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**DATA GAP INVESTIGATION REPORT**  
**OWENS-BROCKWAY GLASS CONTAINER INC.**  
**OAKLAND, CALIFORNIA**



**CKG Environmental, Inc.**

P.O. Box 246  
St. Helena, CA 94574

A Report Prepared for:

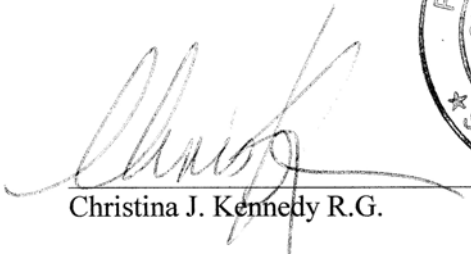
Mr. Mark Tussing  
Owens-Brockway Glass Container Inc.  
Two O-I Plaza  
One Michael Owens Way  
Perrysburg, OH 43551-2999

**DATA GAP INVESTIGATION REPORT**

**OWENS-BROCKWAY GLASS CONTAINER INC.  
OAKLAND, CALIFORNIA**

February 3, 2010

Prepared by:



Christina J. Kennedy R.G.



Principal

CKG Environmental, Inc.  
P.O. Box 246  
St. Helena, California 94574  
(707) 967-8080

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## 1.0 EXECUTIVE SUMMARY

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The Oakland, CA Owens-Brockway Glass Container Inc. (Owens-Brockway) facility is located at 3600 Alameda Avenue in Oakland, California. The site is located to the north of the Oakland Estuary and Alameda Avenue; Fruitvale Avenue is to the west, a Home Depot to the east and residences to the north. The facility formerly had two underground storage tank (UST) areas which are the subject of this report.

The first UST area (Western UST Area) was located on the west side of the plant and included three fuel oil USTs. In July 1986, construction of a new forklift ramp exposed soil impacted with petroleum hydrocarbons. Starting in July 1986, Exceltech conducted subsurface investigations that included completing 16 soil borings and installing 18 monitoring wells. Ensco continued the groundwater monitoring until early 1989. After a hiatus Kennedy Jenks continued groundwater monitoring from 1997 through 2003 and installed equipment to remove separate phase fuel oil product, however, with limited success. Kennedy Jenks also completed a Geoprobe™ investigation to evaluate soil and groundwater impacts south of Alameda Avenue.

The second UST area (Central UST Area) was located near the south-central part of the plant adjacent to the compressor building. Originally there were four USTs in this area. When the original four USTs were removed and replaced by two new USTs, a gasoline release to the subsurface was observed. Groundwater monitoring has indicated that the gasoline impact has dissipated in groundwater. Beginning with groundwater monitoring conducted in 2004 diesel contamination has been noted in MW-17.

CKG Environmental, Inc, (CKG) contracted with Owens-Brockway in 2001 and has completed additional subsurface investigations and continued with the annual groundwater monitoring. CKG prepared a Site Conceptual Model (SCM), dated April 3, 2009. To address the data gaps identified in the SCM CKG completed a data gap investigation commencing in August 2009. The data gap investigation included a comprehensive utility survey to accurately map out subsurface utilities. CKG then installed 41 soil borings using a Geoprobe™ rig. Soil and groundwater samples were collected for quantitative chemical analysis.

Based on the findings of the data gap investigation, as well as consideration of historic data CKG draws the following conclusions:

- Diesel and gasoline concentrations above the San Francisco Bay Regional Water Quality Control Board, Environmental Screening Levels (ESLs) in soil and groundwater remain in the Central UST Area
- A previously unknown petroleum hydrocarbon release associated with a former lube oil AST was discovered adjacent to the south wall of the plant. Soil and groundwater concentrations above ESLs occur at this location
- Shallow soil impacts associated with the former fuel oil USTs and a potential waste oil UST were documented in the Western UST Area.
- Groundwater and the associated capillary fringe soil located at and downgradient of the Western UST area are impacted with diesel and motor oil range petroleum hydrocarbons.
- The groundwater impact downgradient of the Western UST Area extends to the Oakland Estuary.
- The Sausal Creek Storm sewer may be acting as a hydraulic barrier to impacted groundwater migration.
- The distribution of contaminants does not appear to be controlled by subsurface utilities.

CKG recommends that Owens-Brockway implement an interim remediation action that includes soil excavation at the source areas. A significant mass of petroleum hydrocarbon impacted soil will be removed during the excavations and chemical oxidant can be added to the groundwater at the excavations to enhance in-situ oxidation of petroleum hydrocarbons and to promote natural bacterial degradation. There are difficult logistical issues associated with these excavations because of full time plant operations, and the proximity of plant structures.

To address impacted groundwater CKG recommends completing a feasibility which will address remediation alternatives. CKG further recommends that Owens-Brockway submit this report to the ACDEH.

## 2.0 INTRODUCTION

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The following report presents the results and conclusions of CKG's, investigation to address data gaps identified in the April 3, 2009 Site Conceptual Model (SCM) prepared for the Owens-Brockway facility in Oakland, California. This investigation included conducting a comprehensive subsurface utility survey to assess the potential that utilities may have contributed to the distribution of contaminants in the subsurface. In addition, CKG installed a total of 41 Geoprobe™ borings and collected soil and groundwater samples. Vacuum potholing was planned to expose and assess subsurface utilities that may have contributed to the distribution of contamination however, once the Geoprobe™ data was plotted and compared with utility locations it was concluded that the utilities were not preferential pathways for contaminant migration, therefore, the potholing was not completed. The work was performed in general accordance with CKG's work plan dated July 7, 2009 and Work Plan Addendum dated August 27, 2009.

### 2.1 SITE DESCRIPTION

The Owens-Brockway glass manufacturing facility is located at 3600 Alameda Avenue in Oakland, California, (Plate 1). The site is located to the north of the Oakland Estuary with Fruitvale Avenue to the west, a Home Depot to the east and residences to the north. Onsite facilities include the operating glass manufacturing plant, warehouses, offices and two former underground fuel storage tank areas, (Plate 2).

The first UST area (Western UST Area) was located in the south-west area of the plant and included three fuel oil USTs and possibly one small historical waste oil UST. A release of fuel oil to the subsurface was observed when the fuel oil USTs were removed. The second UST area (Central UST Area) was located near the south-central portion of the plant adjacent to the compressor building. Originally there were four USTs in this area. When they were removed in 1986 and replaced by two new USTs, a gasoline release to the subsurface was observed.

## 2.2 OBJECTIVE

The objective of this investigation was to address data gaps identified in the SCM, and address comments provided in an ACDEH letter dated August 13, 2009 as follows:

- Assess fuel oil distribution in soil and groundwater in the vicinity of MW-3
- Assess the potential of a historical release from a small waste oil UST that was reportedly located adjacent to the forklift ramp in the south-west portion of the facility
- Assess the concentrations of petroleum hydrocarbons in soil in the Western UST Area, in an effort to complete a fate and transport model, if needed, and to compare with clean up goals and cleanup levels (ESLs). Soil data, particularly in the areas of MW-1, MW-8 and MW-9 were collected to assess the distribution of petroleum hydrocarbons in the subsurface and to clarify the 1986 data from that area.
- Assess the potential that two off site sources (near KB-1 and at the corner of Alameda and Fruitvale Avenue), may be contributing contaminants to groundwater downgradient of the site.
- Assess the potential that localized hydrocarbon sources may occur in the vicinity of MW-1, MW-10, and in the shallow soil near MW-2 due to subsurface utilities.
- Assess soil and groundwater in the vicinity of MW-17 and the nearby Central UST Area.

### **3.0 FIELD INVESTIGATION**

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To address the data gaps identified in the SCM CKG completed a comprehensive utility survey to clearly map out all subsurface utilities. CKG then installed 41 soil borings using a Geoprobe™ rig. Soil and groundwater samples were collected for quantitative chemical analysis.

#### **3.1 SUBSURFACE UTILITY SURVEY**

CKG contracted with Cruz Brothers Locators of Santa Cruz, California to complete a detailed subsurface utility survey at the site. Cruz brothers mapped utilities from August 6 through August 11, 2009. The results of the utility survey are presented on Plates 3a and 3b.

#### **3.2 GEOPROBE™ INVESTIGATION**

From August 31 through September 4, 2009 Geoprobe™ borings were advanced at 41 locations as shown on Plates 4 and 5. CKG subcontracted with EnProb Environmental Probing of Oroville to use a Geoprobe™ direct push rig to complete the work. The Geoprobe™ rig allowed continuous sampling so that a detailed soil profile could be constructed. The depth of petroleum hydrocarbon impact was also visually monitored. Soil boring logs are presented in Appendix A. Soil samples were selected based on field observations and work plan objectives. Soil samples were cut in approximately 6-inch lengths from the acetate liner containing the continuous core. One to two samples per boring were submitted. Groundwater samples were collected at each boring directly through temporary well screens placed in the Geoprobe™ boreholes.

#### **3.3 CHEMICAL ANALYSIS**

Soil and groundwater samples were submitted to McCampbell Analytical Laboratory of Pittsburg, California for quantitative chemical analysis.

Soil and groundwater samples associated with the Western UST Area were analyzed for total petroleum hydrocarbons (TPH) as heavy range compounds quantified as motor oil (TPH<sub>mo</sub>), midrange compounds quantified as diesel (TPH<sub>d</sub>), and benzene, toluene, ethylbenzene, and



xylene (BTEX). Based on visual observations in the field select samples also were analyzed for volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs).

Central UST Area soil and groundwater samples were analyzed for TPHd, TPHmo, gasoline range compounds (TPHg) and BTEX. Based on visual observations in the field select samples were analyzed for VOCs and SVOCs.

The laboratory performed a silica gel clean-up on all the submitted samples so that only petroleum hydrocarbon related materials were detected. The following analytical methods were employed:

- Total Petroleum Hydrocarbons quantified as diesel, gasoline and motor oil (TPHd, TPHg, and TPHmo) by Modified EPA Method 8015
- Benzene, Toluene, Ethylbenzene, xylenes, (BTEX) and MTBE by EPA Method 8020
- Semivolatile organics by EPA Method 8270
- Volatile organics by EPA Method 8260

### **3.4 INVESTIGATION DERIVED WASTES (IDW)**

Investigation derived wastes (IDW) were generated during the investigation. IDW soil was placed in a container used for the storage of oil contaminated solids generated from the glass manufacturing process and properly disposed.

## 4.0 FINDINGS

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The following describes the results of the Geoprobe™ investigation and soil and groundwater sampling. Soil boring logs are included in Appendix A. Analytical laboratory reports are included in Appendix B. Sample locations are presented on Plates 4 through 6 and Plate 9.

### 4.1 SUBSURFACE LITHOLOGY

The Geoprobe™ sampler provides a continuous soil sample at each location. To illustrate the subsurface lithology and the distribution of petroleum hydrocarbons in the soil and groundwater, CKG prepared cross-sections using the recent Geoprobe boring logs combined with boring logs from previous investigations. Cross section locations are shown on Plate 2. Cross-sections are shown on Plates 7 and 8. A review of this data indicates that the subsurface is characterized by interbedded layers of clays and silts with a few thin discontinuous sand lenses. Toward the north end of the site at A' some gravelly material occurs at a depth of 20-25 feet below ground surface (bgs). In general, throughout the investigation area, discontinuous sand lenses occur at a depth of approximately 12-20 or more feet bgs. Groundwater was encountered at a depth of approximately 9-14 feet bgs.

### 4.2 SUMMARY OF ANALYTICAL FINDINGS

Analytical data from the 2009 investigation is tabulated in Tables 1 and 2. Analytical laboratory reports are contained in Appendix B. A full compilation of historic data is presented in the SCM however, because of the age and incompatibility of that data due to different testing methods used in the past, CKG will use only the 2009 data to develop conclusions regarding the magnitude and extent of petroleum hydrocarbon impacts at the site.

Concentrations of contaminants in soil and groundwater will be compared with the May 2008 Environmental Screening Levels (ESLs) established by the San Francisco Bay Region of the Regional Water Quality Control Board (SFRWQCB). For the purposes of this comparison CKG has selected Table B-2, Shallow Soil Screening Levels, Commercial/Industrial Land Use (groundwater is not a current or potential drinking water re source) and Table F-1b Groundwater

Screening Levels (groundwater is not a current or potential drinking water resource). These ESLs most accurately reflect current land use conditions at the site. The following summarizes the ESLs, if they exist, for the constituents detected during the 2009 investigation:

Analyte	ESL Table	B-2	F-1b
		mg/kg	µg/l
Benzene		0.27	46
Ethylbenzene		4.7	43
Toluene		9.3	130
Xylenes		11	100
TPHg		180	210
TPHd		180	210
TPHmo		180	210
Acetone		0.50	1500
2-butanone (MEK)		13	14,000
T-butyl alcohol		110	18,000
Chloroethane		0.85	12
Methyl-t-butyl ether (MTBE)		8.4	1800
2 Methyl-naphthalene		0.25	2.1
Naphthalene		2.8	24

#### 4.2.1 Central UST Area

Field observations made during the subsurface explorations and analytical laboratory reports indicate that the fuel release originally reported for the former gasoline UST is larger than originally concluded. In addition, the 1986 data did not detect a diesel release associated with the former diesel USTs, however, the 2009 data indicates that soil and groundwater in the vicinity and downgradient of the former diesel/lube oil USTs has been impacted with petroleum hydrocarbon in the diesel and motor oil ranges. This finding explains the source of the elevated TPHd concentrations observed in MW-17 beginning with the 2004 groundwater monitoring.

Borings B1 through B7 were advanced in the vicinity of the Central UST Area. As can be seen on Tables 1 and 2, constituents related to gasoline and diesel/motor oil exceed the ESLs in soil and groundwater. Shallower soil impacts at B1 and B2 probably reflect proximity to the original UST source areas. Plate 9 shows an approximate outline of the potential source area based on subsurface data and historical information.

#### 4.2.2 Western UST Area

Soil borings B8 through B41 were advanced in order to assess the Western UST Area and included offsite downgradient locations. A review of Tables 1 and 2 and a review of Plates 4 and 5 indicate that groundwater in the area is impacted with petroleum hydrocarbons that exceed the ESLs. The highest concentrations occur in the diesel range. The lack of BTEX constituents suggests that there are no gasoline releases in the Western UST Area. High concentrations in the gasoline range likely reflect the overlap of diesel components into the gasoline range of the chromatogram.

A review of Plate 4 indicates concentrations of diesel range petroleum hydrocarbons in soil above the water table. CKG considers impacted soil above 10 feet in depth to be potential source areas. Deeper soil samples probably reflect groundwater impacting soil in the capillary fringe.

Based on soil data and field observations, potential soil source areas may occur at the following locations:

- B23 and B24 - At the location of a former lube oil UST. Access to this area is very limited due to its location immediately adjacent to the glass plant, underneath the rail spur and between two smokestacks associated with the glass furnaces.
- B25, B26, B37 and B38 – In the vicinity of the former Maintenance Building and east of former fuel oil USTs. This area has impacted shallow soil which may be the result of historical surface releases.
- B12, B33 and B40 – The former location of two fuel oil USTs near the former Maintenance Building
- B8 – Adjacent to an alleged former waste oil tank. There are no records confirming that such a tank existed however shallow soil at B8 suggest a potential source in the vicinity.

Plate 9 shows approximate outlines of these potential source areas with the exception of impacts in the vicinity of B8. This particular location is difficult to pinpoint because the alleged waste oil tank is not located on site plans and it does not appear in site records. Also, this location straddles the ramp to the basement. The ramp itself may present a location where surface spills may have accumulated in the past and provided an opportunity to impact soil and groundwater below the ramp.

Impacted groundwater is summarized on Plate 5. TPHd concentrations have attenuated significantly at B-21 and B-35; however, it appears that impacted groundwater extends as far as the Oakland Estuary. On the southwest side of the Western UST Area, at Fruitvale Avenue, historic data shows no impact to groundwater across Alameda Avenue or Fruitvale Avenue. CKG suspects that the Sausal Creek storm sewer acts as a hydraulic barrier to downgradient migration to the southwest. CKG understands that the storm sewer is an 8 foot diameter concrete pipe with the bottom resting below the water table. Based on the most recent groundwater monitoring event, (October 16, 2009), static groundwater was encountered at depths of 9 – 12 feet below ground surface.

## 6.0 CONCLUSIONS AND RECOMMENDATIONS

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Based on the findings of the data gap investigation, as well as consideration of historic data CKG draws the following conclusions:

- Diesel and gasoline has impacted soil and groundwater above ESLs in the Central UST Area
- A previously unknown petroleum hydrocarbon release associated with a former lube oil AST was discovered adjacent to the plant. Soil and groundwater impacts above ESLs occur at this location
- Shallow soil impacts associated with the former fuel oil USTs and a potential waste oil UST adjacent to the south all of the plant were documented in the Western UST Area.
- Groundwater and the associated capillary fringe soil in the Western UST Area are impacted with diesel and motor oil range petroleum hydrocarbons.
- Groundwater downgradient of the Western UST Area is impacted with diesel and motor oil range petroleum hydrocarbons
- The impacted groundwater extends as far as the Oakland Estuary.
- The Sausal Creek Storm sewer may be acting as a hydraulic barrier to impacted groundwater migration.
- The distribution of the contaminants does not appear to be controlled by subsurface utilities.

CKG recommends that Owens-Brockway implement an interim remediation action that includes soil excavation at the source areas (as shown on Plate 9). A significant mass of petroleum hydrocarbon impacted soil will be removed during the excavations and chemical oxidant can be added to the groundwater at the excavations to enhance in-situ oxidation of petroleum hydrocarbons and to promote natural bacterial degradation. There are difficult logistical issues associated with these excavations because of full time plant operations, and the proximity of plant structures.

To address the groundwater impacts CKG recommends completing the feasibility study as required in the ACDEH letter dated May 8, 2009. CKG recommends that Owens-Brockway submit this report to the ACDEH.

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## 8.0 LIMITATIONS

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CKG Environmental, Inc. prepared this report in accordance with generally accepted standards of care which exist in Northern California at this time. It should be recognized that definition and evaluation of geologic and environmental conditions is a difficult and an inexact science.

Conclusions and recommendations presented in this report are based on the results of the scope of work presented in our work plan dated July 7, 2009. This scope of work includes installing a total of 41 Geoprobe™ borings, quantitative analysis of soil and groundwater samples conducted by McCampbell Analytical, and reviewing all data collected to date. Only work described herein was performed. As such CKG cannot render opinions on issues not resulting directly from the work performed.

Judgments leading to conclusions and recommendations are generally made with incomplete knowledge of the subsurface conditions present. More extensive studies, including additional subsurface investigations, may be performed to reduce uncertainties. If the client wishes to reduce the uncertainties of this investigation, CKG should be notified for additional consultation. No warranty, expressed or implied, is made.

This report may be used only by the client and only for the purposes stated, within a reasonable time from its issuance. Land use, site conditions (both onsite and offsite) or other factors may change over time, and additional work may be required with the passage of time. Any party other than the client who wishes to use this report shall notify CKG of such intended use. Based on the intended use of the report, CKG may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by the client or anyone else will release CKG from any liability resulting from the use of this report by any unauthorized party.

## **TABLES**



**Table 1A. Soil Sample Analytical Results - SVOCs  
Oakland, California**

Sample ID:	CKG - B1 8-8.5 <sup>1</sup>	CKG - B12 13.5-14	CKG - B24 11.5-12	ESL Standard B-2
<b>SVOCs</b>				
2-Methylnaphthalene	ND<3.3	<b>0.8</b>	ND	<b>0.25</b>
All Other SVOCs	ND<3.3 - ND<16	ND<0.66-ND<3.2	ND<0.33-ND<1.6	-

Note: All results in mg/kg  
Standard B-2 - Shallow Soil Screening Levels, Commercial/Industrial Land Use (groundwater is not a current or potential drinking water resource).

<sup>1</sup> Sample diluted due to high organic content

**Table 1B. Soil Sample Analytical Results - VOCs  
Oakland, California**

Sample ID:	CKG - B1 8-8.5 <sup>1</sup>	CKG - B12 13.5-14 <sup>1</sup>	CKG - B23 12.5-13	CKG - B26 14.5-15	CKG - B32 14-14.5 <sup>1</sup>	ESL Standard B-2
<b>VOCs</b>						
Acetone	ND<0.2	ND<0.1	0.082	ND<0.2	ND<0.2	<b>0.50</b>
n-Butyl benzene	0.54	ND<0.01	ND	0.038	ND<0.02	-
1,2,4 - Trimethylbenzene	ND<0.02	ND<0.01	ND	0.052	ND<0.02	-
sec Butyl Benzene	0.20	ND<0.01	ND	0.054	ND<0.02	-
Ethylbenzene	ND<0.02	ND<0.01	ND	0.021	ND<0.02	<b>4.7</b>
Isopropylbenzene	0.068	ND<0.01	ND	0.035	ND<0.02	-
n-Propyl benzene	0.053	ND<0.01	ND	0.032	ND<0.02	-
1,2,3 - Trichloropropane	ND<0.02	ND<0.01	ND	0.024	ND<0.02	-
1,3,5 - Trimethylbenzene	ND<0.02	- ND<0.01	ND	0.052	ND<0.02	-
All Other VOCs	ND<0.016 - ND<0.2	ND<0.008 - ND<0.2	ND<0.005-ND<0.1	ND<0.016-ND<0.4	ND<0.016 - ND<0.4	-

Note: All results in mg/kg  
ESL Standard B-2 - Shallow Soil Screening Levels, Commercial/Industrial Land Use (groundwater is not a current or potential drinking water resource).

<sup>1</sup> Sample diluted due to high organic content

**Table 2. Groundwater Sample Analytical Results  
Oakland, California**

Sample ID	Sample Date	TPHd	TPHmo	TPHg	BTEX				MTBE	SVOCs <sup>12</sup>	VOCs <sup>13</sup>
					Benzene	Toluene	Ethylbenzene	Xylenes			
CKG - B1 <sup>2,3,3</sup>	8/31/2009	220,000 <sup>2,3,7,8,10</sup>	53,000 <sup>2,3,7,8,10</sup>	17,000	720	ND<25	400	340	-	-	22-710 <sup>2,3</sup>
CKG - B2 <sup>2,3,5</sup>	8/31/2009	720,000 <sup>2,3,4,9</sup>	630,000 <sup>2,3,6,9</sup>	15,000	ND<10	ND<10	ND<10	ND<10	-	-	-
CKG - B3 <sup>2</sup>	8/31/2009	270 <sup>2,6,9</sup>	310 <sup>2,6,9</sup>	ND	ND	ND	ND	ND	-	-	-
CKG - B4 <sup>2</sup>	8/31/2009	410 <sup>2,6,9</sup>	520 <sup>2,6,9</sup>	ND	ND	ND	ND	ND	-	-	-
CKG - B5 <sup>2,6</sup>	8/31/2009	1,200 <sup>2,6,9</sup>	850 <sup>2,6,9</sup>	240	ND	1.6	ND	ND	-	-	-
CKG - B6 <sup>2</sup>	8/31/2009	3,900 <sup>2,6,9</sup>	3,400 <sup>2,6,9</sup>	ND	ND	ND	ND	ND	-	-	-
CKG - B8 <sup>2,3,5,6</sup>	9/1/2009	170,000 <sup>2,3,7,9</sup>	62,000 <sup>2,3,7,9</sup>	-	ND<10	ND<10	17	ND<10	-	-	-
CKG - B9 <sup>2,3,5,6</sup>	9/1/2009	330,000 <sup>2,3,4,7,9</sup>	120,000 <sup>2,3,4,7,9</sup>	23,000	ND<10	ND<10	46	200	-	-	-
CKG - B11 <sup>2,5</sup>	9/1/2009	3,100 <sup>2,6,9</sup>	6,300 <sup>2,6,9</sup>	-	ND	ND	ND	ND	-	-	-
CKG - B12 <sup>2,3,5</sup>	9/1/2009	150,000 <sup>2,3,4,7,9</sup>	100,000 <sup>2,3,4,7,9</sup>	-	ND<2.5	ND<2.5	3.8	10	-	-	1.4-13 <sup>2,3</sup>
CKG - B13 <sup>2</sup>	9/1/2009	3,200 <sup>2,6,9</sup>	10,000 <sup>2,6,9</sup>	-	ND	ND	ND	ND	-	-	-
CKG - B14 <sup>2,3,6,7</sup>	9/1/2009	82,000 <sup>2,6,9</sup>	81,000 <sup>2,6,9</sup>	1,400	ND<1.0	2.2	14	4.6	-	-	-
CKG - B15 <sup>2,3,5</sup>	9/1/2009	34,000 <sup>2,3,4,9</sup>	19,000 <sup>2,3,4,9</sup>	-	ND<2.5	ND<5.0	ND<5.0	ND<5.0	-	-	-
CKG - B16 <sup>2,3,6,7</sup>	9/1/2009	680,000 <sup>2,6,9,11</sup>	490,000 <sup>2,6,9,11</sup>	11,000	ND<1.0	10	26	63	-	-	-
CKG - B17 <sup>2,3,6,7</sup>	9/1/2009	19,000 <sup>2,3,4,7,9</sup>	9,300 <sup>2,3,4,7,9</sup>	1,400	ND<1.7	ND<1.7	ND<1.7	ND<1.7	-	-	-
CKG - B19 <sup>2,3,6,7</sup>	9/2/2009	1,300,000 <sup>2,6,9,11</sup>	860,000 <sup>2,6,9,11</sup>	19,000	ND<10	12	39	14	-	-	-
CKG - B20 <sup>2,3,7</sup>	9/2/2009	1,100,000 <sup>2,6,9</sup>	900,000 <sup>2,6,9</sup>	4,300	ND<10	ND<10	ND<10	ND<10	-	-	4.3-27 <sup>1,2,3</sup>
CKG - B21 <sup>2</sup>	9/2/2009	310 <sup>2,6,9</sup>	330 <sup>2,6,9</sup>	ND	ND	ND	ND	ND	-	-	-
CKG - B22 <sup>2,3,7</sup>	9/2/2009	70,000 <sup>2,3,6,9</sup>	60,000 <sup>2,3,6,9</sup>	110	ND	ND	ND	ND	-	-	-
CKG - B23 <sup>2,3,6,7</sup>	9/2/2009	140,000 <sup>2,6,9,11</sup>	590,000 <sup>2,6,9,11</sup>	7,500	ND	2.6	5.1	39	-	-	-
CKG - B24 <sup>2</sup>	9/2/2009	3,900 <sup>2,8,9</sup>	4,300 <sup>2,8,9</sup>	ND	ND	ND	ND	ND	-	-	-
CKG - B25 <sup>2,3,7</sup>	9/2/2009	34,000 <sup>2,6,9</sup>	57,000 <sup>2,8,9</sup>	270	ND	ND	N D	2.5	-	-	-
CKG - B26 <sup>2,3,6,7</sup>	9/2/2009	4,700,000 <sup>2,3,6,9</sup>	4,700,000 <sup>2,3,6,9</sup>	5,500	ND<2.05	2.6	4.7	42	-	-	6.1-70 <sup>1,2,3</sup>
CKG - B27 <sup>2,3,7</sup>	9/3/2009	3,200 <sup>2,4,7,9</sup>	1,500 <sup>2,4,7,9</sup>	250	ND	ND	ND	2.3	-	-	-
CKG - B28 <sup>2,3,6,7</sup>	9/3/2009	770,000 <sup>2,4,7,9</sup>	230,000 <sup>2,4,7,9</sup>	8,000	ND<1.7	ND<1.7	9.5	35	-	-	-
CKG - B29 <sup>2,3,7</sup>	9/3/2009	120,000 <sup>2,4,7,9</sup>	55,000 <sup>2,4,7,9</sup>	1,700	ND<5.0	ND<5.0	ND<5.0	ND<5.0	-	-	-
CKG - B30 <sup>2,3,7</sup>	9/3/2009	29,000 <sup>2,6,9</sup>	36,000 <sup>2,6,9</sup>	120	ND	1.1	ND	0.8	-	-	-
CKG - B31 <sup>2,3,7</sup>	9/3/2009	260,000 <sup>2,4,7,9</sup>	150,000 <sup>2,4,7,9</sup>	2,100	ND<5.0	ND<5.0	ND<5.0	ND<5.0	-	-	2.8-72 <sup>1,2</sup>
CKG - B32 <sup>2,3,7</sup>	9/3/2009	1,700,000 <sup>2,4,7,9</sup>	820,000 <sup>2,4,7,9</sup>	18,000	ND<1.7	ND<1.7	13	78	-	-	-
CKG - B33 <sup>2,3,5,6</sup>	9/3/2009	1,500,000 <sup>2,3,4,7,9</sup>	1,100,000 <sup>2,3,4,7,9</sup>	-	ND<1.7	8	19	50	-	-	-
CKG - B34 <sup>5,6</sup>	9/3/2009	1,000 <sup>2,6,9</sup>	2,800 <sup>2,6,9</sup>	-	ND	ND	ND	ND	-	-	-
CKG - B35 <sup>2</sup>	9/3/2009	450 <sup>2,6,9</sup>	1,200 <sup>2,6,9</sup>	-	ND	ND	ND	ND	-	-	-
CKG - B36 <sup>2,3,5,6</sup>	9/4/2009	310,000 <sup>2,3,6,9,11</sup>	250,000 <sup>2,3,6,9,11</sup>	-	ND	1.9	2.7	16	-	-	-
CKG - B37 <sup>2,3,5,6</sup>	9/4/2009	460,000 <sup>2,3,6,9,11</sup>	550,000 <sup>2,3,6,9,11</sup>	-	ND	2.6	6.5	34	-	-	-
CKG - B38 <sup>2,3,5,6</sup>	9/4/2009	620,000 <sup>2,3,4,7,9</sup>	300,000 <sup>2,3,4,7,9</sup>	-	ND	3.4	4.7	20	-	-	-
CKG - B39 <sup>2,3,5</sup>	9/4/2009	180,000 <sup>2,3,4,7,9</sup>	64,000 <sup>2,3,4,7,9</sup>	-	ND	ND	5.1	ND	-	-	ND<1,000-ND<5,000 <sup>1,2</sup>
CKG - B40 <sup>2,3,5,6</sup>	9/4/2009	350,000 <sup>2,3,4,7,9</sup>	150,000 <sup>2,3,4,7,9</sup>	-	ND<2.5	2.6	47	200	-	-	-
CKG - B41 <sup>2,3,5,6</sup>	9/4/2009	150,000 <sup>2,3,4,7,9</sup>	87,000 <sup>2,3,4,7,9</sup>	-	ND<10	ND<10	ND<10	ND<10	-	-	-
ESL Standard F-1b		210	210	210	46	130	43	100	1,800	-	-

Note: All results in µg/l  
ESL Standard F-1b - Groundwater Screening Levels (groundwater is not a current or potential drinking water resource).

- |   |   |    |  |
|---|---|----|--|
| 1 | Sample diluted due to high organic content  | 8  | Aged diesel is significant               |
| 2 | Aqueous sample that contains greater than ~1 vol. % sediment                                | 9  | Oil range compounds are significant      |
| 3 | Lighter than water immiscible sheen/product is present                                      | 10 | Stoddard solvent/mineral spirit (?)      |
| 4 | Weakly modified or unmodified gasoline is significant                                       | 11 | Gasoline range compounds are significant |
| 5 | Strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram | 12 | See table 2A below                       |
| 6 | No recognizable pattern   | 13 | See table 2B below                       |
| 7 | Kerosene/kerosene range/jet fuel range  |    |  |

**Table 2A. Groundwater Sample Analytical Results - SVOCs  
Oakland, California**

Sample ID:	CKG - B39 <sup>1,2</sup>
SVOCs	
All Other SVOCs	ND<1,000-ND<5,0000

Note: All results in µg/l

- <sup>1</sup> Sample diluted due to high organic content  
<sup>2</sup> Aqueous sample that contains greater than ~1 vol. % sediment

**Table 2B. Groundwater Sample Analytical Results - VOCs  
Oakland, California**

Sample ID:	CKG - B1 <sup>2,3</sup>	CKG - B12 <sup>2,3</sup>	CKG - B20 <sup>1,2,3</sup>	CKG - B26 <sup>1,2,3</sup>	CKG - B32 <sup>1,2</sup>	ESL Standard F-1b
<b>VOCs</b>						
Acetone	ND<330	13	27	70	72	<b>1,500</b>
Benzene	<b>710</b>	ND	ND<1.0	ND<1.0	ND<2.5	<b>46</b>
2-Butanone(MEK)	ND<67	ND	4.3	15	17	<b>14,000</b>
n-Butyl benzene	100	6.1	ND<1.0	11	10	-
tert-Butyl benzene	ND<17	1.4	ND<1.0	ND<1.0	ND<2.5	-
Chloroethane	ND<17	ND	ND<1.0	ND<1.0	2.8	<b>12</b>
4-Isopropyl toluene	ND<17	3.9	ND<1.0	9	ND<2.5	-
Naphthalene	<b>190</b>	ND	ND<1.0	ND<1.0	ND<2.5	<b>24</b>
1,2,4 - Trimethylbenzene	92	ND	ND<1.0	14	ND<2.5	-
t-Butyl alcohol (TBA)	ND<67	ND	5.3	44	ND<10	<b>18,000</b>
sec Butyl Benzene	22	8.7	ND<1.0	6.1	15	-
Ethylbenzene	<b>360</b>	ND	ND<1.0	ND<1.0	ND<2.5	<b>43</b>
Isopropylbenzene	91	2.3	ND<1.0	15	ND<2.5	-
Methyl-t-butyl ether (MTBE)	320	ND	ND<1.0	ND<1.0	ND<2.5	<b>1,800</b>
n-Propyl benzene	220	ND	ND<1.0	16	ND<2.5	-
1,2,3 - Trichloropropane	ND<17	ND	ND<1.0	ND<1.0	ND<2.5	-
1,3,5 - Trimethylbenzene	190	ND	ND<1.0	6.3	ND<2.5	-
Xylenes	<b>320</b>	ND	ND<1.0	24	ND<2.5	<b>100</b>
All Other VOCs	ND<17-ND<330	ND<0.2-ND<10	ND<0.4-ND<20	ND<0.4-ND<20	ND<1.0-ND<50	-

Note: All results in µg/l

ESL Standard F-1b - Groundwater Screening Levels (groundwater is not a current or potential drinking water resource).

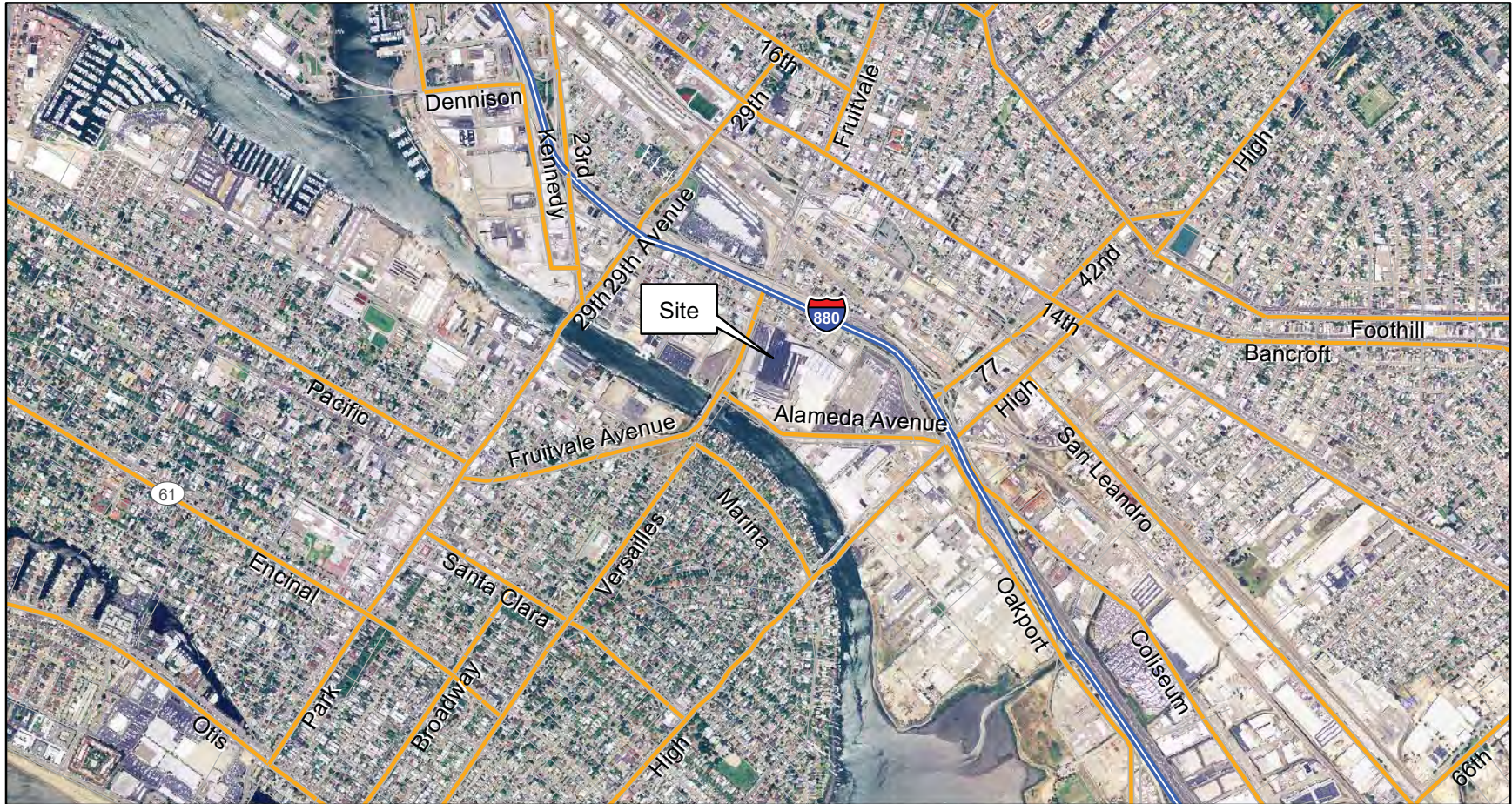
- <sup>1</sup> Sample diluted due to high organic content  
<sup>2</sup> Aqueous sample that contains greater than ~1 vol. % sediment  
<sup>3</sup> Lighter than water immiscible sheen/product is present

**NOTES (Tables 1-2):**

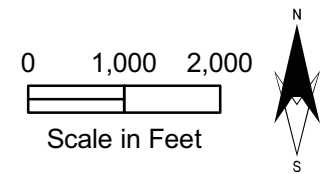
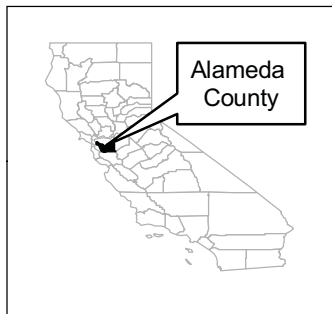
- TPHg: Total petroleum hydrocarbons as gasoline; analyzed by Method SW8021B/8015Bm  
 TPHd: Total petroleum hydrocarbons as diesel w/silica gel cleanup; analyzed by Method SW8015B  
 TPHmo: Total petroleum hydrocarbons as motor oil w/silica gel cleanup; analyzed by Method SW8015B  
 SVOCs: Semi-Volatile Organic Compounds; analyzed by Method SW8720C  
 VOCs: Volatile Organic Compounds; analyzed by Method SW8260B  
 MTBE: Methyl-t-butyl-ether; analyzed by Method SW8021B/8015Bm  
 mg/kg: Milligrams per kilogram  
 µg/l: Micrograms per liter  
 ND: Not detected above the respective reporting limit  
 - : Not Analyzed

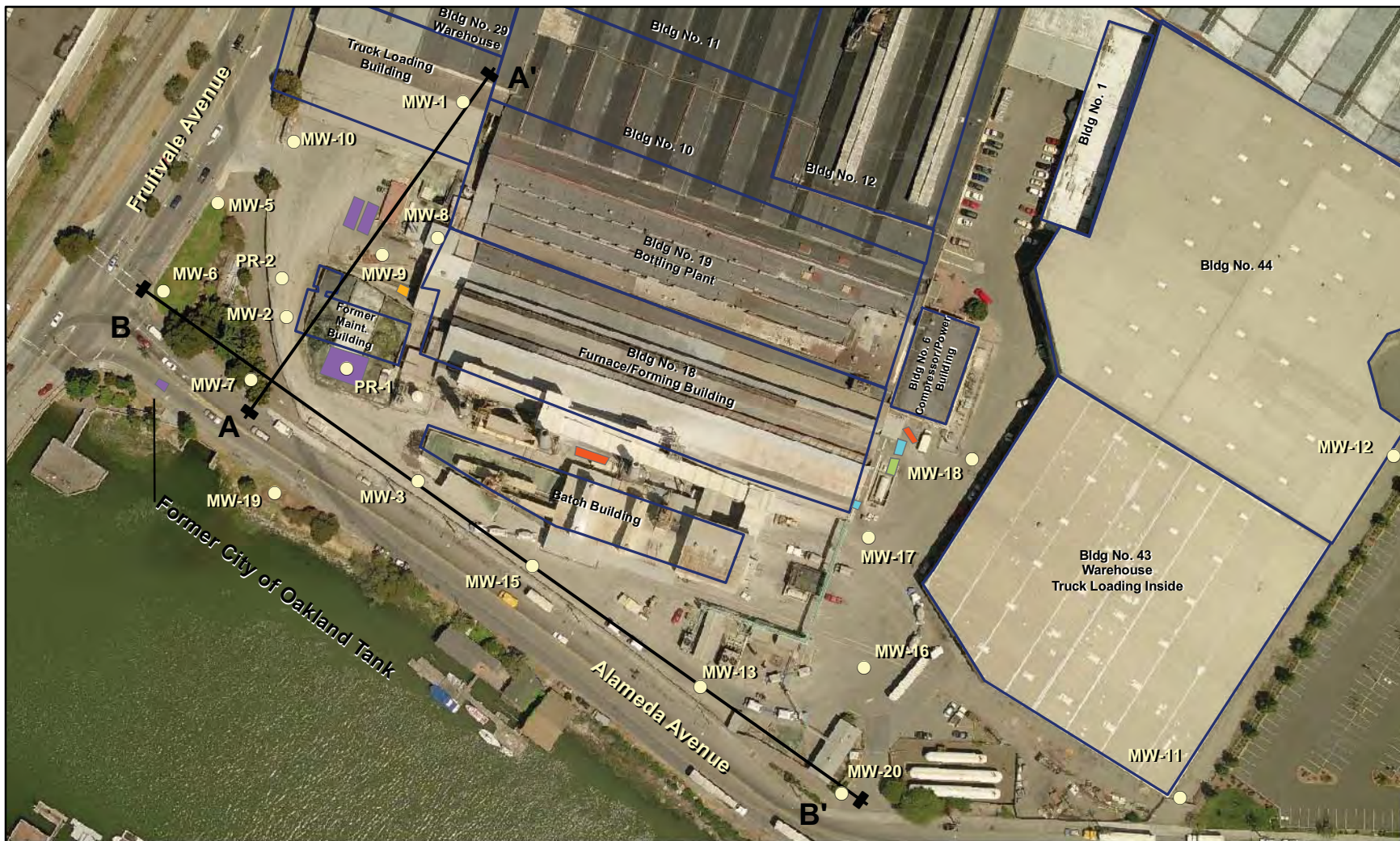


## **PLATES**



Drawn by A. Llewellyn, December 2009. Base layers are unmodified Alameda County Digital Data Sets.

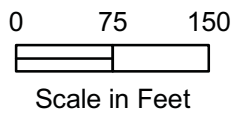




Drawn by A. Llewellyn, December 2009. Base layers are unmodified Pictometry Digital Data Sets.

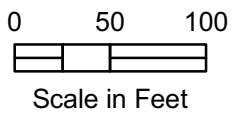
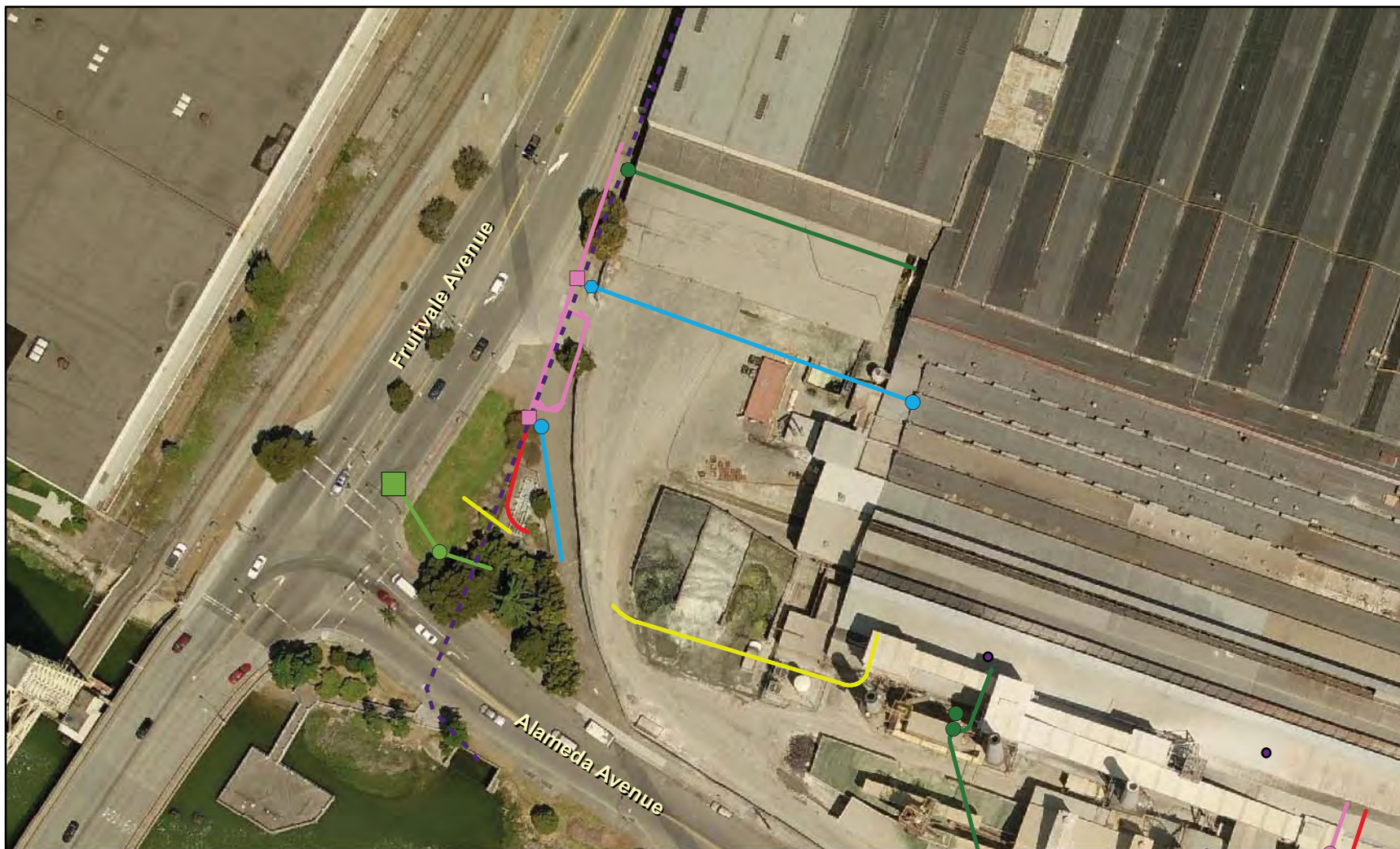
**EXPLANATION**

- Monitoring Wells
- Cross Section Lines
- Buildings
- Former Underground Fuel Storage Tanks**
- Diesel
- Fuel Oil
- Gasoline
- Lube Oil
- Waste Oil



CKG Environmental, Inc.

Site Features Map **PLATE**  
Owens-Brockway Glass Container Facility **2**  
3600 Alameda Avenue, Oakland California



**EXPLANATION**

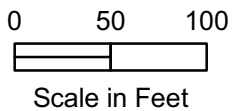
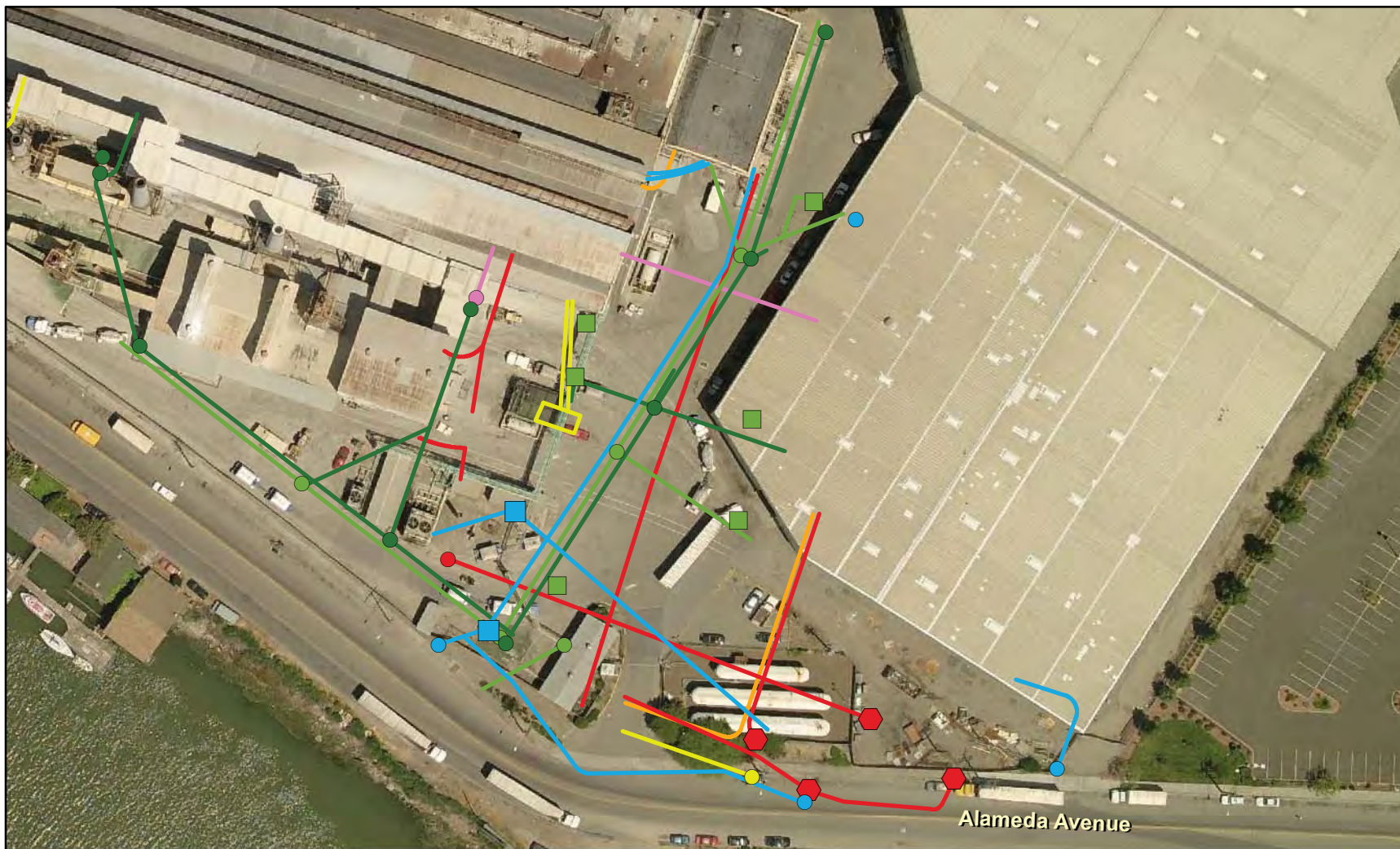
- Sausal Creek Storm Sewer
- Gas or Oil
- Water Lines
- Sanitary Sewer
- Storm Drain
- Electric
- Communications
- MetalUtility

Subsurface Utilities, Western Area  
 Owens-Brockway Glass Container Facility  
 3600 Alameda Avenue, Oakland California

PLATE  
**3a**



CKG Environmental, Inc.



