand Ave.	Oakland	Texaco MW-8B	122251028	37809236	1S/4W 25Q	3/93	0	0	0 DES
500 Grand Ave.	Oakland	Texaco MW-8C	122251028	37809236	1S/4W 25Q	3/93	0	0	0 DES
500 Grand Ave.	Oakland	Texaco MW-8L	122251031	37809221	1S/4W 25Q	5/93	18	3	2 MON
500 Grand Ave.	Oakland	Texaco MW-8K	122251031	37809221	1S/4W 25Q	5/93	18	4	2 MON
3093 Broadway	Oakland	Connel Oldsmobile	122260700	37820830	1S/4W 26A	10/1/90	22	13	2 MON
450 30TH	Oakland	PERALTA HOSPITAL	122265138	37819514	1S/4W 26A	?	0	0	0 GEO*
3093 Broadway	Oakland	Connel Oldsmobile	122260700	37820830	1S/4W 26A	10/1/90	18	4	2 MON

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3093 Broadway	Oakland	Connell Oldsmobile	122260700	37820830	1S/4W 26A	11/1/90	41	40	2	MON	
3093 Broadway	Oakland	Connell Oldsmobile	122260700	37820830	1S/4W 26A	2/91	15	7	4	MON	
3093 Broadway	Oakland	Connell Oldsmobile	122260700	37820830	1S/4W 26A	2/91	40	27	2	MON	
3093 Broadway	Oakland	Connell Oldsmobile	122260700	37820830	1S/4W 26A	2/91	35	22	2	MON	
3093 Broadway	Oakland	Connell Oldsmobile	122260700	37820830	1S/4W 26A	2/91	30	24	2	MON	
3093 Broadway	Oakland	Connell Oldsmobile	122260700	37820830	1S/4W 26A	3/91	35	25	2	MON	
29 & TELEGRAPH AV	Oakland	PG&E	122266800	37818400	1S/4W 26B	4/74	0	8	0	CAT	
3045 Telegraph Av	Oakland		122266610	37819664	1S/4W 26B	4/96	16	11	1	MON	
3045 Telegraph Av	Oakland		122266610	37819664	1S/4W 26B	4/96	16	11	1	MON	
3045 Telegraph Av	Oakland		122266610	37819664	1S/4W 26B	4/96	16	11	1	MON	
2821 WEST ST	Oakland	F.L. BROWN	122273607	37818792	1S/4W 26C	?	180	30	8	ABN	
730 29 ST	Oakland	OAKLAND LDY CO.	122271876	37819113	1S/4W 26C	/28	136	33	0	ABN	
887 30 ST	2926/2942 S	Oakland	LANE METAL FINISHING	122273865	37820528	1S/4W 26C	/35	125	20	0	IND
900 HIGH ST.		Oakland	OAKLAND SCHOOL DIST.	122216888	37769642	1S/4W 26C	?	120	0	0	IRR
730 29th St		Oakland	Civic Bank of Commerce	122272018	37819249	1S/4W 26C	2/96	25	19	2	MON
730 29th St		Oakland	Civic Bank of Commerce	122272018	37819249	1S/4W 26C	2/96	21	15	2	MON
730 29th St		Oakland	Civic Bank of Commerce	122272018	37819249	1S/4W 26C	2/96	21	11	2	MON
958 EAST 28TH STREET		Oakland	ARATEX SERVICES INC.	122236735	37801086	1S/4W 26D	2/1/89	17	0	0	BOR
958 28th Street		Oakland	Aratex Servisco	122277660	37819674	1S/4W 26D	3/90	0	0	9	BOR*
26 & LINDEN ST		Oakland	PACIFIC GAS & ELECTRIC	122280000	37818500	1S/4W 26D	12/1/76	120	0	0	CAT
958 EAST 28TH STREET		Oakland	ARATEX SERVICES INC.	122236735	37801086	1S/4W 26D	2/1/89	32	22	4	MON
958 EAST 28TH STREET		Oakland	ARATEX SERVICES INC.	122236735	37801086	1S/4W 26D	2/1/89	28	22	4	MON
958 EAST 28TH STREET		Oakland	ARATEX SERVICES INC.	122236735	37801086	1S/4W 26D	12/1/88	36	27	4	MON
958 28th Street		Oakland	Aratex Servisco	122277660	37819674	1S/4W 26D	3/90	25	22	2	MON
958 28th Street		Oakland	Aratex Servisco	122277660	37819674	1S/4W 26D	3/90	30	17	4	MON
958 28th Street		Oakland	Aratex Servisco	122277660	37819674	1S/4W 26D	2/90	30	18	4	MON
958 28th St		Oakland	AraTex Service Inc.MW-4A	122277660	37819674	1S/4W 26D	7/91	27	13	4	MON
958 28th St		Oakland	AraTex Service Inc.MW7	122277660	37819674	1S/4W 26D	7/91	30	14	4	MON
958 28th St		Oakland	Aramark Uniform Services,	122277679	37819666	1S/4W 26D	2/94	25	17	2	MON
2926 San Pablo Ave		Oakland	Chae M. and Jung H. Chung			1S/4W 26D	12/19/12	120	8	?	IND
889 W. Grand Ave		Oakland	Arco Products	122277801	37814690	1S/4W 26E	5/91	0	0	0	DES
889 W. Grand Ave		Oakland	ARCO Products A-1	122277801	37814690	1S/4W 26E	3/92	30	11	3	MON
889 W. Grand Ave		Oakland	ARCO Products A-2	122277801	37814690	1S/4W 26E	3/92	27	12	3	MON
889 W. Grand Ave		Oakland	ARCO Products A-3	122277801	37814690	1S/4W 26E	4/92	30	12	3	MON
889 W. Grand Ave		Oakland	ARCO Products A-4	122277801	37814690	1S/4W 26E	4/92	30	11	3	MON

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889 W. Grand Ave	Oakland	ARCO Products	AR-1	122277801	37814690	1S/4W 26E	4/92	30	11	6 MON
2400 Filbert St	Oakland	Cal West	MW-1	122279510	37816804	1S/4W 26E	10/1/91	20	9	2 MON
889 W. Grand Ave	Oakland	ARCO Products	AR-1	122277844	37814544	1S/4W 26E	6/92	29	15	4 MON
889 W. Grand Ave	Oakland	ARCO Products	AV-1	122277845	37814547	1S/4W 26E	6/92	14	12	2 MON
889 W. Grand Ave	Oakland	ARCO Products	AV2	122277845	37814547	1S/4W 26E	6/92	14	12	2 MON
889 W. Grand Ave	Oakland	ARCO Products	AV3	122277845	37814547	1S/4W 26E	6/92	14	12	2 MON
889 W. Grand Ave.	Oakland	Arco	A-5	122277844	37814558	1S/4W 26E	2/93	30	11	2 MON
889 W. Grand Ave.	Oakland	Arco	A-6	122277844	37814558	1S/4W 26E	2/93	29	10	2 MON
2400 Filbert St	Oakland	Cal West	MW-2	122279504	37816822	1S/4W 26E	12/1/92	25	13	2 MON
889 W Grand Ave	Oakland	Arco Products Company		122277825	37814567	1S/4W 26E	12/1/93	15	14	4 EXT
889 W Grand Ave	Oakland	Arco Products Company		122277825	37814567	1S/4W 26E	12/1/93	15	13	4 EXT
889 W Grand Ave	Oakland	Arco Products Company		122277825	37814567	1S/4W 26E	12/1/93	27	13	4 REC
889 W Grand Ave	Oakland	Arco Products Company		122277825	37814567	1S/4W 26E	12/1/93	24	13	4 REC
633 Sycamore St	Oakland	Gilbert Lopez (MW-1)		122271088	37815824	1S/4W 26F	8/93	22	9	2 MON
633 Sycamore St	Oakland	Gilbert Lopez (MW-2)		122271088	37815824	1S/4W 26F	8/93	22	9	2 MON
633 Sycamore St	Oakland	Gilbert Lopez (MW-3)		122271088	37815824	1S/4W 26F	8/93	23	11	2 MON
2703 Martin Luther King J	Oakland	Shell Oil Products Compan		122271197	37817400	1S/4W 26F	7/96	13	11	2 EXT
2703 Martin Luther King J	Oakland	Shell Oil Products Compan		122271197	37817400	1S/4W 26F	7/96	13	8	2 EXT
2703 Martin Luther King J	Oakland	Shell Oil Products Compan		122271197	37817400	1S/4W 26F	7/96	21	11	2 MON
2703 Martin Luther King J	Oakland	Shell Oil Products Compan		122271197	37817400	1S/4W 26F	7/96	21	9	2 MON
2800 TELEGRAPH AVE	Oakland	SHELL OIL COMPANY		122267087	37817156	1S/4W 26G	4/1/88	28	12	3 MON
2800 TELEGRAPH AVE	Oakland	SHELL OIL COMPANY		122267087	37817156	1S/4W 26G	4/1/88	28	12	3 MON
2800 TELEGRAPH AVE	Oakland	SHELL OIL COMPANY		122267087	37817156	1S/4W 26G	4/1/88	28	12	3 MON
2800 TELEGRAPH AV.	Oakland	SHELL OIL		122267087	37817156	1S/4W 26G	10/1/88	30	11	3 MON
2800 TELEGRAPH AV.	Oakland	SHELL OIL		122267087	37817156	1S/4W 26G	10/1/88	24	13	3 MON
2800 TELEGRAPH AV.	Oakland	SHELL OIL		122267087	37817156	1S/4W 26G	10/1/88	22	12	3 MON
2800 TELEGRAPH AV.	Oakland	SHELL OIL		122267087	37817156	1S/4W 26G	10/1/88	30	12	3 MON
2800 TELEGRAPH AV S-8	Oakland	SHELL OIL CO.		122267087	37817156	1S/4W 26G	9/1/89	22	11	3 MON
2800 TELEGRAPH AV S-9	Oakland	SHELL OIL CO.		122267087	37817156	1S/4W 26G	9/1/89	32	14	3 MON
2800 TELEGRAPH AV S10	Oakland	SHELL OIL CO.		122267087	37817156	1S/4W 26G	9/1/89	31	14	3 MON
2800 TELEGRAPH S11	Oakland	SHELL OIL		122267087	37817156	1S/4W 26G	10/1/89	31	14	3 MON
2800 TELEGRAPH S-2	Oakland	SHELL OIL S-2		122267087	37817164	1S/4W 26G	4/93	29	0	3 DES
2633 Telegraph Ave.	Oakland	Sears Roebuck & Co.	MW1	122267754	37815668	1S/4W 26G	12/1/92	22	12	2 MON
2633 Telegraph Ave.	Oakland	Sears Roebuck & Co.	MW2	122267754	37815668	1S/4W 26G	12/1/92	22	12	2 MON
2633 Telegraph Ave.	Oakland	Sears Roebuck & Co.	MW3	122267754	37815668	1S/4W 26G	12/1/92	25	13	2 MON