**EXPLANATION**

- Gas or Oil
- Water Lines
- Sanitary Sewer
- Storm Drain
- Electric
- Communications
- Metal Utility

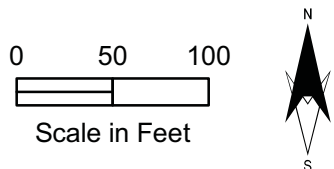
Subsurface Utilities, Central Area PLATE  
 Owens-Brockway Glass Container Facility 3b  
 3600 Alameda Avenue, Oakland California



CKG Environmental, Inc.



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### EXPLANATION

- - - Sausal Creek Storm Sewer
- Geoprobe Locations
- 710 TPHd Concentration in mg/kg

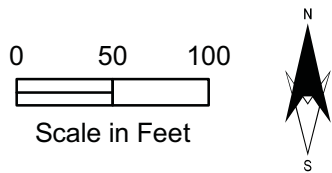
TPHd in Soil Distribution Map PLATE  
Owens-Brockway Glass Container Facility  
3600 Alameda Avenue, Oakland California 4



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**EXPLANATION**

- - - Sausal Creek Storm Sewer
- Geoprobe Locations
- Monitoring Wells
- 310 TPHd Concentration from Monitoring Well Sample in µg/l
- 310 TPHd Concentration from Geoprobe Sample in µg/l

TPHd in Groundwater Distribution Map PLATE  
 Owens-Brockway Glass Container Facility  
 3600 Alameda Avenue, Oakland California 5

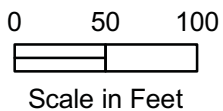




Drawn by A. Llewellyn, December 2009. Base layers are unmodified Pictometry Digital Data Sets.

### EXPLANATION

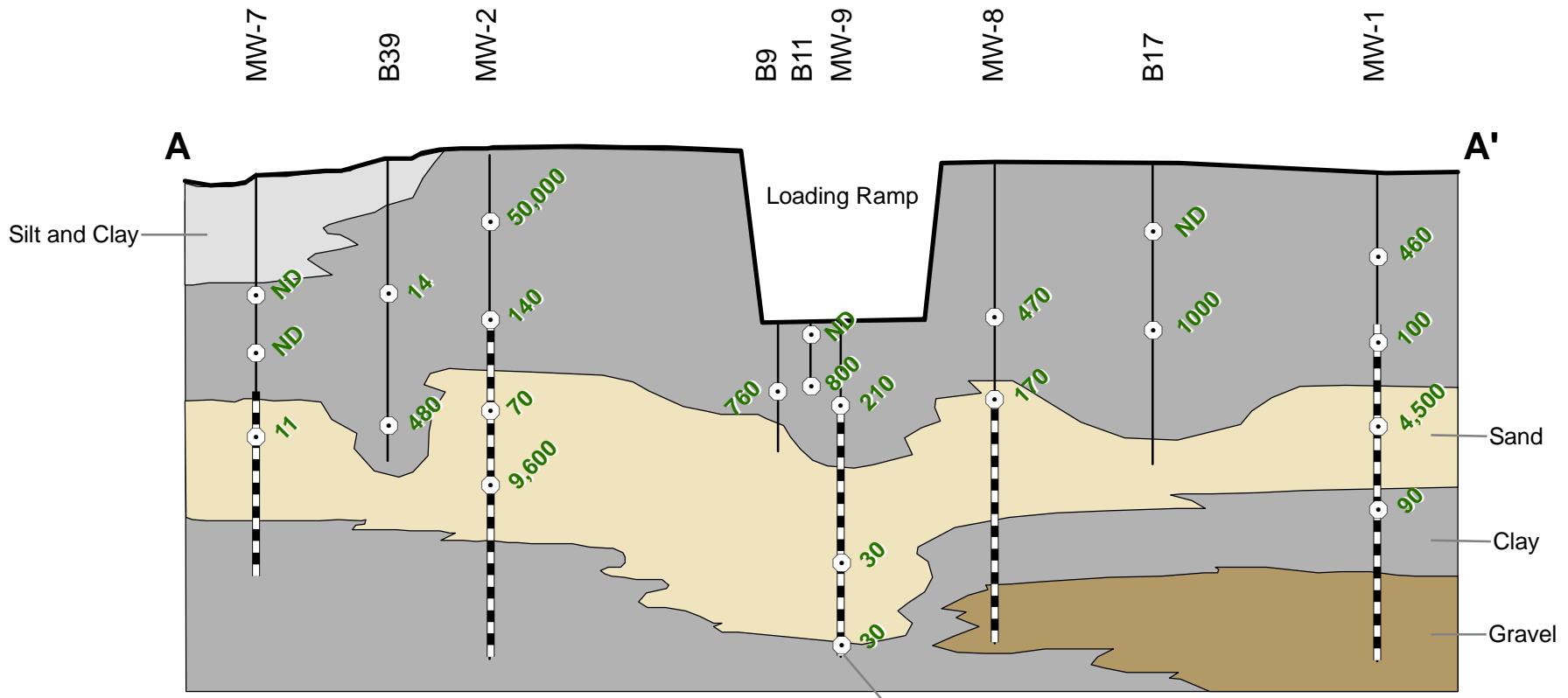
- Sausal Creek Storm Sewer
- Monitoring Wells
- Geoprobe Locations
- Contour Line of Equal Concentration
- 710 TPHg Concentration in µg/l



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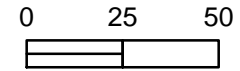
TPHg in Groundwater Distribution Map PLATE  
 Owens-Brockway Glass Container Facility  
 3600 Alameda Avenue, Oakland California 6





Drawn by P. Dellavalle. December 2008.

Sampling Point  
Showing Oil & Grease Concentration in mg/Kg



Horizontal Scale in Feet  
5X Vertical Exaggeration

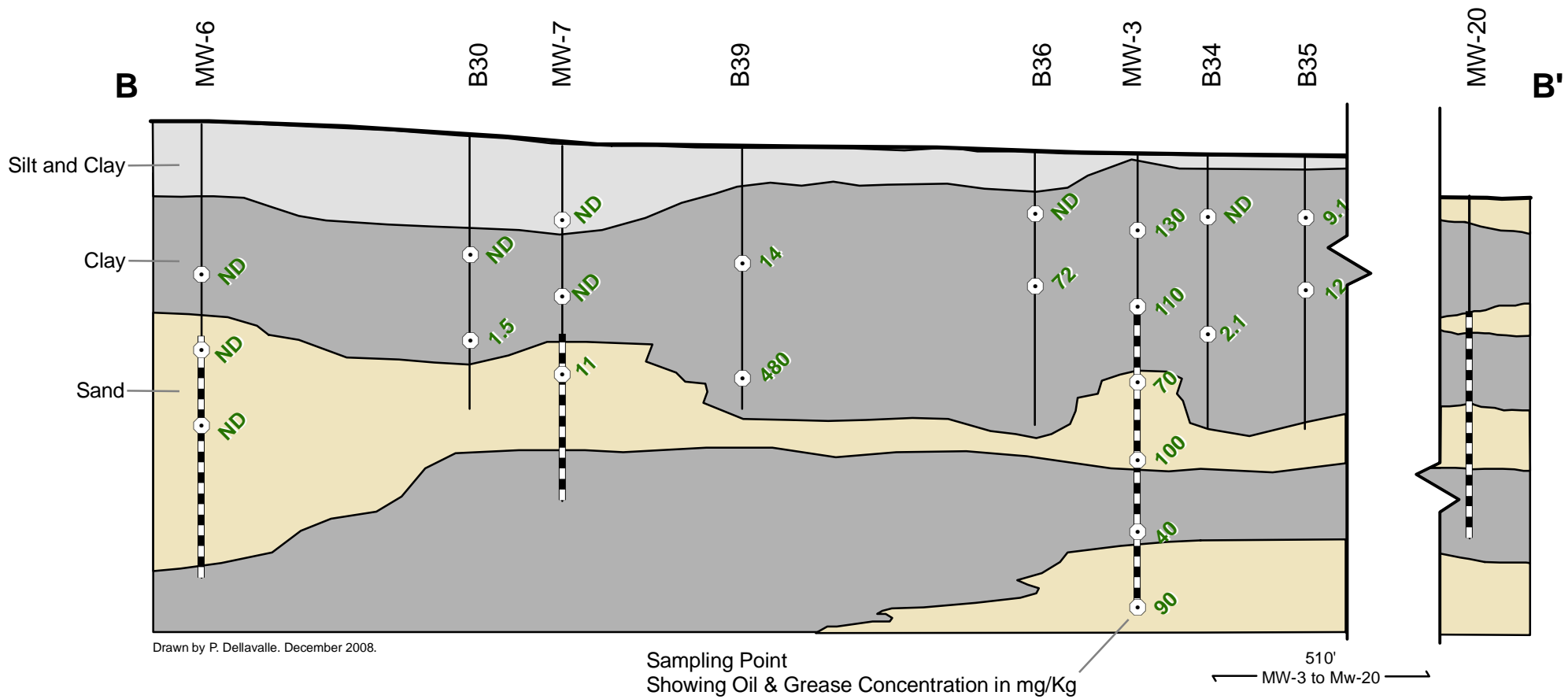


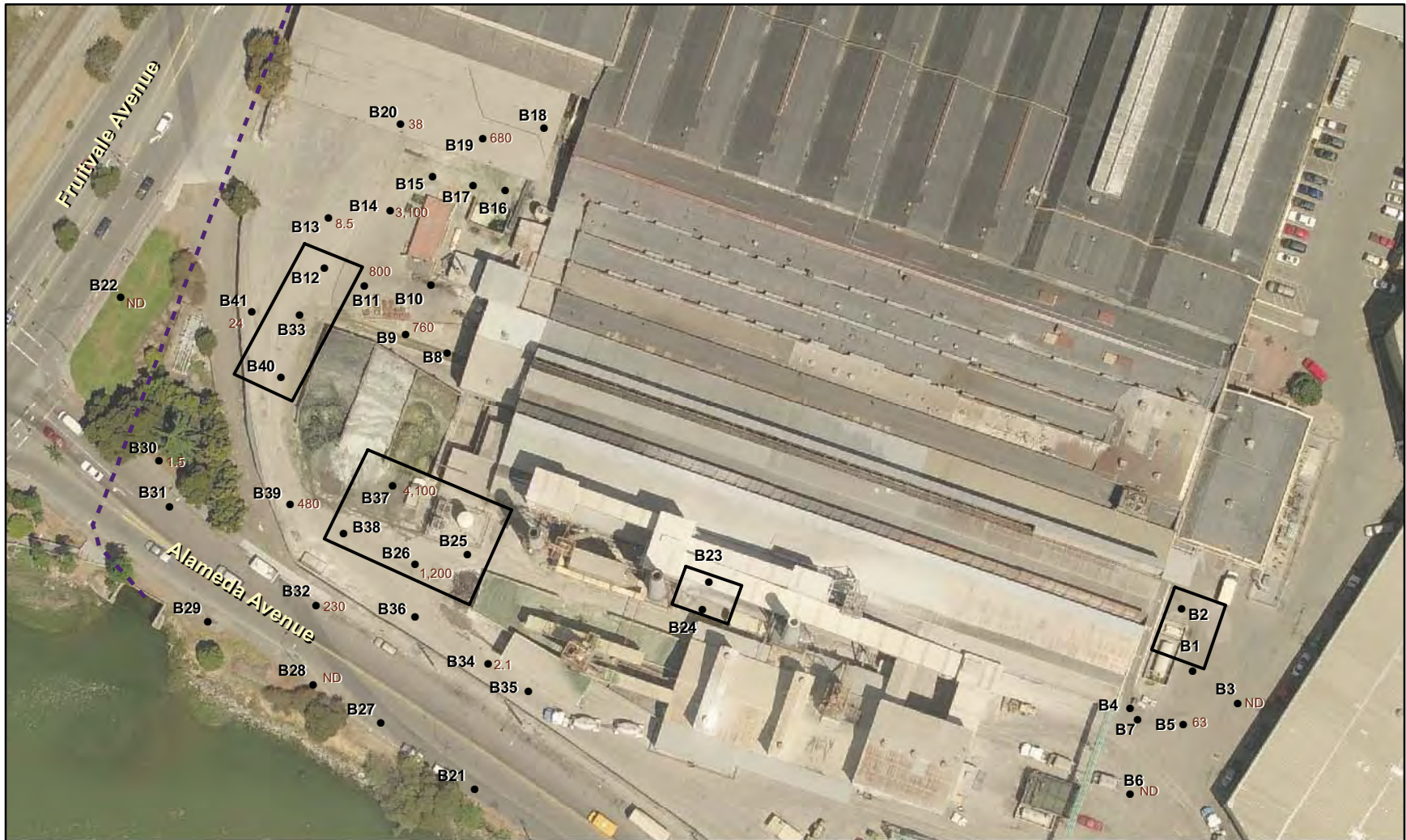
CKG Environmental, Inc.

Geologic Cross Section A - A'  
Owens-Brockway Glass Container Facility  
3600 Alameda Avenue, Oakland California

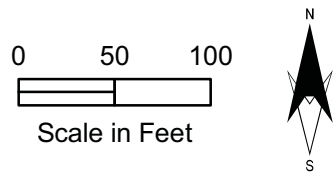
PLATE

7





Drawn by A. Llewellyn. December 2009. Base layers are unmodified Pictometry Digital Data Sets.



### EXPLANATION

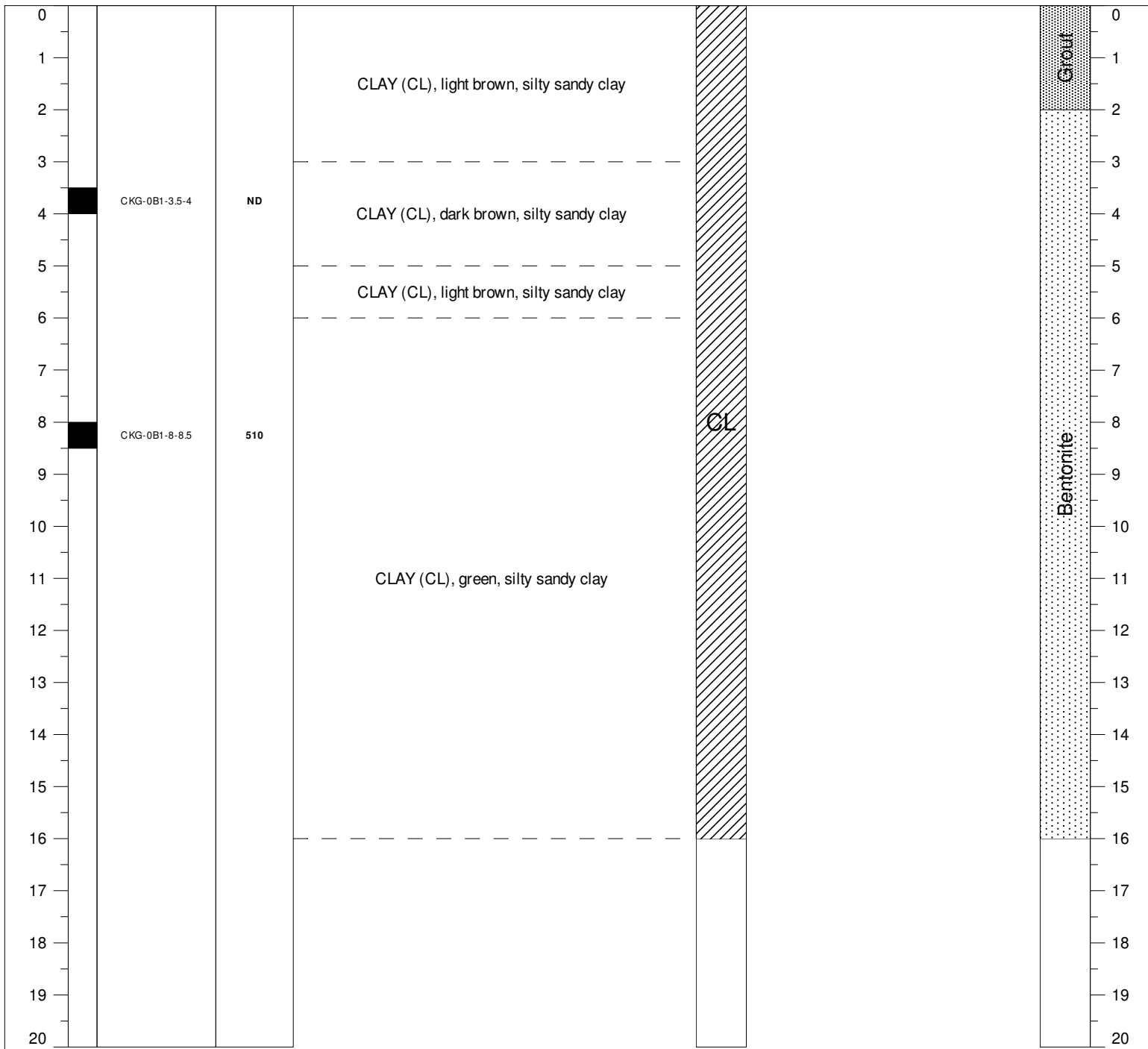
- Soil Source Areas
- Sausal Creek Storm Sewer
- Geoprobe Locations
- 230 TPHd Concentration in mg/kg

Approximate Soil Source Areas Map **PLATE**  
 Owens-Brockway Glass Container Facility  
 3600 Alameda Avenue, Oakland California **9**

## **APPENDIX A**

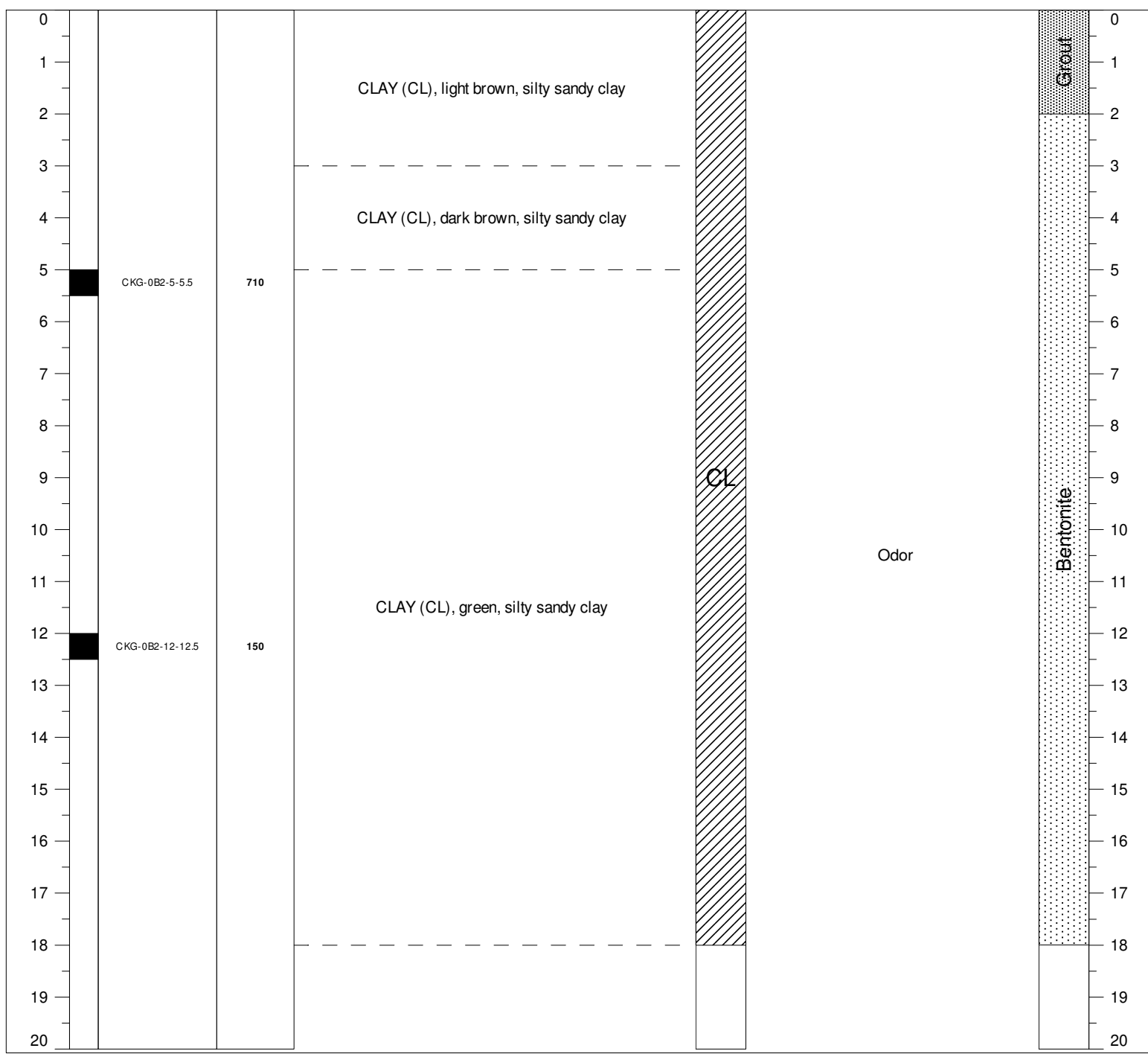
DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B1</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	8/21/09	15' west of AST	
DRILLING METHOD	Direct Push	DATE COMPLETED	8/21/09	COMMENTS	
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	16'		
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	9'		

Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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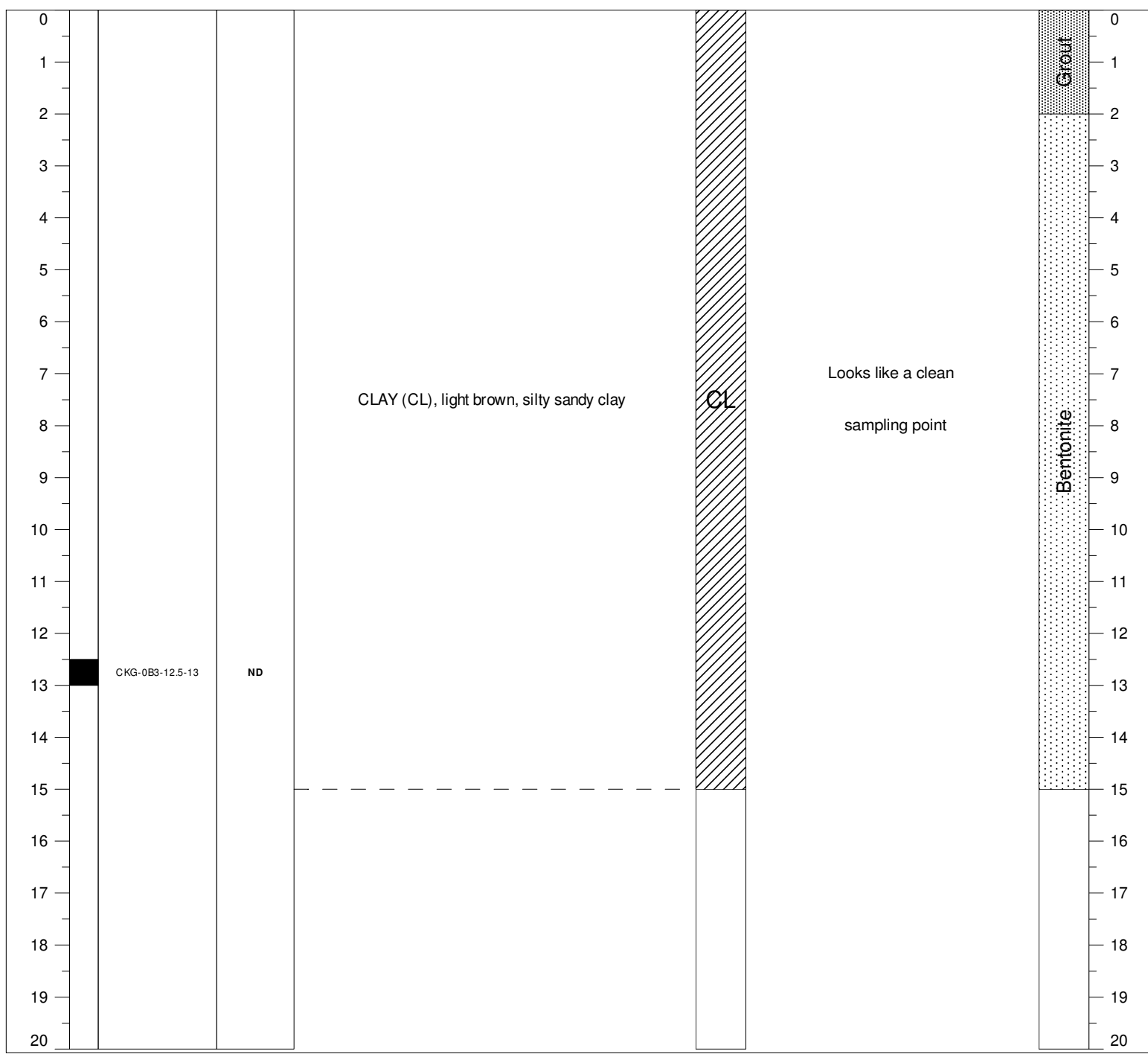
DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B2</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	8/21/09	15' east of south east corner of AST	
DRILLING METHOD	Direct Push	DATE COMPLETED	8/21/09	COMMENTS	
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	18'		
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL	18'		
HAMMER DROP	NA	WATER LEVEL, STATIC	13.5'		

Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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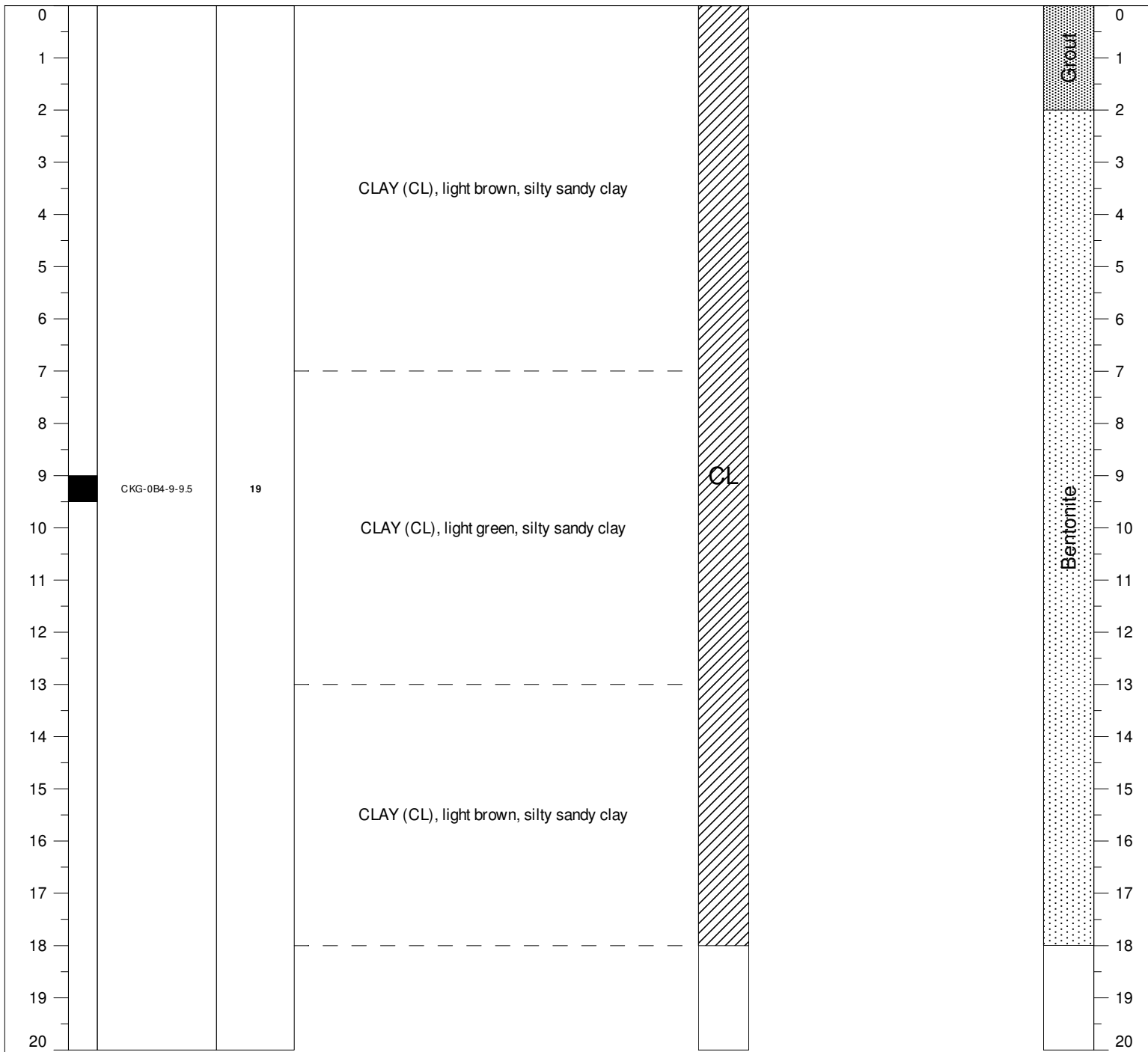
DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B3</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	8/21/09		
DRILLING METHOD	Direct Push	DATE COMPLETED	8/21/09		
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	15'	COMMENTS	
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	13.5'		

Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B4</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	8/21/09		
DRILLING METHOD	Direct Push	DATE COMPLETED	8/21/09		
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	18'	COMMENTS	
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	9.9'		

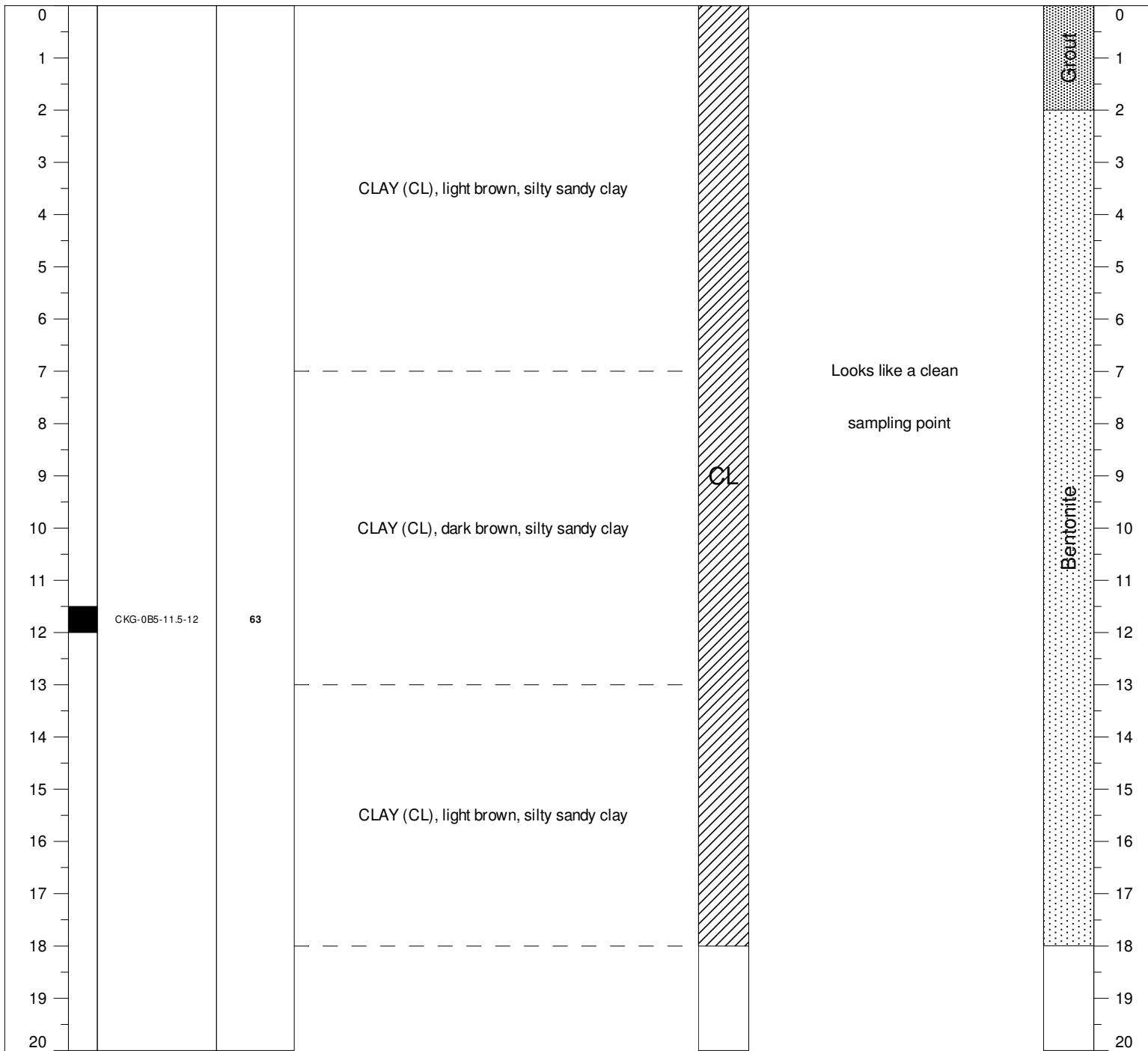
Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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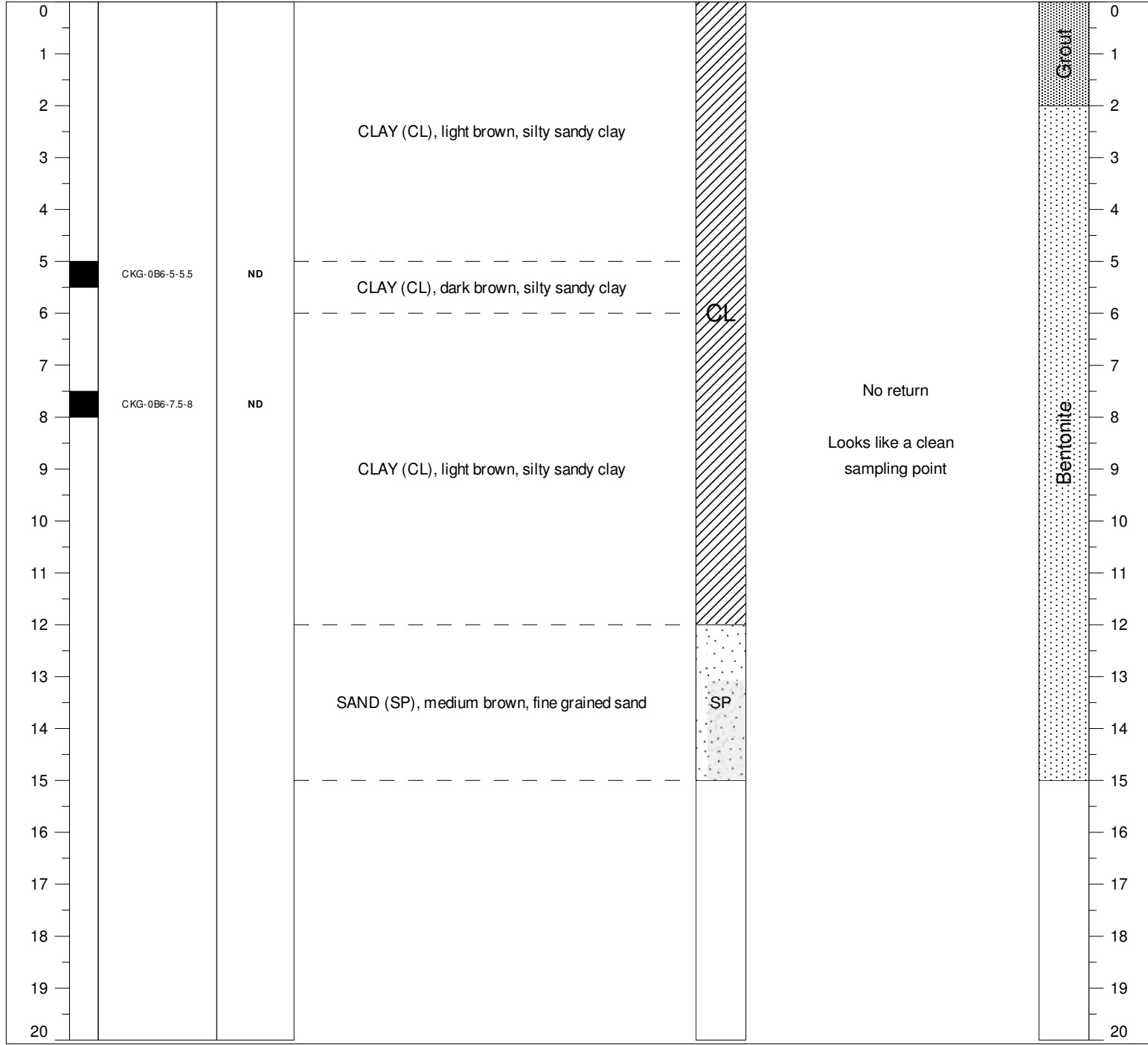
DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B5</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	8/21/09		
DRILLING METHOD	Direct Push	DATE COMPLETED	8/21/09		
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	18'	COMMENTS	
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	12.3'		

Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B6</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	8/21/09		
DRILLING METHOD	Direct Push	DATE COMPLETED	8/21/09		
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	15'	COMMENTS	
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	8.9'		

Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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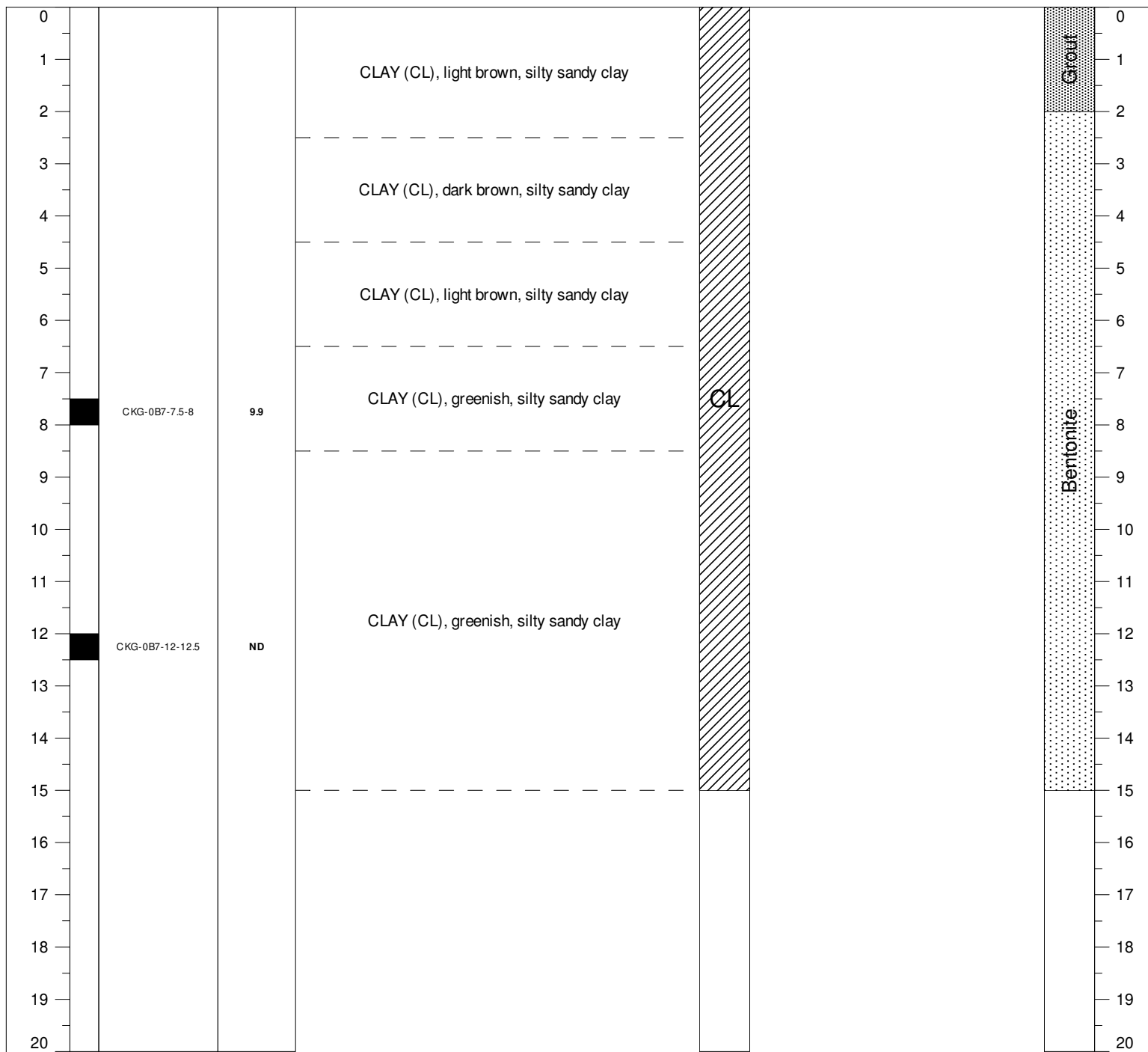
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 Oakland Property  
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**CKG-B6**

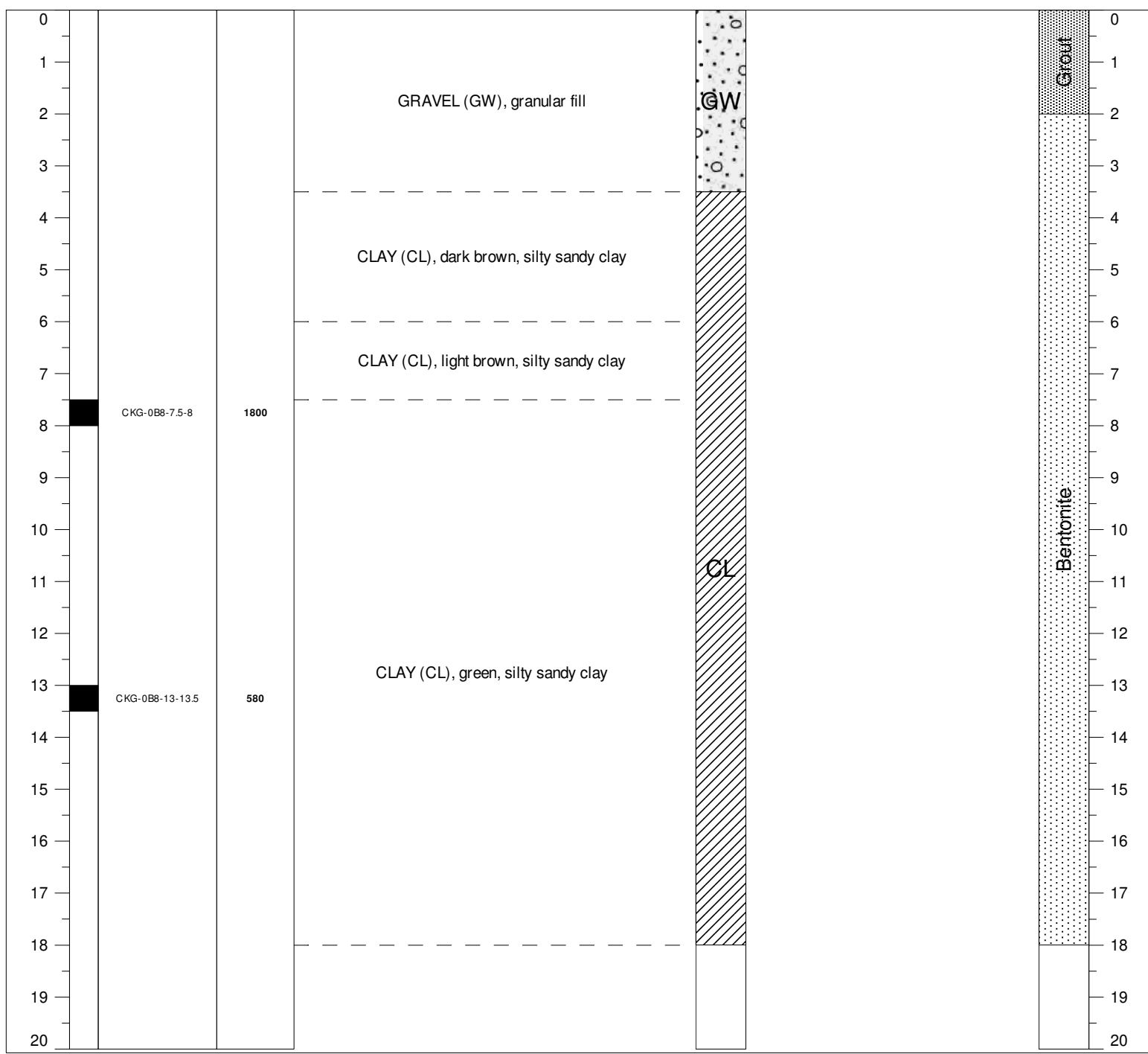
DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B7</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	8/21/09	Adjacent to MW17	
DRILLING METHOD	Direct Push	DATE COMPLETED	8/21/09	COMMENTS	No water sample taken
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	15'		
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	13.3'		

Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B8</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	9/1/09	East of south end of scrap glass ramp	
DRILLING METHOD	Direct Push	DATE COMPLETED	9/1/09	COMMENTS	Water samples have sheen, hydrocarbon odor
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	18'		
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	13.8'		

Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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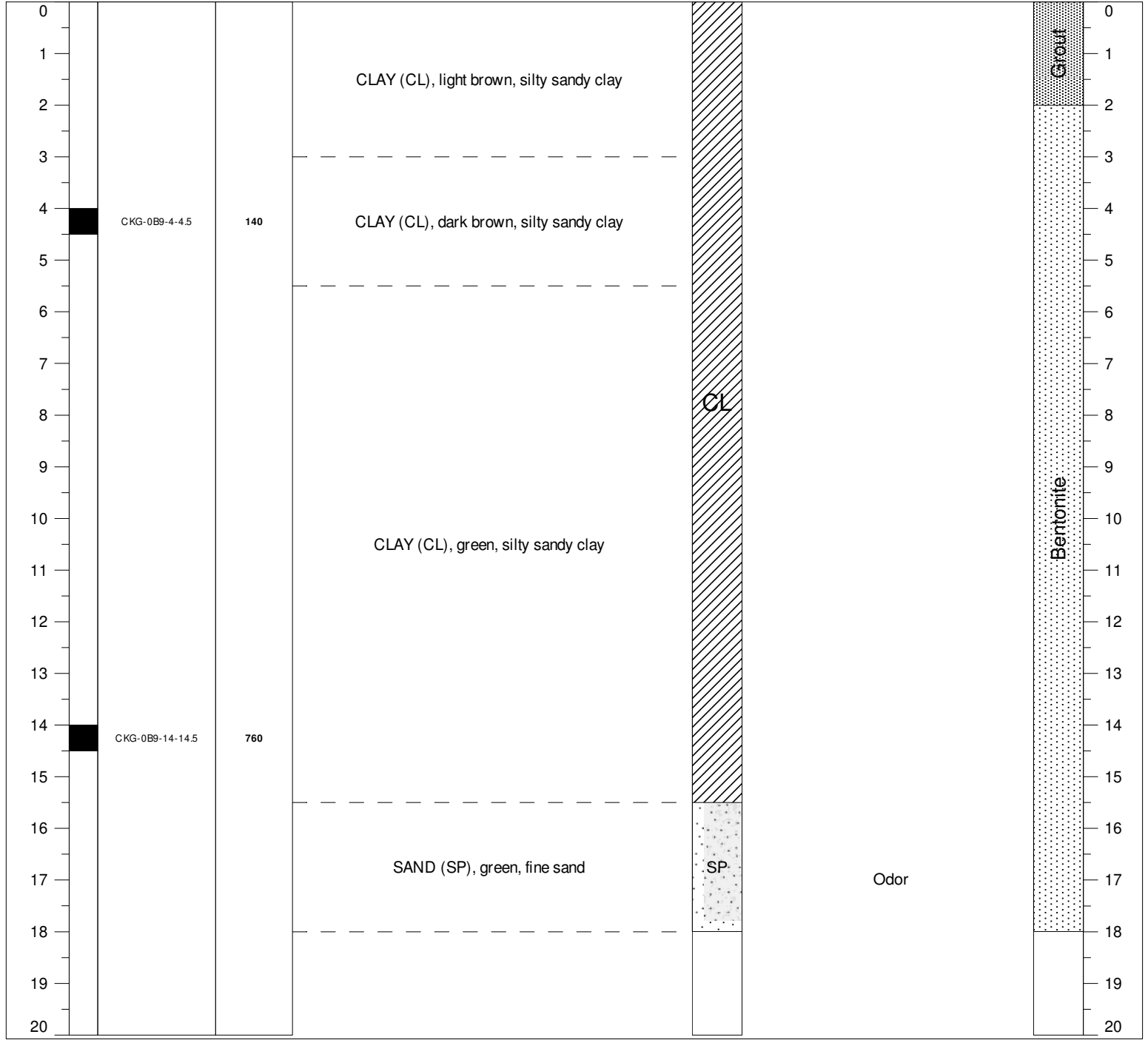
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**CKG-B8**

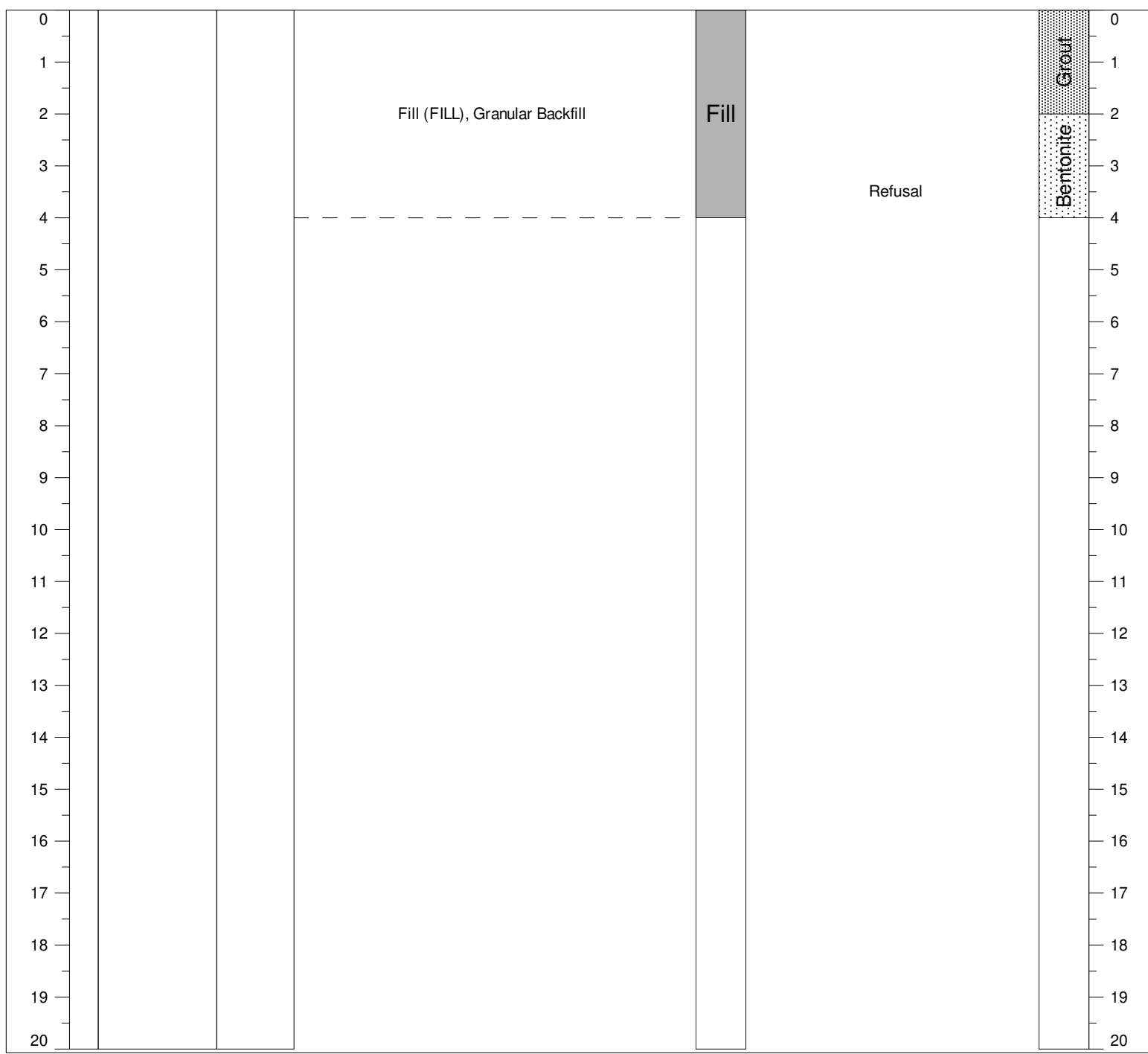
DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B9</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	9/1/09	Near scrap glass ramp west of red container near CPT13	
DRILLING METHOD	Direct Push	DATE COMPLETED	9/1/09	COMMENTS	
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	18'		
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL	18'		
HAMMER DROP	NA	WATER LEVEL, STATIC	14.6'		

Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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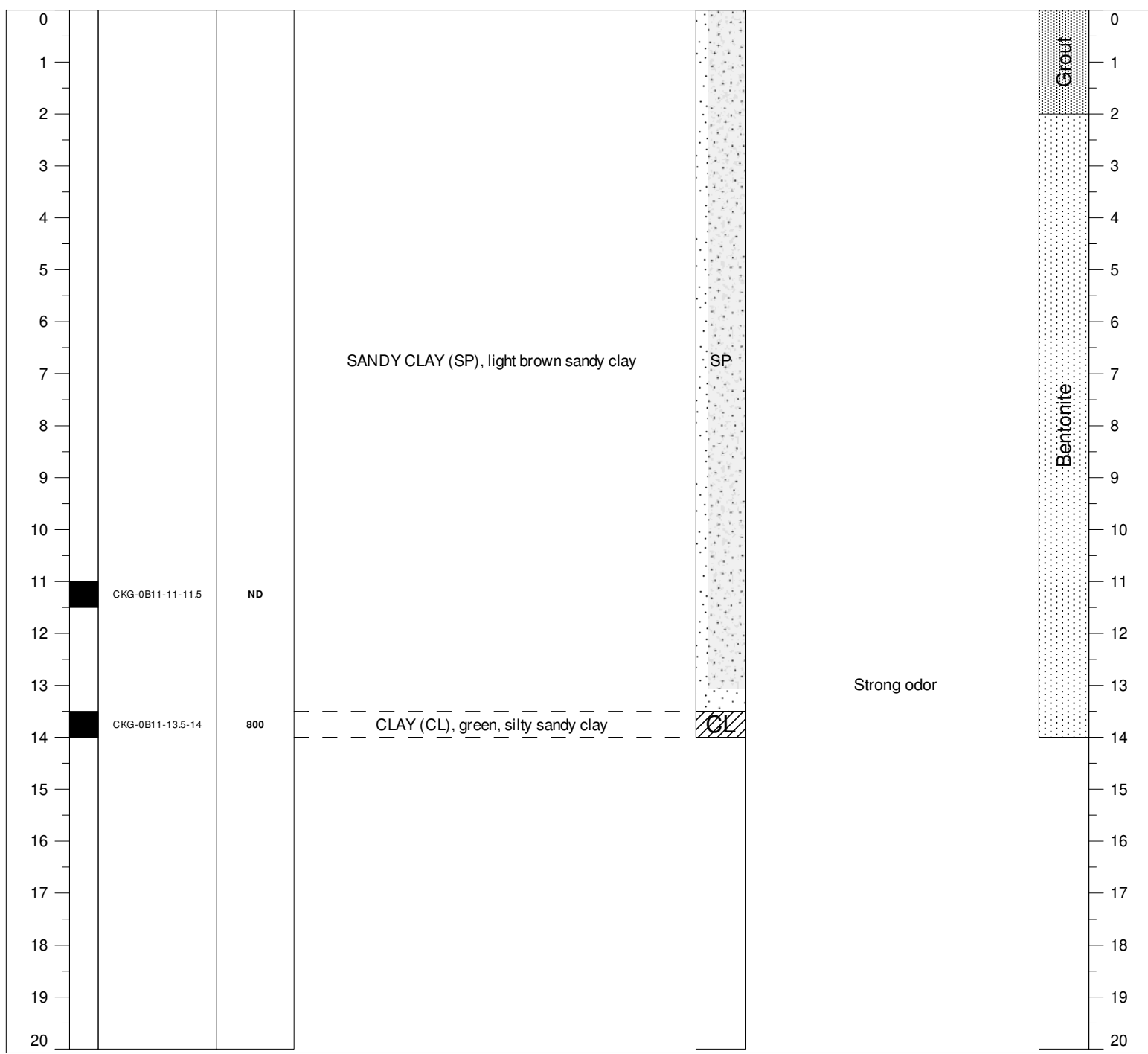
DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B10</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	9/1/09	Near BH1	
DRILLING METHOD	Direct Push	DATE COMPLETED	9/1/09	COMMENTS	
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	4'		
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC		No Samples	

Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B11</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	9/1/09	Near BH9	
DRILLING METHOD	Direct Push	DATE COMPLETED	9/1/09	COMMENTS	
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	14'		
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	11.6'		

Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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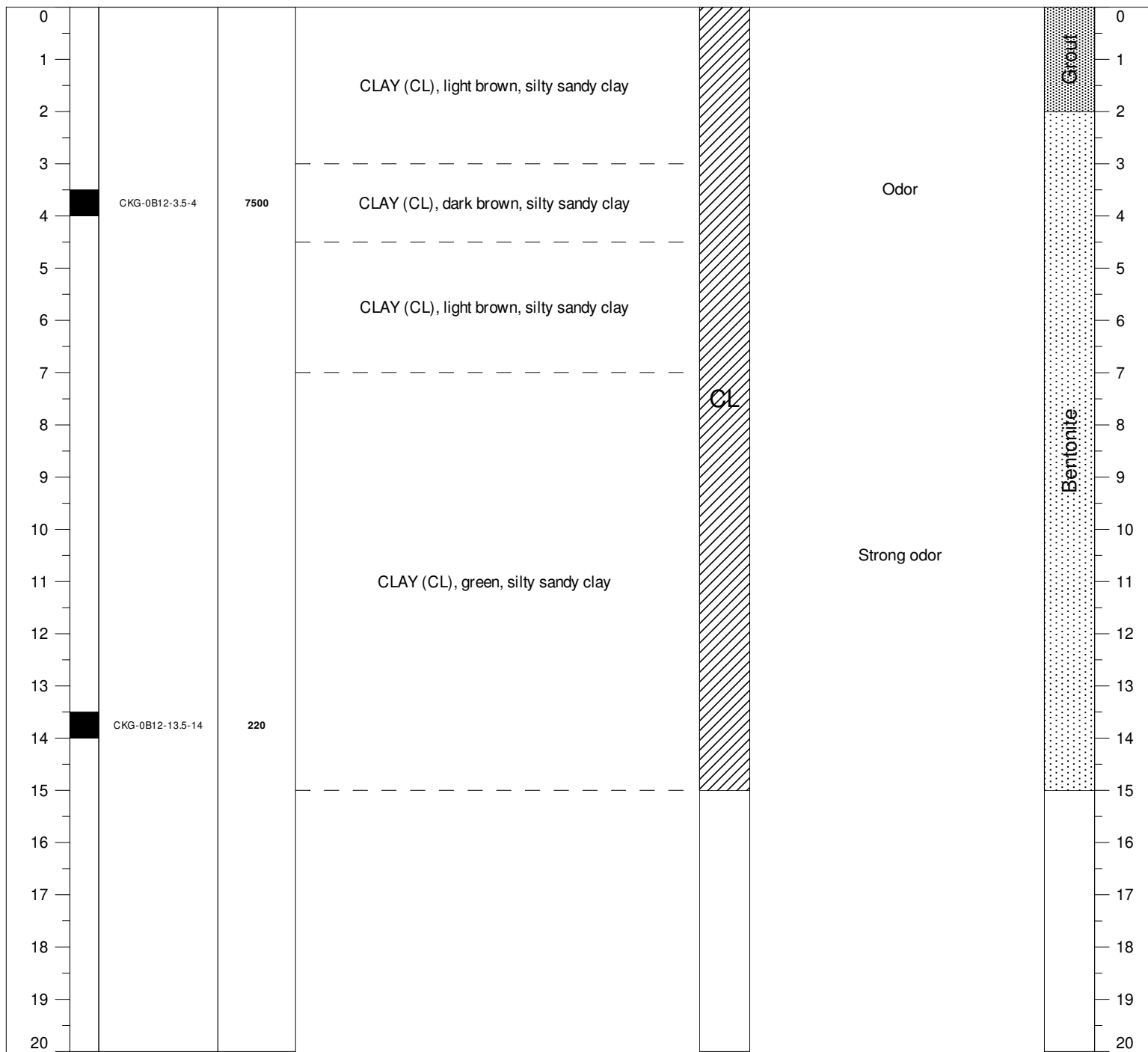
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**CKG-B11**

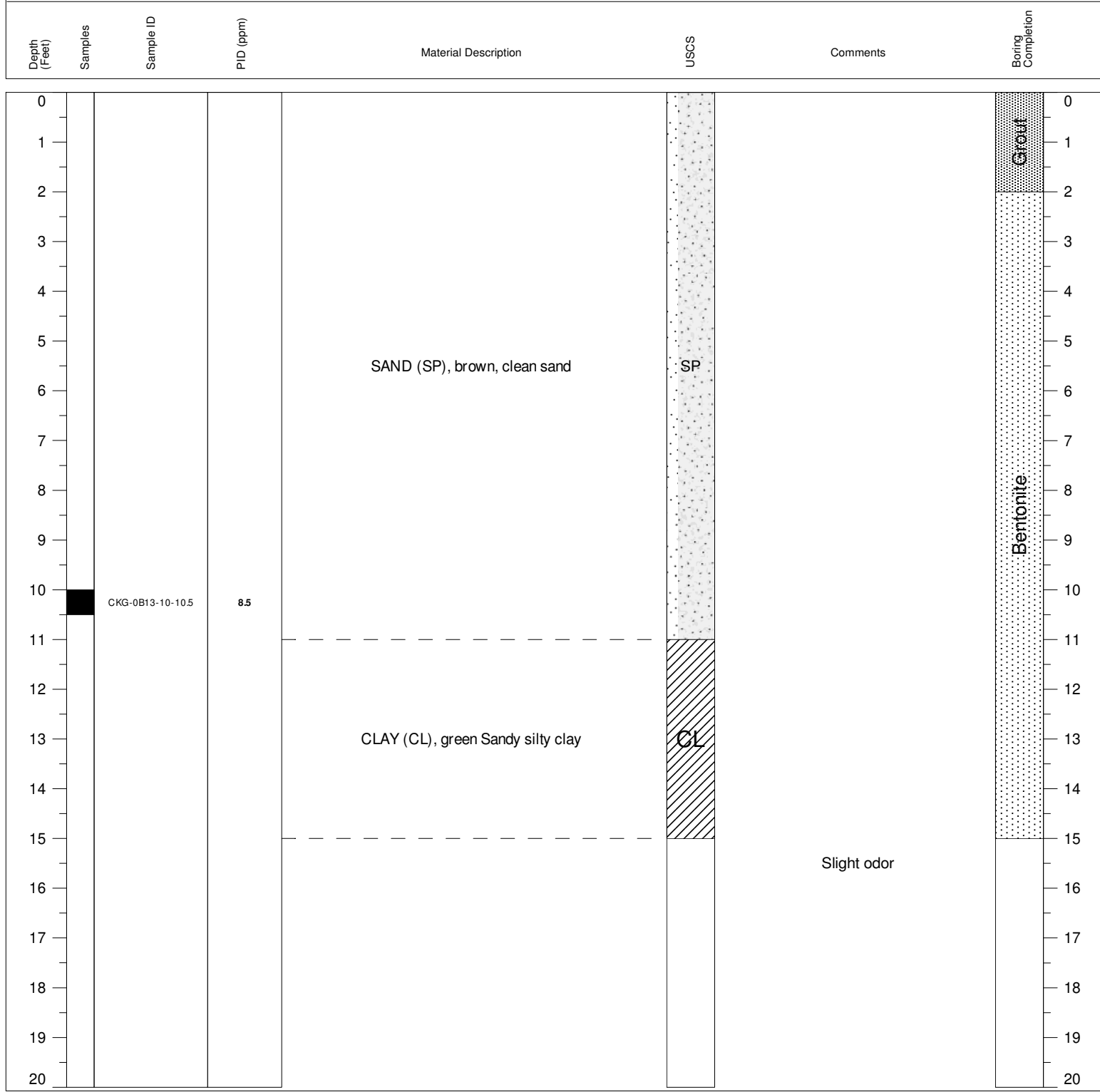
DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B12</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	9/1/09	Near BH8	
DRILLING METHOD	Direct Push	DATE COMPLETED	9/1/09	COMMENTS	
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	15'		
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	14.1'	Hydrocarbon odor	

Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B13</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	9/1/09	Close to CPT10	
DRILLING METHOD	Direct Push	DATE COMPLETED	9/1/09		COMMENTS
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	15'		
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	10.9'		

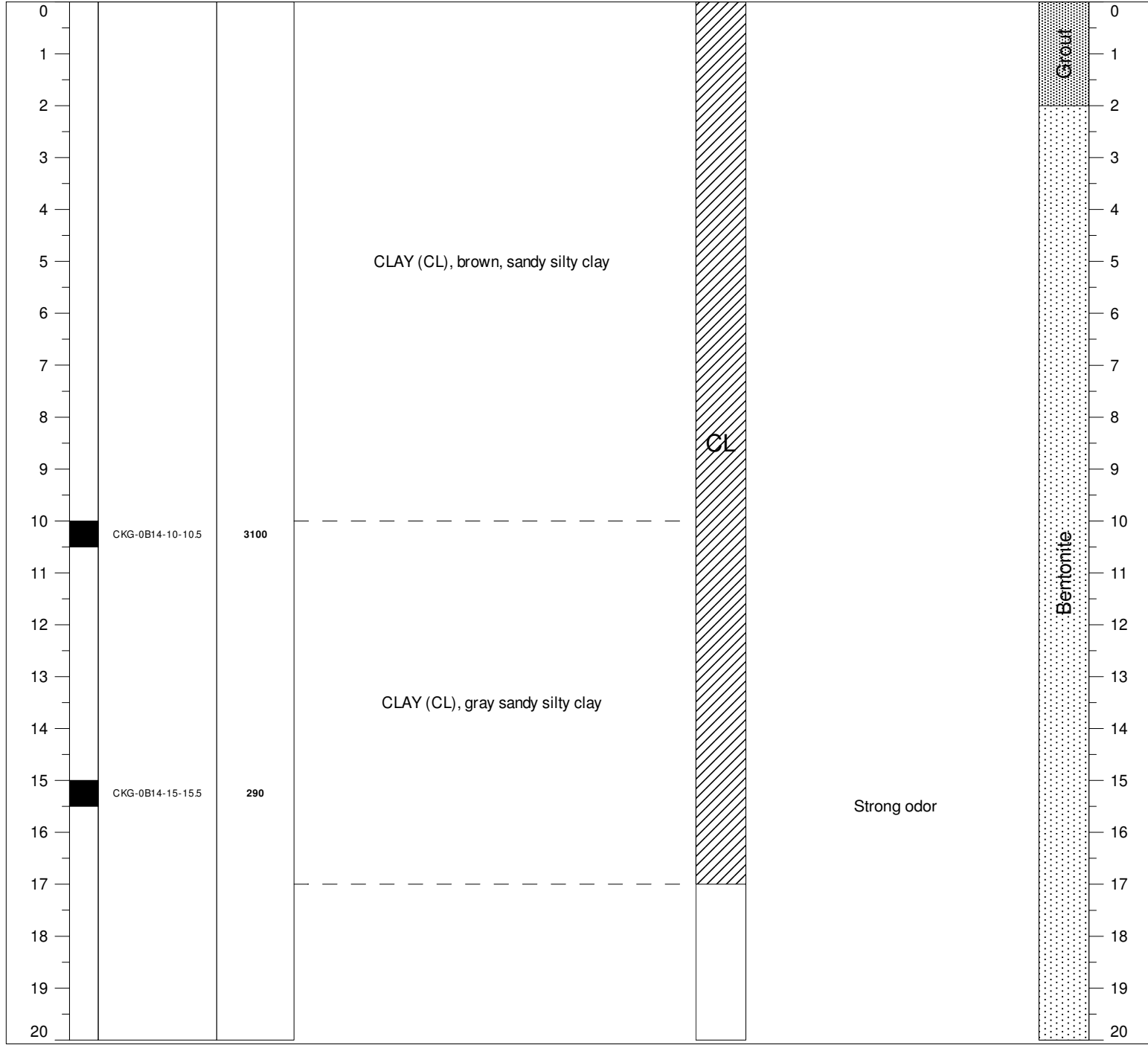


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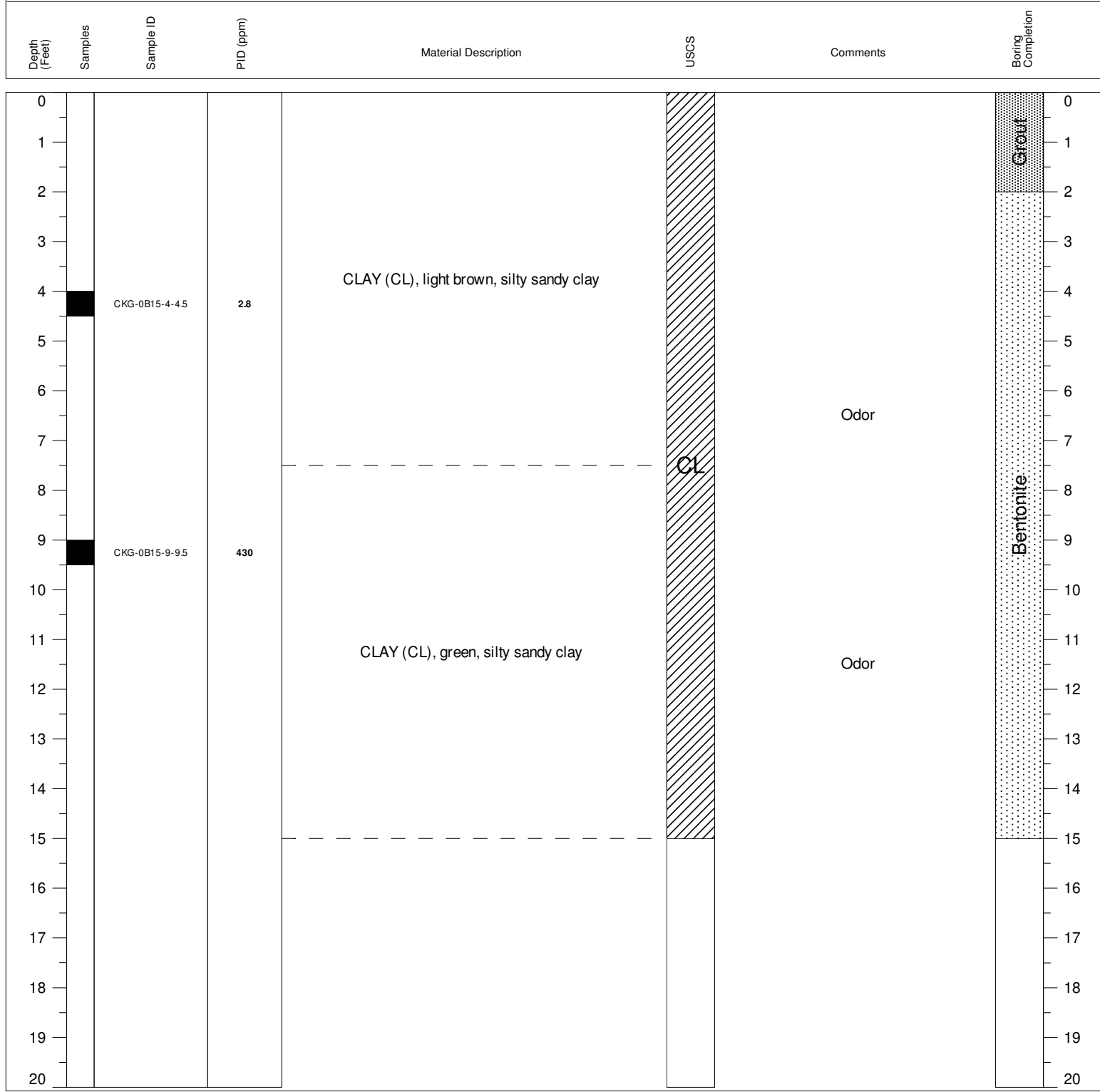
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DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B14</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	9/1/09		
DRILLING METHOD	Direct Push	DATE COMPLETED	9/1/09	Near BH14	
DRILLER	NA	HAND AUGERED TO		COMMENTS	
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	20'		
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	16'		

Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B15</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	9/1/09	East of red container ~15'	
DRILLING METHOD	Direct Push	DATE COMPLETED	9/1/09	COMMENTS	
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	15'		
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	9.8'		

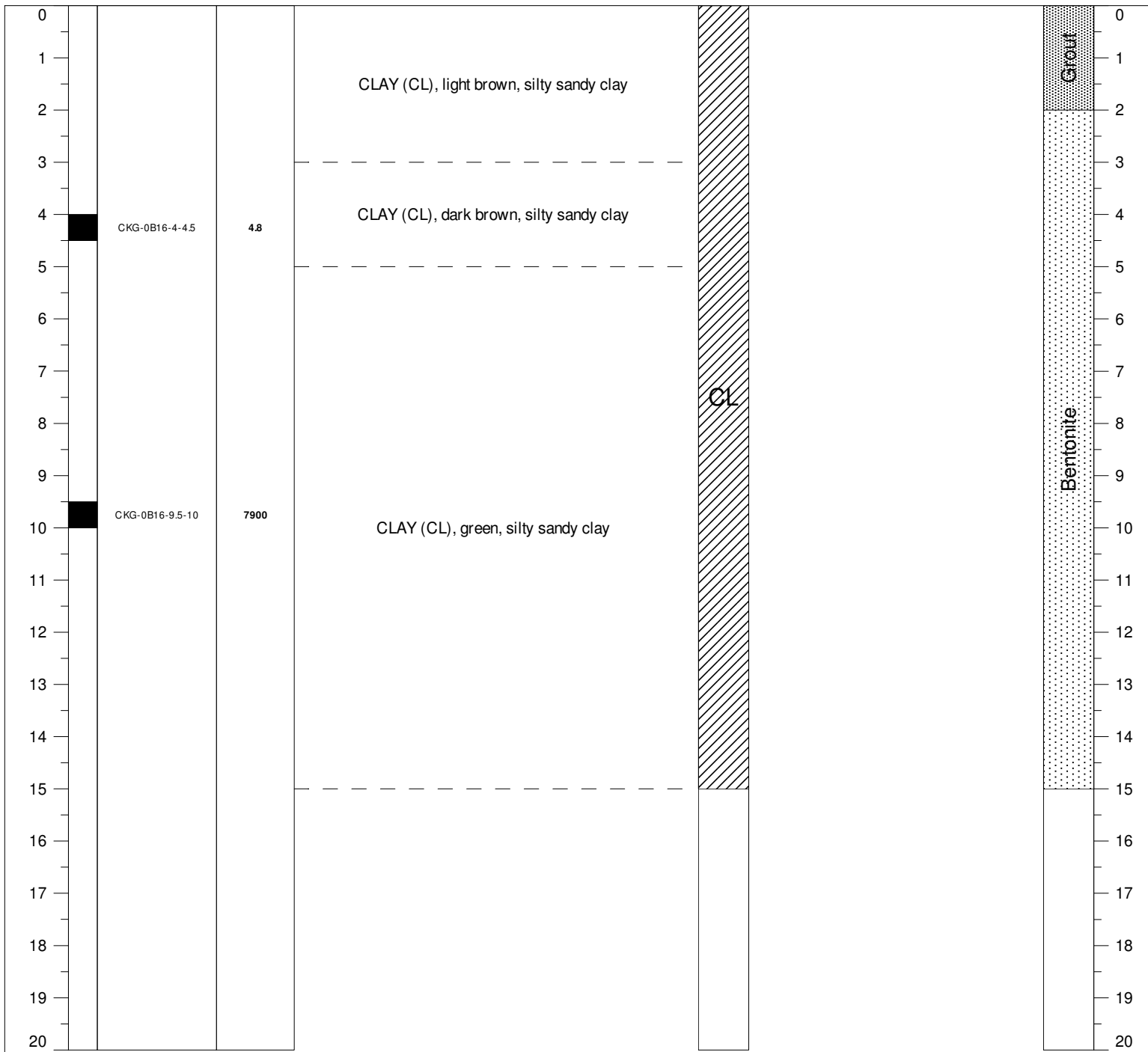


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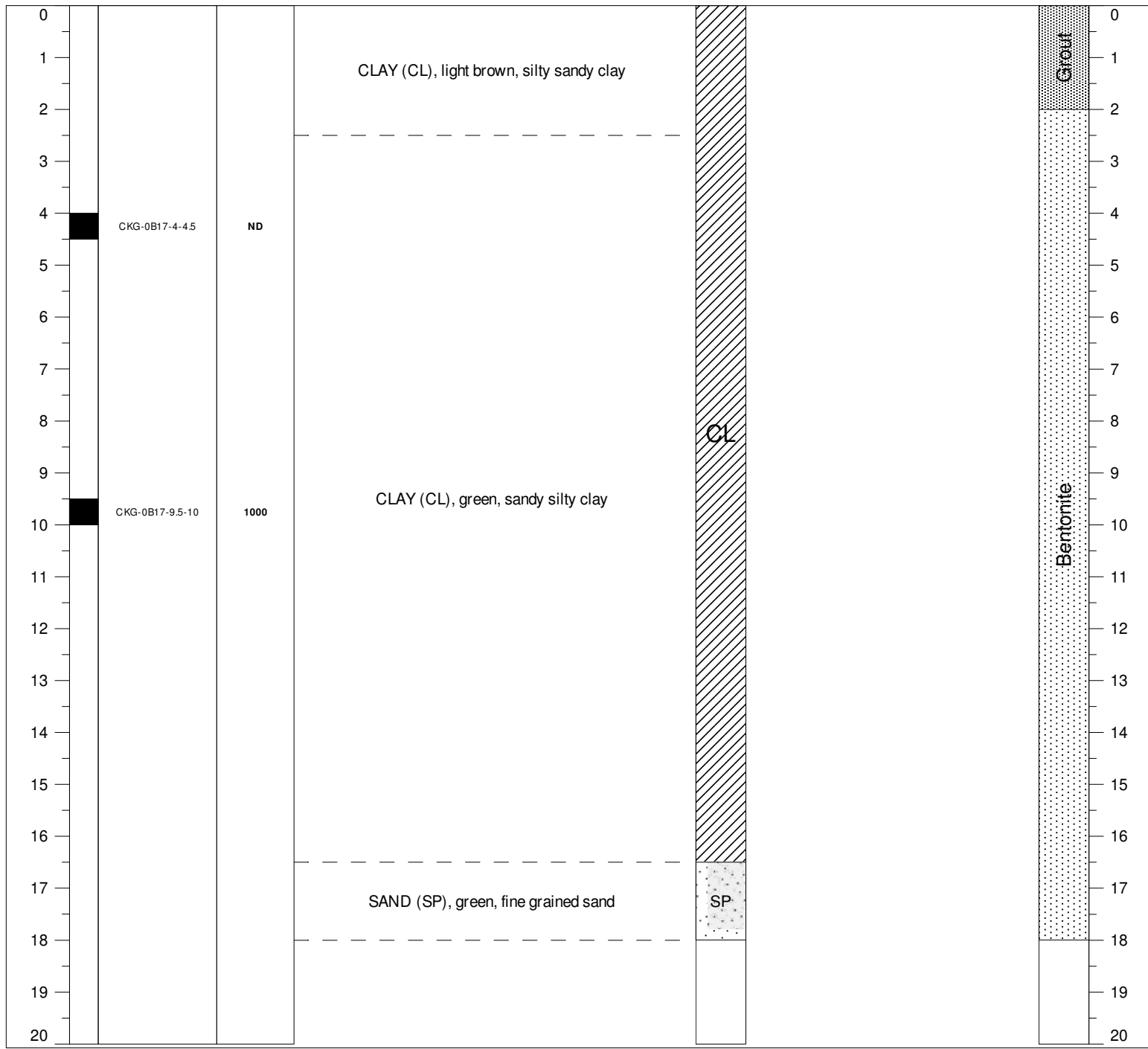
DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B16</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	9/1/09		
DRILLING METHOD	Direct Push	DATE COMPLETED	9/1/09		
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	15'	COMMENTS	
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	10.2'		

Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B17</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	9/1/09		
DRILLING METHOD	Direct Push	DATE COMPLETED	9/1/09		
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	18'	COMMENTS	
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	10.4'		

Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B18</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	9/2/09		
DRILLING METHOD	Direct Push	DATE COMPLETED	9/2/09		
DRILLER	NA	HAND AUGERED TO		COMMENTS	
SAMPLING EQUIPMENT	NA	TOTAL DEPTH			
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC		Not sampled, concrete too thick	

Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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0				Concrete too thick	CR		0
1							1
2							2
3							3
4							4
5							5
6							6
7							7
8							8
9							9
10							10
11							11
12							12
13							13
14							14
15							15
16							16
17							17
18							18
19							19
20							20

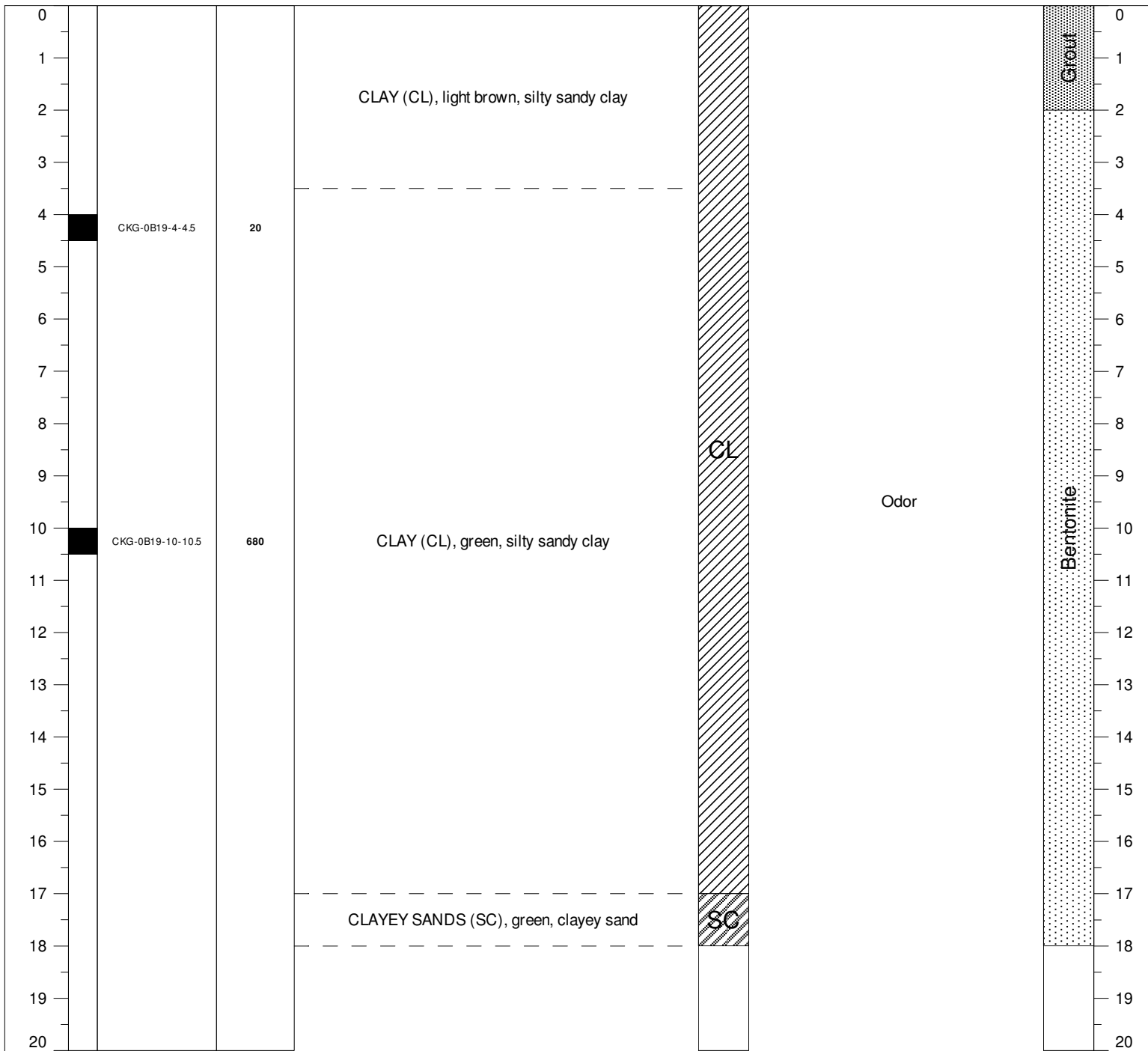


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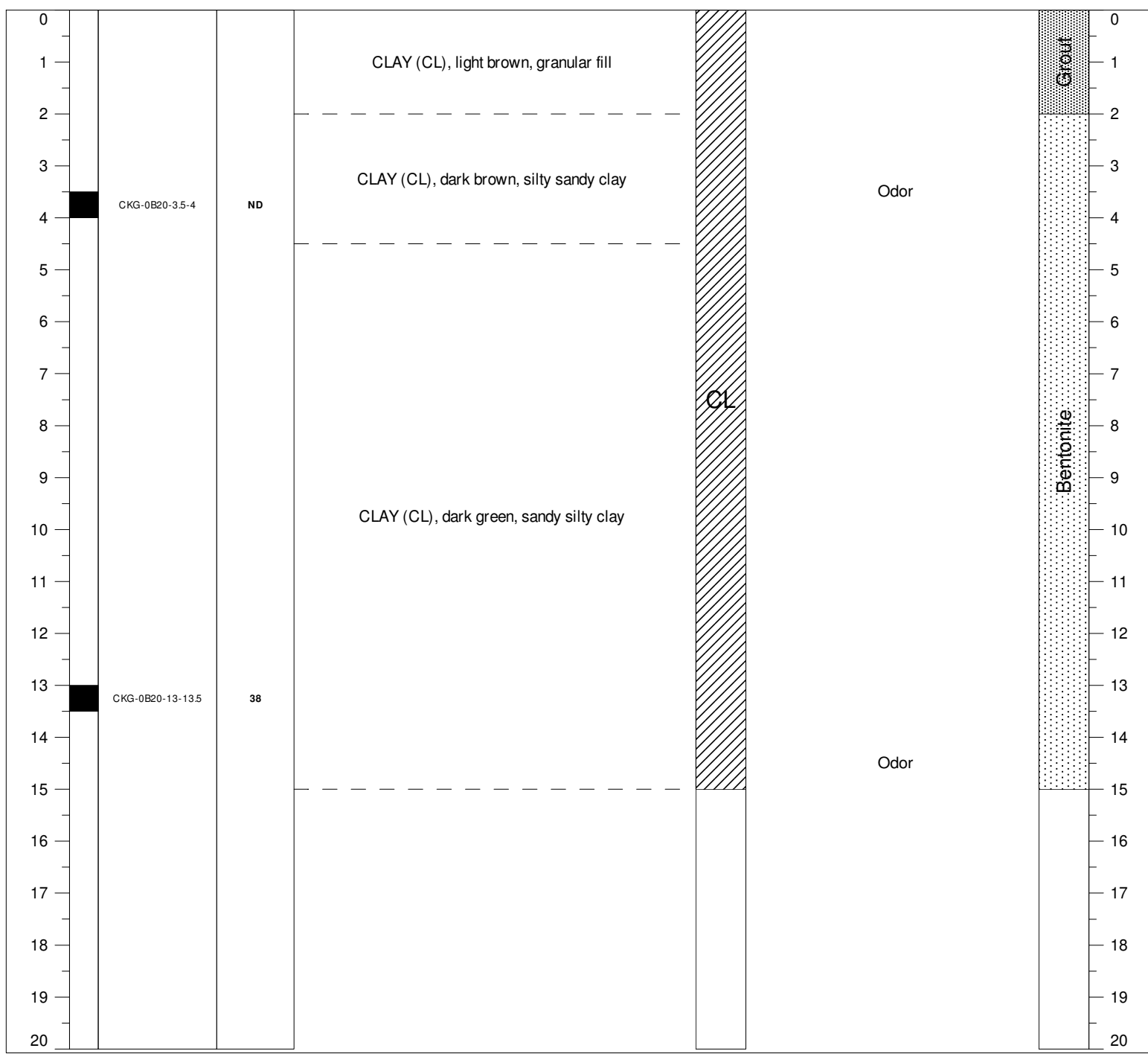
DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B19</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	9/2/09		
DRILLING METHOD	Direct Push	DATE COMPLETED	9/2/09		
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	18'	COMMENTS	
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	10.5'		

Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B20</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	9/2/09		
DRILLING METHOD	Direct Push	DATE COMPLETED	9/2/09		
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	15'	COMMENTS	
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	13.5'		

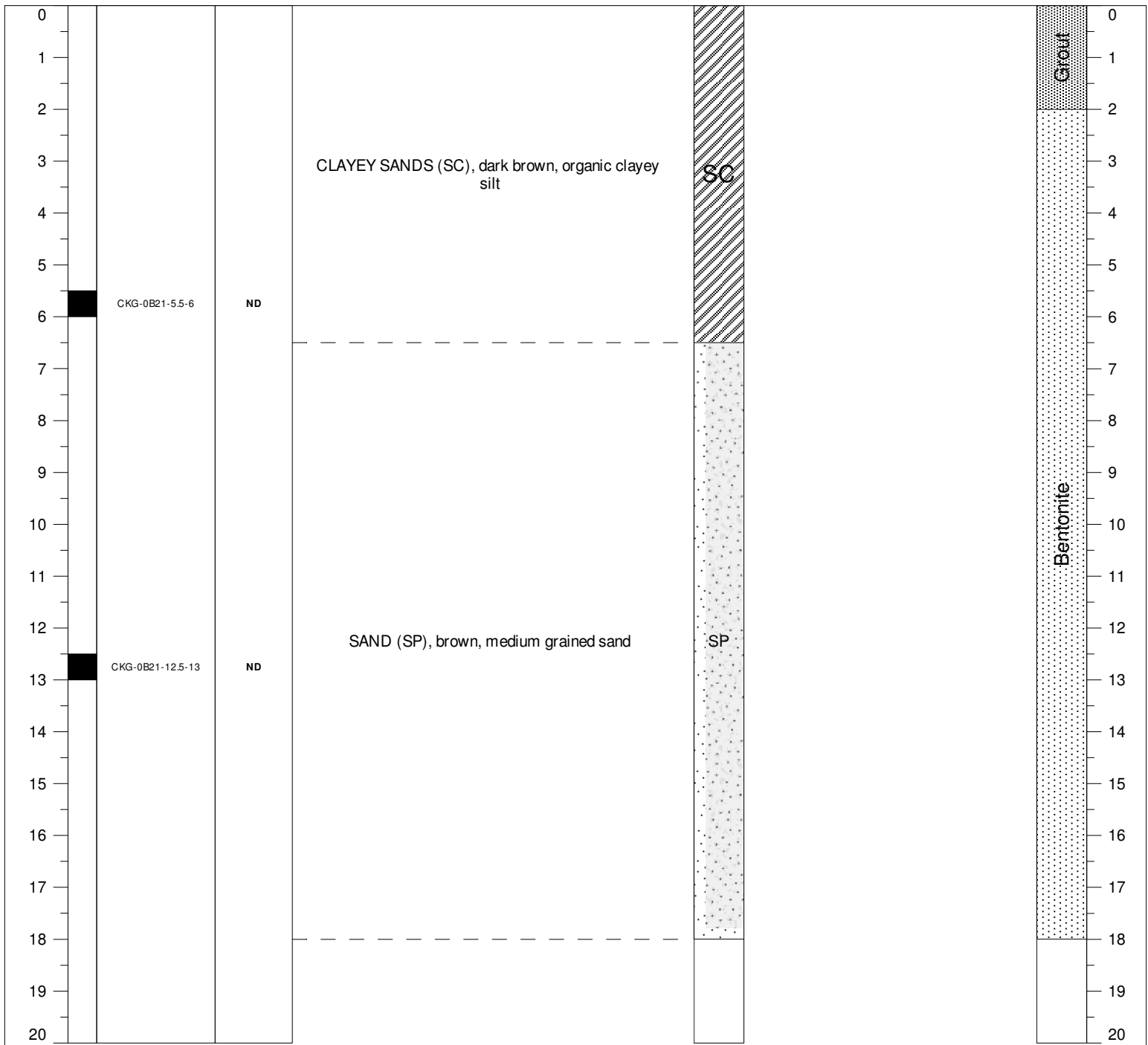
Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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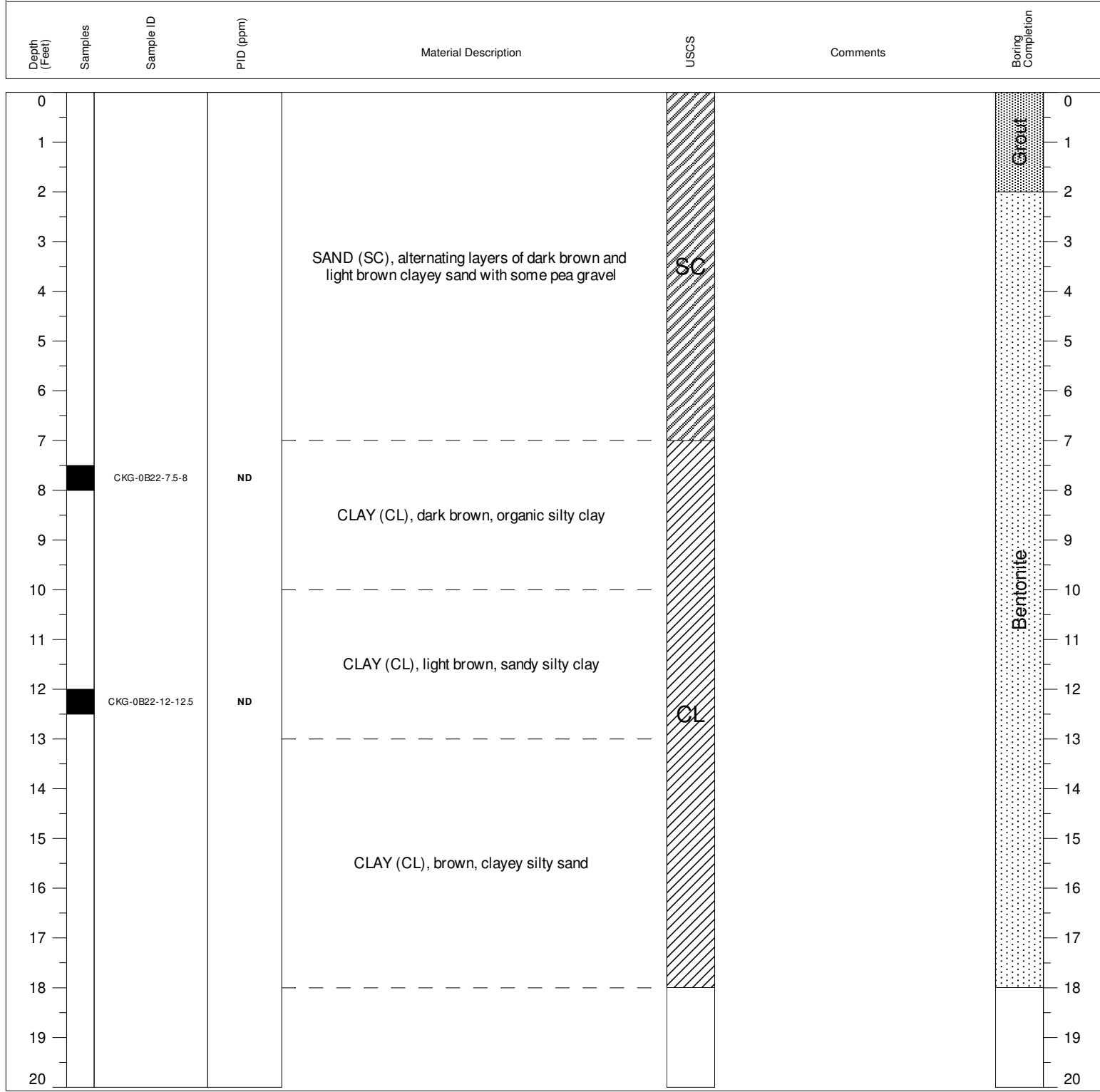


DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B21</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	9/2/09	Sotuhern most on west side of Alameda	
DRILLING METHOD	Direct Push	DATE COMPLETED	9/2/09		COMMENTS
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	18'		
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	13.2'		

Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B22</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	9/2/09	East of intersection of Alameda and Fruitvale	
DRILLING METHOD	Direct Push	DATE COMPLETED	9/2/09	COMMENTS	
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	18'		
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	12.5'		