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2633 Telegraph Ave.	Oakland	Sears Roebuck & Co. MW4	122267754	37815668	1S/4W 26G	12/1/92	23	13	2 MON
2633 Telegraph Ave.	Oakland	Sears Roebuck & Co. MW5	122267754	37815668	1S/4W 26G	12/1/92	25	11	2 MON
477 25th St.	Oakland	United Glass MW-1	122266775	37814637	1S/4W 26G	1/94	20	9	2 MON
2633 Telegraph Av	Oakland	Sears	122267719	37815695	1S/4W 26G	12/1/93	22	14	2 MON
2633 Telegraph Av	Oakland	Sears	122267719	37815695	1S/4W 26G	12/1/93	22	14	2 MON
2633 Telegraph Av	Oakland	Sears	122267719	37815695	1S/4W 26G	12/1/93	22	14	2 MON
2633 Telegraph Av	Oakland	Sears Roebuck and Company	122267731	37815671	1S/4W 26G	10/1/96	20	15	2 MON
554 27th St	Oakland	Joan Schoonbrood	122268764	37816875	1S/4W 26G	6/95	20	10	2 MON
554 27th St	Oakland	Joan Schoonbrood	122268764	37816875	1S/4W 26G	6/95	20	10	2 MON
554 27th St	Oakland	Joan Schoonbrood	122268764	37816875	1S/4W 26G	6/95	20	10	2 MON
450 25th St	Oakland	Friction Materials, Inc	122266062	37814745	1S/4W 26G	7/98	25	15	2 MON
450 25th St	Oakland	Friction Materials, Inc	122266062	37814745	1S/4W 26G	7/98	25	14	2 MON
450 25th St	Oakland	Friction Materials, Inc	122266062	37814745	1S/4W 26G	7/98	25	15	2 MON
2827 Webster	Oakland	Alan Rudy B-1	122263492	37817097	1S/4W 26H	8/91	10	0	2 BOR*
294 27th St.	Oakland	MR & RB Assoc.	122262216	37815029	1S/4W 26H	9/92	20	8	0 BOR
28 & VALDEZ ST	Oakland	CHRSTN CHURCH HOME BLDG	122262100	37816600	1S/4W 26H	?	0	0	0 GEO*
20TH ST.	Oakland	COMMUNITY CARE BLDG	122293000	37817250	1S/4W 26H	11/1/78	0	0	0 GEO*
2740 BROADWAY	Oakland	BROADWAY VW	122263401	37816191	1S/4W 26H	1/1/89	20	7	2 MON
2740 BROADWAY	Oakland	BROADWAY VW	122263401	37816191	1S/4W 26H	1/1/89	20	11	2 MON
2740 BROADWAY	Oakland	BROADWAY VW	122263401	37816191	1S/4W 26H	1/1/89	20	11	2 MON
2915 Broadway	Oakland	European Motors	122262457	37818081	1S/4W 26H	2/90	30	12	2 MON
2915 Broadway	Oakland	European Motors	122262457	37818081	1S/4W 26H	2/90	30	11	2 MON
2915 Broadway	Oakland	European Motors	122262457	37818081	1S/4W 26H	2/90	30	10	2 MON
2740 Broadway Ave	Oakland	Broadway Volkswagen	122263401	37816191	1S/4W 26H	4/91	17	3	2 MON
2740 Broadway	Oakland	Vorelco, Inc.	122263401	37816191	1S/4W 26H	10/1/91	30	8	4 MON
2740 Broadway	Oakland	Vorelco, Inc.	122263401	37816191	1S/4W 26H	10/1/91	27	11	4 MON
294 27th St	Oakland	MR & RB Partnership MW-1	122262219	37815026	1S/4W 26H	2/93	18	8	2 MON
294 27th St	Oakland	MR & RB Partnership MW-2	122262219	37815026	1S/4W 26H	2/93	17	7	2 MON
2827 Webster St.	Oakland	Alan Rudy B-2	122263483	37817098	1S/4W 26H	8/91	10	0	0 BOR
2630 Broadway	Oakland	Chevron Oil B-9 (MW-9)	122263922	37815367	1S/4W 26H	7/94	20	0	2 MON
2630 Broadway	Oakland	Chevron Oil B-10 (MW-10)	122263922	37815367	1S/4W 26H	7/94	20	18	2 MON
2630 Broadway	Oakland	Chevron Oil B-11 (MW-11)	122263922	37815367	1S/4W 26H	7/94	20	18	2 MON
2630 Broadway	Oakland	Chevron Oil B-12 (MW-12)	122263922	37815367	1S/4W 26H	7/94	20	17	2 MON
434 25th St	Oakland	Andre Mercier	122265722	37814668	1S/4W 26H	8/94	15	14	2 MON
434 25th St	Oakland	Andre Mercier	122265722	37814668	1S/4W 26H	8/94	15	15	2 MON

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434 25th St	Oakland	Andre Mercier	122265722	37814668	1S/4W 26H	8/94	15	14	2 MON
2735 Broadway	Oakland	Ravizza Comm. Real Estate	122263611	37816268	1S/4W 26H	10/1/93	38	27	4 MON
2735 Broadway	Oakland	Ravizza Comm. Real Estate	122263611	37816268	1S/4W 26H	10/1/93	25	19	4 MON
2735 Broadway	Oakland	Ravizza Comm. Real Estate	122263611	37816268	1S/4W 26H	10/1/93	30	20	4 MON
2735 Broadway	Oakland	Ravizza Comm. Real Estate	122263611	37816268	1S/4W 26H	10/1/93	30	16	4 MON
403 28th St	Oakland	Chrysler Realty Corporati	122264962	37816675	1S/4W 26H	5/94	29	0	2 MON
403 28th St	Oakland	Chrysler Realty Corporati	122264962	37816675	1S/4W 26H	5/94	29	0	2 MON
Valdez St && 26th St	Oakland	Broadway Motors Ford	122263016	37814839	1S/4W 26H	5/97	15	10	2 MON
Valdez St && 26th St	Oakland	Broadway Motors Ford	122263016	37814839	1S/4W 26H	5/97	15	10	2 MON
Valdez St && 26th St	Oakland	Broadway Motors Ford	122263016	37814839	1S/4W 26H	5/97	15	0	2 MON
2302 VALDEZ ST.	Oakland	MORRISON & FORESTER	122263640	37812297	1S/4W 26J	8/1/89	27	0	0 BOR
			0	0	1S/4W 26J	8/1/89	25	0	0 BOR
			0	0	1S/4W 26J	8/1/89	22	0	0 BOR
			0	0	1S/4W 26J	8/1/89	22	0	0 BOR
			0	0	1S/4W 26J	8/1/89	22	0	0 BOR
			0	0	1S/4W 26J	8/1/89	24	0	0 BOR
			0	0	1S/4W 26J	8/1/89	24	0	0 BOR
			0	0	1S/4W 26J	8/1/89	22	0	0 BOR
23RD & VALDEZ	Oakland	OAKLAND TRIBUNE	122263653	37812144	1S/4W 26J	8/1/88	31	18	3 MON
2345 Broadway	Oakland	Negherbon Auto Center	122265564	37813116	1S/4W 26J	6/92	29	22	2 MON
2330 Webster St	Oakland	Labor Temple	122264578	37812846	1S/4W 26J	12/1/95	30	21	2 MON
2330 Webster St	Oakland	Labor Temple	122264578	37812846	1S/4W 26J	1/96	31	7	2 MON
2330 Webster St	Oakland	Labor Temple	122264578	37812846	1S/4W 26J	1/96	31	23	2 MON
2330 Webster St	Oakland	Labor Temple	122264578	37812846	1S/4W 26J	1/96	31	20	2 MON
2330 Webster St	Oakland	Labor Temple	122264578	37812846	1S/4W 26J	1/96	31	22	2 MON
2330 Webster St	Oakland	Labor Temple	122264578	37812846	1S/4W 26J	1/96	31	20	2 MON
2330 Webster St	Oakland	Labor Temple	122264578	37812846	1S/4W 26J	1/96	31	20	2 MON
23RD & VALDEZ	Oakland	OAKLAND TRIBUNE	122263653	37812144	1S/4W 26J	8/1/88	31	18	3 MON
23RD & VALDEZ	Oakland	OAKLAND TRIBUNE	122263653	37812144	1S/4W 26J	8/1/88	26	15	3 MON
2302 VALDEZ ST.	Oakland	MORRISON & FORESTER	122263640	37812297	1S/4W 26J	8/1/89	27	0	4 MON
2302 VALDEZ ST.	Oakland	MORRISON & FORESTER	122263640	37812297	1S/4W 26J	8/1/89	27	0	4 MON
2302 VALDEZ ST.	Oakland	MORRISON & FORESTER	122263640	37812297	1S/4W 26J	8/1/89	27	0	4 MON
2302 VALDEZ ST.	Oakland	MORRISON & FORESTER	122263640	37812297	1S/4W 26J	8/1/89	27	0	4 MON
Valdez St.and 23rd Street	Oakland	Oakland Tribune	122263800	37812100	1S/4W 26J	5/1/90	27	0	4 MON
Valdez St.and 23rd Street	Oakland	Oakland Tribune	122263800	37812100	1S/4W 26J	5/1/90	25	0	4 MON