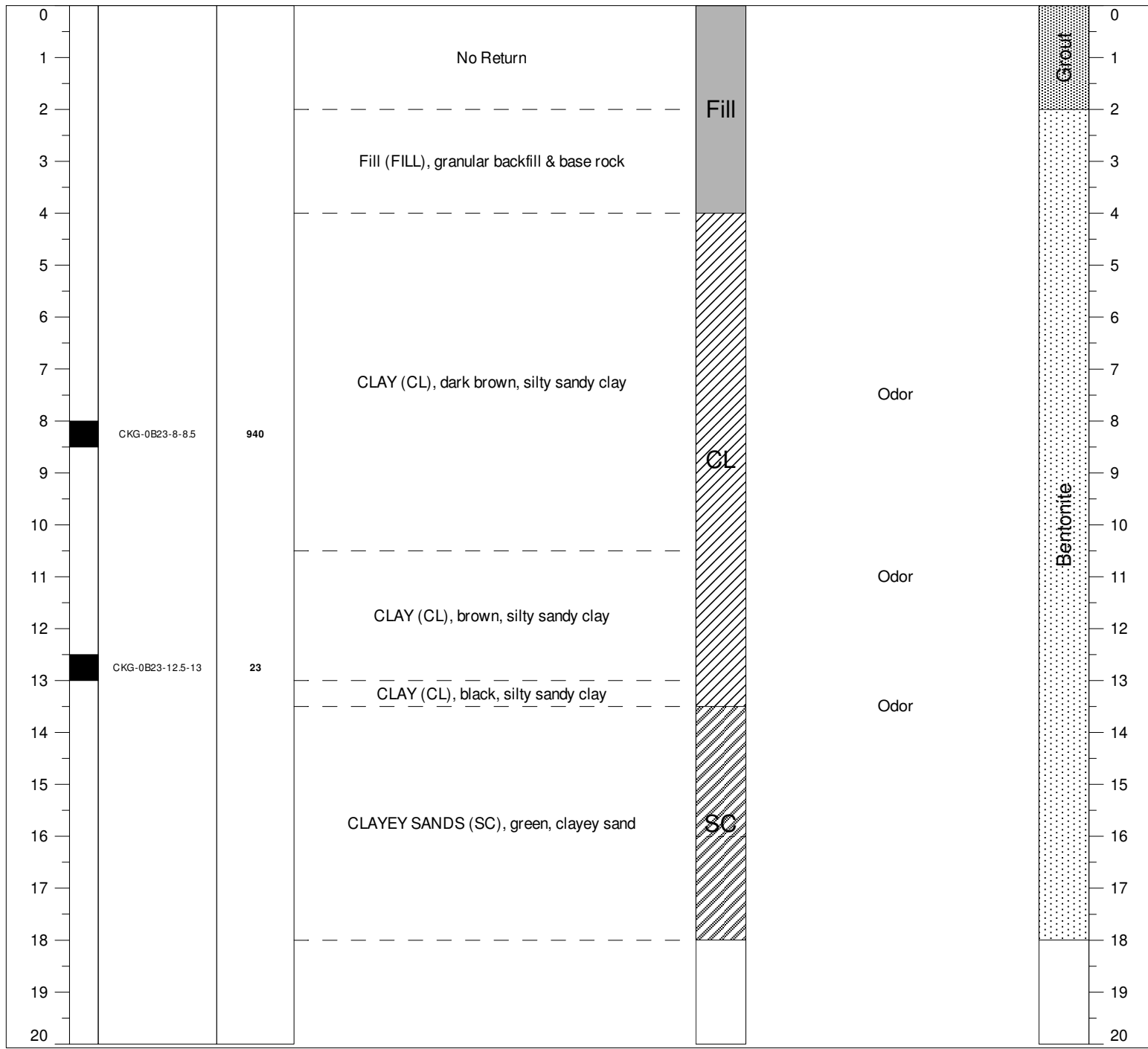
DRILLING COMPANY EnProbe Environmental Probing    LOGGED BY Steve Clark  
 DRILLING EQUIPMENT Geoprobe    DATE STARTED 9/2/09  
 DRILLING METHOD Direct Push    DATE COMPLETED 9/2/09  
 DRILLER NA    HAND AUGERED TO  
 SAMPLING EQUIPMENT NA    TOTAL DEPTH 18'  
 HAMMER WEIGHT NA    WATER LEVEL, INITIAL  
 HAMMER DROP NA    WATER LEVEL, STATIC 13.3'

BORING LOCATION  
 South of center stack, between tracks

**CKG-B23**

COMMENTS

Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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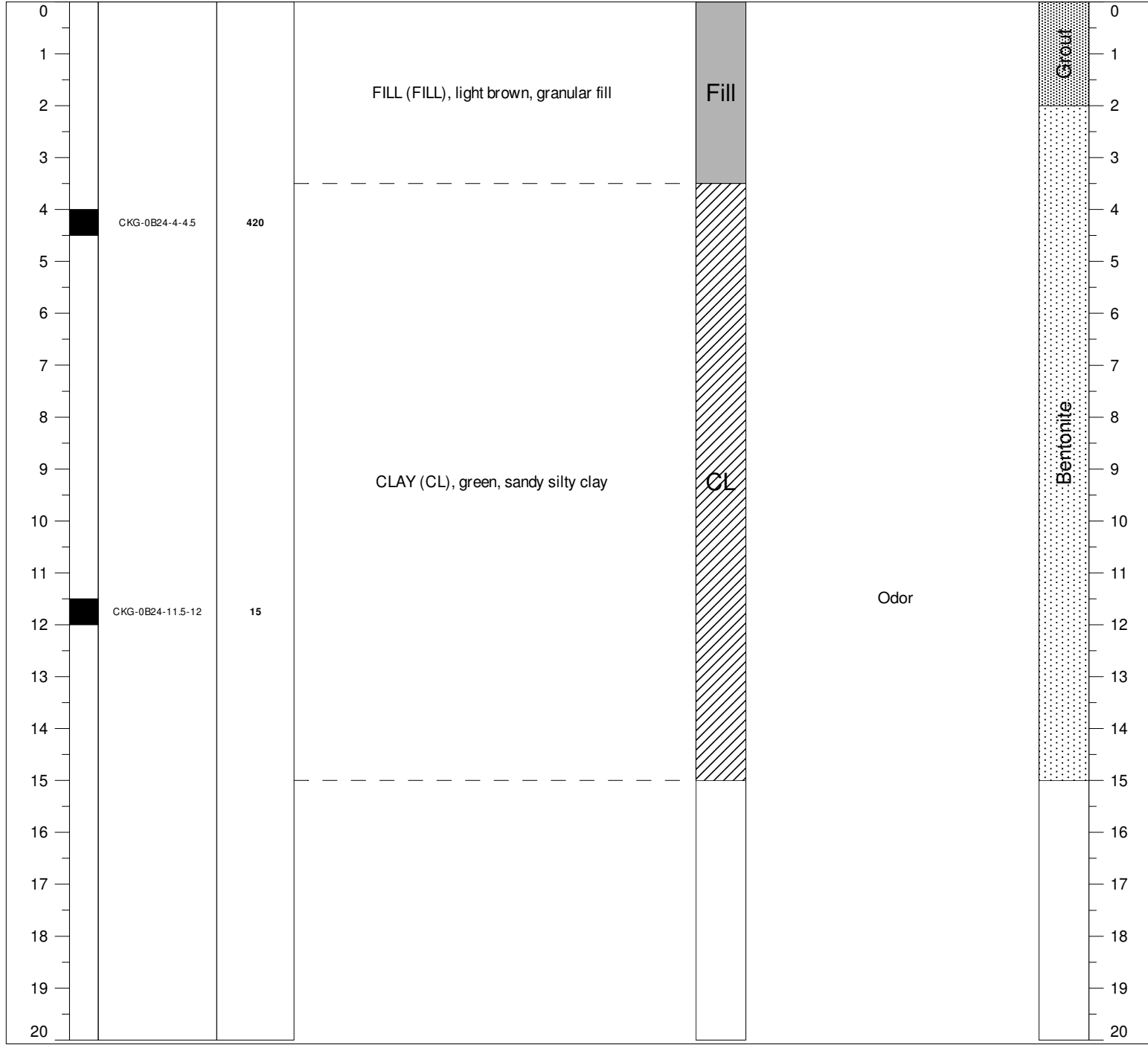
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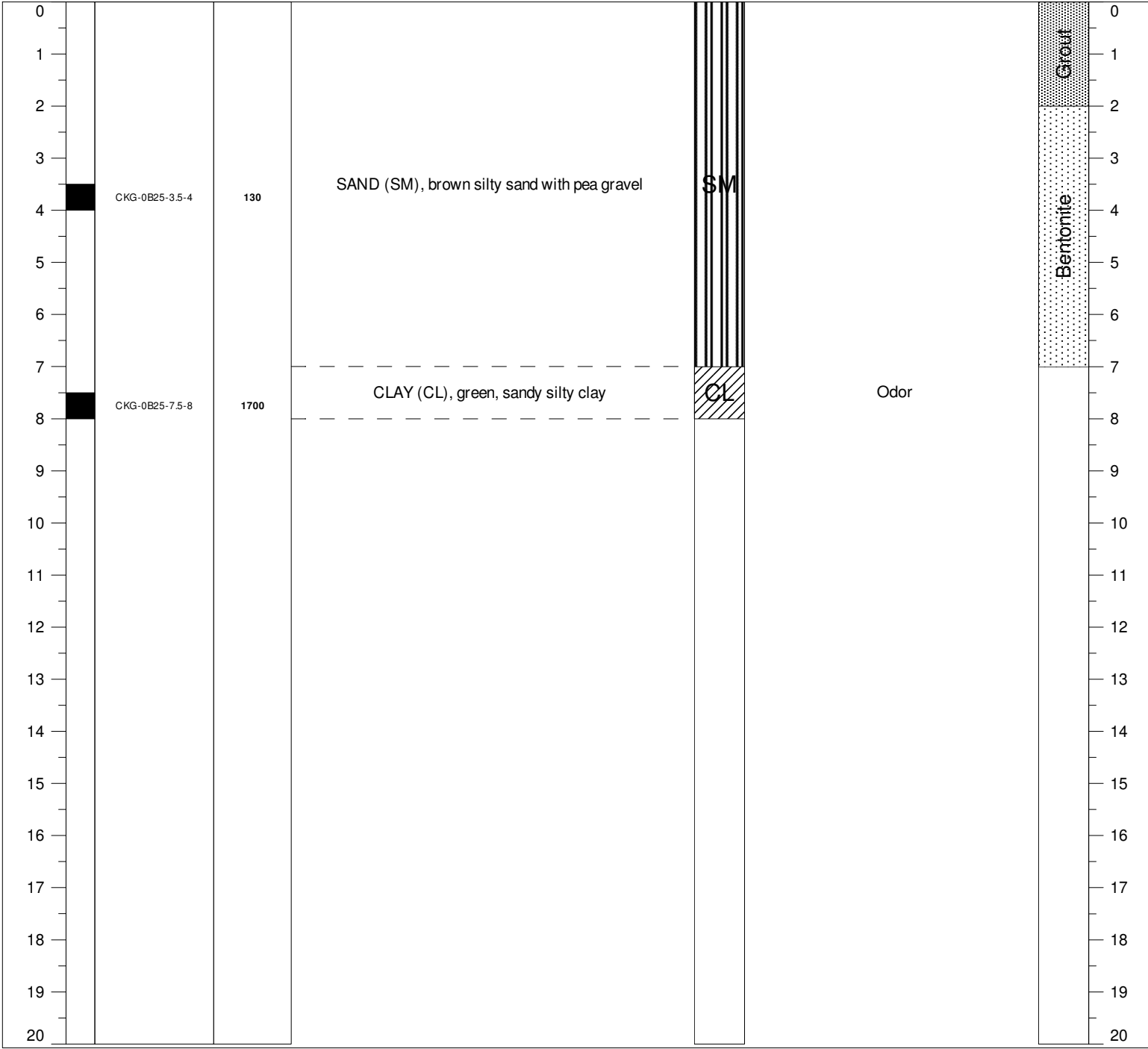
DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B24</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	9/2/09		
DRILLING METHOD	Direct Push	DATE COMPLETED	9/2/09		
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	15'	COMMENTS	
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	12'		

Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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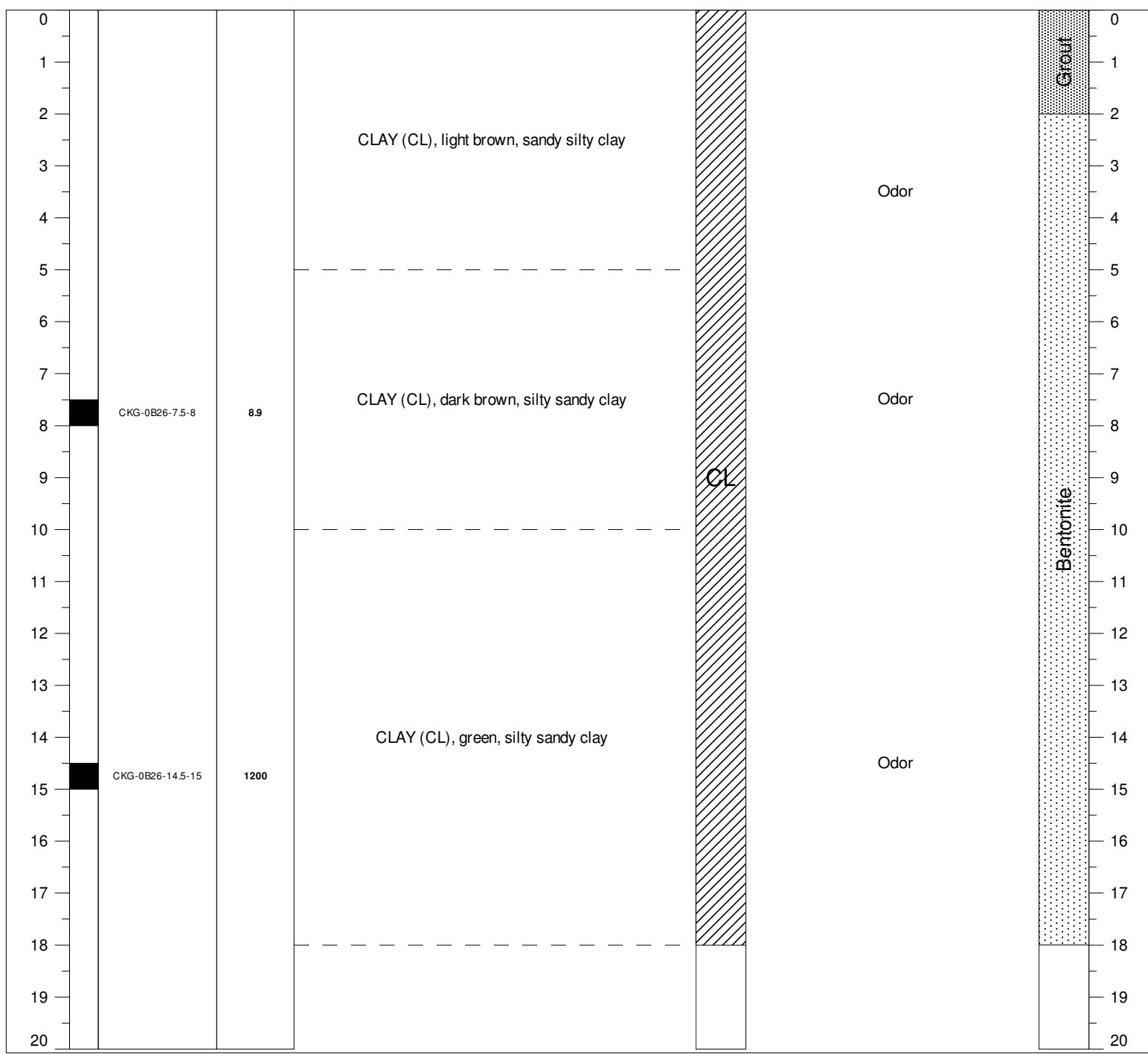
DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B25</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	9/2/09		
DRILLING METHOD	Direct Push	DATE COMPLETED	9/2/09		
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	7'	COMMENTS	
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	4'		

Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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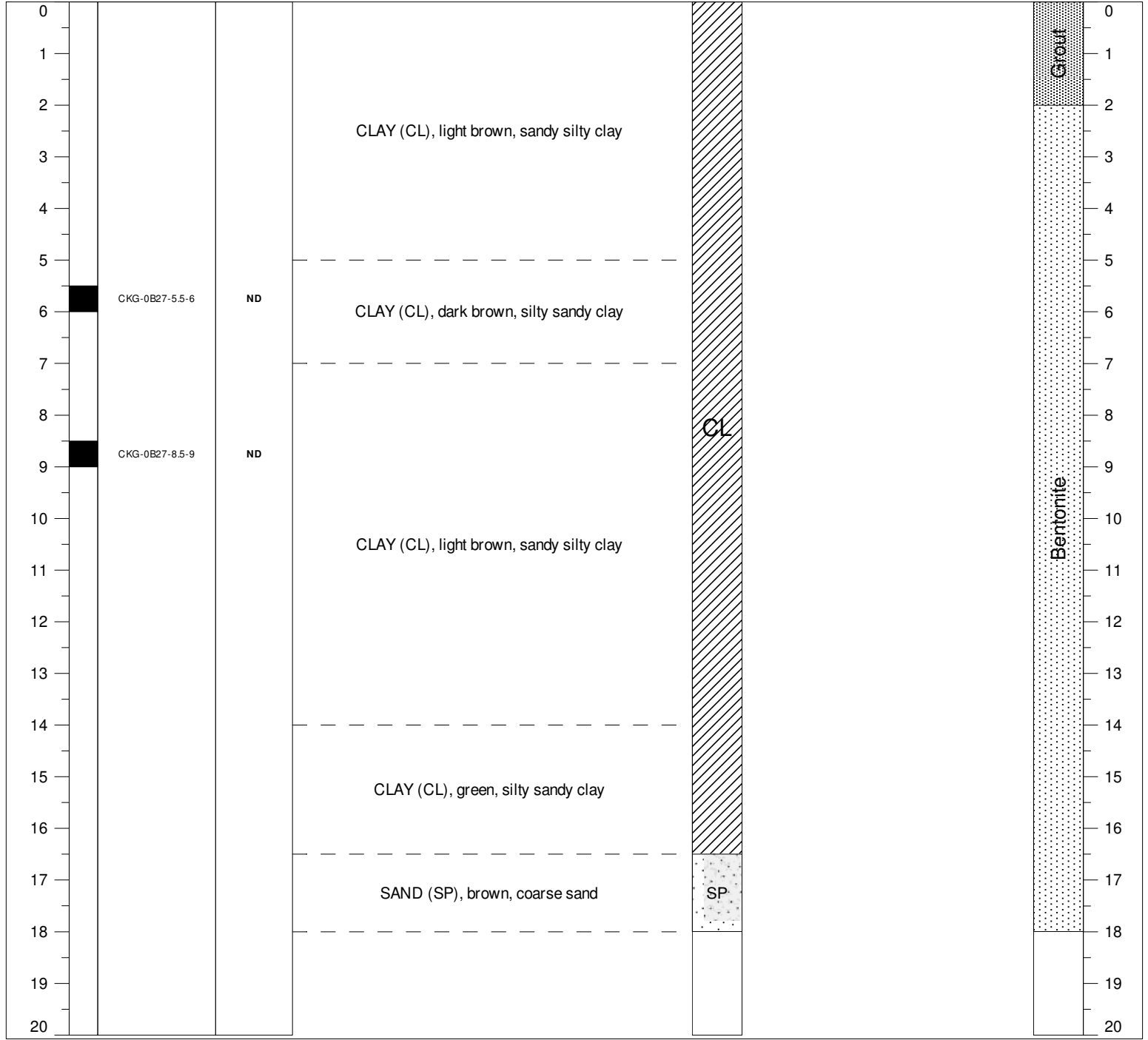
DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B26</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	9/2/09		
DRILLING METHOD	Direct Push	DATE COMPLETED	9/2/09		
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	18'	COMMENTS	
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	13.2'	Very hot well	

Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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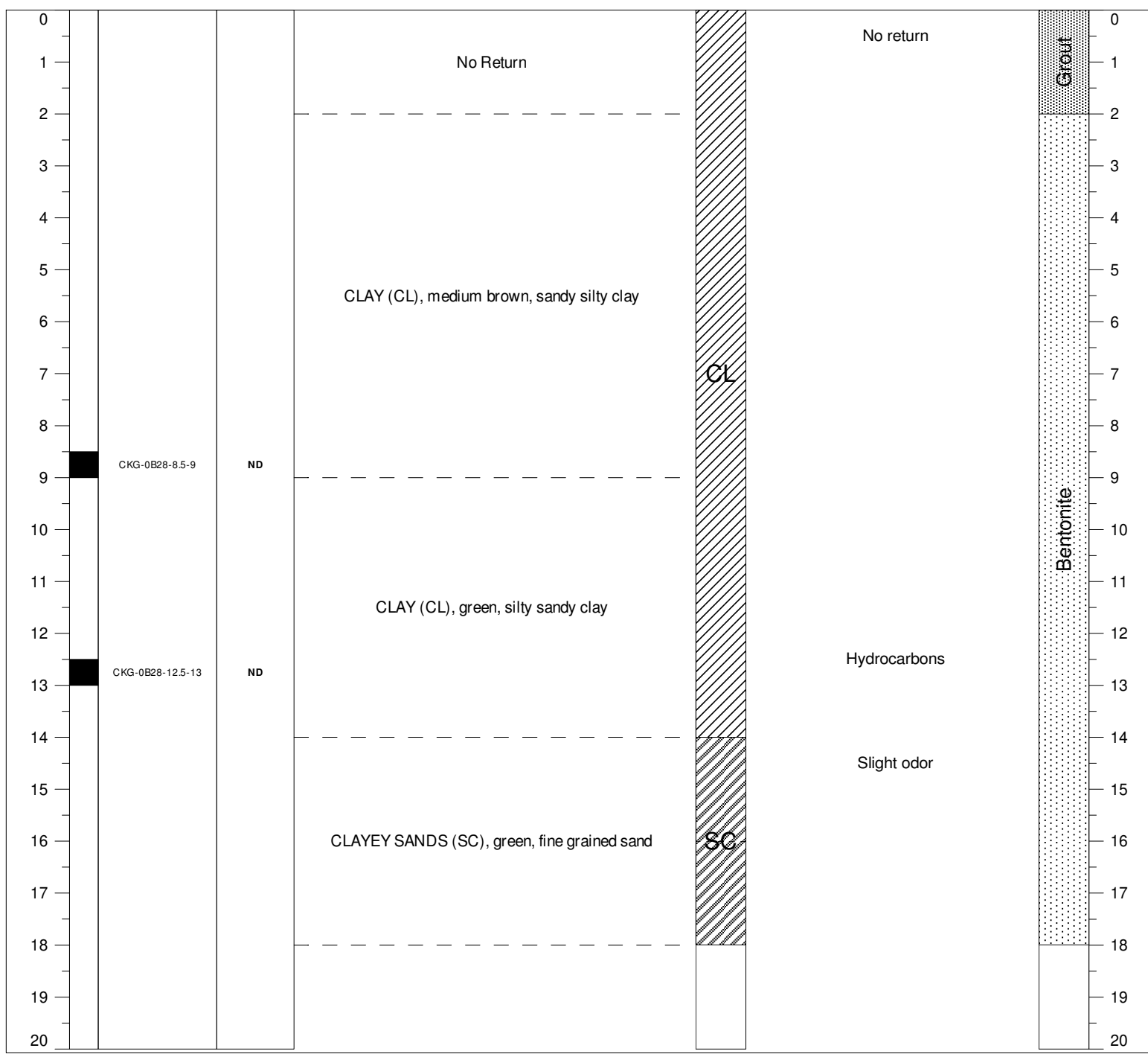
DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B27</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	9/3/09		
DRILLING METHOD	Direct Push	DATE COMPLETED	9/3/09		
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	18'	COMMENTS	
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	9.2'		

Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B28</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	9/3/09		
DRILLING METHOD	Direct Push	DATE COMPLETED	9/3/09		
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	18'	COMMENTS	
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	13.2'		

Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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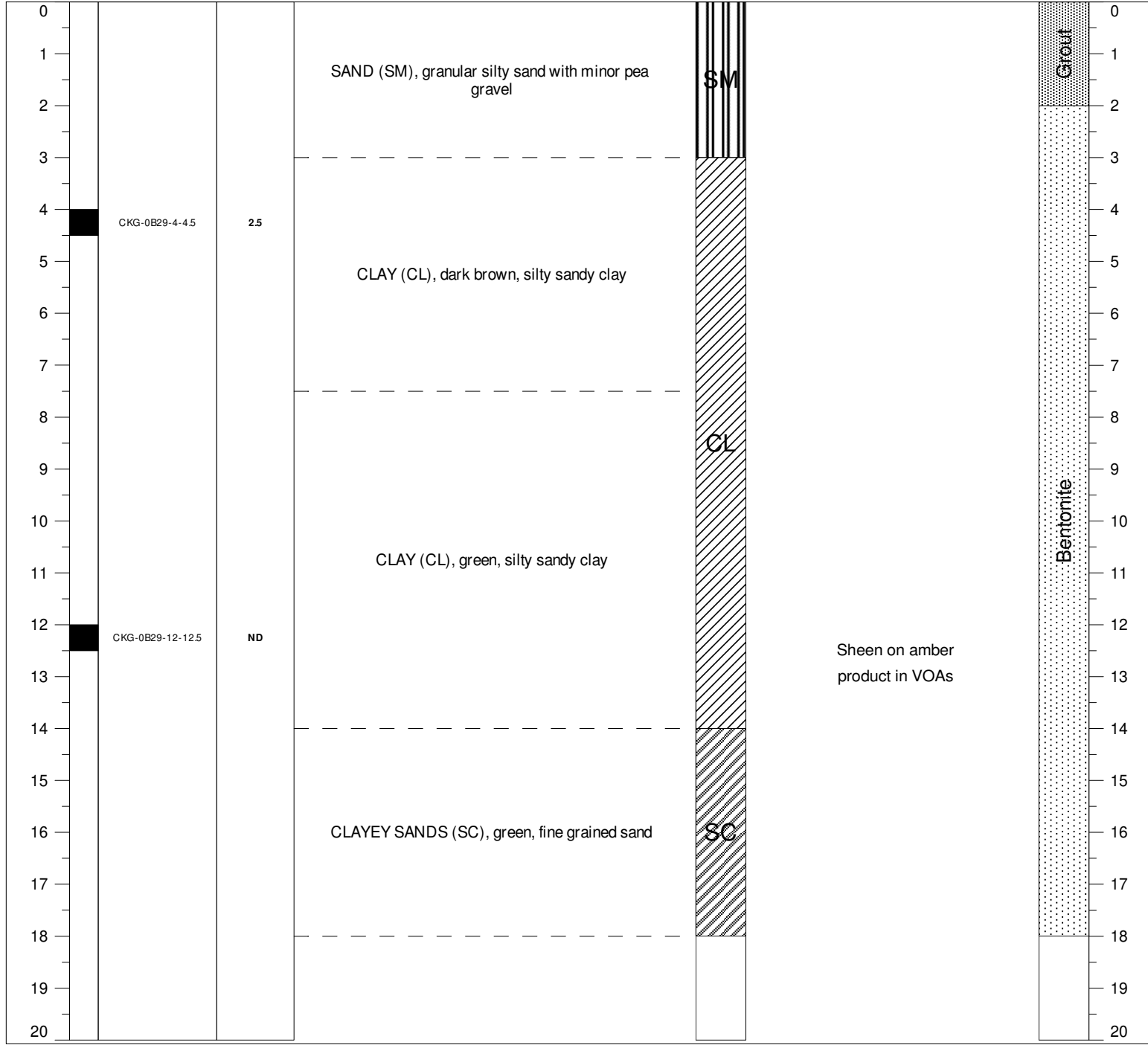
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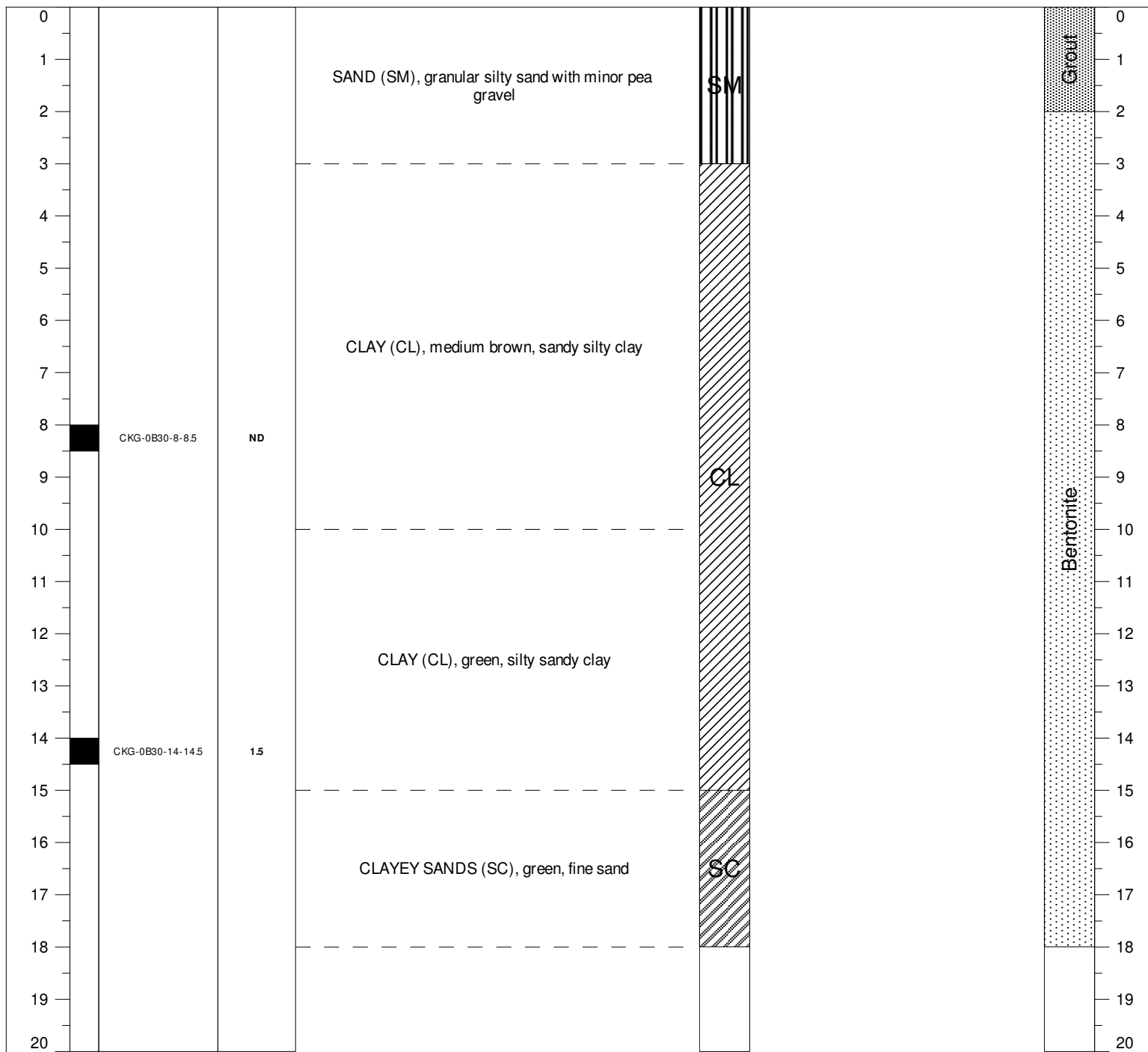
DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B29</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	9/3/09		
DRILLING METHOD	Direct Push	DATE COMPLETED	9/3/09		
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	18'	COMMENTS	
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	12.9'	Hydrocarbon odor	

Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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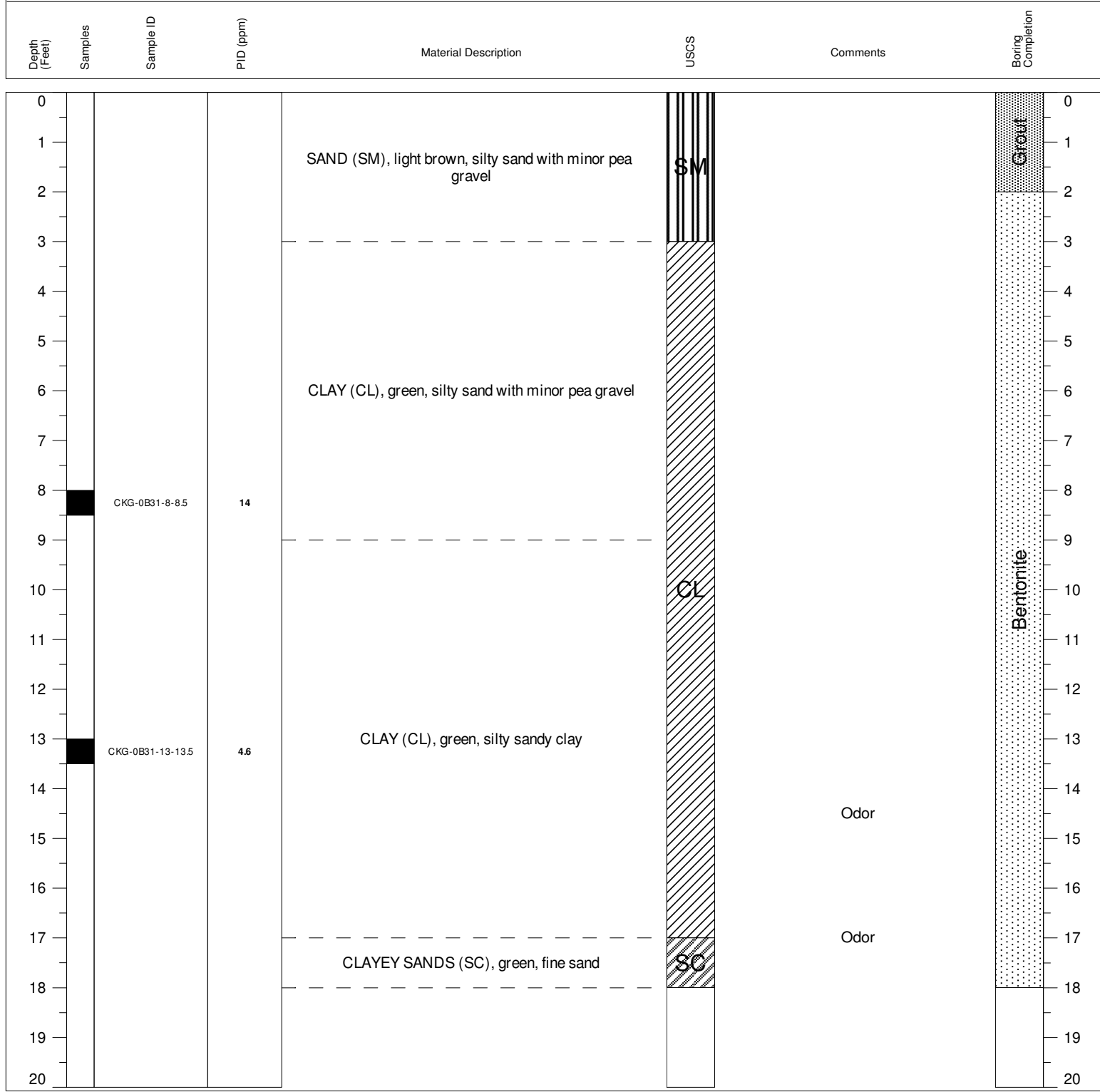


DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B30</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	9/3/09		
DRILLING METHOD	Direct Push	DATE COMPLETED	9/3/09		
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	18'	COMMENTS	
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	14.7'		

Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
--------------	---------	-----------	-----------	----------------------	------	----------	-------------------



DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B31</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	9/3/09		
DRILLING METHOD	Direct Push	DATE COMPLETED	9/3/09		
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	18'	COMMENTS	
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	13.6'		



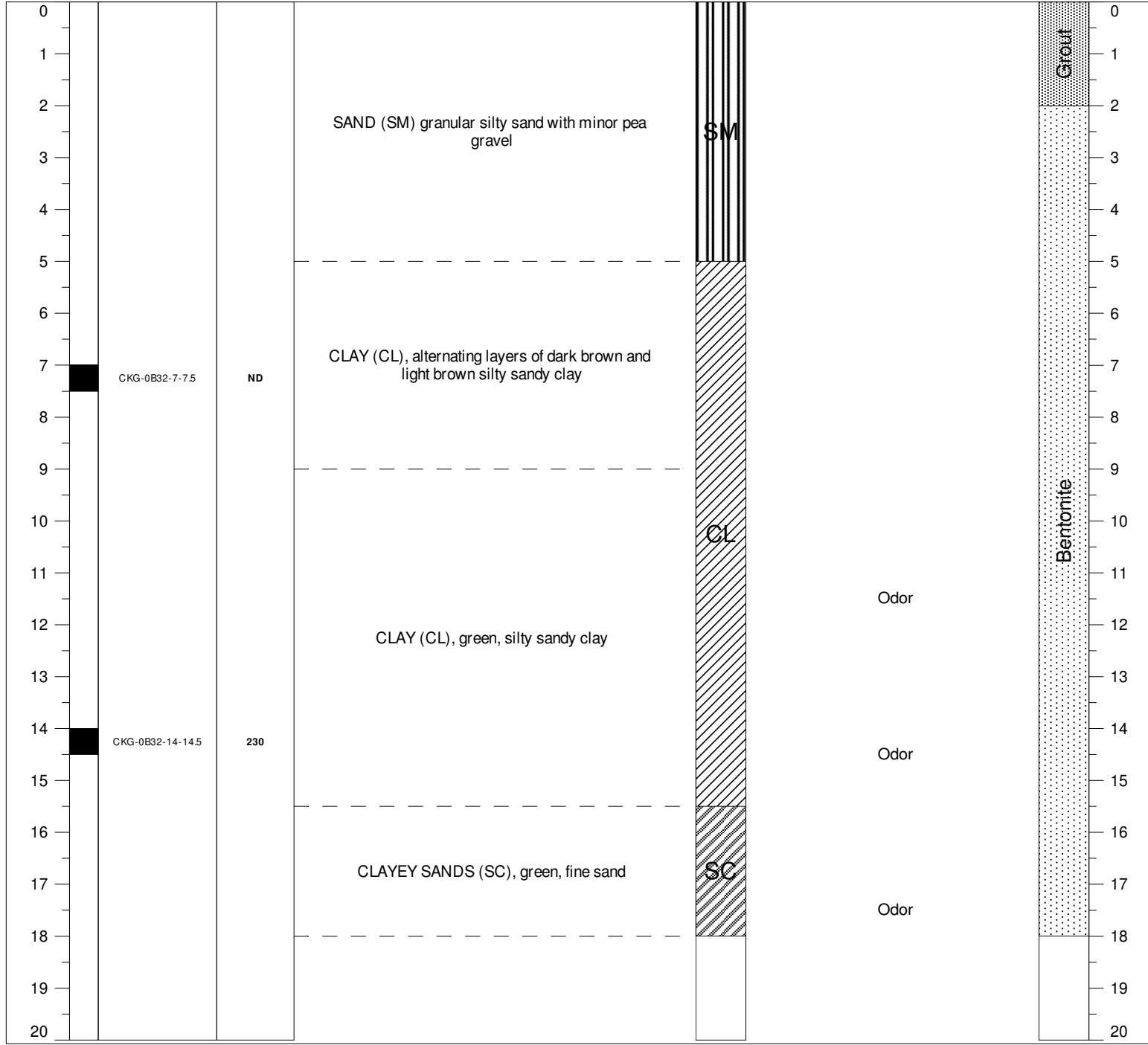
CKG Environmental, Inc.

Soil Boring Log  
Oakland Property  
Owens Brockway Glass Container Facility  
3600 Alameda Avenue, Oakland, California

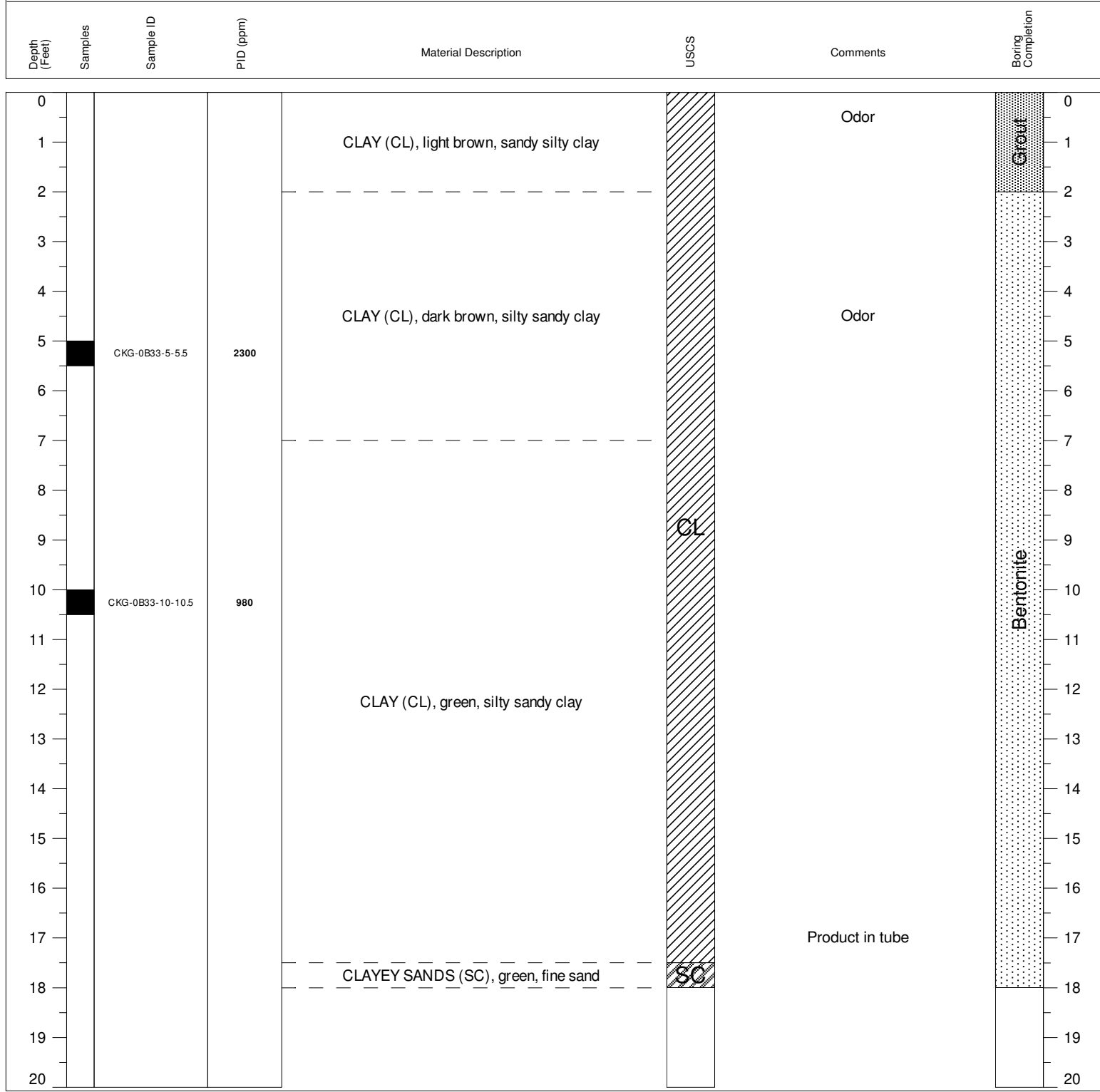
**CKG-B31**

DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B32</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	9/3/09		
DRILLING METHOD	Direct Push	DATE COMPLETED	9/3/09		
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	18'	COMMENTS	
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	14.9'	Hydrocarbon odor	

Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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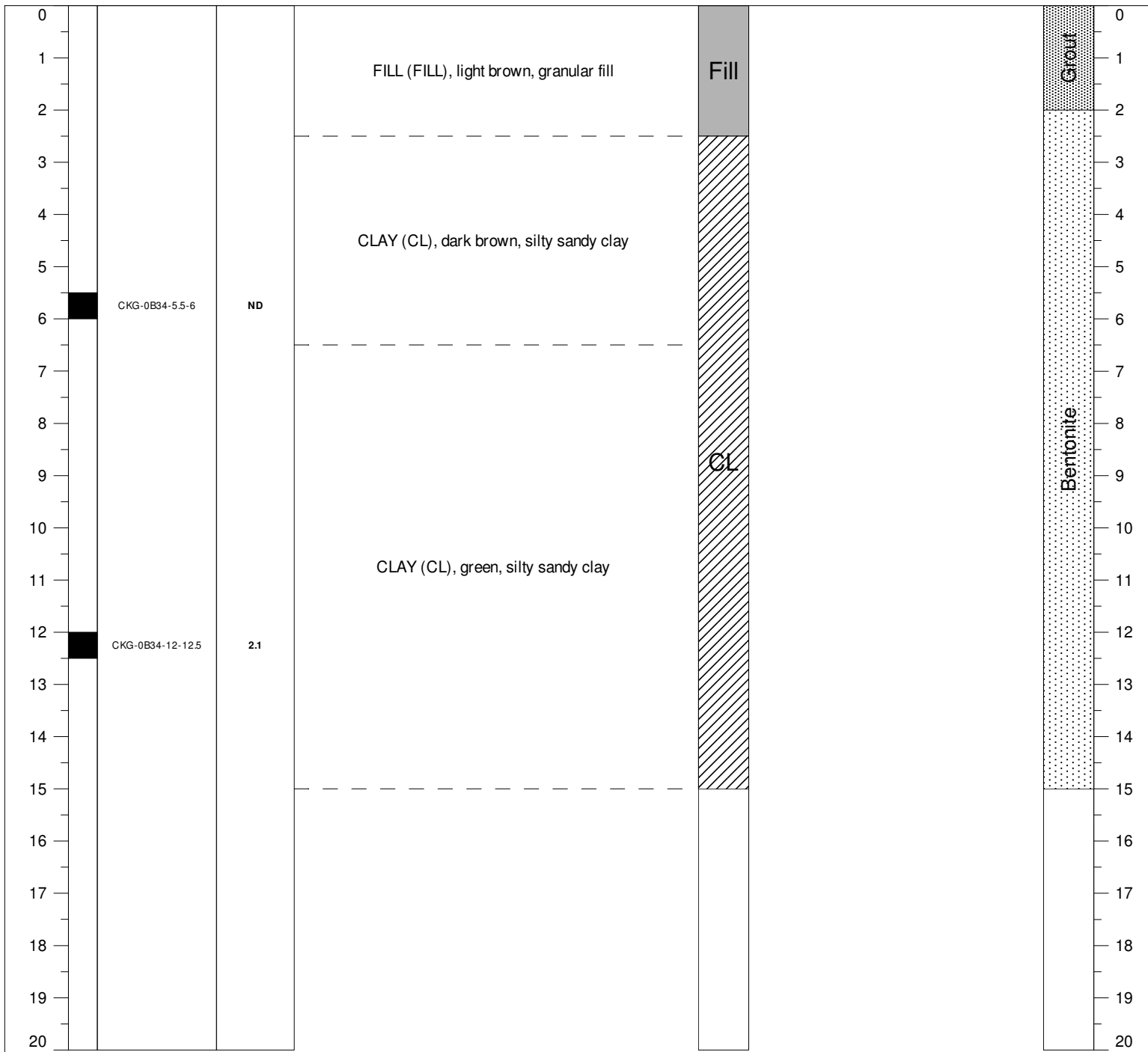


DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B33</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	9/3/09		
DRILLING METHOD	Direct Push	DATE COMPLETED	9/3/09		
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	18'	COMMENTS	
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	10.7'	Heavy product in hole	



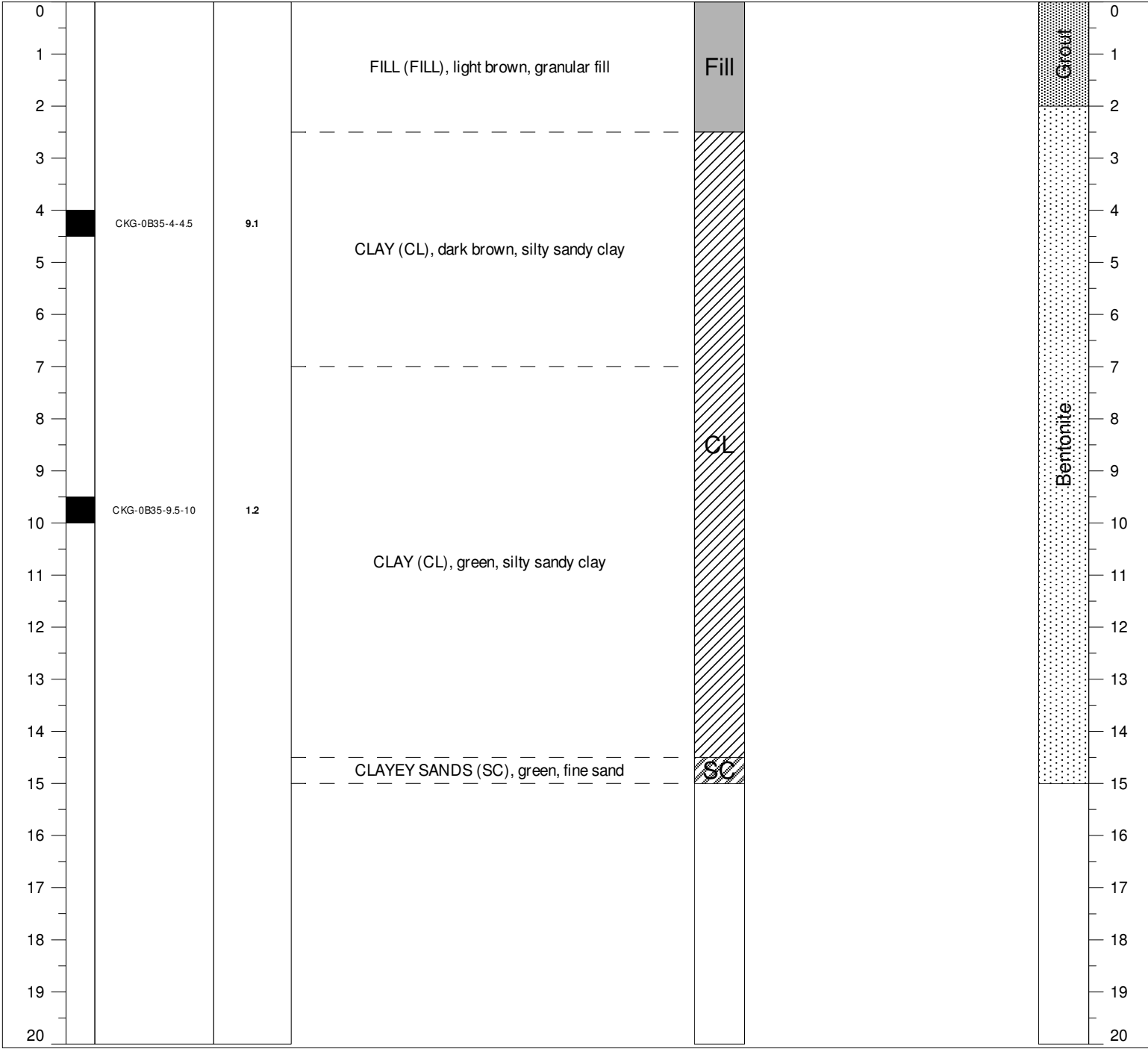
DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B34</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	9/3/09		
DRILLING METHOD	Direct Push	DATE COMPLETED	9/3/09		
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	15'	COMMENTS	
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL		Water seems cleaner	
HAMMER DROP	NA	WATER LEVEL, STATIC	12.6'		

Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B35</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	9/3/09		
DRILLING METHOD	Direct Push	DATE COMPLETED	9/3/09		
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	15'	COMMENTS	
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	10.2'		

Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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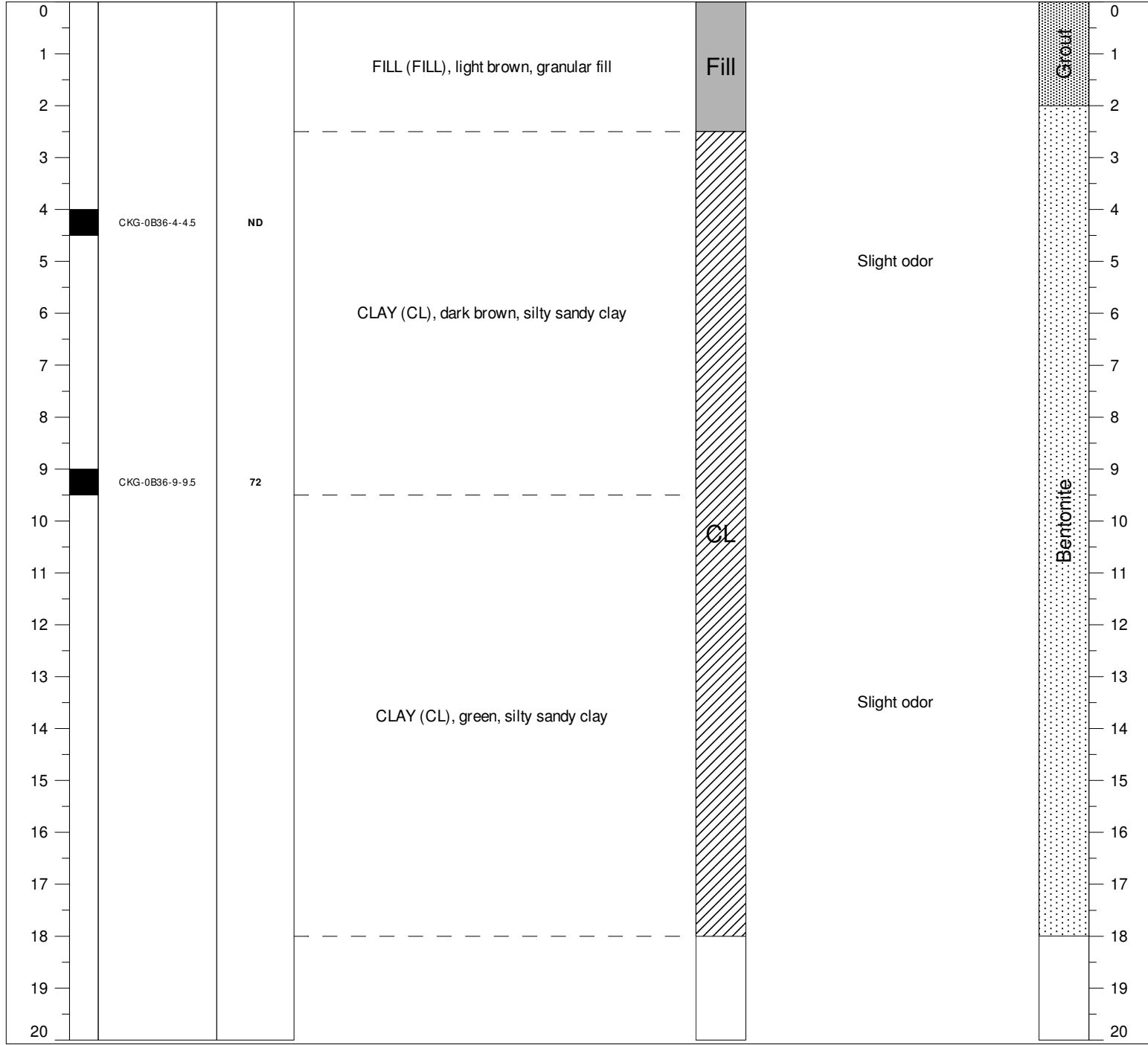
CKG Environmental, Inc.

Soil Boring Log  
 Oakland Property  
 Owens Brockway Glass Container Facility  
 3600 Alameda Avenue, Oakland, California

**CKG-B35**

DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B36</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	9/4/09		
DRILLING METHOD	Direct Push	DATE COMPLETED	9/4/09		
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	18'	COMMENTS	
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	9.9'	Sheen on amber	

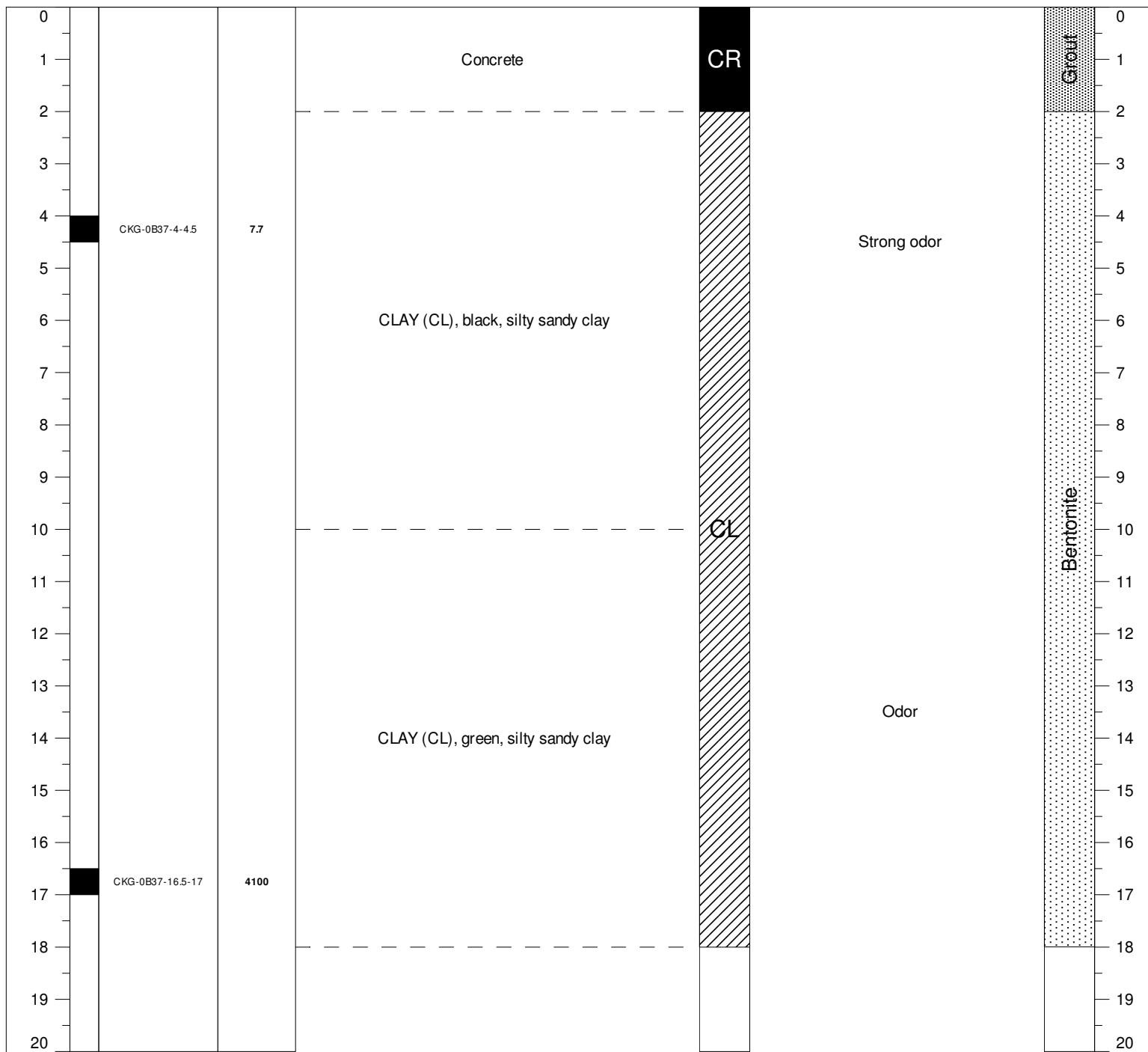
Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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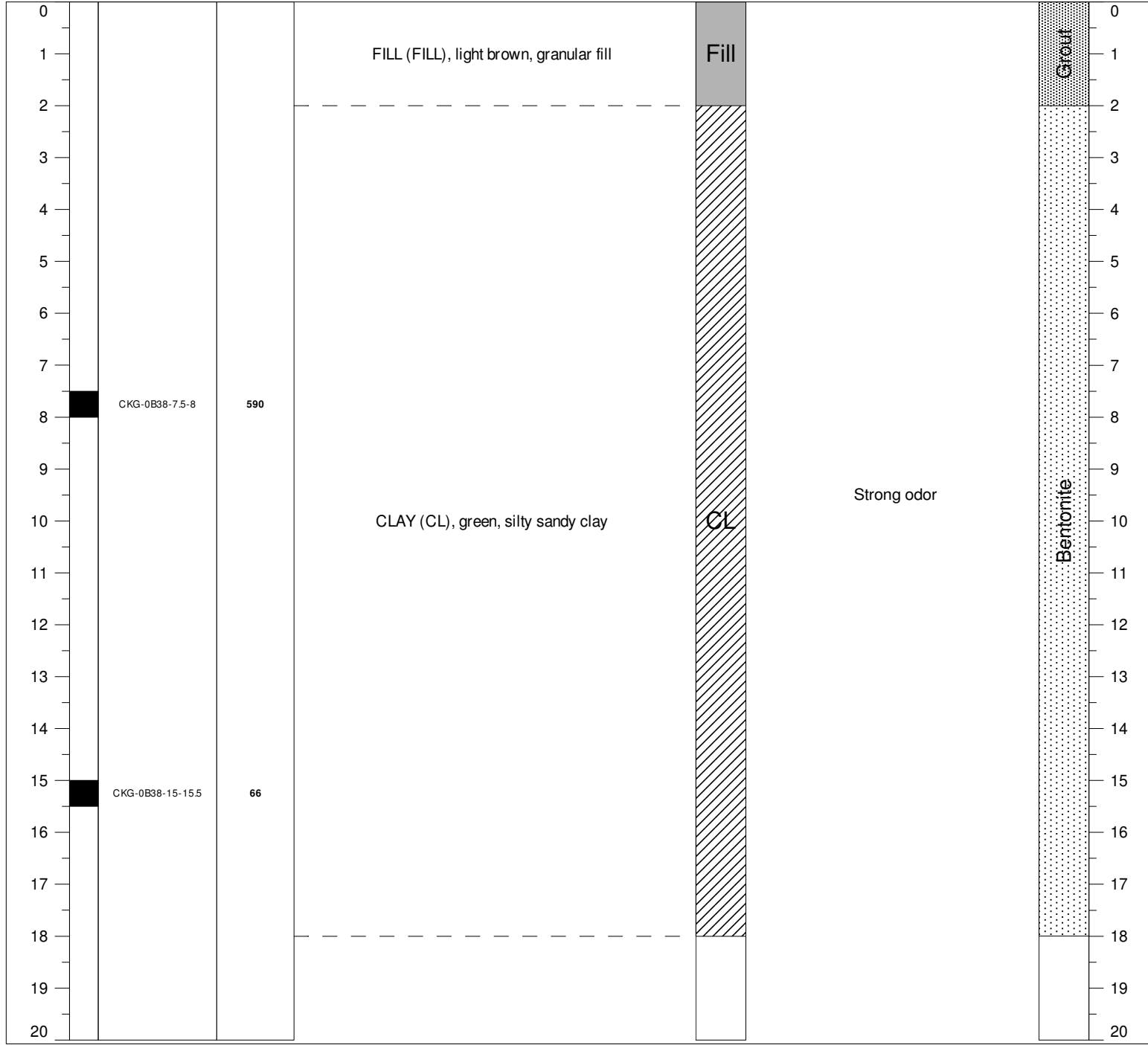
DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B37</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	9/4/09		
DRILLING METHOD	Direct Push	DATE COMPLETED	9/4/09		
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	18'	COMMENTS	
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	17.1'		

Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B38</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	9/4/09		
DRILLING METHOD	Direct Push	DATE COMPLETED	9/4/09		
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	18'	COMMENTS	
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	15.6'	Product in VOAs	

Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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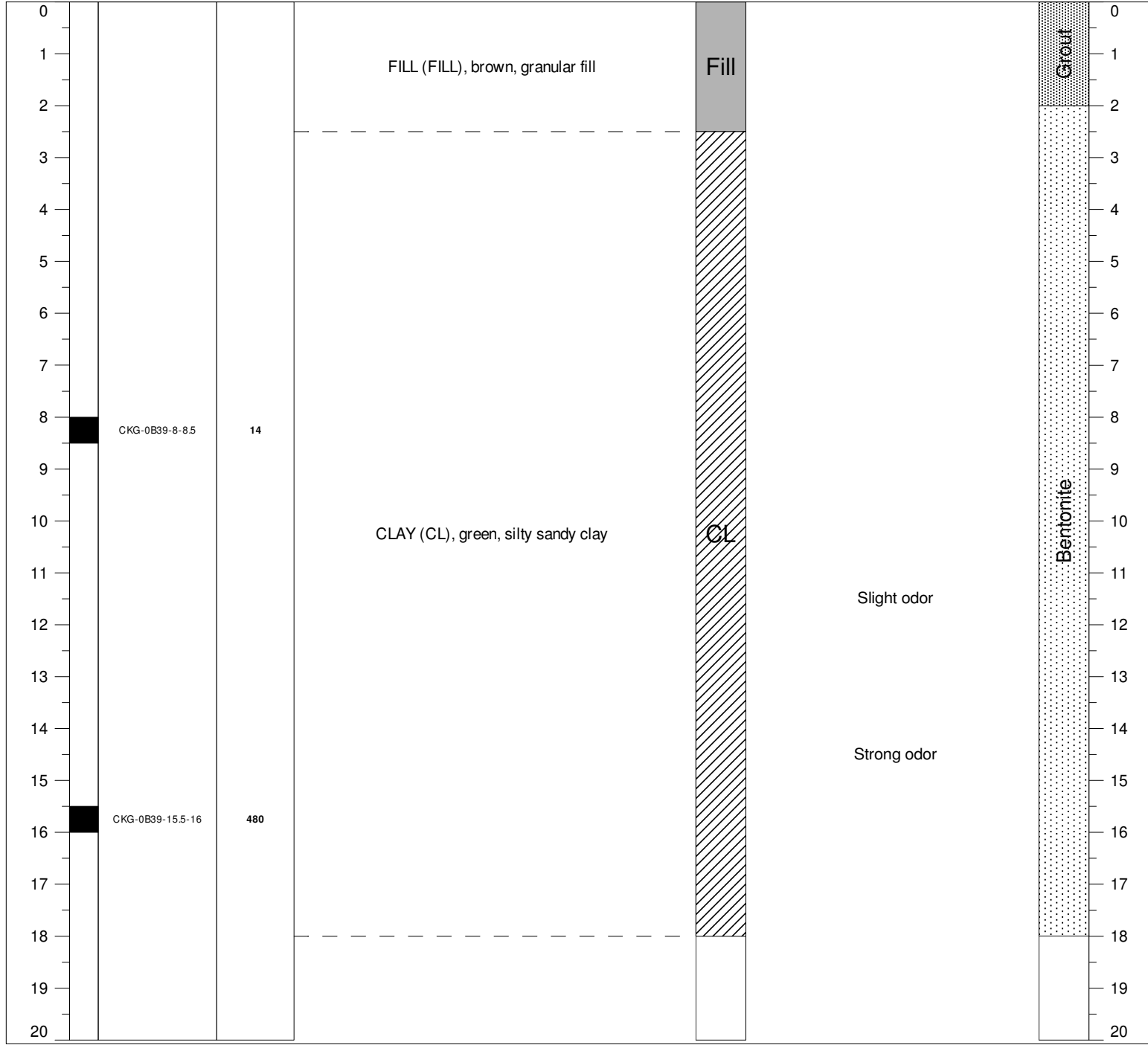


CKG Environmental, Inc.

Soil Boring Log  
 Oakland Property  
 Owens Brockway Glass Container Facility  
 3600 Alameda Avenue, Oakland, California  
**CKG-B38**

DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B39</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	9/4/09		
DRILLING METHOD	Direct Push	DATE COMPLETED	9/4/09		
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	18'	COMMENTS	
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	16.2'	Product on well	

Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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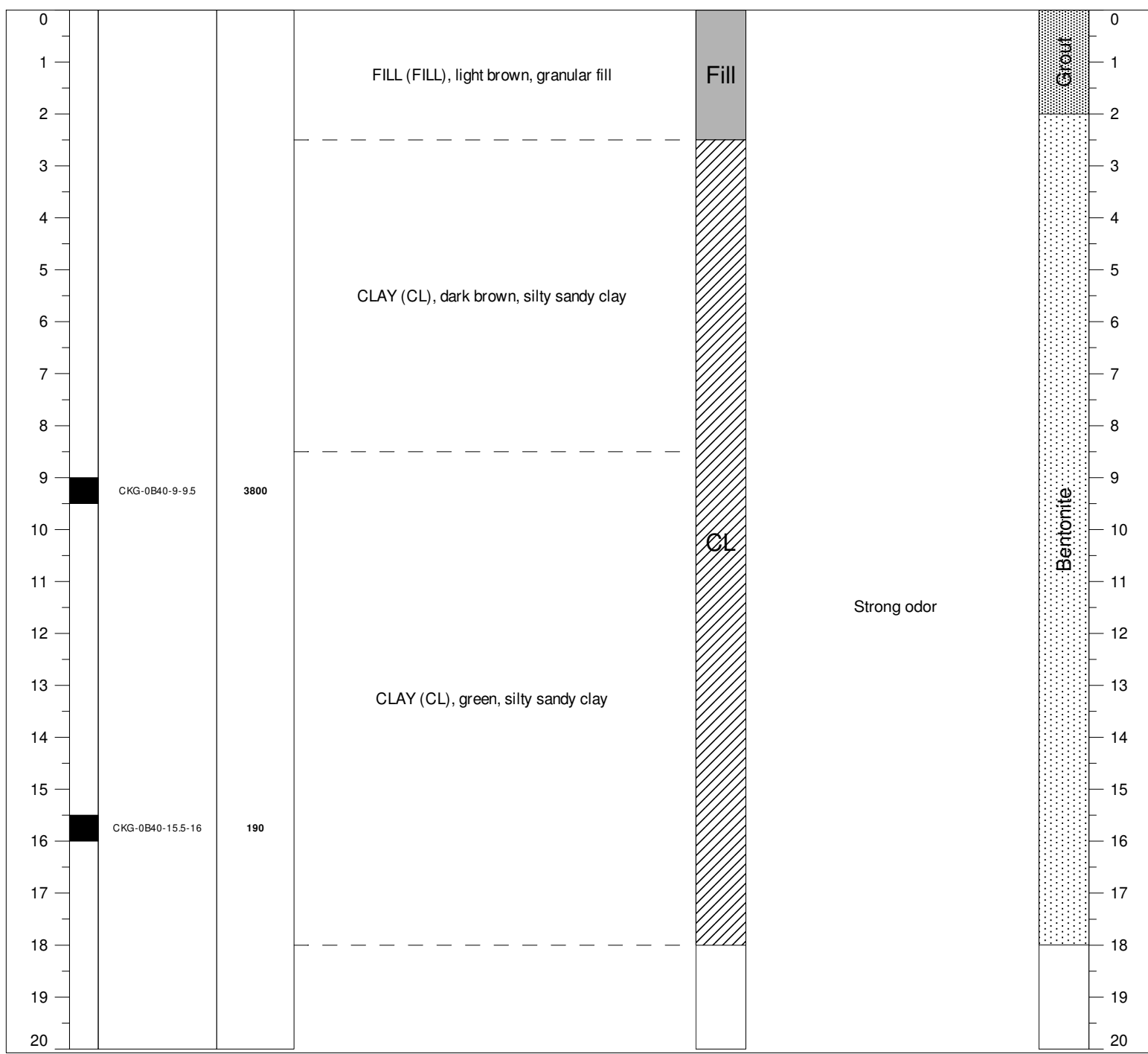


CKG Environmental, Inc.

Soil Boring Log  
 Oakland Property  
 Owens Brockway Glass Container Facility  
 3600 Alameda Avenue, Oakland, California  
**CKG-B39**

DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B40</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	9/4/09		
DRILLING METHOD	Direct Push	DATE COMPLETED	9/4/09		
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	18'	COMMENTS	
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	16.1'	Floating product, product on VOAs	

Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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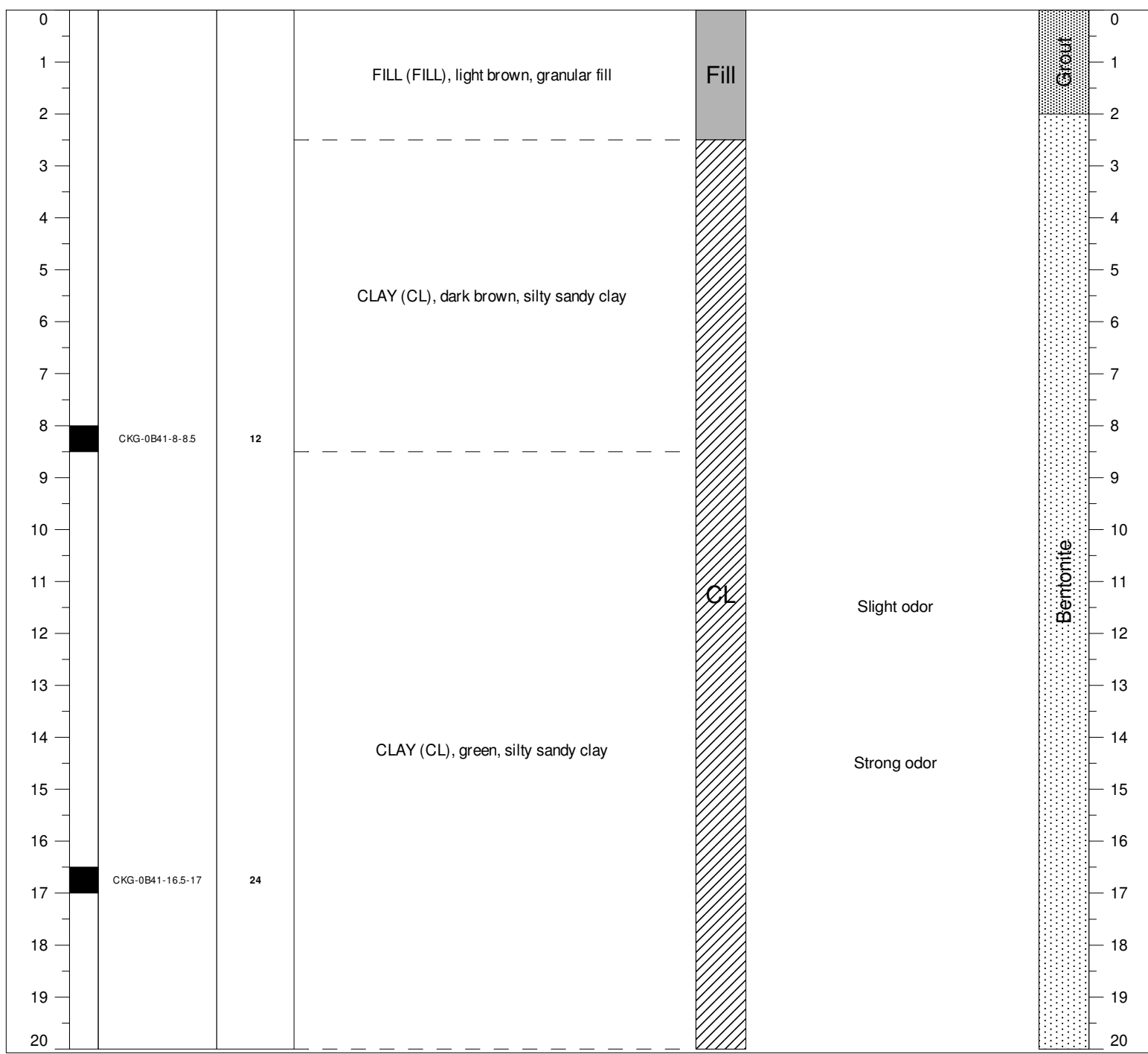


CKG Environmental, Inc.

Soil Boring Log  
 Oakland Property  
 Owens Brockway Glass Container Facility  
 3600 Alameda Avenue, Oakland, California  
**CKG-B40**

DRILLING COMPANY	EnProbe Environmental Probing	LOGGED BY	Steve Clark	BORING LOCATION	<b>CKG-B41</b>
DRILLING EQUIPMENT	Geoprobe	DATE STARTED	9/4/09		
DRILLING METHOD	Direct Push	DATE COMPLETED	9/4/09		
DRILLER	NA	HAND AUGERED TO			
SAMPLING EQUIPMENT	NA	TOTAL DEPTH	20'	COMMENTS	
HAMMER WEIGHT	NA	WATER LEVEL, INITIAL			
HAMMER DROP	NA	WATER LEVEL, STATIC	17.4'	HC Odor in water, product in core	

Depth (Feet)	Samples	Sample ID	PID (ppm)	Material Description	USCS	Comments	Boring Completion
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## **APPENDIX B**



**McC Campbell Analytical, Inc.**

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Web: www.mcccampbell.com E-mail: main@mcccampbell.com  
Telephone: 877-252-9262 Fax: 925-252-9269

CKG Environmental  P.O. Box 246  St. Helena, CA 94574	Client Project ID: Owens Brockway; Oakland	Date Sampled: 09/04/09
		Date Received: 09/04/09
	Client Contact: Chris Kennedy	Date Reported: 09/14/09
	Client P.O.:	Date Completed: 09/14/09

**WorkOrder: 0909168**

September 14, 2009

Dear Chris:

Enclosed within are:

- 1) The results of the **9** analyzed samples from your project: **Owens Brockway; Oakland,**
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
Laboratory Manager  
McC Campbell Analytical, Inc.

0909168



**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  
 GeoTracker EDF  PDF  Excel  Write On (DW)   
 Check if sample is effluent and "J" flag is required

Report To: CHAS KENNEDY Bill To:  
 Company: CKG ENVIRONMENTAL  
 E-Mail:  
 Tele: ( ) Fax: ( )  
 Project #: Project Name: OWENS BULKWAY  
 Project Location: OKLAHOMA  
 Sampler Signature: [Signature]

Analysis Request											Other	Comments					
BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE	TPH as Diesel (8015) <u>T-40</u>	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 8260 (HVOCs)	<del>MTBE</del> / BTEX ONLY (EPA 602 / 8021)	EPA 505/ 608 / 8081 (CI Pesticides)	EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515.3 / 8151 (Acidic CI Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAS)	CAM 17 Metals (200.8 / 6020)	LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Lead (200.7 / 200.8 / 6010 / 6020)		Filter Samples for Metals analysis: Yes / No
CKG-OB33	9/3/09	3	V	X					X								
CKG-OB33	9/3/09	1	A	X						X							
CKG-OB34	9/3/09	3	V	X					X								
CKG-OB34	9/3/09	1	A	X						X							
CKG-OB35	9/3/09	3	V	X					X								
CKG-OB35	9/3/09	1	A	X						X							
CKG-OB36	9/4/09	3	V	X					X								
CKG-OB36	9/4/09	1	A	X						X							
CKG-OB37	9/4/09	3	V	X						X							
CKG-OB37	9/4/09	1	A	X						X							
CKG-OB38	9/4/09	3	V	X						X							
CKG-OB38	9/4/09	1	A	X						X							
CKG-OB39	9/4/09	3	V	X						X							
CKG-OB39	9/4/09	1	A	X						X							

T20  
T10  
T25  
T30  
T40  
T25  
T25

Relinquished By: [Signature] Date: 9/4/09 Time: 350 Received By: [Signature]  
 Relinquished By: [Signature] Date: 9/4/09 Time: 515 Received By: [Signature]  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_

COMMENTS:  
 ICE/T° \_\_\_\_\_  
 GOOD CONDITION \_\_\_\_\_  
 HEAD SPACE ABSENT \_\_\_\_\_  
 DECHLORINATED IN LAB \_\_\_\_\_  
 APPROPRIATE CONTAINERS \_\_\_\_\_  
 PRESERVED IN LAB \_\_\_\_\_  
 VOAS O&G METALS OTHER  
 PRESERVATION pH<2





# 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

GeoTracker EDF  PDF  Excel  Write On (DW)

Check if sample is effluent and "J" flag is required

Report To: CHARIS KENNEDY Bill To:  
 Company: CKG ENVIRONMENTAL  
 E-Mail:  
 Tele: ( ) Fax: ( )  
 Project #: Project Name: ALWAYS BLOCKED  
 Project Location: CALIFORNIA  
 Sampler Signature: [Signature]

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED				Analysis Request	Other	Comments
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO <sub>3</sub>	Other			
CKG-0340		9/4/09		3	V	X						X					
CKG-0340		9/4/09		1	A	X						X					
CKG-0341		9/4/09		3	V	X						X					
CKG-0341		9/4/09		1	A	X						X					
CKG-0339	UNPRESERVED	9/4/09		1	A	X											UNPRESERVED

+10  
+40  
+25

Relinquished By: [Signature] Date: 9/4/09 Time: 3:50 Received By: [Signature]  
 Relinquished By: [Signature] Date: 9/4/09 Time: 5:15 Received By: [Signature]  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_

COMMENTS:  
 ICE/IF \_\_\_\_\_  
 GOOD CONDITION \_\_\_\_\_  
 HEAD SPACE ABSENT \_\_\_\_\_  
 DECHLORINATED IN LAB \_\_\_\_\_  
 APPROPRIATE CONTAINERS \_\_\_\_\_  
 PRESERVED IN LAB \_\_\_\_\_  
 VOAS O&G METALS OTHER  
 PRESERVATION pH<2

# McC Campbell Analytical, Inc.



1534 Willow Pass Rd  
 Pittsburg, CA 94565-1701  
 (925) 252-9262

# CHAIN-OF-CUSTODY RECORD

**WorkOrder: 0909168**

**ClientCode: CKGS**

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
 Email   
 HardCopy   
 ThirdParty   
 J-flag

**Report to:**

Chris Kennedy  
 CKG Environmental  
 P.O. Box 246  
 St. Helena, CA 94574  
 (707) 967-8080    FAX (707) 967-8080

Email: ckennedy@geologist.com  
 cc:  
 PO:  
 ProjectNo: Owens Brockway; Oakland

**Bill to:**

Accounts Payable  
 CKG Environmental  
 P.O. Box 246  
 St. Helena, CA 94574

**Requested TAT: 5 days**

**Date Received: 09/04/2009**

**Date Printed: 09/04/2009**

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	
0909168-001	CKG-OB33	Water	9/3/2009	<input type="checkbox"/>		A	B										
0909168-002	CKG-OB34	Water	9/3/2009	<input type="checkbox"/>		A	B										
0909168-003	CKG-OB35	Water	9/3/2009	<input type="checkbox"/>		A	B										
0909168-004	CKG-OB36	Water	9/4/2009	<input type="checkbox"/>		A	B										
0909168-005	CKG-OB37	Water	9/4/2009	<input type="checkbox"/>		A	B										
0909168-006	CKG-OB38	Water	9/4/2009	<input type="checkbox"/>		A	B										
0909168-007	CKG-OB39	Water	9/4/2009	<input type="checkbox"/>	C	A	B										
0909168-008	CKG-OB40	Water	9/4/2009	<input type="checkbox"/>		A	B										
0909168-009	CKG-OB41	Water	9/4/2009	<input type="checkbox"/>		A	B										

**Test Legend:**

1	8270D_W	2	G-MBTEX_W	3	TPH(DMO)_W	4		5	
6		7		8		9		10	
11		12							

**Prepared by: Ana 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.



**Sample Receipt Checklist**

Client Name: **CKG Environmental**

Date and Time Received: **9/4/2009 8:03:22 PM**

Project Name: **Owens Brockway; Oakland**

Checklist completed and reviewed by: **Ana Venegas**

WorkOrder N°: **0909168** Matrix Water

Carrier: Rob Pringle (MAI Courier)

**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
- Container/Temp Blank temperature Cooler Temp: 2.6°C NA
- Water - VOA vials have zero headspace / no bubbles? Yes  No  No VOA vials submitted
- Sample labels checked for correct preservation? Yes  No
- TTLC Metal - pH acceptable upon receipt (pH<2)? Yes  No  NA
- Samples Received on Ice? Yes  No

(Ice Type: WET ICE )

\* NOTE: If the "No" box is checked, see comments below.

-----

Client contacted:

Date contacted:

Contacted by:

Comments:



CKG Environmental  P.O. Box 246  St. Helena, CA 94574	Client Project ID: Owens Brockway; Oakland	Date Sampled: 09/04/09
	Client Contact: Chris Kennedy	Date Received: 09/04/09
	Client P.O.:	Date Analyzed 09/13/09
		Date Extracted: 09/04/09

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

Extraction Method: SW3510C

Analytical Method: SW8270C

Work Order: 0909168

Lab ID	0909168-007C
Client ID	CKG-OB39
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acenaphthene	ND<1000	100	10	Acenaphthylene	ND<1000	100	10
Acetochlor	ND<1000	100	10	Anthracene	ND<1000	100	10
Benidine	ND<5000	100	50	Benzoic Acid	ND<5000	100	50
Benzo(a)anthracene	ND<1000	100	10	Benzo(b)fluoranthene	ND<1000	100	10
Benzo(k)fluoranthene	ND<1000	100	10	Benzo(g,h,i)perylene	ND<1000	100	10
Benzo(a)pyrene	ND<1000	100	10	Benzyl Alcohol	ND<5000	100	50
1,1-Biphenyl	ND<1000	100	10	Bis (2-chloroethoxy) Methane	ND<1000	100	10
Bis (2-chloroethyl) Ether	ND<1000	100	10	Bis (2-chloroisopropyl) Ether	ND<1000	100	10
Bis (2-ethylhexyl) Phthalate	ND<2000	100	20	4-Bromophenyl Phenyl Ether	ND<1000	100	10
Butylbenzyl Phthalate	ND<1000	100	10	4-Chloroaniline	ND<2000	100	20
4-Chloro-3-methylphenol	ND<1000	100	10	2-Chloronaphthalene	ND<1000	100	10
2-Chlorophenol	ND<1000	100	10	4-Chlorophenyl Phenyl Ether	ND<1000	100	10
Chrysene	ND<1000	100	10	Dibenzo(a,h)anthracene	ND<1000	100	10
Dibenzofuran	ND<1000	100	10	Di-n-butyl Phthalate	ND<1000	100	10
1,2-Dichlorobenzene	ND<1000	100	10	1,3-Dichlorobenzene	ND<1000	100	10
1,4-Dichlorobenzene	ND<1000	100	10	3,3-Dichlorobenzidine	ND<2000	100	20
2,4-Dichlorophenol	ND<1000	100	10	Diethyl Phthalate	ND<1000	100	10
2,4-Dimethylphenol	ND<1000	100	10	Dimethyl Phthalate	ND<1000	100	10
4,6-Dinitro-2-methylphenol	ND<5000	100	50	2,4-Dinitrophenol	ND<5000	100	50
2,4-Dinitrotoluene	ND<1000	100	10	2,6-Dinitrotoluene	ND<1000	100	10
Di-n-octyl Phthalate	ND<1000	100	10	1,2-Diphenylhydrazine	ND<1000	100	10
Fluoranthene	ND<1000	100	10	Fluorene	ND<1000	100	10
Hexachlorobenzene	ND<1000	100	10	Hexachlorobutadiene	ND<1000	100	10
Hexachlorocyclopentadiene	ND<5000	100	50	Hexachloroethane	ND<1000	100	10
Indeno (1,2,3-cd) pyrene	ND<1000	100	10	Isophorone	ND<1000	100	10
2-Methylnaphthalene	ND<1000	100	10	2-Methylphenol (o-Cresol)	ND<1000	100	10
3 &/or 4-Methylphenol (m,p-Cresol)	ND<1000	100	10	Naphthalene	ND<1000	100	10
2-Nitroaniline	ND<5000	100	50	3-Nitroaniline	ND<5000	100	50
4-Nitroaniline	ND<5000	100	50	Nitrobenzene	ND<1000	100	10
2-Nitrophenol	ND<5000	100	50	4-Nitrophenol	ND<5000	100	50
N-Nitrosodiphenylamine	ND<1000	100	10	N-Nitrosodi-n-propylamine	ND<1000	100	10
Pentachlorophenol	ND<5000	100	50	Phenanthrene	ND<1000	100	10
Phenol	ND<1000	100	10	Pvrene	ND<1000	100	10
1,2,4-Trichlorobenzene	ND<1000	100	10	2,4,5-Trichlorophenol	ND<1000	100	10
2,4,6-Trichlorophenol	ND<1000	100	10				

**Surrogate Recoveries (%)**

%SS1:	96	%SS2:	97
%SS3:	---	%SS4:	105
%SS5:	---	%SS6:	---

Comments: a3,b1

\* water samples in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

#) surrogate diluted out of range; &) low or no surrogate due to matrix interference.

a3) sample diluted due to high organic content.

b1) aqueous sample that contains greater than ~1 vol. % sediment



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1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Web: www.mcccampbell.com E-mail: main@mcccampbell.com  
Telephone: 877-252-9262 Fax: 925-252-9269

CKG Environmental  P.O. Box 246  St. Helena, CA 94574	Client Project ID: Owens Brockway; Oakland	Date Sampled: 09/03/09-09/04/09
	Client Contact: Chris Kennedy	Date Received: 09/04/09
	Client P.O.:	Date Extracted: 09/10/09-09/11/09
		Date Analyzed: 09/10/09-09/11/09

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE\*

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0909168

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	CKG-OB33	W	---	---	ND<1.7	8.0	19	50	3.3	119	d7,d9,b6,b1
002A	CKG-OB34	W	---	---	ND	ND	ND	ND	1	92	d7,b1
003A	CKG-OB35	W	---	---	ND	ND	ND	ND	1	97	b1
004A	CKG-OB36	W	---	---	ND	1.9	2.7	16	1	111	d7,d9,b6,b1
005A	CKG-OB37	W	---	---	ND	2.6	6.5	34	1	---#	d7,d9,b6,b1
006A	CKG-OB38	W	---	---	ND	3.4	4.7	20	1	104	d7,d9,b6,b1
007A	CKG-OB39	W	---	---	ND	ND	5.1	ND	1	89	d7,b6,b1
008A	CKG-OB40	W	---	---	ND<2.5	2.6	47	200	5	107	d7,d9,b6,b1
009A	CKG-OB41	W	---	---	ND<10	ND<10	ND<10	ND<10	20	90	d7,d9,b6,b1

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	0.5	μg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	0.005	mg/Kg

\* water and vapor samples are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in μg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts in mg/L.

# cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

b1) aqueous sample that contains greater than ~1 vol. % sediment  
b6) lighter than water immiscible sheen/product is present  
d7) strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram  
d9) no recognizable pattern



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CKG Environmental  P.O. Box 246  St. Helena, CA 94574	Client Project ID: Owens Brockway; Oakland	Date Sampled: 09/03/09-09/04/09
	Client Contact: Chris Kennedy	Date Received: 09/04/09
	Client P.O.:	Date Extracted: 09/04/09
		Date Analyzed: 09/11/09-09/14/09

### Total Extractable Petroleum Hydrocarbons\*

Extraction method: SW3510C

Analytical methods: SW8015B

Work Order: 0909168

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	DF	% SS	Comments
0909168-001B	CKG-OB33	W	1,500,000	1,100,000	1000	107	e1/e8,e7,b6,b1
0909168-002B	CKG-OB34	W	1000	2800	2	81	e7,e2,b1
0909168-003B	CKG-OB35	W	450	1200	1	94	e7,e2,b1
0909168-004B	CKG-OB36	W	310,000	250,000	200	117	e2,e7,e4,b6,b1
0909168-005B	CKG-OB37	W	460,000	550,000	500	118	e7,e2,e4,b6,b1
0909168-006B	CKG-OB38	W	620,000	300,000	100	114	e8/e1,e7,b6,b1
0909168-007B	CKG-OB39	W	180,000	64,000	50	93	e8/e1,e7,b6,b1
0909168-008B	CKG-OB40	W	350,000	150,000	100	118	e8/e1,e7,b6,b1
0909168-009B	CKG-OB41	W	150,000	87,000	20	89	e8/e1,e7,b6,b1

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	250	µg/L
	S	NA	NA	mg/Kg

\* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

# cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

b1) aqueous sample that contains greater than ~1 vol. % sediment  
b6) lighter than water immiscible sheen/product is present  
e1) unmodified or weakly modified diesel is significant; and/or e8) kerosene/kerosene range/jet fuel range  
e2) diesel range compounds are significant; no recognizable pattern  
e4) gasoline range compounds are significant.  
e7) oil range compounds are significant  
e8) kerosene/kerosene range/jet fuel range; and/or e1) unmodified or weakly modified diesel is significant



### QC SUMMARY REPORT FOR SW8270C

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 45588

WorkOrder 0909168

Analyte	EPA Method SW8270C Extraction SW3510C								Spiked Sample ID: N/A			
	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Acenaphthene	N/A	50	N/A	N/A	N/A	74.6	74	0.807	N/A	N/A	30 - 130	20
4-Chloro-3-methylphenol	N/A	100	N/A	N/A	N/A	111	105	5.56	N/A	N/A	30 - 130	20
2-Chlorophenol	N/A	100	N/A	N/A	N/A	105	103	1.98	N/A	N/A	30 - 130	20
1,4-Dichlorobenzene	N/A	50	N/A	N/A	N/A	39.1	39.2	0.460	N/A	N/A	30 - 130	20
2,4-Dinitrotoluene	N/A	50	N/A	N/A	N/A	83.6	83.6	0	N/A	N/A	30 - 130	20
4-Nitrophenol	N/A	100	N/A	N/A	N/A	72.2	67.4	6.84	N/A	N/A	30 - 130	20
N-Nitrosodi-n-propylamine	N/A	50	N/A	N/A	N/A	116	109	6.65	N/A	N/A	30 - 130	20
Pentachlorophenol	N/A	100	N/A	N/A	N/A	73.5	72.1	1.94	N/A	N/A	30 - 130	20
Phenol	N/A	100	N/A	N/A	N/A	97.9	95.7	2.31	N/A	N/A	30 - 130	20
Pyrene	N/A	50	N/A	N/A	N/A	80.2	77.6	3.28	N/A	N/A	30 - 130	20
1,2,4-Trichlorobenzene	N/A	50	N/A	N/A	N/A	48.1	47.1	2.06	N/A	N/A	30 - 130	20
%SS1:	N/A	5000	N/A	N/A	N/A	86	84	1.87	N/A	N/A	30 - 130	20
%SS2:	N/A	5000	N/A	N/A	N/A	93	89	3.79	N/A	N/A	30 - 130	20
%SS3:	N/A	5000	N/A	N/A	N/A	93	92	1.81	N/A	N/A	30 - 130	20
%SS4:	N/A	5000	N/A	N/A	N/A	73	74	1.94	N/A	N/A	30 - 130	20
%SS5:	N/A	5000	N/A	N/A	N/A	93	90	3.17	N/A	N/A	30 - 130	20
%SS6:	N/A	5000	N/A	N/A	N/A	89	87	2.74	N/A	N/A	30 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

#### BATCH 45588 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909168-007C	09/04/09	09/04/09	09/13/09 1:34 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



### QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 45647

WorkOrder 0909168

Analyte	EPA Method SW8015B			Extraction SW3510C					Spiked Sample ID: N/A			
	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	97.2	101	4.29	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	90	94	4.67	N/A	N/A	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

#### BATCH 45647 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909168-001B	09/03/09	09/04/09	09/11/09 8:48 PM	0909168-002B	09/03/09	09/04/09	09/11/09 7:35 PM
0909168-003B	09/03/09	09/04/09	09/14/09 11:22 AM	0909168-004B	09/04/09	09/04/09	09/11/09 6:00 PM
0909168-005B	09/04/09	09/04/09	09/14/09 2:23 PM	0909168-006B	09/04/09	09/04/09	09/11/09 10:34 PM
0909168-007B	09/04/09	09/04/09	09/14/09 2:53 PM	0909168-008B	09/04/09	09/04/09	09/12/09 12:29 AM
0909168-009B	09/04/09	09/04/09	09/11/09 2:08 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.





### QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 45653

WorkOrder: 0909168

Analyte	EPA Method SW8021B/8015Bm		Extraction SW5030B						Spiked Sample ID: 0909167-005A			
	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) <sup>£</sup>	ND	60	114	97.5	15.9	110	109	0.608	70 - 130	20	70 - 130	20
MTBE	ND	10	116	111	4.83	96.7	108	11.4	70 - 130	20	70 - 130	20
Benzene	ND	10	105	109	3.80	95.6	95.5	0.116	70 - 130	20	70 - 130	20
Toluene	ND	10	93.5	99.4	6.05	93.6	93.4	0.196	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	93.6	99.9	6.47	92.9	92.5	0.384	70 - 130	20	70 - 130	20
Xylenes	ND	30	107	115	7.22	94.2	93.8	0.415	70 - 130	20	70 - 130	20
%SS:	106	10	100	101	0.730	96	96	0	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

#### BATCH 45653 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909168-001A	09/03/09	09/10/09	09/10/09 12:59 AM	0909168-002A	09/03/09	09/10/09	09/10/09 1:28 AM
0909168-003A	09/03/09	09/11/09	09/11/09 5:31 AM	0909168-004A	09/04/09	09/10/09	09/10/09 4:26 AM
0909168-005A	09/04/09	09/10/09	09/10/09 3:57 AM	0909168-006A	09/04/09	09/10/09	09/10/09 3:27 AM
0909168-007A	09/04/09	09/10/09	09/10/09 2:57 AM	0909168-008A	09/04/09	09/11/09	09/11/09 5:01 AM
0909168-009A	09/04/09	09/10/09	09/10/09 1:58 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



**McC Campbell Analytical, Inc.**

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Telephone: 877-252-9262 Fax: 925-252-9269

CKG Environmental  P.O. Box 246  St. Helena, CA 94574	Client Project ID: Owens Brockway	Date Sampled: 09/03/09-09/04/09
		Date Received: 09/04/09
	Client Contact: Chris Kennedy	Date Reported: 09/15/09
	Client P.O.:	Date Completed: 09/14/09

**WorkOrder: 0909151**

September 15, 2009

Dear Chris:

Enclosed within are:

- 1) The results of the **18** analyzed samples from your project: **Owens Brockway**,
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
Laboratory Manager  
McC Campbell Analytical, Inc.