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Broadway/W Grand Ave	Oakland	Commonwealth Companies	122266300	37811900	1S/4W 26K	5/1/90	15	0	0 BOR
2ND AND TELEGRAPH	Oakland	21ST AND TELE PARKING	122268251	37812747	1S/4W 26K	10/1/74	0	0	0 GEO*
2250 Telegraph Av	Oakland		122268257	37812378	1S/4W 26K	3/94	19	11	2 MON
2225 TELEGRAPH AV.	Oakland	TEXACO	122268454	37812090	1S/4W 26K	12/1/88	21	13	4 MON
BROADWAY & 22ND ST	Oakland	SANWA BANK	122266600	37811400	1S/4W 26K	9/74	0	0	0 GEO*
2225 Telegraph Avenue	Oakland	Texaco	122268454	37812090	1S/4W 26K	5/1/90	25	14	4 EXT
2250 Telegraph Av	Oakland		122268257	37812378	1S/4W 26K	3/94	19	9	2 MON
			0	0	1S/4W 26K	7/1/88	21	14	2 MON
2225 TELEGRAPH AVE	Oakland	TEXACO STA #62488000195	122268454	37812090	1S/4W 26K	7/1/88	21	13	2 MON
2250 Telegraph Av	Oakland		122268257	37812378	1S/4W 26K	3/94	19	10	2 MON
			0	0	1S/4W 26K	7/1/88	21	13	2 MON
2225 TELEGRAPH AVE	Oakland	TEXACO STA #62488000195	122268454	37812090	1S/4W 26K	7/1/88	19	14	2 MON
2250 Telegraph Av	Oakland		122268257	37812378	1S/4W 26K	3/94	19	10	2 MON
2225 TELEGRAPH AVE	Oakland	TEXACO STA #62488000195	122268454	37812090	1S/4W 26K	7/1/88	20	14	2 MON
2225 Telegraph Avenue	Oakland	Texaco	122268454	37812090	1S/4W 26K	5/1/90	25	0	4 EXT
2225 Telegraph Avenue	Oakland	Texaco	122268600	37811700	1S/4W 26K	5/1/90	25	0	4 EXT
2225 TELEGRAPH AV.	Oakland	TEXACO	122268454	37812090	1S/4W 26K	12/1/88	22	14	4 MON
2225 TELEGRAPH AV.	Oakland	TEXACO	122268454	37812090	1S/4W 26K	12/1/88	22	14	4 MON
			0	0	1S/4W 26K	12/1/88	20	12	4 MON
2225 TELEGRAPH AV.	Oakland	TEXACO	122268454	37812090	1S/4W 26K	12/1/88	21	12	4 MON
2225 Telegraph Ave	Oakland	Exxon Service Stn RW3A	122268454	37812090	1S/4W 26K	5/92	22	13	4 EXT
2225 Telegraph Ave	Oakland	Texaco MW6A	122268454	37812090	1S/4W 26K	5/92	21	0	12 DES
2225 Telegraph Ave	Oakland	Texaco MW6C	122268454	37812090	1S/4W 26K	11/1/91	20	0	2 DES
774 W. GRAND AVE	Oakland	DAVID FYNE	122274728	37813547	1S/4W 26L	4/1/88	40	13	2 MON
577 W. GRAND AV.	Oakland	U.S. POSTAL SVC.	122269840	37812351	1S/4W 26L	12/1/88	30	0	2 MON
2103 San Pablo Ave	Oakland	Greyhound ES-1	122273297	37811847	1S/4W 26L	11/1/91	31	19	4 MON
2103 San Pablo Ave	Oakland	Greyhound ES-2	122273297	37811847	1S/4W 26L	11/1/91	31	20	4 MON
2103 San Pablo Ave	Oakland	Greyhound ES-3	122273297	37811847	1S/4W 26L	11/1/91	35	20	4 MON
2103 San Pablo Ave	Oakland	Greyhound ES-4	122273297	37811847	1S/4W 26L	11/1/91	31	19	4 MON
2103 San Pablo Ave	Oakland	Greyhound ES-5	122273297	37811847	1S/4W 26L	11/1/91	32	19	4 MON
			0	0	1S/4W 26M	4/1/89	35	0	11 DES
			0	0	1S/4W 26M	4/1/89	35	0	11 DES
850 W GRAND AV & ISABELL/	Oakland	CHEVRON - USA	122277075	37814422	1S/4W 26M	10/1/84	30	15	8 MON
850 W GRAND AV & ISABELL/	Oakland	CHEVRON - USA	122277075	37814422	1S/4W 26M	10/1/84	25	14	8 MON
850 W GRAND AV & ISABELL/	Oakland	CHEVRON - USA	122277075	37814422	1S/4W 26M	10/1/84	24	15	8 MON

**Alameda County Public Works Agency**

**Well Inventory**

850 W. GRAND AVE.	Oakland	CHEVRON U.S.A. INC.	122277075	37814422	1S/4W 26M	4/1/89	25	13	11	MON
850 W. GRAND AVE.	Oakland	CHEVRON U.S.A.	122277075	37814422	1S/4W 26M	4/1/89	25	13	11	MON
Isabella/W.Grand	Oakland	Chevron USA	122277600	37814600	1S/4W 26M	7/1/90	27	13	2	MON
Isabella/W.Grand	Oakland	Chevron USA	122277600	37814600	1S/4W 26M	7/1/90	25	13	2	MON
850 W. Grand Ave.	Oakland	Chevron	122277075	37814422	1S/4W 26M	12/1/90	24	19	4	MON
850 W GRAND AV & ISABELLA	Oakland	CHEVRON - USA MW-7	122277075	37814414	1S/4W 26M	10/1/92	24	13	2	MON
850 W Grand Av	Oakland	Chevron USA Inc	122277058	37814422	1S/4W 26M	6/93	15	14	2	MON
850 W Grand Av	Oakland	Chevron USA Inc	122277058	37814422	1S/4W 26M	6/93	15	14	2	MON
850 W Grand Av	Oakland	Chevron USA Inc	122277058	37814422	1S/4W 26M	6/93	15	14	2	MON
769 22nd St	Oakland	Greg Keller	122274968	37812770	1S/4W 26M	9/94	22	13	2	MON
769 22nd St	Oakland	Greg Keller	122274968	37812770	1S/4W 26M	9/94	22	13	2	MON
769 22nd St	Oakland	Greg Keller	122274968	37812770	1S/4W 26M	9/94	22	13	2	MON
850 W. Grand Av	Oakland	Chevron	122277060	37814417	1S/4W 26M	8/95	27	13	2	MON
850 W. Grand Av	Oakland	Chevron	122277060	37814417	1S/4W 26M	8/95	27	13	2	MON
690 15th St	Oakland	Dignity Housing West	122275510	37807658	1S/4W 26N	5/91	33	27	2	MON
690 15th St	Oakland	Dignity Housing West	122275510	37807658	1S/4W 26N	4/91	22	7	4	MON
690 15th St	Oakland	Dignity Housing West	122275510	37807658	1S/4W 26N	4/91	14	5	4	MON
690 15th St	Oakland	Dignity Housing West	122275510	37807658	1S/4W 26N	5/91	35	27	2	MON
15th St and Castro St	Oakland	Dignity Housing West	122276100	37807800	1S/4W 26N	2/91	0	0	0	DES
1700 Castro St	Oakland	Chevron Products Co.	122275142	37809142	1S/4W 26N	5/97	31	25	2	MON
1700 Castro St	Oakland	Chevron Products Co.	122275142	37809142	1S/4W 26N	5/97	31	25	2	MON
1700 Castro St	Oakland	Chevron Products Co.	122275142	37809142	1S/4W 26N	5/97	31	25	2	MON
S. Pablo & 18th/19th St	Oakland	E.B. Galleria	122271800	37808400	1S/4W 26P	12/1/90	120	0	2	CAT
1700 JEFFERSON (@17th)	Oakland	BLUE PRINT SERVICES	122272770	37808224	1S/4W 26P	6/87	34	25	4	MON
611 20th St	Oakland	City of Oakland Redvlpmnt	122271359	37810437	1S/4W 26P	1/91	30	23	2	TES
612 Williams St	Oakland	City of Oakland Redvlpmnt	122271229	37810033	1S/4W 26P	1/91	25	23	2	TES
585 20th St	Oakland	City of Oakland Redvlpmnt	122270904	37810372	1S/4W 26P	1/91	24	21	2	TES
588 - 596 Williams St	Oakland	City of Oakland Redvlpmnt	122270877	37809978	1S/4W 26P	1/91	28	23	2	TES
536 20th St	Oakland	City of Oakland Redvlpmnt	122270106	37810458	1S/4W 26P	1/91	23	14	2	TES
1700 Jefferson St	Oakland	Blue Print Services	122272753	37808224	1S/4W 26P	4/96	36	26	2	TES
1700 JEFFERSON (@17th)	Oakland	BLUE PRINT SERVICES	122272770	37808224	1S/4W 26P	11/1/87	32	27	4	DES
1700 JEFFERSON (@17th)	Oakland	BLUE PRINT SERVICES	122272770	37808224	1S/4W 26P	6/87	32	25	4	MON
1700 JEFFERSON (@17th)	Oakland	BLUE PRINT SERVICES	122272770	37808224	1S/4W 26P	1/88	33	25	4	MON
1700 JEFFERSON (@17th)	Oakland	BLUE PRINT SERVICES	122272770	37808224	1S/4W 26P	1/88	34	26	4	MON
CRN OF 18TH & JEFFERSON	Oakland	BLUE PRINT SERVICE CO	122272600	37808700	1S/4W 26P	10/1/88	41	20	2	MON

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**Well Inventory**

			0	0	1S/4W 26P	12/1/88	40	20	2	TES
			0	0	1S/4W 26P	10/1/88	41	20	2	MON
537 18th Street	Oakland	City of Oakland Redvlpmnt	122271233	37808300	1S/4W 26P	1/91	63	54	2	MON
570 18th Street	Oakland	City of Oakland Redvlpmnt	122271885	37808538	1S/4W 26P	1/91	15	0	4	EXT
19th St & San Pablo Ave	Oakland	City of Oakland Redvlpmnt	122272100	37809300	1S/4W 26P	1/91	30	23	2	TES
19 & FRANKLIN ST	Oakland		122267200	37807900	1S/4W 26Q	9/74	0	0	0	GEO*
BROADWAY & 20 ST	Oakland	BANK AMERICA	122267700	37809700	1S/4W 26Q	11/1/78	0	0	0	GEO*
1911 TELEGRAPH AVE	Oakland	CARTER-HAWLEY-HALE	122269338	37809130	1S/4W 26Q	3/1/88	25	18	2	TES
21ST & BROADWAY	Oakland	BANK OF AMERICA	122267100	37810600	1S/4W 26Q	11/1/88	30	20	2	MON
17th St & Broadway	Oakland	City of Oakland Redvlpmnt	122269200	37807300	1S/4W 26Q	1/91	27	20	2	TES
557 19th Street	Oakland	City of Oakland Redvlpmnt	122270854	37809021	1S/4W 26Q	1/91	25	16	2	TES
19th St & Telegraph Ave	Oakland	City of Oakland Redvlpmnt	122269300	37808900	1S/4W 26Q	1/91	25	19	2	TES
552 19th St.	Oakland	City of Oakland Redvlpmnt	122270742	37809207	1S/4W 26Q	1/91	24	19	2	TES
20th St. & Telegraph Ave.	Oakland	City of Oakland Redvlpmnt	122269000	37810200	1S/4W 26Q	1/91	28	21	2	TES
513 18th St	Oakland	City of Oakland Redvlpmnt	122270108	37808183	1S/4W 26Q	1/91	26	20	2	TES
1911 Telegraph Av	Oakland	Carter Hawley Hale	122269321	37809130	1S/4W 26Q	6/93	25	15	4	MON
1911 Telegraph Av	Oakland	Carter Hawley Hale	122269321	37809130	1S/4W 26Q	6/93	30	19	4	MON
1911 Telegraph Av	Oakland	Carter Hawley Hale	122269321	37809130	1S/4W 26Q	6/93	24	15	4	MON
2025 Telegraph Av	Oakland	Goodyear Tire & Rubber Co	122269015	37810451	1S/4W 26Q	5/93	24	15	4	MON
2025 Telegraph Av	Oakland	Goodyear Tire & Rubber Co	122269015	37810451	1S/4W 26Q	5/93	21	15	4	MON
2025 Telegraph Av	Oakland	Goodyear Tire & Rubber Co	122269015	37810451	1S/4W 26Q	5/93	21	15	4	MON
1911 Telegraph Ave-MW-22	Oakland	Forest City-785 Market Street,CA 94103			1S/4W 26Q	6/19/06	22	0	2	MON
1911 Telegraph Ave-MW-23	Oakland	Forest City-785 Market Street,CA 94103			1S/4W 26Q	6/19/06	25	0	2	MON
1911 Telegraph Ave-MW-23	Oakland	Forest City-785 Market Street,CA 94103			1S/4W 26Q	118/2007	25	0	2	DES
1911 Telegraph Ave-MW-24	Oakland	Forest City-785 Market Street,CA 94103			1S/4W 26Q	6/19/06	25	0	2	MON
1911 Telegraph Ave-MW-25	Oakland	Forest City-785 Market Street,CA 94103			1S/4W 26Q	6/19/06	22	0	2	MON
1911 Telegraph Ave-MW-26	Oakland	Forest City-785 Market Street,CA 94103			1S/4W 26Q	6/19/06	22	0	2	MON
1911 Telegraph Ave-MW-23A	Oakland	Forest City-785 Market Street,CA 94103			1S/4W 26Q	12/20/07	28	0	2	MON
2100 Harrison Street	Oakland	Ahmanson Commercial Dvlpt			1S/4W 26R	8/1/94				MON DES
1975 Webster	Oakland	Mobil #04-077 SB1	122265658	37808698	1S/4W 26R	4/92	30	12	0	BOR*
1 Kaiser Plaza	Oakland	Ordway Building B-2	122262358	37810174	1S/4W 26R	3/92	20	0	6	BOR*
300 Lakeside Drive	Oakland	Kaiser Center	122262777	37808352	1S/4W 26R	1/91	13	0	2	DES
2100 Harrison Street	Oakland	Ahmanson Commercial Dvlpt	122262261	37810004	1S/4W 26R	2/91	290	0	5	DOM
2100 Harrison Street	Oakland	Ahmanson Commercial Dvlpt	122262261	37810004	1S/4W 26R	3/91	290	20	6	IRR
300 Lakeside Drive	Oakland	Kaiser Center	122262777	37808352	1S/4W 26R	6/91	35	20	2	MON