0909151



**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  
 GeoTracker EDF  PDF  Excel  Write On (DW)   
 Check if sample is effluent and "J" flag is required

Report To: CHRIS KENNEDY Bill To:  
 Company: CKG ENVIRONMENTAL  
 E-Mail:  
 Tele: ( ) Fax: ( )  
 Project #: Project Name: CKG AS BUCKLEY  
 Project Location: CARLAND  
 Sampler Signature: [Signature]

Analysis Request										Other	Comments	
BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE												Filter Samples for Metals analysis: Yes / No
TPH as Diesel (8015) <u>740</u>												
Total Petroleum Oil & Grease (1664 / 5520 E/B&F)												
Total Petroleum Hydrocarbons (418.1)												
EPA 8260 (HVOCs)												
<del>PAHs</del> / BTEX ONLY (EPA 602 / 8021)												
EPA 505/ 608 / 8081 (CI Pesticides)												
EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners												
EPA 507 / 8141 (NP Pesticides)												
EPA 515.3 / 8151 (Acidic CI Herbicides)												
EPA 524.2 / 624 / 8260 (VOCs)												
EPA 525.2 / 625 / 8270 (SVOCs)												
EPA 8270 SIM / 8310 (PAHs / PNAs)												
CAM 17 Metals (200.8 / 6020)												
LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)												
Lead (200.7 / 200.8 / 6010 / 6020)												

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED							
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO <sub>3</sub>	Other				
CKG-OB33	5-5 1/2	9/3/09		1	SCV	X												
CKG-OB33	10-10 1/2	9/3/09		1	SCV	X												
CKG-OB34	5 1/2-6	9/3/09		1	SCV	X												
CKG-OB34	12-12 1/2	9/3/09		1	SCV	X												
CKG-OB35	4-4 1/2	9/3/09		1	SCV	X												
CKG-OB35	9 1/2-10	9/3/09		1	SCV	X												
CKG-OB36	4-4 1/2	9/4/09		1	SCV	X												
CKG-OB36	9-9 1/2	9/4/09		1	SCV	X												
CKG-OB37	4-4 1/2	9/4/09		1	SCV	X												
CKG-OB37	16 1/2-17	9/4/09		1	SCV	X												
CKG-OB38	7 1/2-8	9/4/09		1	SCV	X												
CKG-OB38	15-15 1/2	9/4/09		1	SCV	X												
CKG-OB39	8-8 1/2	9/4/09		1	SCV	X												
CKG-OB39	15 1/2-16	9/4/09		1	SCV	X												

Relinquished By: [Signature] Date: 9/4/09 Time: 3:50 Received By: [Signature]  
 Relinquished By: [Signature] Date: 9/5/09 Time: 5:15 Received By: Mr. E. Vaele  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_

ICE/° 5.4c  
 GOOD CONDITION   
 HEAD SPACE ABSENT \_\_\_\_\_  
 DECHLORINATED IN LAB \_\_\_\_\_  
 APPROPRIATE CONTAINERS   
 PRESERVED IN LAB \_\_\_\_\_  
 COMMENTS: RUN SOIL SAMPLES W/ SILICA GEL CLEANUP  
 VOAS O&G METALS OTHER  
 PRESERVATION pH<2



**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

GeoTracker EDF  PDF  Excel  Write On (DW)   
 Check if sample is effluent and "J" flag is required

Report To: Chris Kennedy Bill To:  
 Company: CKG Environmental  
 E-Mail:  
 Tele: ( ) Fax: ( )  
 Project #: Project Name: 60245 BROOKWAY  
 Project Location: OAKLAND  
 Sampler Signature: [Signature]

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED							
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO <sub>3</sub>	Other				
CKG-0340	9-9 1/2	9/4/09		1	SLV		X											
CKG-0340	15 1/2-16	9/4/09		1	SLV		X											
CKG-0341	8-8 1/2	9/4/09		1	SLV		X											
CKG-0341	16 1/2-17	9/4/09		1	SLV		X											

Analysis Request												Other	Comments	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Filter Samples for Metals analysis: Yes / No
BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE														
TPH as Diesel (8015) <u>740</u>														
Total Petroleum Oil & Grease (1664 / 5520 E/B&F)														
Total Petroleum Hydrocarbons (418.1)														
EPA 8260 (HVOCS)														
<del>BTEX</del> / BTEX ONLY (EPA 602 / 8021)														
EPA 505 / 608 / 8081 (CI Pesticides)														
EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners														
EPA 507 / 8141 (NP Pesticides)														
EPA 515.3 / 8151 (Acidic CI Herbicides)														
EPA 524.2 / 624 / 8260 (VOCs)														
EPA 525.2 / 625 / 8270 (SVOCs)														
EPA 8270 SIM / 8310 (PAHs / PNAs)														
CAM 17 Metals (200.8 / 6020)														
LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)														
Lead (200.7 / 200.8 / 6010 / 6020)														

Relinquished By: [Signature] Date: 9/4/09 Time: 3:50 Received By: [Signature]  
 Relinquished By: [Signature] Date: 9/4/09 Time: 5:15 Received By: Mel Yall  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_

ICE/° \_\_\_\_\_  
 GOOD CONDITION \_\_\_\_\_  
 HEAD SPACE ABSENT \_\_\_\_\_  
 DECHLORINATED IN LAB \_\_\_\_\_  
 APPROPRIATE CONTAINERS \_\_\_\_\_  
 PRESERVED IN LAB \_\_\_\_\_  
 COMMENTS: RUN SOIL SAMPLES W/ SILICA GEL COLUMN  
 VOAS O&G METALS OTHER  
 PRESERVATION pH<2

# McC Campbell Analytical, Inc.



1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 0909151

ClientCode: CKGS

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
 Email   
 HardCopy   
 ThirdParty   
 J-flag

**Report to:**

Chris Kennedy  
CKG Environmental  
P.O. Box 246  
St. Helena, CA 94574  
(707) 967-8080    FAX (707) 967-8080

Email: ckennedy@geologist.com  
cc:  
PO:  
ProjectNo: Owens Brockway

**Bill to:**

Accounts Payable  
CKG Environmental  
P.O. Box 246  
St. Helena, CA 94574

**Requested TAT: 5 days**

*Date Received: 09/04/2009*

*Date Printed: 09/04/2009*

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	
0909151-001	CKG-OB33 5-5 1/2	Soil	9/3/2009	<input type="checkbox"/>	A	A											
0909151-002	CKG-OB33 10-10 1/2	Soil	9/3/2009	<input type="checkbox"/>	A	A											
0909151-003	CKG-OB34 5 1/2-6	Soil	9/3/2009	<input type="checkbox"/>	A	A											
0909151-004	CKG-OB34 12-12 1/2	Soil	9/3/2009	<input type="checkbox"/>	A	A											
0909151-005	CKG-OB35 4-4 1/2	Soil	9/3/2009	<input type="checkbox"/>	A	A											
0909151-006	CKG-OB35 9 1/2-10	Soil	9/3/2009	<input type="checkbox"/>	A	A											
0909151-007	CKG-OB36 4-4 1/2	Soil	9/4/2009	<input type="checkbox"/>	A	A											
0909151-008	CKG-OB36 9-9 1/2	Soil	9/4/2009	<input type="checkbox"/>	A	A											
0909151-009	CKG-OB37 4-4 1/2	Soil	9/4/2009	<input type="checkbox"/>	A	A											
0909151-010	CKG-OB37 16 1/2-17	Soil	9/4/2009	<input type="checkbox"/>	A	A											
0909151-011	CKG-OB38 7 1/2-8	Soil	9/4/2009	<input type="checkbox"/>	A	A											
0909151-012	CKG-OB38-15-15 1/2	Soil	9/4/2009	<input type="checkbox"/>	A	A											
0909151-013	CKG-OB39 8-8 1/2	Soil	9/4/2009	<input type="checkbox"/>	A	A											
0909151-014	CKG-OB39 15 1/2-16	Soil	9/4/2009	<input type="checkbox"/>	A	A											

**Test Legend:**

1	G-MBTX S	2	TPH(DMO)WSG S	3		4		5	
6		7		8		9		10	
11		12							

**Prepared by: Melissa Valles**

**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.

# McC Campbell Analytical, Inc.



1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 0909151

ClientCode: CKGS

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
 Email   
 HardCopy   
 ThirdParty   
 J-flag

Report to: Chris Kennedy CKG Environmental P.O. Box 246 St. Helena, CA 94574 (707) 967-8080    FAX    (707) 967-8080	Email:    ckennedy@geologist.com cc: PO: ProjectNo: Owens Brockway	Bill to: Accounts Payable CKG Environmental P.O. Box 246 St. Helena, CA 94574	Requested TAT: <b>5 days</b>  Date Received: 09/04/2009 Date Printed: 09/04/2009
---	---	---	---

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	
0909151-015	CKG-OB40 9-9 1/2	Soil	9/4/2009	<input type="checkbox"/>	A	A											
0909151-016	CKG-OB40 15 1/2-16	Soil	9/4/2009	<input type="checkbox"/>	A	A											
0909151-017	CKG-OB41 8-8 1/2	Soil	9/4/2009	<input type="checkbox"/>	A	A											
0909151-018	CKG-OB41 16 1/2-17	Soil	9/4/2009	<input type="checkbox"/>	A	A											

**Test Legend:**

1	G-MBTX_S	2	TPH(DMO)WSG_S	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

**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.



**Sample Receipt Checklist**

Client Name: **CKG Environmental**

Date and Time Received: **9/4/2009 5:47:17 PM**

Project Name: **Owens Brockway**

Checklist completed and reviewed by: **Melissa Valles**

WorkOrder N°: **0909151** Matrix Soil

Carrier: Rob Pringle (MAI Courier)

**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
- Container/Temp Blank temperature Cooler Temp: 5.4°C NA
- Water - VOA vials have zero headspace / no bubbles? Yes  No  No VOA vials submitted
- Sample labels checked for correct preservation? Yes  No
- TTLC Metal - pH acceptable upon receipt (pH<2)? Yes  No  NA
- Samples Received on Ice? Yes  No

(Ice Type: WET ICE )

\* NOTE: If the "No" box is checked, see comments below.

-----

Client contacted:

Date contacted:

Contacted by:

Comments:



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Web: www.mcccampbell.com E-mail: main@mcccampbell.com  
Telephone: 877-252-9262 Fax: 925-252-9269

CKG Environmental  P.O. Box 246  St. Helena, CA 94574	Client Project ID: Owens Brockway	Date Sampled: 09/03/09-09/04/09
		Date Received: 09/04/09
	Client Contact: Chris Kennedy	Date Extracted: 09/04/09
	Client P.O.:	Date Analyzed: 09/08/09-09/15/09

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE\*

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0909151

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	CKG-OB33 5-5 1/2	S	---	---	ND<1.0	ND<1.0	2.3	7.0	200	---#	d7
002A	CKG-OB33 10-10 1/2	S	---	---	ND<0.10	1.7	1.2	2.8	20	---#	d7,d9
003A	CKG-OB34 5 1/2-6	S	---	---	ND	ND	ND	ND	1	81	d7
004A	CKG-OB34 12-12 1/2	S	---	---	ND	ND	ND	ND	1	90	
005A	CKG-OB35 4-4 1/2	S	---	---	ND	ND	ND	ND	1	85	
006A	CKG-OB35 9 1/2-10	S	---	---	ND	ND	ND	ND	1	82	
007A	CKG-OB36 4-4 1/2	S	---	---	ND	ND	ND	ND	1	82	
008A	CKG-OB36 9-9 1/2	S	---	---	ND	ND	ND	ND	1	83	
009A	CKG-OB37 4-4 1/2	S	---	---	ND	ND	0.0081	0.029	1	83	d7
010A	CKG-OB37 16 1/2-17	S	---	---	ND<1.0	ND<1.0	5.7	6.7	200	---#	d7,d9
011A	CKG-OB38 7 1/2-8	S	---	---	ND<0.050	ND<0.050	ND<0.050	0.56	10	77	d7
012A	CKG-OB38-15-15 1/2	S	---	---	ND	ND	0.0094	0.12	1	114	d7
013A	CKG-OB39 8-8 1/2	S	---	---	ND	ND	ND	ND	1	86	d7
014A	CKG-OB39 15 1/2-16	S	---	---	ND<0.10	ND<0.10	ND<0.10	0.63	20	---#	d7
015A	CKG-OB40 9-9 1/2	S	---	---	ND<0.25	ND<0.25	ND<0.25	10	50	---#	d7,d9
016A	CKG-OB40 15 1/2-16	S	---	---	ND<0.050	ND<0.050	0.073	4.6	10	---#	d7

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	ug/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts in mg/L.

# cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

d7) strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram  
d9) no recognizable pattern





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Telephone: 877-252-9262 Fax: 925-252-9269

CKG Environmental  P.O. Box 246  St. Helena, CA 94574	Client Project ID: Owens Brockway	Date Sampled: 09/03/09-09/04/09
		Date Received: 09/04/09
	Client Contact: Chris Kennedy	Date Extracted: 09/04/09
	Client P.O.:	Date Analyzed: 09/08/09-09/15/09

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE\*

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0909151

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
017A	CKG-OB41 8-8 1/2	S	---	---	ND	ND	ND	ND	1	83	d7
018A	CKG-OB41 16 1/2-17	S	---	---	ND	ND	0.035	0.072	1	117	d7,d9

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	0.5	ug/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	0.005	mg/Kg

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts in mg/L.

# cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

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d7) strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram  
d9) no recognizable pattern



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CKG Environmental  P.O. Box 246  St. Helena, CA 94574	Client Project ID: Owens Brockway	Date Sampled: 09/03/09-09/04/09
		Date Received: 09/04/09
	Client Contact: Chris Kennedy	Date Extracted: 09/04/09
	Client P.O.:	Date Analyzed: 09/09/09-09/14/09

### Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up\*

Extraction method: SW3550C/3630C

Analytical methods: SW8015B

Work Order: 0909151

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	DF	% SS	Comments
0909151-001A	CKG-OB33 5-5 1/2	S	2300	890	50	112	e8/e1,e7
0909151-002A	CKG-OB33 10-10 1/2	S	980	380	20	95	e8/e1,e7
0909151-003A	CKG-OB34 5 1/2-6	S	ND	ND	1	97	
0909151-004A	CKG-OB34 12-12 1/2	S	2.1	10	1	95	e7,e2
0909151-005A	CKG-OB35 4-4 1/2	S	9.1	85	5	83	e7,e2
0909151-006A	CKG-OB35 9 1/2-10	S	1.2	ND	1	94	e2
0909151-007A	CKG-OB36 4-4 1/2	S	ND	ND	1	96	
0909151-008A	CKG-OB36 9-9 1/2	S	72	210	10	106	e7,e2
0909151-009A	CKG-OB37 4-4 1/2	S	7.7	36	2	95	e7,e2
0909151-010A	CKG-OB37 16 1/2-17	S	4100	3100	200	87	e2,e7,e4
0909151-011A	CKG-OB38 7 1/2-8	S	590	240	10	106	e1,e7
0909151-012A	CKG-OB38-15-15 1/2	S	66	26	1	111	e8/e1,e7
0909151-013A	CKG-OB39 8-8 1/2	S	14	39	2	94	e7,e2
0909151-014A	CKG-OB39 15 1/2-16	S	480	90	10	105	e8/e1,e7
0909151-015A	CKG-OB40 9-9 1/2	S	3800	1100	50	---#	e8/e1,e7

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA	ug/L
	S	1.0	5.0	mg/Kg

\* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

# cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

- e2) diesel range compounds are significant; no recognizable pattern
- e4) gasoline range compounds are significant.
- e7) oil range compounds are significant
- e8) kerosene/kerosene range/jet fuel range; and/or e1) unmodified or weakly modified diesel is significant
- e11) stoddard solvent/mineral spirit (?)



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CKG Environmental  P.O. Box 246  St. Helena, CA 94574	Client Project ID: Owens Brockway	Date Sampled: 09/03/09-09/04/09
		Date Received: 09/04/09
	Client Contact: Chris Kennedy	Date Extracted: 09/04/09
	Client P.O.:	Date Analyzed: 09/09/09-09/14/09

### Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up\*

Extraction method: SW3550C/3630C

Analytical methods: SW8015B

Work Order: 0909151

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	DF	% SS	Comments
0909151-016A	CKG-OB40 15 1/2-16	S	190	76	1	112	e8/e1,e7
0909151-017A	CKG-OB41 8-8 1/2	S	12	28	1	112	e7,e2,e11
0909151-018A	CKG-OB41 16 1/2-17	S	24	11	1	96	e8/e1,e7

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA	ug/L
	S	1.0	5.0	mg/Kg

\* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

# cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

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e2) diesel range compounds are significant; no recognizable pattern  
e4) gasoline range compounds are significant.  
e7) oil range compounds are significant  
e8) kerosene/kerosene range/jet fuel range; and/or e1) unmodified or weakly modified diesel is significant  
e11) stoddard solvent/mineral spirit (?)



### QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 45623

WorkOrder 0909151

Analyte	EPA Method SW8021B/8015Bm		Extraction SW5030B						Spiked Sample ID: 0909120-031A			
	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) <sup>f</sup>	ND	0.60	106	111	4.68	116	107	7.98	70 - 130	20	70 - 130	20
MTBE	ND	0.10	113	111	1.54	116	116	0	70 - 130	20	70 - 130	20
Benzene	ND	0.10	97.2	95.5	1.84	102	107	4.53	70 - 130	20	70 - 130	20
Toluene	ND	0.10	96.4	94.4	2.09	102	106	4.03	70 - 130	20	70 - 130	20
Ethylbenzene	ND	0.10	96.4	94.6	1.90	99.4	104	4.97	70 - 130	20	70 - 130	20
Xylenes	ND	0.30	97.9	95.8	2.14	101	104	3.08	70 - 130	20	70 - 130	20
%SS:	91	0.10	96	84	13.2	87	92	5.50	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

#### BATCH 45623 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909151-001A	09/03/09	09/04/09	09/08/09 11:16 PM	0909151-002A	09/03/09	09/04/09	09/09/09 5:41 AM
0909151-003A	09/03/09	09/04/09	09/09/09 2:46 AM	0909151-004A	09/03/09	09/04/09	09/15/09 1:41 PM
0909151-005A	09/03/09	09/04/09	09/12/09 8:35 AM	0909151-006A	09/03/09	09/04/09	09/09/09 12:27 AM
0909151-007A	09/04/09	09/04/09	09/11/09 5:15 PM	0909151-008A	09/04/09	09/04/09	09/08/09 5:22 PM
0909151-009A	09/04/09	09/04/09	09/08/09 10:06 PM	0909151-010A	09/04/09	09/04/09	09/08/09 7:09 PM
0909151-011A	09/04/09	09/04/09	09/09/09 3:28 AM	0909151-012A	09/04/09	09/04/09	09/09/09 7:26 AM
0909151-013A	09/04/09	09/04/09	09/15/09 12:40 PM	0909151-014A	09/04/09	09/04/09	09/09/09 5:06 AM
0909151-015A	09/04/09	09/04/09	09/09/09 3:58 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



**QC SUMMARY REPORT FOR SW8021B/8015Bm**

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 45641

WorkOrder 0909151

EPA Method SW8021B/8015Bm		Extraction SW5030B							Spiked Sample ID: 0909192-007A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) <sup>£</sup>	ND	0.60	113	114	1.30	107	113	5.36	70 - 130	20	70 - 130	20
MTBE	ND	0.10	104	101	2.32	102	100	1.92	70 - 130	20	70 - 130	20
Benzene	ND	0.10	102	105	2.85	106	96.2	9.81	70 - 130	20	70 - 130	20
Toluene	ND	0.10	102	105	2.29	104	94.4	9.30	70 - 130	20	70 - 130	20
Ethylbenzene	ND	0.10	101	103	2.19	104	94.2	9.49	70 - 130	20	70 - 130	20
Xylenes	ND	0.30	102	104	2.23	104	95.3	9.10	70 - 130	20	70 - 130	20
%SS:	82	0.10	87	89	1.37	99	85	15.2	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

BATCH 45641 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909151-016A	09/04/09	09/04/09	09/09/09 1:02 AM	0909151-017A	09/04/09	09/04/09	09/08/09 6:34 PM
0909151-018A	09/04/09	09/04/09	09/08/09 5:58 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



### QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 45642

WorkOrder 0909151

Analyte	Extraction SW3550C/3630C								Spiked Sample ID: 0909151-018A			
	Sample mg/Kg	Spiked mg/Kg	MS % Rec.	MSD % Rec.	MS-MSD % RPD	LCS % Rec.	LCSD % Rec.	LCS-LCSD % RPD	Acceptance Criteria (%)			
TPH-Diesel (C10-C23)	24	20	NR	NR	NR	88.5	88.3	0.240	70 - 130	30	70 - 130	30
%SS:	96	50	97	99	1.21	97	97	0	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

#### BATCH 45642 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909151-001A	09/03/09	09/04/09	09/11/09 6:26 PM	0909151-002A	09/03/09	09/04/09	09/11/09 7:35 PM
0909151-003A	09/03/09	09/04/09	09/14/09 1:42 PM	0909151-004A	09/03/09	09/04/09	09/09/09 1:56 AM
0909151-005A	09/03/09	09/04/09	09/12/09 2:53 AM	0909151-006A	09/03/09	09/04/09	09/11/09 11:16 PM
0909151-007A	09/04/09	09/04/09	09/10/09 3:08 AM	0909151-008A	09/04/09	09/04/09	09/09/09 7:02 PM
0909151-009A	09/04/09	09/04/09	09/10/09 9:24 PM	0909151-010A	09/04/09	09/04/09	09/11/09 8:48 PM
0909151-011A	09/04/09	09/04/09	09/10/09 8:15 PM	0909151-012A	09/04/09	09/04/09	09/09/09 7:55 AM
0909151-013A	09/04/09	09/04/09	09/10/09 5:59 PM	0909151-014A	09/04/09	09/04/09	09/09/09 10:34 PM
0909151-015A	09/04/09	09/04/09	09/10/09 4:51 PM	0909151-016A	09/04/09	09/04/09	09/10/09 3:13 AM
0909151-017A	09/04/09	09/04/09	09/10/09 2:04 AM	0909151-018A	09/04/09	09/04/09	09/09/09 5:21 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



**McC Campbell Analytical, Inc.**

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Web: www.mcccampbell.com E-mail: main@mcccampbell.com  
Telephone: 877-252-9262 Fax: 925-252-9269

CKG Environmental  P.O. Box 246  St. Helena, CA 94574	Client Project ID: Owens Brockway; Oakland	Date Sampled: 09/01/09-09/03/09
	Client Contact: Chris Kennedy	Date Received: 09/03/09
	Client P.O.:	Date Reported: 09/11/09
		Date Completed: 09/11/09

**WorkOrder: 0909127**

September 11, 2009

Dear Chris:

Enclosed within are:

- 1) The results of the **17** analyzed samples from your project: **Owens Brockway; Oakland,**
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
Laboratory Manager  
McC Campbell Analytical, Inc.

0909127

12



# McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD  
PITTSBURG, CA 94565-1701

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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

GeoTracker EDF  PDF  Excel  Write On (DW)

Check if sample is effluent and "J" flag is required

Report To: CHRIS KEENEY Bill To: \_\_\_\_\_  
 Company: CKG ENVIRONMENTAL  
 E-Mail: \_\_\_\_\_  
 Tele: ( ) Fax: ( )  
 Project #: \_\_\_\_\_ Project Name: OWENS BROCKWAY  
 Project Location: OAKLAND  
 Sampler Signature: [Signature]

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED				Analysis Request	Other	Comments
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO <sub>3</sub>	Other			
CKG-OB14		9/1/09		3	V	X						X					Filter Samples for Metals analysis: Yes / No
CKG-OB14		9/1/09		1	A	X						X					
CKG-OB16		9/1/09		3	V	X						X					
CKG-OB16		9/1/09		1	A	X						X					
CKG-OB17		9/1/09		3	V	X						X					
CKG-OB17		9/2/09		1	A	X						X					
CKG-OB19				3	V	X						X					
CKG-OB19				1	A	X						X					
CKG-OB20				3	V	X						X		X			
CKG-OB20				1	A	X						X					
CKG-OB21				3	V	X						X					
CKG-OB21				1	A	X						X					
CKG-OB22				3	V	X						X					
CKG-OB22				1	A	X						X					

Relinquished By: [Signature] Date: 9/3/09 Time: 3:20 Received By: [Signature]  
 Relinquished By: [Signature] Date: 9/3/09 Time: 4:45 Received By: [Signature]  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_

ICE/P 5.2 COMMENTS:  
 GOOD CONDITION \_\_\_\_\_  
 HEAD SPACE ABSENT \_\_\_\_\_  
 DECHLORINATED IN LAB \_\_\_\_\_  
 APPROPRIATE CONTAINERS \_\_\_\_\_  
 PRESERVED IN LAB \_\_\_\_\_  
 VOAS O&G METALS OTHER  
 PRESERVATION pH<2

+10  
+5  
+30  
+25  
+5  
+40  
+25





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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

GeoTracker EDF  PDF  Excel  Write On (DW)

Check if sample is effluent and "J" flag is required

Report To: CHRIS KENNEDY Bill To: \_\_\_\_\_  
 Company: CKG ENVIRONMENTAL  
 E-Mail: \_\_\_\_\_  
 Tele: ( ) Fax: ( )  
 Project #: \_\_\_\_\_ Project Name: OVERS BRICKWAY  
 Project Location: OAKLAND  
 Sampler Signature: [Signature]

Analysis Request										Other	Comments
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Filter Samples for Metals analysis: Yes / No
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

x  
+25  
+40  
+30  
+10  
+30  
+30  
+20

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED								
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO <sub>3</sub>	Other					
CKG-OB23		9/2/09		3	V	X						X							
CKG-OB23		9/2/09		1	A	X						X							
CKG-OB24		9/2/09		3	V	X						X							
CKG-OB24		9/2/09		1	A	X						X							
CKG-OB25		9/2/09		3	V	X						X							
CKG-OB25		9/2/09		1	A	X						X							
CKG-OB26		9/2/09		3	V	X						X			X				
CKG-OB26		9/2/09		1	A	X						X							
CKG-OB27		9/3/09		3	V	X						X							
CKG-OB27		9/3/09		1	A	X						X							
CKG-OB28		9/3/09		3	V	X						X							
CKG-OB28		9/3/09		1	A	X						X							
CKG-OB29		9/3/09		3	V	X						X							
CKG-OB29		9/3/09		1	A	X						X							

Relinquished By: [Signature] Date: 9/3/09 Time: 3:20 Received By: [Signature]  
 Relinquished By: [Signature] Date: 9/3/09 Time: 4:45 Received By: [Signature]  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_

COMMENTS:  
 ICE/° \_\_\_\_\_  
 GOOD CONDITION \_\_\_\_\_  
 HEAD SPACE ABSENT \_\_\_\_\_  
 DECHLORINATED IN LAB \_\_\_\_\_  
 APPROPRIATE CONTAINERS \_\_\_\_\_  
 PRESERVED IN LAB \_\_\_\_\_  
 VOAS O&G METALS OTHER  
 PRESERVATION pH<2

\* 8270 CANNOT BE SET-UP NO LITER UNPRS PROVIDED. CALLED CLIENT & LET KNOW 9/3/09



# 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

GeoTracker EDF  PDF  Excel  Write On (DW)

Check if sample is effluent and "J" flag is required

Report To: CHRIS KENNEDY Bill To: \_\_\_\_\_  
 Company: CKG ENVIRONMENTAL  
 E-Mail: \_\_\_\_\_  
 Tele: ( ) Fax: ( )  
 Project #: \_\_\_\_\_ Project Name: OWENS BACKWATER  
 Project Location: AKLAD  
 Sampler Signature: [Signature]

Analysis Request										Other	Comments	
												Filter Samples for Metals analysis: Yes / No

+40  
+25  
\*  
+25  
\*

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED							
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO <sub>3</sub>	Other				
CKG-OB30		9/3/09		3	V	X						X						
CKG-OB30		9/3/09		1	A	X						X						
CKG-OB31		9/3/09		3	V	X						X						
CKG-OB31		9/3/09		1	A	X						X						
CKG-OB32		9/3/09		3	V	X						X			X			
CKG-OB32		9/3/09		1	A	X						X						

ICE/° \_\_\_\_\_ COMMENTS: \_\_\_\_\_  
 GOOD CONDITION \_\_\_\_\_  
 HEAD SPACE ABSENT \_\_\_\_\_  
 DECHLORINATED IN LAB \_\_\_\_\_  
 APPROPRIATE CONTAINERS \_\_\_\_\_  
 PRESERVED IN LAB \_\_\_\_\_  
 VOAS O&G METALS OTHER  
 PRESERVATION pH<2

\* LITERS NOT RECEIVED TPH DMO ON HOLD PER CLIENT. 9/3/09 \* LITERS RECEIVED ON 9/4/09.

# McC Campbell Analytical, Inc.



1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 0909127

ClientCode: CKGS

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
 Email   
 HardCopy   
 ThirdParty   
 J-flag

**Report to:**

Chris Kennedy  
CKG Environmental  
P.O. Box 246  
St. Helena, CA 94574  
(707) 967-8080    FAX (707) 967-8080

Email: ckennedy@geologist.com  
cc:  
PO:  
ProjectNo: Owens Brockway; Oakland

**Bill to:**

Accounts Payable  
CKG Environmental  
P.O. Box 246  
St. Helena, CA 94574

**Requested TAT: 5 days**

**Date Received: 09/03/2009**

**Date Printed: 09/04/2009**

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	
0909127-001	CKG-OB14	Water	9/1/2009	<input type="checkbox"/>		A	B										
0909127-002	CKG-OB16	Water	9/1/2009	<input type="checkbox"/>		A	B										
0909127-003	CKG-OB17	Water	9/1/2009	<input type="checkbox"/>		A	B										
0909127-004	CKG-OB19	Water	9/2/2009	<input type="checkbox"/>		A	B										
0909127-005	CKG-OB20	Water	9/2/2009	<input type="checkbox"/>	C	A	B										
0909127-006	CKG-OB21	Water	9/2/2009	<input type="checkbox"/>		A	B										
0909127-007	CKG-OB22	Water	9/2/2009	<input type="checkbox"/>		A	B										
0909127-008	CKG-OB23	Water	9/2/2009	<input type="checkbox"/>		A	B										
0909127-009	CKG-OB24	Water	9/2/2009	<input type="checkbox"/>		A	B										
0909127-010	CKG-OB25	Water	9/2/2009	<input type="checkbox"/>		A	B										
0909127-011	CKG-OB26	Water	9/2/2009	<input type="checkbox"/>	C	A	B										
0909127-012	CKG-OB27	Water	9/3/2009	<input type="checkbox"/>		A	B										
0909127-013	CKG-OB28	Water	9/3/2009	<input type="checkbox"/>		A	B										
0909127-014	CKG-OB29	Water	9/3/2009	<input type="checkbox"/>		A	B										

**Test Legend:**

1	8260B_W	2	G-MBTEX_W	3	TPH(DMO)_W	4		5	
6		7		8		9		10	
11		12							

**Prepared by: Ana 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.

# McC Campbell Analytical, Inc.



1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 0909127

ClientCode: CKGS

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
 Email   
 HardCopy   
 ThirdParty   
 J-flag

Report to: Chris Kennedy CKG Environmental P.O. Box 246 St. Helena, CA 94574 (707) 967-8080    FAX (707) 967-8080	Email: ckennedy@geologist.com cc: PO: ProjectNo: Owens Brockway; Oakland	Bill to: Accounts Payable CKG Environmental P.O. Box 246 St. Helena, CA 94574	Requested TAT: <b>5 days</b>  Date Received: 09/03/2009 Date Printed: 09/04/2009
--	---	---	---

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
0909127-015	CKG-OB30	Water	9/3/2009	<input type="checkbox"/>		A	B									
0909127-016	CKG-OB31	Water	9/3/2009	<input type="checkbox"/>		A	B									
0909127-017	CKG-OB32	Water	9/3/2009	<input type="checkbox"/>	C	A	B									

**Test Legend:**

1	8260B_W	2	G-MBTEX_W	3	TPH(DMO)_W	4		5	
6		7		8		9		10	
11		12							

Prepared by: Ana 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.



**Sample Receipt Checklist**

Client Name: **CKG Environmental**

Date and Time Received: **9/3/2009 7:39:01 PM**

Project Name: **Owens Brockway; Oakland**

Checklist completed and reviewed by: **Ana Venegas**

WorkOrder N°: **0909127** Matrix Water

Carrier: Rob Pringle (MAI Courier)

**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
  - Container/Temp Blank temperature Cooler Temp: 3.2°C NA
  - Water - VOA vials have zero headspace / no bubbles? Yes  No  No VOA vials submitted
  - Sample labels checked for correct preservation? Yes  No
  - TTLC Metal - pH acceptable upon receipt (pH<2)? Yes  No  NA
  - Samples Received on Ice? Yes  No
- (Ice Type: WET ICE )

\* NOTE: If the "No" box is checked, see comments below.

-----

Client contacted:

Date contacted:

Contacted by:

Comments:



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Telephone: 877-252-9262 Fax: 925-252-9269

CKG Environmental  P.O. Box 246  St. Helena, CA 94574	Client Project ID: Owens Brockway; Oakland	Date Sampled: 09/02/09
	Client Contact: Chris Kennedy	Date Received: 09/03/09
	Client P.O.:	Date Extracted: 09/09/09
		Date Analyzed: 09/09/09

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0909127

Lab ID	0909127-005C
Client ID	CKG-OB20
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	27	2.0	10	tert-Amyl methyl ether (TAME)	ND<1.0	2.0	0.5
Benzene	ND<1.0	2.0	0.5	Bromobenzene	ND<1.0	2.0	0.5
Bromochloromethane	ND<1.0	2.0	0.5	Bromodichloromethane	ND<1.0	2.0	0.5
Bromoform	ND<1.0	2.0	0.5	Bromomethane	ND<1.0	2.0	0.5
2-Butanone (MEK)	4.3	2.0	2.0	t-Butyl alcohol (TBA)	5.3	2.0	2.0
n-Butyl benzene	ND<1.0	2.0	0.5	sec-Butyl benzene	ND<1.0	2.0	0.5
tert-Butyl benzene	ND<1.0	2.0	0.5	Carbon Disulfide	ND<1.0	2.0	0.5
Carbon Tetrachloride	ND<1.0	2.0	0.5	Chlorobenzene	ND<1.0	2.0	0.5
Chloroethane	ND<1.0	2.0	0.5	Chloroform	ND<1.0	2.0	0.5
Chloromethane	ND<1.0	2.0	0.5	2-Chlorotoluene	ND<1.0	2.0	0.5
4-Chlorotoluene	ND<1.0	2.0	0.5	Dibromochloromethane	ND<1.0	2.0	0.5
1,2-Dibromo-3-chloropropane	ND<0.40	2.0	0.2	1,2-Dibromoethane (EDB)	ND<1.0	2.0	0.5
Dibromomethane	ND<1.0	2.0	0.5	1,2-Dichlorobenzene	ND<1.0	2.0	0.5
1,3-Dichlorobenzene	ND<1.0	2.0	0.5	1,4-Dichlorobenzene	ND<1.0	2.0	0.5
Dichlorodifluoromethane	ND<1.0	2.0	0.5	1,1-Dichloroethane	ND<1.0	2.0	0.5
1,2-Dichloroethane (1,2-DCA)	ND<1.0	2.0	0.5	1,1-Dichloroethene	ND<1.0	2.0	0.5
cis-1,2-Dichloroethene	ND<1.0	2.0	0.5	trans-1,2-Dichloroethene	ND<1.0	2.0	0.5
1,2-Dichloropropane	ND<1.0	2.0	0.5	1,3-Dichloropropane	ND<1.0	2.0	0.5
2,2-Dichloropropane	ND<1.0	2.0	0.5	1,1-Dichloropropene	ND<1.0	2.0	0.5
cis-1,3-Dichloropropene	ND<1.0	2.0	0.5	trans-1,3-Dichloropropene	ND<1.0	2.0	0.5
Diisopropyl ether (DIPE)	ND<1.0	2.0	0.5	Ethylbenzene	ND<1.0	2.0	0.5
Ethyl tert-butyl ether (ETBE)	ND<1.0	2.0	0.5	Freon 113	ND<20	2.0	10
Hexachlorobutadiene	ND<1.0	2.0	0.5	Hexachloroethane	ND<1.0	2.0	0.5
2-Hexanone	ND<1.0	2.0	0.5	Isopropylbenzene	ND<1.0	2.0	0.5
4-Isopropyl toluene	ND<1.0	2.0	0.5	Methyl-t-butyl ether (MTBE)	ND<1.0	2.0	0.5
Methylene chloride	ND<1.0	2.0	0.5	4-Methyl-2-pentanone (MIBK)	ND<1.0	2.0	0.5
Naphthalene	ND<1.0	2.0	0.5	n-Propyl benzene	ND<1.0	2.0	0.5
Styrene	ND<1.0	2.0	0.5	1,1,1,2-Tetrachloroethane	ND<1.0	2.0	0.5
1,1,1,2-Tetrachloroethane	ND<1.0	2.0	0.5	Tetrachloroethene	ND<1.0	2.0	0.5
Toluene	ND<1.0	2.0	0.5	1,2,3-Trichlorobenzene	ND<1.0	2.0	0.5
1,2,4-Trichlorobenzene	ND<1.0	2.0	0.5	1,1,1-Trichloroethane	ND<1.0	2.0	0.5
1,1,2-Trichloroethane	ND<1.0	2.0	0.5	Trichloroethene	ND<1.0	2.0	0.5
Trichlorofluoromethane	ND<1.0	2.0	0.5	1,2,3-Trichloropropane	ND<1.0	2.0	0.5
1,2,4-Trimethylbenzene	ND<1.0	2.0	0.5	1,3,5-Trimethylbenzene	ND<1.0	2.0	0.5
Vinyl Chloride	ND<1.0	2.0	0.5	Xylenes	ND<1.0	2.0	0.5

#### Surrogate Recoveries (%)

%SS1:	101	%SS2:	96
%SS3:	96		

Comments: b6,a3,b1

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

a3) sample diluted due to high organic content.

b1) aqueous sample that contains greater than ~1 vol. % sediment

b6) lighter than water immiscible sheen/product is present



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CKG Environmental P.O. Box 246 St. Helena, CA 94574	Client Project ID: Owens Brockway; Oakland	Date Sampled: 09/02/09
	Client Contact: Chris Kennedy	Date Received: 09/03/09
	Client P.O.:	Date Extracted: 09/09/09
		Date Analyzed: 09/09/09

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0909127

Lab ID	0909127-011C
Client ID	CKG-OB26
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	70	2.0	10	tert-Amyl methyl ether (TAME)	ND<1.0	2.0	0.5
Benzene	ND<1.0	2.0	0.5	Bromobenzene	ND<1.0	2.0	0.5
Bromochloromethane	ND<1.0	2.0	0.5	Bromodichloromethane	ND<1.0	2.0	0.5
Bromoform	ND<1.0	2.0	0.5	Bromomethane	ND<1.0	2.0	0.5
2-Butanone (MEK)	15	2.0	2.0	t-Butyl alcohol (TBA)	44	2.0	2.0
n-Butyl benzene	11	2.0	0.5	sec-Butyl benzene	6.1	2.0	0.5
tert-Butyl benzene	ND<1.0	2.0	0.5	Carbon Disulfide	ND<1.0	2.0	0.5
Carbon Tetrachloride	ND<1.0	2.0	0.5	Chlorobenzene	ND<1.0	2.0	0.5
Chloroethane	ND<1.0	2.0	0.5	Chloroform	ND<1.0	2.0	0.5
Chloromethane	ND<1.0	2.0	0.5	2-Chlorotoluene	ND<1.0	2.0	0.5
4-Chlorotoluene	ND<1.0	2.0	0.5	Dibromochloromethane	ND<1.0	2.0	0.5
1,2-Dibromo-3-chloropropane	ND<0.40	2.0	0.2	1,2-Dibromoethane (EDB)	ND<1.0	2.0	0.5
Dibromomethane	ND<1.0	2.0	0.5	1,2-Dichlorobenzene	ND<1.0	2.0	0.5
1,3-Dichlorobenzene	ND<1.0	2.0	0.5	1,4-Dichlorobenzene	ND<1.0	2.0	0.5
Dichlorodifluoromethane	ND<1.0	2.0	0.5	1,1-Dichloroethane	ND<1.0	2.0	0.5
1,2-Dichloroethane (1,2-DCA)	ND<1.0	2.0	0.5	1,1-Dichloroethene	ND<1.0	2.0	0.5
cis-1,2-Dichloroethene	ND<1.0	2.0	0.5	trans-1,2-Dichloroethene	ND<1.0	2.0	0.5
1,2-Dichloropropane	ND<1.0	2.0	0.5	1,3-Dichloropropane	ND<1.0	2.0	0.5
2,2-Dichloropropane	ND<1.0	2.0	0.5	1,1-Dichloropropene	ND<1.0	2.0	0.5
cis-1,3-Dichloropropene	ND<1.0	2.0	0.5	trans-1,3-Dichloropropene	ND<1.0	2.0	0.5
Diisopropyl ether (DIPE)	ND<1.0	2.0	0.5	Ethylbenzene	ND<1.0	2.0	0.5
Ethyl tert-butyl ether (ETBE)	ND<1.0	2.0	0.5	Freon 113	ND<20	2.0	10
Hexachlorobutadiene	ND<1.0	2.0	0.5	Hexachloroethane	ND<1.0	2.0	0.5
2-Hexanone	ND<1.0	2.0	0.5	Isopropylbenzene	15	2.0	0.5
4-Isopropyl toluene	9.0	2.0	0.5	Methyl-t-butyl ether (MTBE)	ND<1.0	2.0	0.5
Methylene chloride	ND<1.0	2.0	0.5	4-Methyl-2-pentanone (MIBK)	ND<1.0	2.0	0.5
Naphthalene	ND<1.0	2.0	0.5	n-Propyl benzene	16	2.0	0.5
Styrene	ND<1.0	2.0	0.5	1,1,1,2-Tetrachloroethane	ND<1.0	2.0	0.5
1,1,1,2-Tetrachloroethane	ND<1.0	2.0	0.5	Tetrachloroethene	ND<1.0	2.0	0.5
Toluene	ND<1.0	2.0	0.5	1,2,3-Trichlorobenzene	ND<1.0	2.0	0.5
1,2,4-Trichlorobenzene	ND<1.0	2.0	0.5	1,1,1-Trichloroethane	ND<1.0	2.0	0.5
1,1,2-Trichloroethane	ND<1.0	2.0	0.5	Trichloroethene	ND<1.0	2.0	0.5
Trichlorofluoromethane	ND<1.0	2.0	0.5	1,2,3-Trichloropropane	ND<1.0	2.0	0.5
1,2,4-Trimethylbenzene	14	2.0	0.5	1,3,5-Trimethylbenzene	6.3	2.0	0.5
Vinyl Chloride	ND<1.0	2.0	0.5	Xylenes	24	2.0	0.5

### Surrogate Recoveries (%)

%SS1:	98	%SS2:	98
%SS3:	101		

Comments: b6,a3,b1

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

a3) sample diluted due to high organic content.

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CKG Environmental  P.O. Box 246  St. Helena, CA 94574	Client Project ID: Owens Brockway; Oakland	Date Sampled: 09/03/09
	Client Contact: Chris Kennedy	Date Received: 09/03/09
	Client P.O.:	Date Extracted: 09/10/09
		Date Analyzed: 09/10/09

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0909127

Lab ID	0909127-017C
Client ID	CKG-OB32
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	72	5.0	10	tert-Amyl methyl ether (TAME)	ND<2.5	5.0	0.5
Benzene	ND<2.5	5.0	0.5	Bromobenzene	ND<2.5	5.0	0.5
Bromochloromethane	ND<2.5	5.0	0.5	Bromodichloromethane	ND<2.5	5.0	0.5
Bromoform	ND<2.5	5.0	0.5	Bromomethane	ND<2.5	5.0	0.5
2-Butanone (MEK)	17	5.0	2.0	t-Butyl alcohol (TBA)	ND<10	5.0	2.0
n-Butyl benzene	10	5.0	0.5	sec-Butyl benzene	15	5.0	0.5
tert-Butyl benzene	ND<2.5	5.0	0.5	Carbon Disulfide	ND<2.5	5.0	0.5
Carbon Tetrachloride	ND<2.5	5.0	0.5	Chlorobenzene	ND<2.5	5.0	0.5
Chloroethane	2.8	5.0	0.5	Chloroform	ND<2.5	5.0	0.5
Chloromethane	ND<2.5	5.0	0.5	2-Chlorotoluene	ND<2.5	5.0	0.5
4-Chlorotoluene	ND<2.5	5.0	0.5	Dibromochloromethane	ND<2.5	5.0	0.5
1,2-Dibromo-3-chloropropane	ND<1.0	5.0	0.2	1,2-Dibromoethane (EDB)	ND<2.5	5.0	0.5
Dibromomethane	ND<2.5	5.0	0.5	1,2-Dichlorobenzene	ND<2.5	5.0	0.5
1,3-Dichlorobenzene	ND<2.5	5.0	0.5	1,4-Dichlorobenzene	ND<2.5	5.0	0.5
Dichlorodifluoromethane	ND<2.5	5.0	0.5	1,1-Dichloroethane	ND<2.5	5.0	0.5
1,2-Dichloroethane (1,2-DCA)	ND<2.5	5.0	0.5	1,1-Dichloroethene	ND<2.5	5.0	0.5
cis-1,2-Dichloroethene	ND<2.5	5.0	0.5	trans-1,2-Dichloroethene	ND<2.5	5.0	0.5
1,2-Dichloropropane	ND<2.5	5.0	0.5	1,3-Dichloropropane	ND<2.5	5.0	0.5
2,2-Dichloropropane	ND<2.5	5.0	0.5	1,1-Dichloropropene	ND<2.5	5.0	0.5
cis-1,3-Dichloropropene	ND<2.5	5.0	0.5	trans-1,3-Dichloropropene	ND<2.5	5.0	0.5
Diisopropyl ether (DIPE)	ND<2.5	5.0	0.5	Ethylbenzene	ND<2.5	5.0	0.5
Ethyl tert-butyl ether (ETBE)	ND<2.5	5.0	0.5	Freon 113	ND<50	5.0	10
Hexachlorobutadiene	ND<2.5	5.0	0.5	Hexachloroethane	ND<2.5	5.0	0.5
2-Hexanone	ND<2.5	5.0	0.5	Isopropylbenzene	ND<2.5	5.0	0.5
4-Isopropyl toluene	ND<2.5	5.0	0.5	Methyl-t-butyl ether (MTBE)	ND<2.5	5.0	0.5
Methylene chloride	ND<2.5	5.0	0.5	4-Methyl-2-pentanone (MIBK)	ND<2.5	5.0	0.5
Naphthalene	ND<2.5	5.0	0.5	n-Propyl benzene	ND<2.5	5.0	0.5
Styrene	ND<2.5	5.0	0.5	1,1,1,2-Tetrachloroethane	ND<2.5	5.0	0.5
1,1,1,2-Tetrachloroethane	ND<2.5	5.0	0.5	Tetrachloroethene	ND<2.5	5.0	0.5
Toluene	ND<2.5	5.0	0.5	1,2,3-Trichlorobenzene	ND<2.5	5.0	0.5
1,2,4-Trichlorobenzene	ND<2.5	5.0	0.5	1,1,1-Trichloroethane	ND<2.5	5.0	0.5
1,1,2-Trichloroethane	ND<2.5	5.0	0.5	Trichloroethene	ND<2.5	5.0	0.5
Trichlorofluoromethane	ND<2.5	5.0	0.5	1,2,3-Trichloropropane	ND<2.5	5.0	0.5
1,2,4-Trimethylbenzene	ND<2.5	5.0	0.5	1,3,5-Trimethylbenzene	ND<2.5	5.0	0.5
Vinyl Chloride	ND<2.5	5.0	0.5	Xylenes	ND<2.5	5.0	0.5

#### Surrogate Recoveries (%)

%SS1:	101	%SS2:	99
%SS3:	116		

Comments: a3,b1

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

a3) sample diluted due to high organic content.

b1) aqueous sample that contains greater than ~1 vol. % sediment

b6) lighter than water immiscible sheen/product is present





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CKG Environmental  P.O. Box 246  St. Helena, CA 94574	Client Project ID: Owens Brockway; Oakland	Date Sampled: 09/01/09-09/03/09
	Client Contact: Chris Kennedy	Date Received: 09/03/09
	Client P.O.:	Date Extracted: 09/08/09-09/11/09
		Date Analyzed: 09/08/09-09/11/09

## Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE\*

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0909127

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	CKG-OB14	W	1400	---	ND<1.0	2.2	1.4	4.6	2	114	d7,d9,b6,b1
002A	CKG-OB16	W	11,000	---	ND<1.0	10	26	63	2	---#	d7,d9,b6,b1
003A	CKG-OB17	W	1400	---	ND<1.7	ND<1.7	ND<1.7	ND<1.7	3.3	97	d7,d9,b6,b1
004A	CKG-OB19	W	19,000	---	ND<10	12	39	14	5	111	d7,d9,b6,b1
005A	CKG-OB20	W	4300	---	ND<10	ND<10	ND<10	ND<10	20	102	d7,b6,b1
006A	CKG-OB21	W	ND	---	ND	ND	ND	ND	1	101	b1
007A	CKG-OB22	W	110	---	ND	ND	ND	ND	1	95	d7,b6,b1
008A	CKG-OB23	W	7500	---	ND	2.6	5.1	39	1	87	d7,d9,b6,b1
009A	CKG-OB24	W	ND	---	ND	ND	ND	ND	1	97	b1
010A	CKG-OB25	W	270	---	ND	ND	ND	2.5	1	93	d7,b6,b1
011A	CKG-OB26	W	5500	---	ND<2.5	2.6	4.7	42	5	107	d7,d9,b6,b1
012A	CKG-OB27	W	250	---	ND	ND	ND	2.3	1	93	d7,b6,b1
013A	CKG-OB28	W	8000	---	ND<1.7	ND<1.7	9.5	35	3.3	94	d7,d9,b6,b1
014A	CKG-OB29	W	1700	---	ND<5.0	ND<5.0	ND<5.0	ND<5.0	10	88	d7,b6,b1
015A	CKG-OB30	W	120	---	ND	1.1	ND	0.80	1	93	d7,b6,b1
016A	CKG-OB31	W	2100	---	ND<5.0	ND<5.0	ND<5.0	ND<5.0	10	91	d7,b6,b1

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	0.5	μg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	0.005	mg/Kg

\* water and vapor samples are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in μg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts in mg/L.

# cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

- b1) aqueous sample that contains greater than ~1 vol. % sediment
- b6) lighter than water immiscible sheen/product is present
- d7) strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram
- d9) no recognizable pattern



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	Client Contact: Chris Kennedy	Date Received: 09/03/09
	Client P.O.:	Date Extracted: 09/08/09-09/11/09
		Date Analyzed: 09/08/09-09/11/09

## Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE\*

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0909127

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
017A	CKG-OB32	W	18,000	---	ND<1.7	ND<1.7	13	78	3.3	102	d7,b6,b1

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	0.5	μg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	0.005	mg/Kg

\* water and vapor samples are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in μg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts in mg/L.

# cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

b1) aqueous sample that contains greater than ~1 vol. % sediment  
 b6) lighter than water immiscible sheen/product is present  
 d7) strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram  
 d9) no recognizable pattern



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	Client Contact: Chris Kennedy	Date Received: 09/03/09
	Client P.O.:	Date Extracted: 09/03/09-09/04/09
		Date Analyzed: 09/06/09-09/11/09

### Total Extractable Petroleum Hydrocarbons\*

Extraction method: SW3510C

Analytical methods: SW8015B

Work Order: 0909127

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	DF	% SS	Comments
0909127-001B	CKG-OB14	W	82,000	81,000	20	110	e2,e7,b1
0909127-002B	CKG-OB16	W	680,000	490,000	500	107	e2,e7,e4,b1
0909127-003B	CKG-OB17	W	19,000	9300	20	86	e8/e1,e7,b6,b1
0909127-004B	CKG-OB19	W	1,300,000	860,000	1000	115	e2,e7,e4,b1
0909127-005B	CKG-OB20	W	1,100,000	900,000	500	94	e2,e7,b1
0909127-006B	CKG-OB21	W	310	330	1	92	e7,e2,b1
0909127-007B	CKG-OB22	W	70,000	60,000	20	89	e2,e7,b6,b1
0909127-008B	CKG-OB23	W	410,000	590,000	400	94	e7,e2,e4,b1
0909127-009B	CKG-OB24	W	3900	4300	2	90	e7,e3,b1
0909127-010B	CKG-OB25	W	34,000	57,000	50	90	e7,e2,b1
0909127-011B	CKG-OB26	W	4,700,000	4,700,000	2000	110	e2,e7,b6,b1
0909127-012B	CKG-OB27	W	3200	1500	1	96	e8/e1,e7,b1
0909127-013B	CKG-OB28	W	770,000	230,000	100	109	e8/e1,e7,b1
0909127-014B	CKG-OB29	W	120,000	55,000	100	79	e8/e1,e7,b1
0909127-015B	CKG-OB30	W	29,000	36,000	20	88	e7,e2,b1

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	250	µg/L
	S	NA	NA	mg/Kg

\* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

# cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

- b1) aqueous sample that contains greater than ~1 vol. % sediment
- b6) lighter than water immiscible sheen/product is present
- e2) diesel range compounds are significant; no recognizable pattern
- e3) aged diesel is significant
- e4) gasoline range compounds are significant.
- e7) oil range compounds are significant
- e8) kerosene/kerosene range/jet fuel range; and/or e1) unmodified or weakly modified diesel is significant



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	Client Contact: Chris Kennedy	Date Received: 09/03/09
	Client P.O.:	Date Extracted: 09/03/09-09/04/09
		Date Analyzed: 09/06/09-09/11/09

### Total Extractable Petroleum Hydrocarbons\*

Extraction method: SW3510C

Analytical methods: SW8015B

Work Order: 0909127

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	DF	% SS	Comments
0909127-016B	CKG-OB31	W	260,000	150,000	400	97	e8/e1,e7,b1
0909127-017B	CKG-OB32	W	1,700,000	820,000	1000	118	e8/e1,e7,b1

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	250	µg/L
	S	NA	NA	mg/Kg

\* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

# cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

b1) aqueous sample that contains greater than ~1 vol. % sediment  
 b6) lighter than water immiscible sheen/product is present  
 e2) diesel range compounds are significant; no recognizable pattern  
 e3) aged diesel is significant  
 e4) gasoline range compounds are significant.  
 e7) oil range compounds are significant  
 e8) kerosene/kerosene range/jet fuel range; and/or e1) unmodified or weakly modified diesel is significant



### QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 45592

WorkOrder 0909127

EPA Method SW8260B	Extraction SW5030B								Spiked Sample ID: 0909113-040A			
	Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	10	91.2	99.2	8.37	94.9	93.2	1.78	70 - 130	30	70 - 130	30
Benzene	ND	10	106	114	6.78	114	115	1.12	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	50	91.6	93.2	1.76	89.9	95.1	5.60	70 - 130	30	70 - 130	30
Chlorobenzene	ND	10	109	116	6.64	99.8	101	1.41	70 - 130	30	70 - 130	30
1,2-Dibromoethane (EDB)	ND	10	121	130	7.02	101	99.6	1.51	70 - 130	30	70 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	10	100	103	2.32	103	106	2.69	70 - 130	30	70 - 130	30
1,1-Dichloroethene	ND	10	101	98.9	1.62	110	109	0.808	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	10	98	104	6.26	119	122	2.29	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	10	96.7	104	7.26	108	110	1.35	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	10	105	108	3.32	107	104	2.14	70 - 130	30	70 - 130	30
Toluene	ND	10	108	116	7.13	106	108	1.22	70 - 130	30	70 - 130	30
Trichloroethene	ND	10	125	114	8.75	110	110	0	70 - 130	30	70 - 130	30
%SS1:	90	25	81	88	8.60	77	78	1.87	70 - 130	30	70 - 130	30
%SS2:	93	25	103	112	7.90	100	101	1.09	70 - 130	30	70 - 130	30
%SS3:	103	2.5	121	101	18.3	101	98	3.79	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

#### BATCH 45592 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909127-005C	09/02/09	09/09/09	09/09/09 3:29 PM	0909127-011C	09/02/09	09/09/09	09/09/09 4:12 PM
0909127-017C	09/03/09	09/10/09	09/10/09 9:40 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 45624

WorkOrder 0909127

Table with columns: EPA Method SW8021B/8015Bm, Extraction SW5030B, Spiked Sample ID: 0909126-003B, Analyte, Sample, Spiked, MS, MSD, MS-MSD, LCS, LCSD, LCS-LCSD, Acceptance Criteria (%), and RPD.

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

BATCH 45624 SUMMARY

Table with columns: Lab ID, Date Sampled, Date Extracted, Date Analyzed, Lab ID, Date Sampled, Date Extracted, Date Analyzed.

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



**QC SUMMARY REPORT FOR SW8015B**

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 45512

WorkOrder 0909127

EPA Method SW8015B		Extraction SW3510C							Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	95.1	92.9	2.44	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	96	95	0.704	N/A	N/A	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

BATCH 45512 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909127-001B	09/01/09	09/03/09	09/09/09 3:04 AM	0909127-002B	09/01/09	09/03/09	09/11/09 1:00 AM
0909127-003B	09/01/09	09/03/09	09/08/09 12:41 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



### QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 45627

WorkOrder 0909127

EPA Method SW8015B		Extraction SW3510C							Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	100	101	0.441	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	94	95	0.975	N/A	N/A	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

#### BATCH 45627 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909127-004B	09/02/09	09/03/09	09/10/09 11:48 PM	0909127-005B	09/02/09	09/03/09	09/11/09 5:43 AM
0909127-006B	09/02/09	09/03/09	09/08/09 4:48 PM	0909127-007B	09/02/09	09/03/09	09/10/09 12:16 AM
0909127-008B	09/02/09	09/03/09	09/11/09 9:16 AM	0909127-009B	09/02/09	09/03/09	09/10/09 1:01 PM
0909127-010B	09/02/09	09/03/09	09/10/09 9:28 AM	0909127-011B	09/02/09	09/03/09	09/09/09 8:44 PM
0909127-012B	09/03/09	09/03/09	09/06/09 7:26 AM	0909127-013B	09/03/09	09/03/09	09/11/09 6:52 AM
0909127-014B	09/03/09	09/03/09	09/09/09 9:54 PM	0909127-015B	09/03/09	09/03/09	09/09/09 5:10 PM
0909127-016B	09/03/09	09/04/09	09/11/09 2:12 AM	0909127-017B	09/03/09	09/04/09	09/11/09 1:15 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.





**McC Campbell Analytical, Inc.**

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Web: www.mcccampbell.com E-mail: main@mcccampbell.com  
Telephone: 877-252-9262 Fax: 925-252-9269

CKG Environmental  P.O. Box 246  St. Helena, CA 94574	Client Project ID: Owens Brockway	Date Sampled: 09/01/09-09/03/09
		Date Received: 09/03/09
	Client Contact: Chris Kennedy	Date Reported: 09/11/09
	Client P.O.:	Date Completed: 09/11/09

**WorkOrder: 0909120**

September 11, 2009

Dear Chris:

Enclosed within are:

- 1) The results of the **32** analyzed samples from your project: **Owens Brockway**,
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
Laboratory Manager  
McC Campbell Analytical, Inc.



# 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

0909120

13

## CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH  24 HR  48 HR  72 HR  5 DAY

GeoTracker EDF  PDF  Excel  Write On (DW)   
 Check if sample is effluent and "J" flag is required

Report To: CHRIS KENNEDY Bill To:

Company: CKG ENVIRONMENTAL

E-Mail:

Tele: ( ) Fax: ( )

Project #: Project Name: OWENS BROOK WY

Project Location: AKLAND

Sampler Signature: [Signature]

Analysis Request Other Comments

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED				Analysis Request	Other	Comments
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO <sub>3</sub>	Other			
CKG-OB16	4-A1/2	9/1/09		1	SLV	X											Filter Samples for Metals analysis: Yes / No
CKG-OB16	9/2-10	9/1/09		1	SLV	X											
CKG-OB17	4-A1/2	9/1/09		1	SLV	X											
CKG-OB17	9/2-10	9/1/09		1	SLV	X											
CKG-OB19	4-A1/2	9/2/09		1	SLV	X											
CKG-OB19	10-10 1/2	9/2/09		1	SLV	X											
CKG-OB20	3 1/2-A	9/2/09		1	SLV	X											
CKG-OB20	13-13 1/2	9/2/09		1	SLV	X											
CKG-OB21	5/2-6	9/2/09		1	SLV	X											
CKG-OB21	12/2-13	9/2/09		1	SLV	X											
CKG-OB22	7/2-B	9/2/09		1	SLV	X											
CKG-OB22	12-12 1/2	9/2/09		1	SLV	X											
CKG-OB23	8-8 1/2	9/2/09		1	SLV	X											
CKG-OB23	12/2-13	9/2/09		1	SLV	X											

Relinquished By: [Signature] Date: 9/3/09 Time: 3:20 Received By: [Signature]

Relinquished By: [Signature] Date: 9/3/09 Time: 4:45 Received By: [Signature]

Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_

ICE/TPH as Gas (602 / 8021 + 8015) / MTBE  
TPH as Diesel (8015) + MO  
Total Petroleum Oil & Grease (1664 / 5520 E/B&F)  
Total Petroleum Hydrocarbons (418.1)  
EPA 8260 (HVOCs)  
EPA 8016 / BTEX ONLY (EPA 602 / 8021)  
EPA 505 / 608 / 8081 (CI Pesticides)  
EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners  
EPA 807 / 8141 (NP Pesticides)  
EPA 515.3 / 8151 (Acidic CI Herbicides)  
EPA 524.2 / 624 / 8260 (VOCs)  
EPA 825.2 / 625 / 8270 (SVOCs)  
EPA 8270 SIM / 8310 (PAHs / PNAs)  
CAM 17 Metals (200.8 / 6020)  
LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)  
Lead (200.7 / 200.8 / 6010 / 6020)

COMMENTS:  
ICE/TPH  
GOOD CONDITION  
HEAD SPACE ABSENT  
DECHLORINATED IN LAB  
APPROPRIATE CONTAINERS  
PRESERVED IN LAB

RUN SOIL SAMPLES WITH SILICA GEL CLEANUP

VOAS O&G METALS OTHER  
PRESERVATION pH<2





# McC Campbell Analytical, Inc.



1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 0909120

ClientCode: CKGS

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
 Email   
 HardCopy   
 ThirdParty   
 J-flag

**Report to:**

Chris Kennedy  
CKG Environmental  
P.O. Box 246  
St. Helena, CA 94574  
(707) 967-8080    FAX (707) 967-8080

Email: ckennedy@geologist.com  
cc:  
PO:  
ProjectNo: Owens Brockway

**Bill to:**

Accounts Payable  
CKG Environmental  
P.O. Box 246  
St. Helena, CA 94574

**Requested TAT: 5 days**

**Date Received: 09/03/2009**

**Date Printed: 09/03/2009**

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	
0909120-001	CKG-OB16 4-4 1/2	Soil	9/1/2009	<input type="checkbox"/>			A	A									
0909120-002	CKG-OB16 9 1/2-10	Soil	9/1/2009	<input type="checkbox"/>			A	A									
0909120-003	CKG-OB17 4-4 1/2	Soil	9/1/2009	<input type="checkbox"/>			A	A									
0909120-004	CKG-OB17 9 1/2-10	Soil	9/1/2009	<input type="checkbox"/>			A	A									
0909120-005	CKG-OB19 4-4 1/2	Soil	9/2/2009	<input type="checkbox"/>			A	A									
0909120-006	CKG-OB19 10-10 1/2	Soil	9/2/2009	<input type="checkbox"/>			A	A									
0909120-007	CKG-OB20 3 1/2-4	Soil	9/2/2009	<input type="checkbox"/>			A	A									
0909120-008	CKG-OB20 13-13 1/2	Soil	9/2/2009	<input type="checkbox"/>			A	A									
0909120-009	CKG-OB21 5 1/2-6	Soil	9/2/2009	<input type="checkbox"/>			A	A									
0909120-010	CKG-OB21 12 1/2-13	Soil	9/2/2009	<input type="checkbox"/>			A	A									
0909120-011	CKG-OB22 7 1/2-8	Soil	9/2/2009	<input type="checkbox"/>			A	A									
0909120-012	CKG-OB22 12-12 1/2	Soil	9/2/2009	<input type="checkbox"/>			A	A									
0909120-013	CKG-OB23 8-8 1/2	Soil	9/2/2009	<input type="checkbox"/>			A	A									
0909120-014	CKG-OB23 12 1/2-13	Soil	9/2/2009	<input type="checkbox"/>	A		A	A									

**Test Legend:**

1	8260B_S	2	8270D_S	3	G-MBTX_S	4	TPH(DMO)WSG_S	5	
6		7		8		9		10	
11		12							

**Prepared by: Ana 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.

# McCampbell Analytical, Inc.



1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 0909120

ClientCode: CKGS

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
 Email   
 HardCopy   
 ThirdParty   
 J-flag

**Report to:**

Chris Kennedy  
CKG Environmental  
P.O. Box 246  
St. Helena, CA 94574  
(707) 967-8080    FAX (707) 967-8080

Email: ckennedy@geologist.com  
cc:  
PO:  
ProjectNo: Owens Brockway

**Bill to:**

Accounts Payable  
CKG Environmental  
P.O. Box 246  
St. Helena, CA 94574

**Requested TAT: 5 days**

**Date Received: 09/03/2009**

**Date Printed: 09/03/2009**

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
0909120-015	CKG-OB24 4-4 1/2	Soil	9/2/2009	<input type="checkbox"/>			A	A								
0909120-016	CKG-OB24 11 1/2-12	Soil	9/2/2009	<input type="checkbox"/>		A	A	A								
0909120-017	CKG-OB25 3 1/2-4	Soil	9/2/2009	<input type="checkbox"/>			A	A								
0909120-018	CKG-OB25 7 1/2-8	Soil	9/2/2009	<input type="checkbox"/>			A	A								
0909120-019	CKG-OB26 7 1/2-8	Soil	9/2/2009	<input type="checkbox"/>			A	A								
0909120-020	CKG-OB26 14 1/2-15	Soil	9/2/2009	<input type="checkbox"/>	A		A	A								
0909120-021	CKG-OB27 5 1/2-6	Soil	9/3/2009	<input type="checkbox"/>			A	A								
0909120-022	CKG-OB27 8 1/2-9	Soil	9/3/2009	<input type="checkbox"/>			A	A								
0909120-023	CKG-OB28 8 1/2-9	Soil	9/3/2009	<input type="checkbox"/>			A	A								
0909120-024	CKG-OB28 12 1/2-13	Soil	9/3/2009	<input type="checkbox"/>			A	A								
0909120-025	CKG-OB29 4-4 1/2	Soil	9/3/2009	<input type="checkbox"/>			A	A								
0909120-026	CKG-OB29 12-12 1/2	Soil	9/3/2009	<input type="checkbox"/>			A	A								
0909120-027	CKG-OB30 8-8 1/2	Soil	9/3/2009	<input type="checkbox"/>			A	A								
0909120-028	CKG-OB30 14-14 1/2	Soil	9/3/2009	<input type="checkbox"/>			A	A								

**Test Legend:**

1	8260B_S	2	8270D_S	3	G-MBTX_S	4	TPH(DMO)WSG_S	5	
6		7		8		9		10	
11		12							

**Prepared by: Ana 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.

# McC Campbell Analytical, Inc.



1534 Willow Pass Rd  
 Pittsburg, CA 94565-1701  
 (925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 0909120

ClientCode: CKGS

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
 Email   
  HardCopy   
  ThirdParty   
  J-flag

**Report to:**

Chris Kennedy  
 CKG Environmental  
 P.O. Box 246  
 St. Helena, CA 94574  
 (707) 967-8080    FAX (707) 967-8080

Email: ckennedy@geologist.com  
 cc:  
 PO:  
 ProjectNo: Owens Brockway

**Bill to:**

Accounts Payable  
 CKG Environmental  
 P.O. Box 246  
 St. Helena, CA 94574

**Requested TAT: 5 days**

*Date Received: 09/03/2009*

*Date Printed: 09/03/2009*

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
0909120-029	CKG-OB31 8-8 1/2	Soil	9/3/2009	<input type="checkbox"/>			A	A								
0909120-030	CKG-OB31 13-13 1/2	Soil	9/3/2009	<input type="checkbox"/>			A	A								
0909120-031	CKG-OB32 7-7 1/2	Soil	9/3/2009	<input type="checkbox"/>			A	A								
0909120-032	CKG-OB32 14-14 1/2	Soil	9/3/2009	<input type="checkbox"/>	A		A	A								

**Test Legend:**

1	8260B_S	2	8270D_S	3	G-MBTX_S	4	TPH(DMO)WSG_S	5	
6		7		8		9		10	
11		12							

**Prepared by: Ana 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.



**Sample Receipt Checklist**

Client Name: **CKG Environmental**

Date and Time Received: **9/3/2009 6:23:17 PM**

Project Name: **Owens Brockway**

Checklist completed and reviewed by: **Ana Venegas**

WorkOrder N°: **0909120** Matrix Soil

Carrier: Rob Pringle (MAI Courier)

**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
  - Container/Temp Blank temperature Cooler Temp: 11.4°C NA
  - Water - VOA vials have zero headspace / no bubbles? Yes  No  No VOA vials submitted
  - Sample labels checked for correct preservation? Yes  No
  - TTLC Metal - pH acceptable upon receipt (pH<2)? Yes  No  NA
  - Samples Received on Ice? Yes  No
- (Ice Type: WET ICE )

\* NOTE: If the "No" box is checked, see comments below.

-----

Client contacted:

Date contacted:

Contacted by:

Comments:





# McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Web: www.mcccampbell.com E-mail: main@mcccampbell.com  
Telephone: 877-252-9262 Fax: 925-252-9269

CKG Environmental P.O. Box 246 St. Helena, CA 94574	Client Project ID: Owens Brockway	Date Sampled: 09/02/09
		Date Received: 09/03/09
	Client Contact: Chris Kennedy	Date Extracted: 09/03/09
	Client P.O.:	Date Analyzed 09/08/09-09/10/09

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0909120

Lab ID	0909120-014A
Client ID	CKG-OB23 12 1/2-13
Matrix	Soil

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	0.082	1.0	0.05	tert-Amyl methyl ether (TAME)	ND	1.0	0.005
Benzene	ND	1.0	0.005	Bromobenzene	ND	1.0	0.005
Bromochloromethane	ND	1.0	0.005	Bromodichloromethane	ND	1.0	0.005
Bromoform	ND	1.0	0.005	Bromomethane	ND	1.0	0.005
2-Butanone (MEK)	ND	1.0	0.02	t-Butyl alcohol (TBA)	ND	1.0	0.05
n-Butyl benzene	ND	1.0	0.005	sec-Butyl benzene	ND	1.0	0.005
tert-Butyl benzene	ND	1.0	0.005	Carbon Disulfide	ND	1.0	0.005
Carbon Tetrachloride	ND	1.0	0.005	Chlorobenzene	ND	1.0	0.005
Chloroethane	ND	1.0	0.005	Chloroform	ND	1.0	0.005
Chloromethane	ND	1.0	0.005	2-Chlorotoluene	ND	1.0	0.005
4-Chlorotoluene	ND	1.0	0.005	Dibromochloromethane	ND	1.0	0.005
1,2-Dibromo-3-chloropropane	ND	1.0	0.004	1,2-Dibromoethane (EDB)	ND	1.0	0.004
Dibromomethane	ND	1.0	0.005	1,2-Dichlorobenzene	ND	1.0	0.005
1,3-Dichlorobenzene	ND	1.0	0.005	1,4-Dichlorobenzene	ND	1.0	0.005
Dichlorodifluoromethane	ND	1.0	0.005	1,1-Dichloroethane	ND	1.0	0.005
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.004	1,1-Dichloroethene	ND	1.0	0.005
cis-1,2-Dichloroethene	ND	1.0	0.005	trans-1,2-Dichloroethene	ND	1.0	0.005
1,2-Dichloropropane	ND	1.0	0.005	1,3-Dichloropropane	ND	1.0	0.005
2,2-Dichloropropane	ND	1.0	0.005	1,1-Dichloropropene	ND	1.0	0.005
cis-1,3-Dichloropropene	ND	1.0	0.005	trans-1,3-Dichloropropene	ND	1.0	0.005
Diisopropyl ether (DIPE)	ND	1.0	0.005	Ethylbenzene	ND	1.0	0.005
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.005	Freon 113	ND	1.0	0.1
Hexachlorobutadiene	ND	1.0	0.005	Hexachloroethane	ND	1.0	0.005
2-Hexanone	ND	1.0	0.005	Isopropylbenzene	ND	1.0	0.005
4-Isopropyl toluene	ND	1.0	0.005	Methyl-t-butyl ether (MTBE)	ND	1.0	0.005
Methylene chloride	ND	1.0	0.005	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.005
Naphthalene	ND	1.0	0.005	n-Propyl benzene	ND	1.0	0.005
Styrene	ND	1.0	0.005	1,1,1,2-Tetrachloroethane	ND	1.0	0.005
1,1,1,2-Tetrachloroethane	ND	1.0	0.005	Tetrachloroethene	ND	1.0	0.005
Toluene	ND	1.0	0.005	1,2,3-Trichlorobenzene	ND	1.0	0.005
1,2,4-Trichlorobenzene	ND	1.0	0.005	1,1,1-Trichloroethane	ND	1.0	0.005
1,1,2-Trichloroethane	ND	1.0	0.005	Trichloroethene	ND	1.0	0.005
Trichlorofluoromethane	ND	1.0	0.005	1,2,3-Trichloropropane	ND	1.0	0.005
1,2,4-Trimethylbenzene	ND	1.0	0.005	1,3,5-Trimethylbenzene	ND	1.0	0.005
Vinyl Chloride	ND	1.0	0.005	Xylenes	ND	1.0	0.005

#### Surrogate Recoveries (%)

%SS1:	97	%SS2:	98
%SS3:	91		

Comments:

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

a3) sample diluted due to high organic content.



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Telephone: 877-252-9262 Fax: 925-252-9269

CKG Environmental P.O. Box 246 St. Helena, CA 94574	Client Project ID: Owens Brockway	Date Sampled: 09/02/09
		Date Received: 09/03/09
	Client Contact: Chris Kennedy	Date Extracted: 09/03/09
	Client P.O.:	Date Analyzed 09/10/09

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0909120

Lab ID	0909120-020A
Client ID	CKG-OB26 14 1/2-15
Matrix	Soil

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND<0.20	4.0	0.05	tert-Amyl methyl ether (TAME)	ND<0.020	4.0	0.005
Benzene	ND<0.020	4.0	0.005	Bromobenzene	ND<0.020	4.0	0.005
Bromochloromethane	ND<0.020	4.0	0.005	Bromodichloromethane	ND<0.020	4.0	0.005
Bromoform	ND<0.020	4.0	0.005	Bromomethane	ND<0.020	4.0	0.005
2-Butanone (MEK)	ND<0.080	4.0	0.02	t-Butyl alcohol (TBA)	ND<0.20	4.0	0.05
n-Butyl benzene	0.038	4.0	0.005	sec-Butyl benzene	0.054	4.0	0.005
tert-Butyl benzene	ND<0.020	4.0	0.005	Carbon Disulfide	ND<0.020	4.0	0.005
Carbon Tetrachloride	ND<0.020	4.0	0.005	Chlorobenzene	ND<0.020	4.0	0.005
Chloroethane	ND<0.020	4.0	0.005	Chloroform	ND<0.020	4.0	0.005
Chloromethane	ND<0.020	4.0	0.005	2-Chlorotoluene	ND<0.020	4.0	0.005
4-Chlorotoluene	ND<0.020	4.0	0.005	Dibromochloromethane	ND<0.020	4.0	0.005
1,2-Dibromo-3-chloropropane	ND<0.016	4.0	0.004	1,2-Dibromoethane (EDB)	ND<0.016	4.0	0.004
Dibromomethane	ND<0.020	4.0	0.005	1,2-Dichlorobenzene	ND<0.020	4.0	0.005
1,3-Dichlorobenzene	ND<0.020	4.0	0.005	1,4-Dichlorobenzene	ND<0.020	4.0	0.005
Dichlorodifluoromethane	ND<0.020	4.0	0.005	1,1-Dichloroethane	ND<0.020	4.0	0.005
1,2-Dichloroethane (1,2-DCA)	ND<0.016	4.0	0.004	1,1-Dichloroethene	ND<0.020	4.0	0.005
cis-1,2-Dichloroethene	ND<0.020	4.0	0.005	trans-1,2-Dichloroethene	ND<0.020	4.0	0.005
1,2-Dichloropropane	ND<0.020	4.0	0.005	1,3-Dichloropropane	ND<0.020	4.0	0.005
2,2-Dichloropropane	ND<0.020	4.0	0.005	1,1-Dichloropropene	ND<0.020	4.0	0.005
cis-1,3-Dichloropropene	ND<0.020	4.0	0.005	trans-1,3-Dichloropropene	ND<0.020	4.0	0.005
Diisopropyl ether (DIPE)	ND<0.020	4.0	0.005	Ethylbenzene	0.021	4.0	0.005
Ethyl tert-butyl ether (ETBE)	ND<0.020	4.0	0.005	Freon 113	ND<0.40	4.0	0.1
Hexachlorobutadiene	ND<0.020	4.0	0.005	Hexachloroethane	ND<0.020	4.0	0.005
2-Hexanone	ND<0.020	4.0	0.005	Isopropylbenzene	0.035	4.0	0.005
4-Isopropyl toluene	ND<0.020	4.0	0.005	Methyl-t-butyl ether (MTBE)	ND<0.020	4.0	0.005
Methylene chloride	ND<0.020	4.0	0.005	4-Methyl-2-pentanone (MIBK)	ND<0.020	4.0	0.005
Naphthalene	ND<0.020	4.0	0.005	n-Propyl benzene	0.032	4.0	0.005
Styrene	ND<0.020	4.0	0.005	1,1,1,2-Tetrachloroethane	ND<0.020	4.0	0.005
1,1,1,2-Tetrachloroethane	ND<0.020	4.0	0.005	Tetrachloroethene	ND<0.020	4.0	0.005
Toluene	ND<0.020	4.0	0.005	1,2,3-Trichlorobenzene	ND<0.020	4.0	0.005
1,2,4-Trichlorobenzene	ND<0.020	4.0	0.005	1,1,1-Trichloroethane	ND<0.020	4.0	0.005
1,1,2-Trichloroethane	ND<0.020	4.0	0.005	Trichloroethene	ND<0.020	4.0	0.005
Trichlorofluoromethane	ND<0.020	4.0	0.005	1,2,3-Trichloropropane	ND<0.020	4.0	0.005
1,2,4-Trimethylbenzene	0.052	4.0	0.005	1,3,5-Trimethylbenzene	0.024	4.0	0.005
Vinyl Chloride	ND<0.020	4.0	0.005	Xylenes	0.052	4.0	0.005

#### Surrogate Recoveries (%)

%SS1:	73	%SS2:	102
%SS3:	103		

Comments:

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

a3) sample diluted due to high organic content.



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CKG Environmental P.O. Box 246 St. Helena, CA 94574	Client Project ID: Owens Brockway	Date Sampled: 09/03/09
		Date Received: 09/03/09
	Client Contact: Chris Kennedy	Date Extracted: 09/03/09
	Client P.O.:	Date Analyzed 09/10/09

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0909120

Lab ID	0909120-032A
Client ID	CKG-OB32 14-14 1/2
Matrix	Soil

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND<0.20	4.0	0.05	tert-Amyl methyl ether (TAME)	ND<0.020	4.0	0.005
Benzene	ND<0.020	4.0	0.005	Bromobenzene	ND<0.020	4.0	0.005
Bromochloromethane	ND<0.020	4.0	0.005	Bromodichloromethane	ND<0.020	4.0	0.005
Bromoform	ND<0.020	4.0	0.005	Bromomethane	ND<0.020	4.0	0.005
2-Butanone (MEK)	ND<0.080	4.0	0.02	t-Butyl alcohol (TBA)	ND<0.20	4.0	0.05
n-Butyl benzene	ND<0.020	4.0	0.005	sec-Butyl benzene	ND<0.02	4.0	0.005
tert-Butyl benzene	ND<0.020	4.0	0.005	Carbon Disulfide	ND<0.020	4.0	0.005
Carbon Tetrachloride	ND<0.020	4.0	0.005	Chlorobenzene	ND<0.020	4.0	0.005
Chloroethane	ND<0.020	4.0	0.005	Chloroform	ND<0.020	4.0	0.005
Chloromethane	ND<0.020	4.0	0.005	2-Chlorotoluene	ND<0.020	4.0	0.005
4-Chlorotoluene	ND<0.020	4.0	0.005	Dibromochloromethane	ND<0.020	4.0	0.005
1,2-Dibromo-3-chloropropane	ND<0.016	4.0	0.004	1,2-Dibromoethane (EDB)	ND<0.016	4.0	0.004
Dibromomethane	ND<0.020	4.0	0.005	1,2-Dichlorobenzene	ND<0.020	4.0	0.005
1,3-Dichlorobenzene	ND<0.020	4.0	0.005	1,4-Dichlorobenzene	ND<0.020	4.0	0.005
Dichlorodifluoromethane	ND<0.020	4.0	0.005	1,1-Dichloroethane	ND<0.020	4.0	0.005
1,2-Dichloroethane (1,2-DCA)	ND<0.016	4.0	0.004	1,1-Dichloroethene	ND<0.020	4.0	0.005
cis-1,2-Dichloroethene	ND<0.020	4.0	0.005	trans-1,2-Dichloroethene	ND<0.020	4.0	0.005
1,2-Dichloropropane	ND<0.020	4.0	0.005	1,3-Dichloropropane	ND<0.020	4.0	0.005
2,2-Dichloropropane	ND<0.020	4.0	0.005	1,1-Dichloropropene	ND<0.020	4.0	0.005
cis-1,3-Dichloropropene	ND<0.020	4.0	0.005	trans-1,3-Dichloropropene	ND<0.020	4.0	0.005
Diisopropyl ether (DIPE)	ND<0.020	4.0	0.005	Ethylbenzene	ND<0.020	4.0	0.005
Ethyl tert-butyl ether (ETBE)	ND<0.020	4.0	0.005	Freon 113	ND<0.40	4.0	0.1
Hexachlorobutadiene	ND<0.020	4.0	0.005	Hexachloroethane	ND<0.020	4.0	0.005
2-Hexanone	ND<0.020	4.0	0.005	Isopropylbenzene	ND<0.020	4.0	0.005
4-Isopropyl toluene	ND<0.020	4.0	0.005	Methyl-t-butyl ether (MTBE)	ND<0.020	4.0	0.005
Methylene chloride	ND<0.020	4.0	0.005	4-Methyl-2-pentanone (MIBK)	ND<0.020	4.0	0.005
Naphthalene	ND<0.020	4.0	0.005	n-Propyl benzene	ND<0.020	4.0	0.005
Styrene	ND<0.020	4.0	0.005	1,1,1,2-Tetrachloroethane	ND<0.020	4.0	0.005
1,1,1,2-Tetrachloroethane	ND<0.020	4.0	0.005	Tetrachloroethene	ND<0.020	4.0	0.005
Toluene	ND<0.020	4.0	0.005	1,2,3-Trichlorobenzene	ND<0.020	4.0	0.005
1,2,4-Trichlorobenzene	ND<0.020	4.0	0.005	1,1,1-Trichloroethane	ND<0.020	4.0	0.005
1,1,2-Trichloroethane	ND<0.020	4.0	0.005	Trichloroethene	ND<0.020	4.0	0.005
Trichlorofluoromethane	ND<0.020	4.0	0.005	1,2,3-Trichloropropane	ND<0.020	4.0	0.005
1,2,4-Trimethylbenzene	ND<0.020	4.0	0.005	1,3,5-Trimethylbenzene	ND<0.020	4.0	0.005
Vinyl Chloride	ND<0.020	4.0	0.005	Xylenes	ND<0.020	4.0	0.005

### Surrogate Recoveries (%)

%SS1:	77	%SS2:	83
%SS3:	128		

Comments: a3

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

a3) sample diluted due to high organic content.



CKG Environmental  P.O. Box 246  St. Helena, CA 94574	Client Project ID: Owens Brockway	Date Sampled: 09/02/09
		Date Received: 09/03/09
	Client Contact: Chris Kennedy	Date Extracted: 09/03/09
	Client P.O.:	Date Analyzed 09/11/09

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

Extraction Method: SW3550C

Analytical Method: SW8270C

Work Order: 0909120

Lab ID	0909120-016A
Client ID	CKG-OB24 11 1/2-12
Matrix	Soil

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acenaphthene	ND	1.0	0.33	Acenaphthylene	ND	1.0	0.33
Acetochlor	ND	1.0	0.33	Anthracene	ND	1.0	0.33
Benzidine	ND	1.0	1.6	Benzoic Acid	ND	1.0	1.6
Benzo(a)anthracene	ND	1.0	0.33	Benzo(b)fluoranthene	ND	1.0	0.33
Benzo(k)fluoranthene	ND	1.0	0.33	Benzo(g,h,i)perylene	ND	1.0	0.33
Benzo(a)pyrene	ND	1.0	0.33	Benzyl Alcohol	ND	1.0	1.6
1,1-Biphenyl	ND	1.0	0.33	Bis (2-chloroethoxy) Methane	ND	1.0	0.33
Bis (2-chloroethyl) Ether	ND	1.0	0.33	Bis (2-chloroisopropyl) Ether	ND	1.0	0.33
Bis (2-ethylhexyl) Phthalate	ND	1.0	0.33	4-Bromophenyl Phenyl Ether	ND	1.0	0.33
Butylbenzyl Phthalate	ND	1.0	0.33	4-Chloroaniline	ND	1.0	0.66
4-Chloro-3-methylphenol	ND	1.0	0.33	2-Chloronaphthalene	ND	1.0	0.33
2-Chlorophenol	ND	1.0	0.33	4-Chlorophenyl Phenyl Ether	ND	1.0	0.33
Chrysene	ND	1.0	0.33	Dibenzo(a,h)anthracene	ND	1.0	0.33
Dibenzofuran	ND	1.0	0.33	Di-n-butyl Phthalate	ND	1.0	0.33
1,2-Dichlorobenzene	ND	1.0	0.33	1,3-Dichlorobenzene	ND	1.0	0.33
1,4-Dichlorobenzene	ND	1.0	0.33	3,3-Dichlorobenzidine	ND	1.0	0.66
2,4-Dichlorophenol	ND	1.0	0.33	Diethyl Phthalate	ND	1.0	0.33
2,4-Dimethylphenol	ND	1.0	0.33	Dimethyl Phthalate	ND	1.0	0.33
4,6-Dinitro-2-methylphenol	ND	1.0	1.6	2,4-Dinitrophenol	ND	1.0	1.6
2,4-Dinitrotoluene	ND	1.0	0.33	2,6-Dinitrotoluene	ND	1.0	0.33
Di-n-octyl Phthalate	ND	1.0	0.33	1,2-Diphenylhydrazine	ND	1.0	0.33
Fluoranthene	ND	1.0	0.33	Fluorene	ND	1.0	0.33
Hexachlorobenzene	ND	1.0	0.33	Hexachlorobutadiene	ND	1.0	0.33
Hexachlorocyclopentadiene	ND	1.0	1.6	Hexachloroethane	ND	1.0	0.33
Indeno (1,2,3-cd) pyrene	ND	1.0	0.33	Isophorone	ND	1.0	0.33
2-Methylnaphthalene	ND	1.0	0.33	2-Methylphenol (o-Cresol)	ND	1.0	0.33
3 &/or 4-Methylphenol (m,p-Cresol)	ND	1.0	0.33	Naphthalene	ND	1.0	0.33
2-Nitroaniline	ND	1.0	1.6	3-Nitroaniline	ND	1.0	1.6
4-Nitroaniline	ND	1.0	1.6	Nitrobenzene	ND	1.0	0.33
2-Nitrophenol	ND	1.0	1.6	4-Nitrophenol	ND	1.0	1.6
N-Nitrosodiphenylamine	ND	1.0	0.33	N-Nitrosodi-n-propylamine	ND	1.0	0.33
Pentachlorophenol	ND	1.0	1.6	Phenanthrene	ND	1.0	0.33
Phenol	ND	1.0	0.33	Pvrene	ND	1.0	0.33
1,2,4-Trichlorobenzene	ND	1.0	0.33	2,4,5-Trichlorophenol	ND	1.0	0.33
2,4,6-Trichlorophenol	ND	1.0	0.33				

**Surrogate Recoveries (%)**

%SS1:	95	%SS2:	87
%SS3:	95	%SS4:	93
%SS5:	66	%SS6:	98

**Comments:**

\* water samples in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

#) surrogate diluted out of range; &) low or no surrogate due to matrix interference.



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Telephone: 877-252-9262 Fax: 925-252-9269

CKG Environmental  P.O. Box 246  St. Helena, CA 94574	Client Project ID: Owens Brockway	Date Sampled: 09/01/09-09/03/09
		Date Received: 09/03/09
	Client Contact: Chris Kennedy	Date Extracted: 09/03/09
	Client P.O.:	Date Analyzed: 09/04/09-09/11/09

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE\*

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0909120

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	CKG-OB16 4-4 1/2	S	---	---	ND	ND	0.013	0.074	1	94	d7,d9
002A	CKG-OB16 9 1/2-10	S	---	---	ND<1.0	7.5	11	36	200	---#	d7,d9
003A	CKG-OB17 4-4 1/2	S	---	---	ND	ND	ND	ND	1	85	d7
004A	CKG-OB17 9 1/2-10	S	---	---	ND<0.10	ND<0.10	2.0	4.4	20	---#	d7
005A	CKG-OB19 4-4 1/2	S	---	---	ND	ND	ND	ND	1	85	d7
006A	CKG-OB19 10-10 1/2	S	---	---	ND<0.10	ND<0.10	0.14	0.17	20	122	d7
007A	CKG-OB20 3 1/2-4	S	---	---	ND	ND	ND	ND	1	85	
008A	CKG-OB20 13-13 1/2	S	---	---	ND	ND	0.020	ND	1	89	d7,d9
009A	CKG-OB21 5 1/2-6	S	---	---	ND	ND	ND	ND	1	88	
010A	CKG-OB21 12 1/2-13	S	---	---	ND	ND	ND	ND	1	72	
011A	CKG-OB22 7 1/2-8	S	---	---	ND	ND	ND	ND	1	81	
012A	CKG-OB22 12-12 1/2	S	---	---	ND	ND	ND	ND	1	86	
013A	CKG-OB23 8-8 1/2	S	---	---	ND<0.050	ND<0.050	ND<0.050	ND<0.050	10	83	d7
014A	CKG-OB23 12 1/2-13	S	---	---	ND	ND	ND	ND	1	84	d7
015A	CKG-OB24 4-4 1/2	S	---	---	0.012	ND	0.096	0.18	1	113	d7,d9
016A	CKG-OB24 11 1/2-12	S	---	---	ND	ND	ND	ND	1	79	d7

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	ug/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts in mg/L.

# cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

d7) strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram

d9) no recognizable pattern



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Web: www.mcccampbell.com E-mail: main@mcccampbell.com  
Telephone: 877-252-9262 Fax: 925-252-9269

CKG Environmental  P.O. Box 246  St. Helena, CA 94574	Client Project ID: Owens Brockway	Date Sampled: 09/01/09-09/03/09
		Date Received: 09/03/09
	Client Contact: Chris Kennedy	Date Extracted: 09/03/09
	Client P.O.:	Date Analyzed: 09/04/09-09/11/09

## Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE\*

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0909120

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
017A	CKG-OB25 3 1/2-4	S	---	---	ND	ND	ND	ND	1	77	
018A	CKG-OB25 7 1/2-8	S	---	---	0.36	ND<0.25	ND<0.25	ND<0.25	50	84	d7
019A	CKG-OB26 7 1/2-8	S	---	---	ND	ND	ND	ND	1	86	d7
020A	CKG-OB26 14 1/2-15	S	---	---	ND<0.10	ND<0.10	0.34	0.98	20	99	d7
021A	CKG-OB27 5 1/2-6	S	---	---	ND	ND	ND	ND	1	92	
022A	CKG-OB27 8 1/2-9	S	---	---	ND	ND	ND	ND	1	75	
023A	CKG-OB28 8 1/2-9	S	---	---	ND	ND	ND	ND	1	83	
024A	CKG-OB28 12 1/2-13	S	---	---	ND	ND	ND	ND	1	88	
025A	CKG-OB29 4-4 1/2	S	---	---	ND	ND	ND	ND	1	77	
026A	CKG-OB29 12-12 1/2	S	---	---	ND	ND	ND	ND	1	83	
027A	CKG-OB30 8-8 1/2	S	---	---	ND	ND	ND	ND	1	92	
028A	CKG-OB30 14-14 1/2	S	---	---	ND	ND	ND	ND	1	95	
029A	CKG-OB31 8-8 1/2	S	---	---	ND	ND	ND	ND	1	95	
030A	CKG-OB31 13-13 1/2	S	---	---	ND	ND	ND	ND	1	91	
031A	CKG-OB32 7-7 1/2	S	---	---	ND	ND	ND	ND	1	91	
032A	CKG-OB32 14-14 1/2	S	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	100	---#	d7

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	ug/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts in mg/L.

# cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

d7) strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram  
d9) no recognizable pattern



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CKG Environmental  P.O. Box 246  St. Helena, CA 94574	Client Project ID: Owens Brockway	Date Sampled: 09/01/09-09/03/09
		Date Received: 09/03/09
	Client Contact: Chris Kennedy	Date Extracted: 09/03/09
	Client P.O.:	Date Analyzed: 09/05/09-09/11/09

### Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up\*

Extraction method: SW3550C/3630C

Analytical methods: SW8015B

Work Order: 0909120

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	DF	% SS	Comments
0909120-001A	CKG-OB16 4-4 1/2	S	4.8	7.7	1	103	e7,e2,e11
0909120-002A	CKG-OB16 9 1/2-10	S	7900	5300	200	92	e2,e7,e4
0909120-003A	CKG-OB17 4-4 1/2	S	ND	ND	1	100	
0909120-004A	CKG-OB17 9 1/2-10	S	1000	270	10	113	e1,e7
0909120-005A	CKG-OB19 4-4 1/2	S	20	92	5	87	e7,e2
0909120-006A	CKG-OB19 10-10 1/2	S	680	320	20	92	e1,e7
0909120-007A	CKG-OB20 3 1/2-4	S	ND	ND	1	100	
0909120-008A	CKG-OB20 13-13 1/2	S	38	31	1	104	e2,e7
0909120-009A	CKG-OB21 5 1/2-6	S	ND	ND	1	103	
0909120-010A	CKG-OB21 12 1/2-13	S	ND	ND	1	103	
0909120-011A	CKG-OB22 7 1/2-8	S	ND	ND	1	103	
0909120-012A	CKG-OB22 12-12 1/2	S	ND	ND	1	92	
0909120-013A	CKG-OB23 8-8 1/2	S	940	970	50	89	e7,e2
0909120-014A	CKG-OB23 12 1/2-13	S	23	33	1	94	e7,e2
0909120-015A	CKG-OB24 4-4 1/2	S	420	860	20	88	e7,e2

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA	ug/L
	S	1.0	5.0	mg/Kg

\* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

# cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

- e2) diesel range compounds are significant; no recognizable pattern
- e4) gasoline range compounds are significant.
- e7) oil range compounds are significant
- e8) kerosene/kerosene range/jet fuel range; and/or e1) unmodified or weakly modified diesel is significant
- e11) stoddard solvent/mineral spirit (?)



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CKG Environmental  P.O. Box 246  St. Helena, CA 94574	Client Project ID: Owens Brockway	Date Sampled: 09/01/09-09/03/09
		Date Received: 09/03/09
	Client Contact: Chris Kennedy	Date Extracted: 09/03/09
	Client P.O.:	Date Analyzed: 09/05/09-09/11/09

### Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up\*

Extraction method: SW3550C/3630C

Analytical methods: SW8015B

Work Order: 0909120

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	DF	% SS	Comments
0909120-016A	CKG-OB24 11 1/2-12	S	15	28	1	94	e7,e2
0909120-017A	CKG-OB25 3 1/2-4	S	130	340	5	87	e7,e2
0909120-018A	CKG-OB25 7 1/2-8	S	1700	1800	50	81	e7,e2
0909120-019A	CKG-OB26 7 1/2-8	S	8.9	28	1	96	e7,e2
0909120-020A	CKG-OB26 14 1/2-15	S	1200	1200	50	91	e7,e2
0909120-021A	CKG-OB27 5 1/2-6	S	ND	ND	1	98	
0909120-022A	CKG-OB27 8 1/2-9	S	ND	ND	1	98	
0909120-023A	CKG-OB28 8 1/2-9	S	ND	ND	1	98	
0909120-024A	CKG-OB28 12 1/2-13	S	ND	ND	1	96	
0909120-025A	CKG-OB29 4-4 1/2	S	2.5	9.7	1	92	e7,e2,e4
0909120-026A	CKG-OB29 12-12 1/2	S	ND	ND	1	96	
0909120-027A	CKG-OB30 8-8 1/2	S	ND	ND	1	97	
0909120-028A	CKG-OB30 14-14 1/2	S	1.5	ND	1	97	e2
0909120-029A	CKG-OB31 8-8 1/2	S	14	100	5	87	e7,e2
0909120-030A	CKG-OB31 13-13 1/2	S	4.6	9.9	1	95	e7,e2
0909120-031A	CKG-OB32 7-7 1/2	S	ND	ND	1	96	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA	ug/L
	S	1.0	5.0	mg/Kg

\* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

# cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

- e2) diesel range compounds are significant; no recognizable pattern
- e4) gasoline range compounds are significant.
- e7) oil range compounds are significant
- e8) kerosene/kerosene range/jet fuel range; and/or e1) unmodified or weakly modified diesel is significant
- e11) stoddard solvent/mineral spirit (?)





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CKG Environmental  P.O. Box 246  St. Helena, CA 94574	Client Project ID: Owens Brockway	Date Sampled: 09/01/09-09/03/09
		Date Received: 09/03/09
	Client Contact: Chris Kennedy	Date Extracted: 09/03/09
	Client P.O.:	Date Analyzed: 09/05/09-09/11/09

### Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up\*

Extraction method: SW3550C/3630C

Analytical methods: SW8015B

Work Order: 0909120

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	DF	% SS	Comments
0909120-032A	CKG-OB32 14-14 1/2	S	230	67	5	90	e8/e1,e7

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA	ug/L
	S	1.0	5.0	mg/Kg

\* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

# cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

e2) diesel range compounds are significant; no recognizable pattern  
 e4) gasoline range compounds are significant.  
 e7) oil range compounds are significant  
 e8) kerosene/kerosene range/jet fuel range; and/or e1) unmodified or weakly modified diesel is significant  
 e11) stoddard solvent/mineral spirit (?)



### QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 45604

WorkOrder 0909120

EPA Method SW8260B	Extraction SW5030B								Spiked Sample ID: 0909129-004A			
	Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)		
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	0.050	84.1	85.7	1.94	81.7	83.1	1.70	60 - 130	30	60 - 130	30
Benzene	ND	0.050	102	105	2.57	97.8	97.3	0.533	60 - 130	30	60 - 130	30
t-Butyl alcohol (TBA)	ND	0.25	104	107	2.78	100	97.3	2.91	60 - 130	30	60 - 130	30
Chlorobenzene	ND	0.050	103	106	2.72	102	103	0.339	60 - 130	30	60 - 130	30
1,2-Dibromoethane (EDB)	ND	0.050	95.9	99	3.12	98.1	98.1	0	60 - 130	30	60 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	0.050	105	109	2.95	108	108	0	60 - 130	30	60 - 130	30
1,1-Dichloroethene	ND	0.050	107	108	1.38	110	107	2.63	60 - 130	30	60 - 130	30
Diisopropyl ether (DIPE)	ND	0.050	97.6	99.9	2.28	93.2	92.9	0.314	60 - 130	30	60 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	0.050	98.3	100	1.78	98.2	98	0.195	60 - 130	30	60 - 130	30
Methyl-t-butyl ether (MTBE)	ND	0.050	103	105	2.04	103	103	0	60 - 130	30	60 - 130	30
Toluene	ND	0.050	106	109	3.20	108	106	1.15	60 - 130	30	60 - 130	30
Trichloroethene	ND	0.050	114	117	3.29	113	113	0	60 - 130	30	60 - 130	30
%SS1:	99	0.12	92	91	0.231	93	94	0.522	70 - 130	30	70 - 130	30
%SS2:	95	0.12	100	101	0.380	100	100	0	70 - 130	30	70 - 130	30
%SS3:	88	0.012	121	118	2.06	115	114	1.04	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

#### BATCH 45604 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909120-014A	09/02/09	09/03/09	09/08/09 2:43 PM	0909120-014A	09/02/09	09/03/09	09/10/09 3:45 PM
0909120-020A	09/02/09	09/03/09	09/10/09 3:56 PM	0909120-032A	09/03/09	09/03/09	09/10/09 1:24 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



### QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 45614

WorkOrder 0909120

EPA Method SW8015B		Extraction SW3550C/3630C							Spiked Sample ID: 0909113-043A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	16	20	72.3	70.9	0.903	88.2	88.4	0.269	70 - 130	30	70 - 130	30
%SS:	97	50	109	109	0	95	94	0.246	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

#### BATCH 45614 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909120-001A	09/01/09	09/03/09	09/05/09 6:39 PM	0909120-002A	09/01/09	09/03/09	09/10/09 4:36 PM
0909120-003A	09/01/09	09/03/09	09/05/09 7:49 PM	0909120-004A	09/01/09	09/03/09	09/10/09 8:18 AM
0909120-005A	09/02/09	09/03/09	09/09/09 1:37 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery =  $100 * (MS - Sample) / (Amount Spiked)$ ; RPD =  $100 * (MS - MSD) / ((MS + MSD) / 2)$ .