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**Well Inventory**

300 Lakeside Drive	Oakland	Kaiser Center		122263877	37809366	1S/4W 26R	12/1/91	31	9	2 MON
2100 Harrison St	Oakland	Ahmanson Comm Dev.	MW-3	122262261	37810004	1S/4W 26R	3/92	25	7	4 MON
1975 Webster St	Oakland	Mobil #04-077	MW-1	122265694	37808734	1S/4W 26R	5/92	16	6	4 MON
1975 Webster St	Oakland	Mobil #04-077	MW-2	122265694	37808734	1S/4W 26R	5/92	16	7	4 MON
1975 Webster St	Oakland	Mobil #04-077	MW-3	122265694	37808734	1S/4W 26R	4/92	28	5	4 MON
1975 Webster St	Oakland	Mobil #04-077	MW-4	122265694	37808734	1S/4W 26R	4/92	16	6	4 MON
1 Kaiser Plaza	Oakland	Ordway Building	MW-1	122262483	37810205	1S/4W 26R	3/92	34	18	2 MON
1 Kaiser Plaza	Oakland	Ordway Building	MW-2	122262483	37810205	1S/4W 26R	3/92	32	16	2 MON
1 Kaiser Plaza	Oakland	Ordway Building	MW-3	122262483	37810205	1S/4W 26R	3/92	28	16	2 MON
<b>300 Lakeside Drive</b>	<b>Oakland</b>	<b>Kaiser Center</b>				<b>1S/4W 26R</b>	<b>5/10/91</b>	<b>280</b>		<b>10 IRR</b>
1229 28th St	Oakland	Albert Plute		122283358	37820821	1S/4W 27A	5/96	24	7	2 MON
2452 MAGNOLIA	Oakland	BONTA COLLINS		122283547	37817984	1S/4W 27A	9/1/89	21	6	2 MON
2736 MAGNOLIA	Oakland	HOLLY MEAT		122282751	37820149	1S/4W 27A	/26	135	23	0 ABN
1218 24th Street	Oakland	Nrthwstrn Venetian Blind		122284411	37817720	1S/4W 27A	3/89	25	11	2 MON
1218 24th Street	Oakland	Nrthwstrn Venetian Blind		122284411	37817720	1S/4W 27A	10/1/89	26	14	2 MON
1218 24th Street	Oakland	Nrthwstrn Venetian Blind		122284411	37817720	1S/4W 27A	10/1/89	26	14	2 MON
1218 24TH ST	Oakland	TIM WILLIAMS		122284411	37817720	1S/4W 27A	3/1/89	30	11	2 MON
2528 Adeline St	Oakland			122282405	37818274	1S/4W 27A	3/95	21	12	2 MON
2528 Adeline St	Oakland			122282405	37818274	1S/4W 27A	3/95	13	7	2 MON
2528 Adeline St	Oakland			122282405	37818274	1S/4W 27A	3/95	13	0	2 MON
2311 Adeline St.	Oakland	Ned Clyde Construction		122283284	37816669	1S/4W 27H	5/90	65	5	2 MON
2311 ADELINE ST	Oakland	NED CLYDE CONSTRUCTION		122283284	37816669	1S/4W 27H	1/1/89	17	10	8 MON
2311 ADELINE ST	Oakland	NED CLYDE CONSTRUCTION		122283284	37816669	1S/4W 27H	1/1/89	17	8	8 MON
2311 ADELINE ST.	Oakland	NED CLYDE CONSTRUCTION		122283284	37816669	1S/4W 27H	3/1/89	30	0	2 PIE
2311 ADELINE ST.	Oakland	NED CLYDE CONSTRUCTION		122283284	37816669	1S/4W 27H	3/1/89	16	0	2 PIE
2311 ADELINE ST.	Oakland	NED CLYDE CONSTRUCTION		122283284	37816669	1S/4W 27H	3/1/89	16	0	2 PIE
2311 ADELINE ST.	Oakland	NED CLYDE CONSTRUCTION		122283284	37816669	1S/4W 27H	4/1/89	21	7	2 PIE
2311 ADELINE ST.	Oakland	NED CLYDE CONSTRUCTION		122283284	37816669	1S/4W 27H	5/1/89	15	0	2 PIE
2311 ADELINE ST.	Oakland	NED CLYDE CONSTRUCTION		122283284	37816669	1S/4W 27H	5/1/89	20	0	2 PIE
2311 ADELINE ST.	Oakland	NED CLYDE CONSTRUCTION		122283284	37816669	1S/4W 27H	5/1/89	20	0	2 PIE
2311 ADELINE ST.	Oakland	NED CLYDE CONSTRUCTION		122283284	37816669	1S/4W 27H	5/1/89	18	0	2 PIE
2240 Filbert St	Oakland	West Grand Refrigeration		122279915	37815560	1S/4W 27H	3/96	18	10	2 MON
2240 Filbert St	Oakland	West Grand Refrigeration		122279915	37815560	1S/4W 27H	3/96	19	11	2 MON
2240 Filbert St	Oakland	Western Investment Real E		122279915	37815560	1S/4W 27H	9/94	21	12	2 MON
2240 Filbert St	Oakland	Western Investment Real E		122279915	37815560	1S/4W 27H	9/94	23	15	2 MON

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**Well Inventory**

				0	0 1S/4W 27H	1/1/89	17	12	8 MON
				0	0 1S/4W 27H	4/1/89	25	0	8 BOR
				0	0 1S/4W 27H	4/1/89	20	0	8 BOR
				0	0 1S/4W 27H	4/1/89	20	0	8 BOR
				0	0 1S/4W 27H	4/1/89	20	0	8 BOR
				0	0 1S/4W 27H	4/1/89	32	0	8 BOR
				0	0 1S/4W 27H	4/1/89	37	0	8 BOR
				0	0 1S/4W 27H	4/1/89	8	0	8 BOR
				0	0 1S/4W 27H	4/1/89	7	0	8 BOR
1919 Market St.	Oakland	Scott Co.	MW-1	122279720	37812688 1S/4W 27J	7/92	22	13	4 MON
1919 Market St.	Oakland	Scott Co.	MW-2	122279720	37812688 1S/4W 27J	7/92	22	13	4 MON
1919 Market St.	Oakland	Scott Co.	MW-3	122279720	37812688 1S/4W 27J	7/92	22	13	4 MON
1919 Market St.	Oakland	Scott Co.	MW-4	122279720	37812688 1S/4W 27J	7/92	24	14	4 MON
1919 Market St.	Oakland	Scott Co.	MW-5	122279720	37812688 1S/4W 27J	7/92	25	15	4 MON
17TH ST. & HARRISON ST.	San Leandro	CHEVRON USA		122263746	37805914 1S/4W 35A	4/1/89	24	22	9 BOR
19th & Alice (Snow Park)	Oakland	U.S. Geological Society		122263800	37806500 1S/4W 35A	5/91	14	5	4 MON
				0	0 1S/4W 35A	4/1/89	23	22	9 BOR
				0	0 1S/4W 35A	4/1/89	23	22	9 BOR
				0	0 1S/4W 35A	4/1/89	23	22	9 BOR
ALICE ST	Oakland	P.T. & T BLDG		122266500	37801950 1S/4W 35A	?	0	0	0 GEO*
<b>244 LAKESIDE</b>	<b>Oakland</b>	<b>LADESIDE CORP (BECHTEL)</b>		<b>122262389</b>	<b>37806953 1S/4W 35A</b>	<b>/77</b>	<b>95</b>	<b>30</b>	<b>6 IRR</b>
17TH AND HARRISON NW	Oakland	CHEVRON		122263746	37805914 1S/4W 35A	10/1/88	25	20	4 MON
17TH AND HARRISON NW	Oakland	CHEVRON		122263746	37805914 1S/4W 35A	10/1/88	32	20	4 MON
17TH AND HARRISON NW	Oakland	CHEVRON		122263746	37805914 1S/4W 35A	10/1/88	25	25	4 MON
17TH ST. & HARRISON ST.	San Leandro	CHEVRON USA		122263746	37805914 1S/4W 35A	4/1/89	37	22	4 MON
17TH & HARRISON ST.	San Leandro	CHEVRON USA		122263746	37805914 1S/4W 35A	4/1/89	34	22	4 MON
17TH & HARRISON ST.	San Leandro	CHEVRON USA		122263746	37805914 1S/4W 35A	4/1/89	30	20	4 MON
17TH & HARRISON ST.	San Leandro	CHEVRON USA		122263746	37805914 1S/4W 35A	4/1/89	31	0	4 MON
17TH ST. & HARRISON ST.	San Leandro	CHEVRON USA		122263746	37805914 1S/4W 35A	4/1/89	28	20	4 MON
1633 Harrison St.	Oakland	Chevron USA		122265935	37805408 1S/4W 35A	6/1/90	25	24	8 BOR
1633 Harrison St.	Oakland	Chevron USA		122265935	37805408 1S/4W 35A	6/1/90	28	19	2 MON
1633 Harrison St.	Oakland	Chevron USA		122265935	37805408 1S/4W 35A	6/1/90	27	21	2 MON
1633 Harrison St.	Oakland	Chevron USA		122265935	37805408 1S/4W 35A	6/1/90	30	21	2 MON
1633 Harrison	Oakland	Chevron, USA		122265209	37805838 1S/4W 35A	10/1/91	28	21	2 MON
1633 HARRISON	Oakland	Chevron, USA	MW14	122265852	37806045 1S/4W 35A	10/1/91	27	21	2 MON

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**Well Inventory**

1633 HARRISON WY	Oakland	Chevron Products MW-15	122265915	37805432	1S/4W 35A	12/1/92	28	20	2 MON
1633 HARRISON WY	Oakland	Chevron Products MW-16	122265915	37805432	1S/4W 35A	12/1/92	30	20	2 MON
17th Street & Broadway	Oakland	Portfolio Properties	122269200	37807300	1S/4W 35B	12/1/89	0	24	5 BOR*
ALICE & 15TH STS.	Oakland	WSTLK CHRSTN TERRACE	122268154	37805916	1S/4W 35B	7/77	0	0	0 GEO*
1736 Franklin St	Oakland	John Toothman	122267610	37807044	1S/4W 35B	4/95	35	0	2 MON
1721 Webster St	Oakland	Douglas Parking Company	122266665	37806443	1S/4W 35B	5/96	30	17	2 MON
1721 Webster St	Oakland	Douglas Parking Company	122266665	37806443	1S/4W 35B	5/96	25	15	2 MON
Harrison St && 15th St	Oakland	Alvin H. Bacharach and Ba	122266383	37804500	1S/4W 35B	10/1/96	25	0	2 MON
Harrison St && 15th St	Oakland	Alvin H. Bacharach and Ba	122266383	37804500	1S/4W 35B	10/1/96	29	0	2 MON
Harrison St && 15th St	Oakland	Alvin H. Bacharach and Ba	122266383	37804500	1S/4W 35B	10/1/96	29	0	2 MON
1519 Franklin St	Oakland	Pacific Bell	122268605	37805828	1S/4W 35B	9/95	35	21	2 MON
CRN OF CLAY & 14TH ST	Oakland	FIVE CITY CENTER	122253773	37819428	1S/4W 25C		0	0	0
15th St. && Clay St.	Oakland	City of Oakland	122272610	37806500	1S/4W 35C	8/92	122	27	0 BOR
CLAY ST. & 12TH-14 STS.	Oakland	GENERAL SERVICES ADMIN.	122276950	37799300	1S/4W 35C	6/1/88	32	30	0 BOR
San Pablo Ave. & Broadway	Oakland	Taldan Property	122270759	37805710	1S/4W 35C	8/92	120	0	0 BOR
			0	0	1S/4W 35C	6/1/88	32	27	0 BOR
			0	0	1S/4W 35C	6/1/88	32	30	0 BOR
			0	0	1S/4W 35C	6/1/88	23	26	0 BOR
			0	0	1S/4W 35C	6/1/88	27	0	0 BOR
			0	0	1S/4W 35C	7/1/89	15	0	6 BOR
			0	0	1S/4W 35C	7/1/89	10	0	8 BOR
			0	0	1S/4W 35C	7/1/89	11	0	6 BOR
			0	0	1S/4W 35C	7/1/89	16	0	6 BOR
			0	0	1S/4W 35C	7/1/89	16	0	6 BOR
			0	0	1S/4W 35C	7/1/89	6	0	6 BOR
			0	0	1S/4W 35C	7/1/89	16	0	6 BOR
			0	0	1S/4W 35C	7/1/89	17	0	6 BOR
			0	0	1S/4W 35C	7/1/89	16	0	6 BOR
			0	0	1S/4W 35C	7/1/89	16	0	6 BOR
			0	0	1S/4W 35C	7/1/89	5	0	6 BOR
			0	0	1S/4W 35C	7/1/89	16	0	6 BOR
			0	0	1S/4W 35C	7/1/89	16	0	6 BOR
			0	0	1S/4W 35C	7/1/89	17	0	6 BOR
			0	0	1S/4W 35C	7/1/89	17	0	6 BOR

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			0	0 1S/4W 35C	7/1/89	16	0	6 BOR
			0	0 1S/4W 35C	7/1/89	17	0	6 BOR
			0	0 1S/4W 35C	7/1/89	16	0	6 BOR
			0	0 1S/4W 35C	7/1/89	16	0	6 BOR
			0	0 1S/4W 35C	7/1/89	16	0	6 BOR
			0	0 1S/4W 35C	7/1/89	16	0	6 BOR
			0	0 1S/4W 35C	7/1/89	16	0	6 BOR
			0	0 1S/4W 35C	7/1/89	16	0	6 BOR
14TH & CLAY	Oakland	CTY OF OAK	122272599	37805917 1S/4W 35C		0	0	0
CRN OF CLAY & 14TH ST	Oakland	FIVE CITY CENTER	122272599	37805917 1S/4W 35C	9/1/88	30	21	2 DES
14TH & CLAY	Oakland	CTY OF OAK	122272599	37805917 1S/4W 35C		0	0	0
CRN OF CLAY & 14TH ST	Oakland	FIVE CITY CENTER	122272599	37805917 1S/4W 35C	9/1/88	35	24	2 DES
14TH & CLAY	Oakland	CTY OF OAK	122272599	37805917 1S/4W 35C	9/1/88	35	24	2 DES
CLAY ST & 12TH ST	Oakland	GENERAL SERVICES ADMIN	122273800	37804400 1S/4W 35C	5/1/89	30	24	2 MON
CLAY ST & 12TH ST	Oakland	GENERAL SERVICES ADMIN	122273800	37804400 1S/4W 35C	5/1/89	35	0	2 MON
CLAY ST & 12TH ST	Oakland	GENERAL SERVICES ADMIN	122273800	37804400 1S/4W 35C	5/1/89	31	24	2 MON
13th & Jefferson Street	Oakland	City of Oakland	122274500	37805500 1S/4W 35C	4/90	0	0	0 DES
13th & Jefferson Streets	Oakland	City of Oakland	122274500	37805500 1S/4W 35C	3/90	33	26	2 MON
13th & Jefferson Streets	Oakland	City of Oakland	122274500	37805500 1S/4W 35C	3/90	35	29	2 MON
13th & Jefferson Streets	Oakland	City of Oakland	122274500	37805500 1S/4W 35C	3/90	35	28	2 MON
13th & Jefferson Streets	Oakland	City of Oakland	122274500	37805500 1S/4W 35C	3/90	35	29	2 MON
13th St. & Jefferson St.	Oakland	City of Oakland	122274470	37805500 1S/4W 35C	12/1/92	35	29	2 DES
13th & Jefferson Streets	Oakland	City of Oakland	122274500	37805500 1S/4W 35C	3/90	35	29	2 MON
545 17th St	Oakland	City of Oakland Redvlpmnt	122271221	37807619 1S/4W 35C	1/91	26	15	2 TES
509 17th St	Oakland	City of Oakland Redvlpmnt	122270214	37807407 1S/4W 35C	1/91	26	20	2 TES
13th & Jefferson	Oakland	Oakland Redevpmt Agency53	122274500	37805500 1S/4W 35C	8/91	35	27	2 DES
San Pablo Ave. & Broadway	Oakland	Taldan Property B1-P	122270759	37805710 1S/4W 35C	8/92	42	26	2 PIE
San Pablo Ave. & Broadway	Oakland	Taldan Property B2-P	122270759	37805710 1S/4W 35C	8/92	42	25	2 PIE
JEFFERSON & 12TH ST.	Oakland	CITY OF OAKLAND	122274900	37804900 1S/4W 35D	9/1/89	29	0	8 BOR
Jefferson and 12th St	Oakland	Oakland Redvlpmnt Agency	122274900	37804900 1S/4W 35D	4/91	9	5	2 MON
			0	0 1S/4W 35D	9/1/89	26	0	8 BOR
			0	0 1S/4W 35D	9/1/89	29	28	8 BOR
			0	0 1S/4W 35D	9/1/89	26	0	8 BOR
			0	0 1S/4W 35D	9/1/89	26	0	8 BOR
			0	0 1S/4W 35D	9/1/89	26	0	8 BOR



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				0	0 1S/4W 35D	9/1/89	26	0	8 BOR
				0	0 1S/4W 35D	9/1/89	26	0	8 BOR
				0	0 1S/4W 35D	9/1/89	26	0	8 BOR
				0	0 1S/4W 35D	9/1/89	26	0	8 BOR
				0	0 1S/4W 35D	9/1/89	26	0	8 BOR
				0	0 1S/4W 35D	9/1/89	26	0	8 BOR
				0	0 1S/4W 35D	9/1/89	26	0	8 BOR
				0	0 1S/4W 35D	9/1/89	4	0	8 BOR
				0	0 1S/4W 35D	6/1/89	29	28	6 BOR
				0	0 1S/4W 35D	6/1/89	29	28	6 BOR
				0	0 1S/4W 35D	6/1/89	29	28	6 BOR
				0	0 1S/4W 35D	6/1/89	29	28	6 BOR
				0	0 1S/4W 35D	6/1/89	29	28	6 BOR
				0	0 1S/4W 35D	6/1/89	30	28	6 BOR
				0	0 1S/4W 35D	6/1/89	29	28	6 BOR
				0	0 1S/4W 35D	6/1/89	29	28	6 BOR
				0	0 1S/4W 35D	6/1/89	29	28	6 BOR
				0	0 1S/4W 35D	6/1/89	29	28	6 BOR
				0	0 1S/4W 35D	6/1/89	29	28	6 BOR
1330 MARTIN LUTHER KING	Oakland	CITY OF OAKLAND	122277193	37805919	1S/4W 35D	7/1/88	34	27	2 TES
1330 MLK JR. WAY	Oakland	CITY OF OAKLAND	122277193	37805919	1S/4W 35D	7/1/88	34	27	2 TES
1330 MLK JR. WAY	Oakland	CITY OF OAKLAND	122277193	37805919	1S/4W 35D	7/1/88	34	27	2 TES
14TH & MLK JR. WAY	Oakland	HOBART HANSON	122277193	37805919	1S/4W 35D	9/1/88	44	28	4 MON
14TH & MLK JR. WAY	Oakland	HOBART HANSON	122277193	37805919	1S/4W 35D	9/1/88	35	0	2 MON
14TH & MLK JR. WAY	Oakland	HOBART HANSON	122277193	37805919	1S/4W 35D	9/1/88	34	0	2 MON
14TH & MLK JR. WAY	Oakland	HOBART & ADELE HANSON	122277193	37805919	1S/4W 35D	9/1/88	33	0	2 MON
13TH ST & MLK JR. WAY	Oakland	CITY OF OAKLAND	122277193	37805919	1S/4W 35D	6/1/89	35	28	2 MON
13TH ST & MLK JR. WAY	Oakland	CITY OF OAKLAND	122277193	37805919	1S/4W 35D	6/1/89	35	28	2 MON
13TH ST & MLK JR. WAY	Oakland	CITY OF OAKLAND	122277193	37805919	1S/4W 35D	9/1/89	35	28	2 MON
13TH ST & MLK JR. WAY	Oakland	CITY OF OAKLAND	122277193	37805919	1S/4W 35D	9/1/89	35	28	2 MON
13TH ST & MLK JR. WAY	Oakland	CITY OF OAKLAND	122277193	37805919	1S/4W 35D	9/1/89	35	28	2 MON
11th & Jefferson Streets	Oakland	City Oakland, Econ. Devel	122275400	37804200	1S/4W 35D	2/90	35	28	2 PIE
1330 M. L. King Way	Oakland	City of Oakland	122277193	37805919	1S/4W 35D	12/1/89	50	29	2 MON
1330 M. L. King Way	Oakland	City of Oakland	122277193	37805919	1S/4W 35D	11/1/89	36	28	2 MON
1330 Martin Luther King	Oakland	City of Oakland	122277193	37805919	1S/4W 35D	12/1/89	40	28	4 MON
1330 Martin Luther King	Oakland	City of Oakland	122277193	37805919	1S/4W 35D	3/89	34	26	2 MON
1330 Martin Luther King	Oakland	City of Oakland	122277193	37805919	1S/4W 35D	3/89	34	26	2 MON



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12th & Jefferson	Oakland	Schnabel Fdn	7	122274900	37804900	1S/4W 35D	11/1/91	20	2	2	DES
12th & Jefferson	Oakland	Schnabel Fdn	8	122274900	37804900	1S/4W 35D	11/1/91	20	2	2	DES
685 14th St.	Oakland	Rutherford & Chekene	BH1	122275990	37806942	1S/4W 35D	7/92	40	0	2	BOR
685 14th St.	Oakland	Rutherford & Chekene	BH2	122275990	37806942	1S/4W 35D	7/92	42	0	2	BOR
685 14th St.	Oakland	Rutherford & Chekene	BH3	122275990	37806942	1S/4W 35D	7/92	40	0	2	BOR
11th & Clay Streets	Oakland	City Oakland, Econ. Devel		122274300	37803700	1S/4W 35E	2/90	27	0	8	BOR*
11th & Jefferson Streets	Oakland	City Oakland, Econ. Devel		122275400	37804200	1S/4W 35E	2/90	27	0	8	BOR
11TH AND MLK JR WAY	Oakland	CITY OF OAKLAND		122277187	37802549	1S/4W 35E	8/90	10	0	6	BOR*
11TH AND MLK JR WAY	Oakland	CITY OF OAKLAND		122277187	37802549	1S/4W 35E	8/90	9	0	6	BOR*
11TH AND MLK JR WAY	Oakland	CITY OF OAKLAND		122277187	37802549	1S/4W 35E	8/90	11	0	6	BOR*
11TH AND MLK JR WAY	Oakland	CITY OF OAKLAND		122277187	37802549	1S/4W 35E	8/90	13	0	6	BOR*
9TH & JEFFERSON	Oakland	CROSBY		122277187	37802549	1S/4W 35E	4/1/89	31	25	8	BOR
900 JEFFERSON	Oakland	CONNELLY DEVELOP.		122276054	37802856	1S/4W 35E	1/1/89	40	25	2	MON
JEFFERSON & 9TH STREET	Oakland	?		122276200	37802800	1S/4W 35E	4/1/89	31	25	0	MON
9TH & JEFFERSON	Oakland	CROSBY		122277187	37802549	1S/4W 35E	8/1/89	31	27	0	MON
9TH & JEFFERSON	Oakland	CROSBY		122277187	37802549	1S/4W 35E	8/1/89	31	28	6	MON
11th & Clay Streets	Oakland	City Oakland, Econ. Devel		122274300	37803700	1S/4W 35E	2/90	35	29	2	PIE
11th & Clay Streets	Oakland	City Oakland, Econ. Devel		122274300	37803700	1S/4W 35E	2/90	35	27	2	PIE
11th & Jefferson Streets	Oakland	City Oakland, Econ. Devel		122275400	37804200	1S/4W 35E	2/90	35	28	2	PIE
11th & Jefferson Streets	Oakland	City Oakland, Econ. Devel		122275400	37804200	1S/4W 35E	2/90	35	27	2	PIE
901 Jefferson St	Oakland	Doug and Shar Salter		122276215	37802958	1S/4W 35E	10/1/94	30	25	2	MON
				0	0	1S/4W 35E	4/1/89	30	25	8	BOR
				0	0	1S/4W 35E	4/1/89	31	25	8	BOR
				0	0	1S/4W 35E	4/1/89	31	25	8	BOR
				0	0	1S/4W 35E	4/1/89	31	25	8	BOR
				0	0	1S/4W 35E	4/1/89	31	25	8	BOR
				0	0	1S/4W 35E	4/1/89	31	25	8	BOR
				0	0	1S/4W 35E	8/1/89	31	26	6	BOR
				0	0	1S/4W 35E	8/1/89	25	0	6	BOR
				0	0	1S/4W 35E	8/1/89	31	26	6	BOR
				0	0	1S/4W 35E	8/1/89	31	26	6	BOR
				0	0	1S/4W 35E	8/1/89	27	25	6	BOR
				0	0	1S/4W 35E	8/1/89	31	26	6	BOR
				0	0	1S/4W 35E	8/1/89	31	27	6	BOR
				0	0	1S/4W 35E	8/1/89	26	0	6	BOR
				0	0	1S/4W 35E	8/1/89	30	0	6	BOR

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			0	0	1S/4W 35E	4/1/89	31	25	8	BOR
			0	0	1S/4W 35E	4/1/89	30	25	8	BOR
			0	0	1S/4W 35E	4/1/89	31	25	8	BOR
			0	0	1S/4W 35E	4/1/89	31	25	8	BOR
			0	0	1S/4W 35E	4/1/89	31	25	8	BOR
CRN OF 12TH & BROADWAY	Oakland	APC BUILDING	122272599	37802549	1S/4W 35F	7/1/88	19	0	0	BOR
Broadway & 11th Streets	Oakland	City Center ESA	122271900	37802800	1S/4W 35F	4/1/90	21	11	3	MON
11th Street & Broadway	Oakland	City Oakland, Econ. Devel	122271900	37802800	1S/4W 35F	2/90	0	0	6	BOR*
11th & Clay Streets	Oakland	City Oakland, Econ. Devel	122274300	37803700	1S/4W 35F	2/90	27	0	8	BOR*
11TH AND CLAY STREET	Oakland	CITY OF OAKLAND	122274300	37803700	1S/4W 35F	9/90	10	10	2	BOR*
11TH AND CLAY STREET	Oakland	CITY OF OAKLAND	122274300	37803700	1S/4W 35F	8/90	13	0	6	BOR*
			0	0	1S/4W 35F	7/1/88	19	0	0	BOR
			0	0	1S/4W 35F	12/1/88	24	0	0	BOR
			0	0	1S/4W 35F	12/1/88	16	8	0	BOR
11TH ST.	Oakland	OKLND CTY CNTR GARAGE	122279000	37805600	1S/4W 35F	3/74	0	0	0	GEO*
CRN OF 12TH & BROADWAY	Oakland	APC BUILDING	122272599	37802549	1S/4W 35F	9/1/88	31	0	2	MON
CRN OF 12TH & BROADWAY	Oakland	APC BUILDING	122272599	37802549	1S/4W 35F	7/1/88	30	5	2	MON
CRN OF 12TH & BROADWAY	Oakland	APC BUILDING	122272599	37802549	1S/4W 35F	7/1/88	30	22	2	MON
1111 BROADWAY	Oakland	BRAMALEA-APC	122271874	37803029	1S/4W 35F	12/1/88	25	13	2	MON
1111 BROADWAY	Oakland	BRAMALEA-APC	122271874	37803029	1S/4W 35F	12/1/88	23	12	2	MON
1111 BROADWAY	Oakland	BRAMALEA-APC	122271874	37803029	1S/4W 35F	12/1/88	25	13	2	MON
			0	0	1S/4W 35F	1/27/00	23	12	2	MON
11th & Clay Streets	Oakland	City Oakland, Econ. Devel	122274300	37803700	1S/4W 35F	2/90	35	27	2	PIE
11th Street & Broadway	Oakland	City Oakland, Econ. Devel	122271900	37802800	1S/4W 35F	2/90	35	30	2	PIE
11th Street & Broadway	Oakland	City Oakland, Econ. Devel	122271900	37802800	1S/4W 35F	2/90	35	29	2	PIE
11th Street & Broadway	Oakland	City Oakland, Econ. Devel	122271900	37802800	1S/4W 35F	2/90	35	28	2	PIE
1111 Broadway	Oakland	Bramalea Pacific, Inc.	122271874	37803029	1S/4W 35F	9/90	35	26	2	MON
301 14th Street	Oakland	Chevron USA	122267311	37803466	1S/4W 35G	6/1/90	33	23	2	MON
11th AND WEBSTER STREET	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	7/87	61	0	5	BOR
HARRISON (BET. 12 & 13)	Oakland	EAST BAY ASIAN LOCAL DEV-	122268154	37802549	1S/4W 35G	10/1/87	36	25	8	BOR
1020 WEBSTER ST	Oakland	WOON LOON	122269698	37801254	1S/4W 35G	5/1/88	30	29	0	BOR
11th & WEBSTER Sts.	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	5/1/87	39	24	4	MON
11TH & WEBSTER STS	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	12/1/87	45	26	4	MON
10TH & WEBSTER STS	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	12/1/87	40	27	4	MON
11TH & WEBSTER STS	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	12/1/87	44	26	4	MON

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10TH & WEBSTER STS	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	12/1/87	42	26	4	MON
10TH & WEBSTER STS	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	3/1/88	66	0	4	MON
11TH & WEBSTER STS	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	3/1/88	44	25	4	TES
10TH & FRANKLIN STS	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	3/1/88	43	26	4	TES
11TH & FRANKLIN STS	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	3/1/88	40	24	4	TES
10TH & WEBSTER STS	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	3/1/88	40	25	4	TES
10TH & FRANKLIN STS	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	4/1/88	64	38	4	TEST
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	40	0	4	EXT
13TH & HARRISON	Oakland	FRANK MAR COMM. HOUSING	122268154	37802549	1S/4W 35G		0	0	0	
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	39	0	4	EXT
13TH & HARRISON	Oakland	FRANK MAR COMM. HOUSING	122268154	37802549	1S/4W 35G		0	0	0	
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	39	0	4	EXT
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	38	0	4	EXT
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	39	0	4	EXT
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	37	0	4	EXT
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	38	0	4	EXT
			0	0	1S/4W 35G	1/1/89	38	0	0	EXT
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	38	0	4	EXT
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	38	0	4	EXT
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	38	0	4	EXT
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	38	0	4	EXT
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	40	0	4	EXT
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	39	0	4	EXT
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	39	0	4	EXT
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	39	0	4	EXT
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	43	0	4	EXT
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	43	0	4	EXT
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	43	0	4	EXT
PACIFIC RENAISSANCE	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	43	0	4	EXT
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	40	0	4	EXT
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	39	0	4	EXT
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	40	0	4	INJ
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	40	0	4	INJ
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	40	0	4	INJ
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G		0	0	0	

**Alameda County Public Works Agency**

**Well Inventory**

PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	38	0	4	INJ
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	39	0	4	INJ
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	41	0	4	INJ
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	38	0	4	INJ
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	38	0	4	INJ
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	41	0	4	INJ
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	41	0	4	INJ
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	2/1/89	43	14	4	MON
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	2/1/89	40	32	4	MON
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	38	0	4	MON
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	40	32	4	MON
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	40	32	4	MON
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	40	32	4	MON
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	1/1/89	38	32	4	MON
PACIFIC RENAISSANCE PLAZA	Oakland	CITY OF OAKLAND	122268154	37802549	1S/4W 35G	2/1/89	40	28	4	MON
			0	0	1S/4W 35G	7/1/88	25	25	4	TES
			0	0	1S/4W 35G	7/1/88	25	25	4	DES
			0	0	1S/4W 35G	7/1/88	25	25	4	TES
			0	0	1S/4W 35G	7/1/88	25	25	4	DES
WEBSTER ST & 10TH ST	Oakland	OAKLAND REDEVELOP. AGENCY	122269900	37801100	1S/4W 35G	2/1/89	40	0	4	MON
WEBSTER ST & 10 ST	Oakland	OAKLAND REDEVELOP. AGENCY	122268154	37802549	1S/4W 35G	2/1/89	40	0	4	MON
301 14th Street	Oakland	Chevron USA	122267311	37803466	1S/4W 35G	6/1/90	60	49	4	MON
301 14th Street	Oakland	Chevron USA	122267311	37803466	1S/4W 35G	6/1/90	34	19	2	MON
301 14th Street	Oakland	Chevron USA	122267311	37803466	1S/4W 35G	6/1/90	33	23	2	MON
301 14th Street	Oakland	Chevron USA	122267311	37803466	1S/4W 35G	6/1/90	33	22	2	MON
301 14th Street	Oakland	Chevron USA	122267311	37803466	1S/4W 35G	8/90	15	0	4	MON
301 14th Street	Oakland	Chevron USA	122267311	37803466	1S/4W 35G	10/1/90	32	23	2	MON
301 14th Street	Oakland	Chevron USA	122267311	37803466	1S/4W 35G	4/91	14	8	2	MON
301 14th Street	Oakland	Chevron USA	122267311	37803466	1S/4W 35G	2/91	20	3	2	MON
301 14th Street	Oakland	Chevron USA	122267311	37803466	1S/4W 35G	4/91	30	22	2	MON
301 14th Street	Oakland	Chevron USA	122267311	37803466	1S/4W 35G	4/91	35	22	2	MON
1220 Harrison St	Oakland	Frank G. Mar Assoc MW-1	122267300	37801825	1S/4W 35G	4/92	36	24	2	MON
301 14th Street	Oakland	Chevron USA MW10	122267311	37803480	1S/4W 35G	6/92	35	22	2	MON
301 14th St.	Oakland	Chevron USA VEW-1	122267311	37803480	1S/4W 35G	6/92	20	0	2	MON
301 14th St.	Oakland	Chevron USA VEW-2	122267311	37803480	1S/4W 35G	6/92	20	0	2	MON
301 14th St.	Oakland	Chevron VEW-3	122267329	37803466	1S/4W 35G	3/93	31	22	4	MON

**Alameda County Public Works Agency**

**Well Inventory**

1225 Webster St	Oakland	Bank of the Orient	122269041	37802873	1S/4W 35G	12/1/93	34	30	2 MON
1225 Webster St	Oakland	Bank of the Orient	122269041	37802873	1S/4W 35G	12/1/93	35	30	2 MON
1225 Webster St	Oakland	Bank of the Orient	122269041	37802873	1S/4W 35G	12/1/93	35	30	2 MON
1225 Webster St	Oakland	Bank of the Orient	122269041	37802873	1S/4W 35G	12/1/93	34	30	2 MON
1225 Webster St	Oakland	Bank of the Orient	122269041	37802873	1S/4W 35G	2/94	34	27	2 MON
1225 Webster St	Oakland	Bank of the Orient	122269041	37802873	1S/4W 35G	3/94	35	27	2 MON
1225 Webster St	Oakland	Bank of the Orient	122269041	37802873	1S/4W 35G	3/94	35	27	2 MON
1432 Harrison St	Oakland		122266792	37803716	1S/4W 35G	1/94	27	22	4 MON
387 12th St	Oakland		122269854	37802774	1S/4W 35G	6/93	25	18	2 MON
387 12th St	Oakland		122269854	37802774	1S/4W 35G	6/93	25	18	2 MON
387 12th St	Oakland		122269854	37802774	1S/4W 35G	6/93	25	18	2 MON
1432 Harrison St	Oakland	Alvin H Bacharach & Barba	122266826	37803743	1S/4W 35G	10/1/96	25	19	2 MON
1432 Harrison St	Oakland	Alvin H Bacharach & Barba	122266826	37803743	1S/4W 35G	10/1/96	29	20	2 MON
1432 Harrison St	Oakland		122266765	37803755	1S/4W 35G	7/94	26	24	2 MON
301 14th St	Oakland	Chevron USA Products Co	122267294	37803466	1S/4W 35G	4/94	30	20	4 MON
165 13th Street	Oakland	Alameda County Services	122264344	37801484	1S/4W 35H	10/1/92	20	7	2 MON
165 13TH ST	Oakland	ALAMEDA COUNTY SERVICES	122264326	37801484	1S/4W 35H	3/1/89	16	0	10 BOR
165 13TH ST	Oakland	ALAMEDA COUNTY SERVICES	122264326	37801484	1S/4W 35H	3/1/89	35	23	4 MON
165 13TH ST	Oakland	ALAMEDA COUNTY SERVICES	122264326	37801484	1S/4W 35H	3/1/89	24	23	2 MON
165 13TH ST	Oakland	ALAMEDA COUNTY SERVICES	122264326	37801484	1S/4W 35H	3/1/89	35	23	2 MON
165 13TH ST	Oakland	ALAMEDA COUNTY SERVICES	122264326	37801484	1S/4W 35H	3/1/89	35	24	4 MON
1428 Alice St.	Oakland	Alice Arts Center B-1	122265449	37803514	1S/4W 35H	3/93	19	18	0 BOR
ALICE & 14 ST	Oakland	MOOSE CLUB	122263734	37802549	1S/4W 35H	/27	150	21	0 ABN
1439 Alice St	Oakland		122265576	37803674	1S/4W 35H	7/94	25	20	2 MON
			0	0	1S/4W 35H	3/1/89	25	24	8 BOR
			0	0	1S/4W 35H	3/1/89	25	24	8 BOR
			0	0	1S/4W 35H	3/1/89	25	24	8 BOR
17TH ST. & LAKESIDE DR.	Oakland	KUMAM PROPERTY	122260700	37804300	1S/4W 36D	8/1/89	0	0	0 BOR
			0	0	1S/4W 36D	8/1/89	0	0	0 BOR
			0	0	1S/4W 36D	8/1/89	0	0	0 BOR
200 E18th St	Oakland	Unocal Corp	122253173	37800971	1S/4W 36F	1/94	19	5	2 MON
200 E18th St	Oakland	Unocal Corp	122253173	37800971	1S/4W 36F	1/94	15	9	2 MON
200 E18th St	Oakland	Unocal Corp	122253173	37800971	1S/4W 36F	1/94	15	5	2 MON