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



### QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 45620

WorkOrder 0909120

Analyte	Extraction SW3550C/3630C								Spiked Sample ID: 0909120-025A			
	Sample mg/Kg	Spiked mg/Kg	MS % Rec.	MSD % Rec.	MS-MSD % RPD	LCS % Rec.	LCSD % Rec.	LCS-LCSD % RPD	Acceptance Criteria (%)			
TPH-Diesel (C10-C23)	2.5	20	122	123	0.563	91.6	90.6	1.12	70 - 130	30	70 - 130	30
%SS:	92	50	100	100	0	99	98	0.634	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

#### BATCH 45620 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909120-006A	09/02/09	09/03/09	09/09/09 2:45 AM	0909120-007A	09/02/09	09/03/09	09/05/09 10:08 PM
0909120-008A	09/02/09	09/03/09	09/05/09 3:09 PM	0909120-009A	09/02/09	09/03/09	09/06/09 12:26 AM
0909120-010A	09/02/09	09/03/09	09/06/09 1:34 AM	0909120-011A	09/02/09	09/03/09	09/06/09 2:42 AM
0909120-012A	09/02/09	09/03/09	09/10/09 8:09 PM	0909120-013A	09/02/09	09/03/09	09/10/09 3:44 AM
0909120-014A	09/02/09	09/03/09	09/08/09 1:52 PM	0909120-015A	09/02/09	09/03/09	09/11/09 8:03 AM
0909120-016A	09/02/09	09/03/09	09/08/09 3:03 PM	0909120-017A	09/02/09	09/03/09	09/06/09 4:02 AM
0909120-018A	09/02/09	09/03/09	09/09/09 8:27 AM	0909120-019A	09/02/09	09/03/09	09/06/09 8:00 AM
0909120-020A	09/02/09	09/03/09	09/10/09 4:52 AM	0909120-021A	09/03/09	09/03/09	09/10/09 8:18 AM
0909120-022A	09/03/09	09/03/09	09/06/09 11:24 AM	0909120-023A	09/03/09	09/03/09	09/06/09 1:41 PM
0909120-024A	09/03/09	09/03/09	09/06/09 2:49 PM	0909120-025A	09/03/09	09/03/09	09/09/09 5:02 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



### QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 45621

WorkOrder 0909120

EPA Method SW8015B		Extraction SW3550C/3630C							Spiked Sample ID: 0909120-032A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	230	20	NR	NR	NR	88.7	88.3	0.480	70 - 130	30	70 - 130	30
%SS:	90	50	101	103	1.79	95	94	1.28	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

#### BATCH 45621 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909120-026A	09/03/09	09/03/09	09/06/09 3:58 PM	0909120-027A	09/03/09	09/03/09	09/06/09 5:06 PM
0909120-028A	09/03/09	09/03/09	09/06/09 8:31 PM	0909120-029A	09/03/09	09/03/09	09/09/09 3:54 AM
0909120-030A	09/03/09	09/03/09	09/06/09 9:39 PM	0909120-031A	09/03/09	09/03/09	09/06/09 10:47 PM
0909120-032A	09/03/09	09/03/09	09/10/09 10:39 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery =  $100 * (MS - Sample) / (Amount Spiked)$ ; RPD =  $100 * (MS - MSD) / ((MS + MSD) / 2)$ .

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



### QC SUMMARY REPORT FOR SW8270C

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 45618

WorkOrder 0909120

Analyte	EPA Method SW8270C Extraction SW3550C								Spiked Sample ID: N/A			
	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Acenaphthene	N/A	2	N/A	N/A	N/A	86.9	88.1	1.35	N/A	N/A	30 - 130	30
4-Chloro-3-methylphenol	N/A	4	N/A	N/A	N/A	111	110	0.793	N/A	N/A	30 - 130	30
2-Chlorophenol	N/A	4	N/A	N/A	N/A	100	101	0.985	N/A	N/A	30 - 130	30
1,4-Dichlorobenzene	N/A	2	N/A	N/A	N/A	92.9	94.3	1.58	N/A	N/A	30 - 130	30
2,4-Dinitrotoluene	N/A	2	N/A	N/A	N/A	88.2	90.9	2.95	N/A	N/A	30 - 130	30
4-Nitrophenol	N/A	4	N/A	N/A	N/A	81.4	82.1	0.924	N/A	N/A	30 - 130	30
N-Nitrosodi-n-propylamine	N/A	2	N/A	N/A	N/A	88.4	91.8	3.83	N/A	N/A	30 - 130	30
Pentachlorophenol	N/A	4	N/A	N/A	N/A	79.4	82.5	3.91	N/A	N/A	30 - 130	30
Phenol	N/A	4	N/A	N/A	N/A	87.7	88.5	0.971	N/A	N/A	30 - 130	30
Pyrene	N/A	2	N/A	N/A	N/A	93.2	95.2	2.11	N/A	N/A	30 - 130	30
1,2,4-Trichlorobenzene	N/A	2	N/A	N/A	N/A	105	108	3.00	N/A	N/A	30 - 130	30
%SS1:	N/A	200	N/A	N/A	N/A	97	99	1.35	N/A	N/A	30 - 130	30
%SS2:	N/A	200	N/A	N/A	N/A	98	100	1.63	N/A	N/A	30 - 130	30
%SS3:	N/A	200	N/A	N/A	N/A	104	108	3.46	N/A	N/A	30 - 130	30
%SS4:	N/A	200	N/A	N/A	N/A	90	88	1.41	N/A	N/A	30 - 130	30
%SS5:	N/A	200	N/A	N/A	N/A	102	105	2.97	N/A	N/A	30 - 130	30
%SS6:	N/A	200	N/A	N/A	N/A	101	102	1.07	N/A	N/A	30 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

#### BATCH 45618 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909120-016A	09/02/09	09/03/09	09/11/09 3:00 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

#) surrogate diluted out of range; & = low or no recovery of surrogate or target analytes due to matrix interference.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



**QC SUMMARY REPORT FOR SW8021B/8015Bm**

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 45605

WorkOrder 0909120

Analyte	EPA Method SW8021B/8015Bm		Extraction SW5030B						Spiked Sample ID: 0909102-005A			
	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) <sup>£</sup>	ND	0.60	116	115	0.385	107	110	3.46	70 - 130	20	70 - 130	20
MTBE	ND	0.10	122	119	2.29	109	119	8.03	70 - 130	20	70 - 130	20
Benzene	ND	0.10	97.2	97.5	0.219	102	100	1.95	70 - 130	20	70 - 130	20
Toluene	ND	0.10	100	101	0.511	102	102	0	70 - 130	20	70 - 130	20
Ethylbenzene	ND	0.10	99.1	99.7	0.578	101	99.2	1.47	70 - 130	20	70 - 130	20
Xylenes	ND	0.30	101	101	0	102	102	0	70 - 130	20	70 - 130	20
%SS:	77	0.10	85	86	1.13	86	83	3.93	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

BATCH 45605 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909120-001A	09/01/09	09/03/09	09/04/09 7:13 PM	0909120-002A	09/01/09	09/03/09	09/06/09 12:34 AM
0909120-003A	09/01/09	09/03/09	09/04/09 10:42 PM	0909120-004A	09/01/09	09/03/09	09/04/09 10:16 PM
0909120-005A	09/02/09	09/03/09	09/04/09 6:43 PM	0909120-006A	09/02/09	09/03/09	09/04/09 10:51 PM
0909120-007A	09/02/09	09/03/09	09/05/09 6:34 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 45622

WorkOrder 0909120

Table with columns: EPA Method SW8021B/8015Bm, Extraction SW5030B, Spiked Sample ID: 0909120-027A, Analyte, Sample mg/Kg, Spiked mg/Kg, MS % Rec., MSD % Rec., MS-MSD % RPD, LCS % Rec., LCSD % Rec., LCS-LCSD % RPD, and Acceptance Criteria (%).

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

BATCH 45622 SUMMARY

Table with columns: Lab ID, Date Sampled, Date Extracted, Date Analyzed, Lab ID, Date Sampled, Date Extracted, Date Analyzed. Lists multiple lab samples and their corresponding dates.

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.





**QC SUMMARY REPORT FOR SW8021B/8015Bm**

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 45623

WorkOrder 0909120

Analyte	EPA Method SW8021B/8015Bm		Extraction SW5030B						Spiked Sample ID: 0909120-031A			
	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) <sup>f</sup>	ND	0.60	106	111	4.68	116	107	7.98	70 - 130	20	70 - 130	20
MTBE	ND	0.10	113	111	1.54	116	116	0	70 - 130	20	70 - 130	20
Benzene	ND	0.10	97.2	95.5	1.84	102	107	4.53	70 - 130	20	70 - 130	20
Toluene	ND	0.10	96.4	94.4	2.09	102	106	4.03	70 - 130	20	70 - 130	20
Ethylbenzene	ND	0.10	96.4	94.6	1.90	99.4	104	4.97	70 - 130	20	70 - 130	20
Xylenes	ND	0.30	97.9	95.8	2.14	101	104	3.08	70 - 130	20	70 - 130	20
%SS:	91	0.10	96	84	13.2	87	92	5.50	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

BATCH 45623 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909120-028A	09/03/09	09/03/09	09/05/09 3:38 AM	0909120-029A	09/03/09	09/03/09	09/04/09 11:12 PM
0909120-030A	09/03/09	09/03/09	09/05/09 4:37 AM	0909120-031A	09/03/09	09/03/09	09/05/09 6:05 AM
0909120-032A	09/03/09	09/03/09	09/06/09 1:09 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



**McC Campbell Analytical, Inc.**

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Web: www.mcccampbell.com E-mail: main@mcccampbell.com  
Telephone: 877-252-9262 Fax: 925-252-9269

CKG Environmental  P.O. Box 246  St. Helena, CA 94574	Client Project ID: Owens Brockway	Date Sampled: 08/31/09-09/01/09
		Date Received: 09/01/09
	Client Contact: Chris Kennedy	Date Reported: 09/10/09
	Client P.O.:	Date Completed: 09/10/09

**WorkOrder: 0909023**

September 10, 2009

Dear Chris:

Enclosed within are:

- 1) The results of the **2** analyzed samples from your project: **Owens Brockway**,
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
Laboratory Manager  
McC Campbell Analytical, Inc.

0909023



**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

GeoTracker EDF  PDF  Excel  Write On (DW)

Check if sample is effluent and "J" flag is required

Report To: CHRIS KENNEDY Bill To: \_\_\_\_\_  
 Company: CRG ENVIRONMENTAL  
 E-Mail: \_\_\_\_\_  
 Tele: ( ) Fax: ( )  
 Project #: \_\_\_\_\_ Project Name: ADAMS BLACKWATER  
 Project Location: OAKLAND  
 Sampler Signature: \_\_\_\_\_

Analysis Request Other Comments


SAMPLE ID	LOCATION/ Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED				BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE	TPH as Diesel (8015) + MO	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 8260 (HVOCs)	EPA 505 / 608 / 8081 (CI Pesticides)	EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515.3 / 8151 (Acidic CI Herbicides)	EPA 524.2 / 624 / 8260 (VOCs) <u>30050 ON 7/31/09 2.3.510</u>	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAAs)	CAM 17 Metals (200.8 / 6020)	LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Lead (200.7 / 200.8 / 6010 / 6020)	Filter Samples for Metals analysis: Yes / No						
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO <sub>3</sub>	Other																						
CRG-0B1	3/2-4	8/31/09		1	SV	X									X																					
CRG-0B1	8-8 1/2					X									X																					
CRG-0B2	5-5 1/2					X									X																					
CRG-0B2	12-2 1/2					X									X																					
CRG-0B3	12/2-13					X									X																					
CRG-0B4	9-9 1/2					X									X																					
CRG-0B5	11/2-12					X									X																					
CRG-0B6	5-5 1/2					X									X																					
CRG-0B7	7 1/2-8					X									X																					
CRG-0B7	12-12 1/2					X									X																					
CRG-0B8	7 1/2-8	9/1/09				X									X																					
CRG-0B8	13-13 1/2					X									X																					
CRG-0B9	4-A 1/2					X									X																					
CRG-0B9	18-18 1/2					X									X																					

Relinquished By: [Signature] Date: 9/1/09 Time: 10:30 Received By: [Signature]  
 Relinquished By: [Signature] Date: 9/1/09 Time: 5:55 Received By: [Signature]  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_

ICE/IT\* 5.26 ✓  
 GOOD CONDITION ✓  
 HEAD SPACE ABSENT ✓  
 DECHLORINATED IN LAB ✓  
 APPROPRIATE CONTAINERS ✓  
 PRESERVED IN LAB ✓  
 COMMENTS: RUN SOIL SAMPLES WITH SILICA GEL CLEANUP  
 VOAS O&G METALS OTHER  
 PRESERVATION pH<2



# McC Campbell Analytical, Inc.


 1534 Willow Pass Rd  
 Pittsburg, CA 94565-1701  
 (925) 252-9262

# CHAIN-OF-CUSTODY RECORD

**WorkOrder:** 090902 **A**      **ClientCode:** CKGS

WaterTrax     WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

**Report to:**

Chris Kennedy  
 CKG Environmental  
 P.O. Box 246  
 St. Helena, CA 94574  
 (707) 967-8080    FAX (707) 967-8080

**Email:** ckennedy@geologist.com  
**cc:**  
**PO:**  
**ProjectNo:** Owens Brockway

**Bill to:**

Accounts Payable  
 CKG Environmental  
 P.O. Box 246  
 St. Helena, CA 94574

**Requested TAT:**    **5 days**

**Date Received:**    **09/01/2009**

**Date Add-On:**    **09/03/2009**

**Date Printed:**    **09/03/2009**

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	
0909023-002	CKG-OB1 8-8 1/2	Soil	8/31/2009	<input type="checkbox"/>	A												
0909023-018	CKG-OB12 13 1/2-14	Soil	9/1/2009	<input type="checkbox"/>	A												

**Test Legend:**

1	8260B_S	2		3		4		5	
6		7		8		9		10	
11		12							

**Prepared by: Melissa Valles**

**Comments:**    8260 added on 9/3/09 on a std tat per C.K

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.



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Web: www.mcccampbell.com E-mail: main@mcccampbell.com  
Telephone: 877-252-9262 Fax: 925-252-9269

CKG Environmental P.O. Box 246 St. Helena, CA 94574	Client Project ID: Owens Brockway	Date Sampled: 08/31/09
		Date Received: 09/01/09
	Client Contact: Chris Kennedy	Date Extracted: 09/03/09
	Client P.O.:	Date Analyzed: 09/10/09

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0909023

Lab ID	0909023-002A
Client ID	CKG-OB1 8-8 1/2
Matrix	Soil

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND<0.20	4.0	0.05	tert-Amyl methyl ether (TAME)	ND<0.020	4.0	0.005
Benzene	ND<0.020	4.0	0.005	Bromobenzene	ND<0.020	4.0	0.005
Bromochloromethane	ND<0.020	4.0	0.005	Bromodichloromethane	ND<0.020	4.0	0.005
Bromoform	ND<0.020	4.0	0.005	Bromomethane	ND<0.020	4.0	0.005
2-Butanone (MEK)	ND<0.080	4.0	0.02	t-Butyl alcohol (TBA)	ND<0.20	4.0	0.05
n-Butyl benzene	0.54	4.0	0.005	sec-Butyl benzene	0.20	4.0	0.005
tert-Butyl benzene	ND<0.020	4.0	0.005	Carbon Disulfide	ND<0.020	4.0	0.005
Carbon Tetrachloride	ND<0.020	4.0	0.005	Chlorobenzene	ND<0.020	4.0	0.005
Chloroethane	ND<0.020	4.0	0.005	Chloroform	ND<0.020	4.0	0.005
Chloromethane	ND<0.020	4.0	0.005	2-Chlorotoluene	ND<0.020	4.0	0.005
4-Chlorotoluene	ND<0.020	4.0	0.005	Dibromochloromethane	ND<0.020	4.0	0.005
1,2-Dibromo-3-chloropropane	ND<0.016	4.0	0.004	1,2-Dibromoethane (EDB)	ND<0.016	4.0	0.004
Dibromomethane	ND<0.020	4.0	0.005	1,2-Dichlorobenzene	ND<0.020	4.0	0.005
1,3-Dichlorobenzene	ND<0.020	4.0	0.005	1,4-Dichlorobenzene	ND<0.020	4.0	0.005
Dichlorodifluoromethane	ND<0.020	4.0	0.005	1,1-Dichloroethane	ND<0.020	4.0	0.005
1,2-Dichloroethane (1,2-DCA)	ND<0.016	4.0	0.004	1,1-Dichloroethene	ND<0.020	4.0	0.005
cis-1,2-Dichloroethene	ND<0.020	4.0	0.005	trans-1,2-Dichloroethene	ND<0.020	4.0	0.005
1,2-Dichloropropane	ND<0.020	4.0	0.005	1,3-Dichloropropane	ND<0.020	4.0	0.005
2,2-Dichloropropane	ND<0.020	4.0	0.005	1,1-Dichloropropene	ND<0.020	4.0	0.005
cis-1,3-Dichloropropene	ND<0.020	4.0	0.005	trans-1,3-Dichloropropene	ND<0.020	4.0	0.005
Diisopropyl ether (DIPE)	ND<0.020	4.0	0.005	Ethylbenzene	ND<0.020	4.0	0.005
Ethyl tert-butyl ether (ETBE)	ND<0.020	4.0	0.005	Freon 113	ND<0.40	4.0	0.1
Hexachlorobutadiene	ND<0.020	4.0	0.005	Hexachloroethane	ND<0.020	4.0	0.005
2-Hexanone	ND<0.020	4.0	0.005	Isopropylbenzene	0.068	4.0	0.005
4-Isopropyl toluene	ND<0.020	4.0	0.005	Methyl-t-butyl ether (MTBE)	ND<0.020	4.0	0.005
Methylene chloride	ND<0.020	4.0	0.005	4-Methyl-2-pentanone (MIBK)	ND<0.020	4.0	0.005
Naphthalene	ND<0.020	4.0	0.005	n-Propyl benzene	0.053	4.0	0.005
Styrene	ND<0.020	4.0	0.005	1,1,1,2-Tetrachloroethane	ND<0.020	4.0	0.005
1,1,2,2-Tetrachloroethane	ND<0.020	4.0	0.005	Tetrachloroethene	ND<0.020	4.0	0.005
Toluene	ND<0.020	4.0	0.005	1,2,3-Trichlorobenzene	ND<0.020	4.0	0.005
1,2,4-Trichlorobenzene	ND<0.020	4.0	0.005	1,1,1-Trichloroethane	ND<0.020	4.0	0.005
1,1,2-Trichloroethane	ND<0.020	4.0	0.005	Trichloroethene	ND<0.020	4.0	0.005
Trichlorofluoromethane	ND<0.020	4.0	0.005	1,2,3-Trichloropropane	ND<0.020	4.0	0.005
1,2,4-Trimethylbenzene	ND<0.020	4.0	0.005	1,3,5-Trimethylbenzene	ND<0.020	4.0	0.005
Vinyl Chloride	ND<0.020	4.0	0.005	Xylenes	ND<0.020	4.0	0.005

### Surrogate Recoveries (%)

%SS1:	105	%SS2:	109
%SS3:	94		

Comments: a3

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

a3) sample diluted due to high organic content.



# McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701

Web: www.mcccampbell.com E-mail: main@mcccampbell.com

Telephone: 877-252-9262 Fax: 925-252-9269

CKG Environmental P.O. Box 246 St. Helena, CA 94574	Client Project ID: Owens Brockway	Date Sampled: 09/01/09
		Date Received: 09/01/09
	Client Contact: Chris Kennedy	Date Extracted: 09/03/09
	Client P.O.:	Date Analyzed: 09/10/09

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0909023

Lab ID	0909023-018A
Client ID	CKG-OB12 13 1/2-14
Matrix	Soil

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND<0.10	2.0	0.05	tert-Amyl methyl ether (TAME)	ND<0.010	2.0	0.005
Benzene	ND<0.010	2.0	0.005	Bromobenzene	ND<0.010	2.0	0.005
Bromochloromethane	ND<0.010	2.0	0.005	Bromodichloromethane	ND<0.010	2.0	0.005
Bromoform	ND<0.010	2.0	0.005	Bromomethane	ND<0.010	2.0	0.005
2-Butanone (MEK)	ND<0.040	2.0	0.02	t-Butyl alcohol (TBA)	ND<0.10	2.0	0.05
n-Butyl benzene	ND<0.010	2.0	0.005	sec-Butyl benzene	ND<0.010	2.0	0.005
tert-Butyl benzene	ND<0.010	2.0	0.005	Carbon Disulfide	ND<0.010	2.0	0.005
Carbon Tetrachloride	ND<0.010	2.0	0.005	Chlorobenzene	ND<0.010	2.0	0.005
Chloroethane	ND<0.010	2.0	0.005	Chloroform	ND<0.010	2.0	0.005
Chloromethane	ND<0.010	2.0	0.005	2-Chlorotoluene	ND<0.010	2.0	0.005
4-Chlorotoluene	ND<0.010	2.0	0.005	Dibromochloromethane	ND<0.010	2.0	0.005
1,2-Dibromo-3-chloropropane	ND<0.0080	2.0	0.004	1,2-Dibromoethane (EDB)	ND<0.0080	2.0	0.004
Dibromomethane	ND<0.010	2.0	0.005	1,2-Dichlorobenzene	ND<0.010	2.0	0.005
1,3-Dichlorobenzene	ND<0.010	2.0	0.005	1,4-Dichlorobenzene	ND<0.010	2.0	0.005
Dichlorodifluoromethane	ND<0.010	2.0	0.005	1,1-Dichloroethane	ND<0.010	2.0	0.005
1,2-Dichloroethane (1,2-DCA)	ND<0.0080	2.0	0.004	1,1-Dichloroethene	ND<0.010	2.0	0.005
cis-1,2-Dichloroethene	ND<0.010	2.0	0.005	trans-1,2-Dichloroethene	ND<0.010	2.0	0.005
1,2-Dichloropropane	ND<0.010	2.0	0.005	1,3-Dichloropropane	ND<0.010	2.0	0.005
2,2-Dichloropropane	ND<0.010	2.0	0.005	1,1-Dichloropropene	ND<0.010	2.0	0.005
cis-1,3-Dichloropropene	ND<0.010	2.0	0.005	trans-1,3-Dichloropropene	ND<0.010	2.0	0.005
Diisopropyl ether (DIPE)	ND<0.010	2.0	0.005	Ethylbenzene	ND<0.010	2.0	0.005
Ethyl tert-butyl ether (ETBE)	ND<0.010	2.0	0.005	Freon 113	ND<0.20	2.0	0.1
Hexachlorobutadiene	ND<0.010	2.0	0.005	Hexachloroethane	ND<0.010	2.0	0.005
2-Hexanone	ND<0.010	2.0	0.005	Isopropylbenzene	ND<0.010	2.0	0.005
4-Isopropyl toluene	ND<0.010	2.0	0.005	Methyl-t-butyl ether (MTBE)	ND<0.010	2.0	0.005
Methylene chloride	ND<0.010	2.0	0.005	4-Methyl-2-pentanone (MIBK)	ND<0.010	2.0	0.005
Naphthalene	ND<0.010	2.0	0.005	n-Propyl benzene	ND<0.010	2.0	0.005
Styrene	ND<0.010	2.0	0.005	1,1,1,2-Tetrachloroethane	ND<0.010	2.0	0.005
1,1,2,2-Tetrachloroethane	ND<0.010	2.0	0.005	Tetrachloroethene	ND<0.010	2.0	0.005
Toluene	ND<0.010	2.0	0.005	1,2,3-Trichlorobenzene	ND<0.010	2.0	0.005
1,2,4-Trichlorobenzene	ND<0.010	2.0	0.005	1,1,1-Trichloroethane	ND<0.010	2.0	0.005
1,1,2-Trichloroethane	ND<0.010	2.0	0.005	Trichloroethene	ND<0.010	2.0	0.005
Trichlorofluoromethane	ND<0.010	2.0	0.005	1,2,3-Trichloropropane	ND<0.010	2.0	0.005
1,2,4-Trimethylbenzene	ND<0.010	2.0	0.005	1,3,5-Trimethylbenzene	ND<0.010	2.0	0.005
Vinyl Chloride	ND<0.010	2.0	0.005	Xylenes	ND<0.010	2.0	0.005

### Surrogate Recoveries (%)

%SS1:	104	%SS2:	109
%SS3:	101		

Comments: a3

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

a3) sample diluted due to high organic content.



### QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 45604

WorkOrder: 0909023

Analyte	EPA Method SW8260B		Extraction SW5030B						Spiked Sample ID: 0909129-004A			
	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	0.050	84.1	85.7	1.94	81.7	83.1	1.70	60 - 130	30	60 - 130	30
Benzene	ND	0.050	102	105	2.57	97.8	97.3	0.533	60 - 130	30	60 - 130	30
t-Butyl alcohol (TBA)	ND	0.25	104	107	2.78	100	97.3	2.91	60 - 130	30	60 - 130	30
Chlorobenzene	ND	0.050	103	106	2.72	102	103	0.339	60 - 130	30	60 - 130	30
1,2-Dibromoethane (EDB)	ND	0.050	95.9	99	3.12	98.1	98.1	0	60 - 130	30	60 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	0.050	105	109	2.95	108	108	0	60 - 130	30	60 - 130	30
1,1-Dichloroethene	ND	0.050	107	108	1.38	110	107	2.63	60 - 130	30	60 - 130	30
Diisopropyl ether (DIPE)	ND	0.050	97.6	99.9	2.28	93.2	92.9	0.314	60 - 130	30	60 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	0.050	98.3	100	1.78	98.2	98	0.195	60 - 130	30	60 - 130	30
Methyl-t-butyl ether (MTBE)	ND	0.050	103	105	2.04	103	103	0	60 - 130	30	60 - 130	30
Toluene	ND	0.050	106	109	3.20	108	106	1.15	60 - 130	30	60 - 130	30
Trichloroethene	ND	0.050	114	117	3.29	113	113	0	60 - 130	30	60 - 130	30
%SS1:	99	0.12	92	91	0.231	93	94	0.522	70 - 130	30	70 - 130	30
%SS2:	95	0.12	100	101	0.380	100	100	0	70 - 130	30	70 - 130	30
%SS3:	88	0.012	121	118	2.06	115	114	1.04	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

#### BATCH 45604 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909023-002A	08/31/09	09/03/09	09/10/09 12:52 PM	0909023-018A	09/01/09	09/03/09	09/10/09 1:35 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.





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Telephone: 877-252-9262 Fax: 925-252-9269

CKG Environmental  P.O. Box 246  St. Helena, CA 94574	Client Project ID: Owens Brockway	Date Sampled: 08/31/09-09/01/09
		Date Received: 09/01/09
	Client Contact: Chris Kennedy	Date Reported: 09/09/09
	Client P.O.:	Date Completed: 09/09/09

**WorkOrder: 0909023**

September 10, 2009

Dear Chris:

Enclosed within are:

- 1) The results of the **24** analyzed samples from your project: **Owens Brockway**,
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
Laboratory Manager  
McC Campbell Analytical, Inc.





# 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

GeoTracker EDF  PDF  Excel  Write On (DW)

Check if sample is effluent and "J" flag is required

Report To: CHRIS KENNEDY Bill To: \_\_\_\_\_  
 Company: CKG ENVIRONMENTAL  
 E-Mail: \_\_\_\_\_  
 Tele: ( ) Fax: ( )  
 Project #: \_\_\_\_\_ Project Name: ADAMS BRICKWAY  
 Project Location: OAKLAND  
 Sampler Signature: \_\_\_\_\_

### Analysis Request

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED				Analysis Request	Other	Comments
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO <sub>3</sub>	Other			
CKG-0B11	11-11 1/2	9/1/09		1	SLV	X											Filter Samples for Metals analysis: Yes / No
CKG-0B11	13 1/2 - 1A	}		1	SLV	X											
CKG-0B12	3 1/2 - 9		X														
CKG-0B12	13 1/2 - 1A		X														
CKG-0B13	10-10 1/2		X														
CKG-0B14	10-10 1/2		X														
CKG-0B14	15-15 1/2		X														
CKG-0B15	4-4 1/2		X														
CKG-0B15	9-9 1/2		X														
CKG-0B16	7 1/2 - 8		X														

Relinquished By: \_\_\_\_\_ Date: 9/1/09 Time: 5:50 Received By: \_\_\_\_\_  
 Relinquished By: \_\_\_\_\_ Date: 9/1/09 Time: 5:15 Received By: Mye Vall  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_

ICE/4° \_\_\_\_\_  
 GOOD CONDITION \_\_\_\_\_  
 HEAD SPACE ABSENT \_\_\_\_\_  
 DECHLORINATED IN LAB \_\_\_\_\_  
 APPROPRIATE CONTAINERS \_\_\_\_\_  
 PRESERVED IN LAB \_\_\_\_\_  
 COMMENTS: Plus SOIL SAMPLES WITH SILICA GEL CLEANUP  
 VOAS O&G METALS OTHER  
 PRESERVATION pH<2

# McC Campbell Analytical, Inc.



1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 0909023

ClientCode: CKGS

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
 Email   
 HardCopy   
 ThirdParty   
 J-flag

Report to:	Chris Kennedy	Email: ckennedy@geologist.com	Bill to:	Accounts Payable	Requested TAT: 5 days
	CKG Environmental	cc:		CKG Environmental	Date Received: 09/01/2009
	P.O. Box 246	PO:		P.O. Box 246	Date Printed: 09/01/2009
	St. Helena, CA 94574	ProjectNo: Owens Brockway		St. Helena, CA 94574	
	(707) 967-8080    FAX (707) 967-8080				

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
0909023-001	CKG-OB1 3 1/2-4	Soil	8/31/2009	<input type="checkbox"/>		A	A									
0909023-002	CKG-OB1 8-8 1/2	Soil	8/31/2009	<input type="checkbox"/>	A	A	A									
0909023-003	CKG-OB2 5-5 1/2	Soil	8/31/2009	<input type="checkbox"/>		A	A									
0909023-004	CKG-OB2 12-12 1/2	Soil	8/31/2009	<input type="checkbox"/>		A	A									
0909023-005	CKG-OB3 12 1/2-13	Soil	8/31/2009	<input type="checkbox"/>		A	A									
0909023-006	CKG-OB4 9-9 1/2	Soil	8/31/2009	<input type="checkbox"/>		A	A									
0909023-007	CKG-OB5 11 1/2-12	Soil	8/31/2009	<input type="checkbox"/>		A	A									
0909023-008	CKG-OB6 5-5 1/2	Soil	8/31/2009	<input type="checkbox"/>		A	A									
0909023-009	CKG-OB7 7 1/2-8	Soil	8/31/2009	<input type="checkbox"/>		A	A									
0909023-010	CKG-OB7 12-12 1/2	Soil	8/31/2009	<input type="checkbox"/>		A	A									
0909023-011	CKG-OB8 7 1/2-8	Soil	9/1/2009	<input type="checkbox"/>		A	A									
0909023-012	CKG-OB8 13-13 1/2	Soil	9/1/2009	<input type="checkbox"/>		A	A									
0909023-013	CKG-OB9 4-4 1/2	Soil	9/1/2009	<input type="checkbox"/>		A	A									
0909023-014	CKG-OB9 14-14 1/2	Soil	9/1/2009	<input type="checkbox"/>		A	A									

**Test Legend:**

1	8270D_S	2	G-MBTEX_S	3	TPH(DMO)WSG_S	4		5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

**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.

# McC Campbell Analytical, Inc.

1534 Willow Pass Rd  
 Pittsburg, CA 94565-1701  
 (925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 0909023

ClientCode: CKGS

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
 Email   
 HardCopy   
 ThirdParty   
 J-flag

Report to:

Chris Kennedy  
 CKG Environmental  
 P.O. Box 246  
 St. Helena, CA 94574  
 (707) 967-8080    FAX (707) 967-8080

Email: ckennedy@geologist.com  
 cc:  
 PO:  
 ProjectNo: Owens Brockway

Bill to:

Accounts Payable  
 CKG Environmental  
 P.O. Box 246  
 St. Helena, CA 94574

Requested TAT: 5 days

Date Received: 09/01/2009

Date Printed: 09/01/2009

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	
0909023-015	CKG-OB11 11-11 1/2	Soil	9/1/2009	<input type="checkbox"/>		A	A										
0909023-016	CKG-OB11 13 1/2-14	Soil	9/1/2009	<input type="checkbox"/>		A	A										
0909023-017	CKG-OB12 3 1/2-4	Soil	9/1/2009	<input type="checkbox"/>		A	A										
0909023-018	CKG-OB12 13 1/2-14	Soil	9/1/2009	<input type="checkbox"/>	A	A	A										
0909023-019	CKG-OB13 10-10 1/2	Soil	9/1/2009	<input type="checkbox"/>		A	A										
0909023-020	CKG-OB14 10-10 1/2	Soil	9/1/2009	<input type="checkbox"/>		A	A										
0909023-021	CKG-OB14 15-15 1/2	Soil	9/1/2009	<input type="checkbox"/>		A	A										
0909023-022	CKG-OB15 4-4 1/2	Soil	9/1/2009	<input type="checkbox"/>		A	A										
0909023-023	CKG-OB15 9-9 1/2	Soil	9/1/2009	<input type="checkbox"/>		A	A										
0909023-024	CKG-OB6 7 1/2-8	Soil	8/31/2009	<input type="checkbox"/>		A	A										

Test Legend:

1	8270D_S	2	G-MBTX_S	3	TPH(DMO)WSG_S	4		5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

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.



**Sample Receipt Checklist**

Client Name: **CKG Environmental**

Date and Time Received: **9/1/2009 5:48:08 PM**

Project Name: **Owens Brockway**

Checklist completed and reviewed by: **Melissa Valles**

WorkOrder N°: **0909023** Matrix Soil

Carrier: Rob Pringle (MAI Courier)

**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
  - Container/Temp Blank temperature Cooler Temp: 5.2°C NA
  - Water - VOA vials have zero headspace / no bubbles? Yes  No  No VOA vials submitted
  - Sample labels checked for correct preservation? Yes  No
  - TTLC Metal - pH acceptable upon receipt (pH<2)? Yes  No  NA
  - Samples Received on Ice? Yes  No
- (Ice Type: WET ICE )

\* NOTE: If the "No" box is checked, see comments below.

-----

Client contacted:

Date contacted:

Contacted by:

Comments:



CKG Environmental  P.O. Box 246  St. Helena, CA 94574	Client Project ID: Owens Brockway	Date Sampled: 08/31/09-09/01/09
		Date Received: 09/01/09
	Client Contact: Chris Kennedy	Date Extracted: 09/01/09
	Client P.O.:	Date Analyzed: 09/05/09

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

Extraction Method: SW3550C

Analytical Method: SW8270C

Work Order: 0909023

Lab ID	0909023-002A
Client ID	CKG-OB1 8-8 1/2
Matrix	Soil

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acenaphthene	ND<3.3	10	0.33	Acenaphthylene	ND<3.3	10	0.33
Acetochlor	ND<3.3	10	0.33	Anthracene	ND<3.3	10	0.33
Benidine	ND<16	10	1.6	Benzoic Acid	ND<16	10	1.6
Benzo(a)anthracene	ND<3.3	10	0.33	Benzo(b)fluoranthene	ND<3.3	10	0.33
Benzo(k)fluoranthene	ND<3.3	10	0.33	Benzo(g,h,i)perylene	ND<3.3	10	0.33
Benzo(a)pyrene	ND<3.3	10	0.33	Benzyl Alcohol	ND<16	10	1.6
1,1-Biphenyl	ND<3.3	10	0.33	Bis (2-chloroethoxy) Methane	ND<3.3	10	0.33
Bis (2-chloroethyl) Ether	ND<3.3	10	0.33	Bis (2-chloroisopropyl) Ether	ND<3.3	10	0.33
Bis (2-ethylhexyl) Phthalate	ND<3.3	10	0.33	4-Bromophenyl Phenyl Ether	ND<3.3	10	0.33
Butylbenzyl Phthalate	ND<3.3	10	0.33	4-Chloroaniline	ND<6.6	10	0.66
4-Chloro-3-methylphenol	ND<3.3	10	0.33	2-Chloronaphthalene	ND<3.3	10	0.33
2-Chlorophenol	ND<3.3	10	0.33	4-Chlorophenyl Phenyl Ether	ND<3.3	10	0.33
Chrysene	ND<3.3	10	0.33	Dibenzo(a,h)anthracene	ND<3.3	10	0.33
Dibenzofuran	ND<3.3	10	0.33	Di-n-butyl Phthalate	ND<3.3	10	0.33
1,2-Dichlorobenzene	ND<3.3	10	0.33	1,3-Dichlorobenzene	ND<3.3	10	0.33
1,4-Dichlorobenzene	ND<3.3	10	0.33	3,3-Dichlorobenzidine	ND<6.6	10	0.66
2,4-Dichlorophenol	ND<3.3	10	0.33	Diethyl Phthalate	ND<3.3	10	0.33
2,4-Dimethylphenol	ND<3.3	10	0.33	Dimethyl Phthalate	ND<3.3	10	0.33
4,6-Dinitro-2-methylphenol	ND<16	10	1.6	2,4-Dinitrophenol	ND<16	10	1.6
2,4-Dinitrotoluene	ND<3.3	10	0.33	2,6-Dinitrotoluene	ND<3.3	10	0.33
Di-n-octyl Phthalate	ND<3.3	10	0.33	1,2-Diphenylhydrazine	ND<3.3	10	0.33
Fluoranthene	ND<3.3	10	0.33	Fluorene	ND<3.3	10	0.33
Hexachlorobenzene	ND<3.3	10	0.33	Hexachlorobutadiene	ND<3.3	10	0.33
Hexachlorocyclopentadiene	ND<16	10	1.6	Hexachloroethane	ND<3.3	10	0.33
Indeno (1,2,3-cd) pyrene	ND<3.3	10	0.33	Isophorone	ND<3.3	10	0.33
2-Methylnaphthalene	ND<3.3	10	0.33	2-Methylphenol (o-Cresol)	ND<3.3	10	0.33
3 &/or 4-Methylphenol (m,p-Cresol)	ND<3.3	10	0.33	Naphthalene	ND<3.3	10	0.33
2-Nitroaniline	ND<16	10	1.6	3-Nitroaniline	ND<16	10	1.6
4-Nitroaniline	ND<16	10	1.6	Nitrobenzene	ND<3.3	10	0.33
2-Nitrophenol	ND<16	10	1.6	4-Nitrophenol	ND<16	10	1.6
N-Nitrosodiphenylamine	ND<3.3	10	0.33	N-Nitrosodi-n-propylamine	ND<3.3	10	0.33
Pentachlorophenol	ND<16	10	1.6	Phenanthrene	ND<3.3	10	0.33
Phenol	ND<3.3	10	0.33	Pyrene	ND<3.3	10	0.33
1,2,4-Trichlorobenzene	ND<3.3	10	0.33	2,4,5-Trichlorophenol	ND<3.3	10	0.33
2,4,6-Trichlorophenol	ND<3.3	10	0.33				

**Surrogate Recoveries (%)**

%SS1:	77	%SS2:	68
%SS3:	87	%SS4:	100
%SS5:	79	%SS6:	99

Comments: a3

\* water samples in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples and all TCLP &amp; SPLP extracts are reported in mg/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

#) surrogate diluted out of range; &amp;) low or no surrogate due to matrix interference.

a3) sample diluted due to high organic content.



CKG Environmental  P.O. Box 246  St. Helena, CA 94574	Client Project ID: Owens Brockway	Date Sampled: 08/31/09-09/01/09
		Date Received: 09/01/09
	Client Contact: Chris Kennedy	Date Extracted: 09/01/09
	Client P.O.:	Date Analyzed: 09/03/09

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

Extraction Method: SW3550C

Analytical Method: SW8270C

Work Order: 0909023

Lab ID	0909023-018A
Client ID	CKG-OB12 13 1/2-14
Matrix	Soil

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acenaphthene	ND<0.66	2.0	0.33	Acenaphthylene	ND<0.66	2.0	0.33
Acetochlor	ND<0.66	2.0	0.33	Anthracene	ND<0.66	2.0	0.33
Benidine	ND<3.2	2.0	1.6	Benzoic Acid	ND<3.2	2.0	1.6
Benzo(a)anthracene	ND<0.66	2.0	0.33	Benzo(b)fluoranthene	ND<0.66	2.0	0.33
Benzo(k)fluoranthene	ND<0.66	2.0	0.33	Benzo(g,h,i)perylene	ND<0.66	2.0	0.33
Benzo(a)pyrene	ND<0.66	2.0	0.33	Benzyl Alcohol	ND<3.2	2.0	1.6
1,1-Biphenyl	ND<0.66	2.0	0.33	Bis (2-chloroethoxy) Methane	ND<0.66	2.0	0.33
Bis (2-chloroethyl) Ether	ND<0.66	2.0	0.33	Bis (2-chloroisopropyl) Ether	ND<0.66	2.0	0.33
Bis (2-ethylhexyl) Phthalate	ND<0.66	2.0	0.33	4-Bromophenyl Phenyl Ether	ND<0.66	2.0	0.33
Butylbenzyl Phthalate	ND<0.66	2.0	0.33	4-Chloroaniline	ND<1.3	2.0	0.66
4-Chloro-3-methylphenol	ND<0.66	2.0	0.33	2-Chloronaphthalene	ND<0.66	2.0	0.33
2-Chlorophenol	ND<0.66	2.0	0.33	4-Chlorophenyl Phenyl Ether	ND<0.66	2.0	0.33
Chrysene	ND<0.66	2.0	0.33	Dibenzo(a,h)anthracene	ND<0.66	2.0	0.33
Dibenzofuran	ND<0.66	2.0	0.33	Di-n-butyl Phthalate	ND<0.66	2.0	0.33
1,2-Dichlorobenzene	ND<0.66	2.0	0.33	1,3-Dichlorobenzene	ND<0.66	2.0	0.33
1,4-Dichlorobenzene	ND<0.66	2.0	0.33	3,3-Dichlorobenzidine	ND<1.3	2.0	0.66
2,4-Dichlorophenol	ND<0.66	2.0	0.33	Diethyl Phthalate	ND<0.66	2.0	0.33
2,4-Dimethylphenol	ND<0.66	2.0	0.33	Dimethyl Phthalate	ND<0.66	2.0	0.33
4,6-Dinitro-2-methylphenol	ND<3.2	2.0	1.6	2,4-Dinitrophenol	ND<3.2	2.0	1.6
2,4-Dinitrotoluene	ND<0.66	2.0	0.33	2,6-Dinitrotoluene	ND<0.66	2.0	0.33
Di-n-octyl Phthalate	ND<0.66	2.0	0.33	1,2-Diphenylhydrazine	ND<0.66	2.0	0.33
Fluoranthene	ND<0.66	2.0	0.33	Fluorene	ND<0.66	2.0	0.33
Hexachlorobenzene	ND<0.66	2.0	0.33	Hexachlorobutadiene	ND<0.66	2.0	0.33
Hexachlorocyclopentadiene	ND<3.2	2.0	1.6	Hexachloroethane	ND<0.66	2.0	0.33
Indeno (1,2,3-cd) pyrene	ND<0.66	2.0	0.33	Isophorone	ND<0.66	2.0	0.33
2-Methylnaphthalene	0.80	2.0	0.33	2-Methylphenol (o-Cresol)	ND<0.66	2.0	0.33
3 &/or 4-Methylphenol (m,p-Cresol)	ND<0.66	2.0	0.33	Naphthalene	ND<0.66	2.0	0.33
2-Nitroaniline	ND<3.2	2.0	1.6	3-Nitroaniline	ND<3.2	2.0	1.6
4-Nitroaniline	ND<3.2	2.0	1.6	Nitrobenzene	ND<0.66	2.0	0.33
2-Nitrophenol	ND<3.2	2.0	1.6	4-Nitrophenol	ND<3.2	2.0	1.6
N-Nitrosodiphenylamine	ND<0.66	2.0	0.33	N-Nitrosodi-n-propylamine	ND<0.66	2.0	0.33
Pentachlorophenol	ND<3.2	2.0	1.6	Phenanthrene	ND<0.66	2.0	0.33
Phenol	ND<0.66	2.0	0.33	Pyrene	ND<0.66	2.0	0.33
1,2,4-Trichlorobenzene	ND<0.66	2.0	0.33	2,4,5-Trichlorophenol	ND<0.66	2.0	0.33
2,4,6-Trichlorophenol	ND<0.66	2.0	0.33				

**Surrogate Recoveries (%)**

%SS1:	47	%SS2:	---
%SS3:	47	%SS4:	67
%SS5:	35	%SS6:	52

**Comments:**

\* water samples in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

#) surrogate diluted out of range; &) low or no surrogate due to matrix interference.

a3) sample diluted due to high organic content.





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Telephone: 877-252-9262 Fax: 925-252-9269

CKG Environmental  P.O. Box 246  St. Helena, CA 94574	Client Project ID: Owens Brockway	Date Sampled: 08/31/09-09/01/09
		Date Received: 09/01/09
	Client Contact: Chris Kennedy	Date Extracted: 09/01/09
	Client P.O.:	Date Analyzed: 09/02/09-09/08/09

## Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE\*

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0909023

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	CKG-OB1 3 1/2-4	S	1.8	---	ND	ND	ND	ND	1	80	d7
002A	CKG-OB1 8-8 1/2	S	340	---	ND<0.050	ND<0.050	0.057	0.55	10	111	d7,d9
003A	CKG-OB2 5-5 1/2	S	66	---	ND	ND	ND	0.039	1	85	d7
004A	CKG-OB2 12-12 1/2	S	50	---	ND<0.10	ND<0.10	ND<0.10	ND<0.10	20	70	d7
005A	CKG-OB3 12 1/2-13	S	ND	---	ND	ND	ND	ND	1	76	
006A	CKG-OB4 9-9 1/2	S	ND	---	ND	ND	ND	ND	1	89	
007A	CKG-OB5 11 1/2-12	S	24	---	ND	0.013	0.070	0.064	1	99	d7,d9
008A	CKG-OB6 5-5 1/2	S	ND	---	ND	ND	ND	ND	1	78	
009A	CKG-OB7 7 1/2-8	S	ND	---	ND	ND	ND	ND	1	73	
010A	CKG-OB7 12-12 1/2	S	6.3	---	ND	ND	ND	ND	1	76	d7
011A	CKG-OB8 7 1/2-8	S	2000	---	ND<0.25	0.51	2.4	10	50	97	d7,d9
012A	CKG-OB8 13-13 1/2	S	840	---	ND<0.25	ND<0.25	4.3	2.9	50	90	d7,d9
013A	CKG-OB9 4-4 1/2	S	140	---	ND<0.050	ND<0.050	0.26	0.18	10	---#	d7,d9
014A	CKG-OB9 14-14 1/2	S	870	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	200	96	d7,c2
015A	CKG-OB11 11-11 1/2	S	ND	---	ND	ND	ND	ND	1	84	
016A	CKG-OB11 13 1/2-14	S	280	---	ND<0.25	ND<0.25	ND<0.25	ND<0.25	50	85	d7

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	ug/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts in mg/L.

# cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

c2) estimated value due to low surrogate recovery, caused by matrix interference.

d7) strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram

d9) no recognizable pattern



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CKG Environmental  P.O. Box 246  St. Helena, CA 94574	Client Project ID: Owens Brockway	Date Sampled: 08/31/09-09/01/09
		Date Received: 09/01/09
	Client Contact: Chris Kennedy	Date Extracted: 09/01/09
	Client P.O.:	Date Analyzed: 09/02/09-09/08/09

## Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE\*

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0909023

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
017A	CKG-OB12 3 1/2-4	S	2400	---	ND<1.0	ND<1.0	4.9	11	200	---#	d7,d9
018A	CKG-OB12 13 1/2-14	S	490	---	ND<0.25	ND<0.25	0.50	1.2	50	---#	d7,d9
019A	CKG-OB13 10-10 1/2	S	ND	---	ND	ND	ND	ND	1	91	
020A	CKG-OB14 10-10 1/2	S	890	---	ND<0.25	1.1	2.5	5.5	50	70	d7,d9
021A	CKG-OB14 15-15 1/2	S	420	---	ND<0.10	0.25	0.62	1.1	20	95	d7,d9
022A	CKG-OB15 4-4 1/2	S	ND	---	ND	ND	ND	ND	1	74	
023A	CKG-OB15 9-9 1/2	S	400	---	ND<0.10	ND<0.10	0.51	1.5	20	82	d7,d9
024A	CKG-OB6 7 1/2-8	S	ND	---	ND	ND	ND	ND	1	83	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	ug/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts in mg/L.

# cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

c2) estimated value due to low surrogate recovery, caused by matrix interference.

d7) strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram

d9) no recognizable pattern



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CKG Environmental  P.O. Box 246  St. Helena, CA 94574	Client Project ID: Owens Brockway	Date Sampled: 08/31/09-09/01/09
		Date Received: 09/01/09
	Client Contact: Chris Kennedy	Date Extracted: 09/01/09
	Client P.O.:	Date Analyzed: 09/01/09-09/06/09

### Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up\*

Extraction method: SW3550C/3630C

Analytical methods: SW8015B

Work Order: 0909023

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	DF	% SS	Comments
0909023-001A	CKG-OB1 3 1/2-4	S	ND	ND	1	94	
0909023-002A	CKG-OB1 8-8 1/2	S	510	180	10	91	e1
0909023-003A	CKG-OB2 5-5 1/2	S	710	190	10	88	e1
0909023-004A	CKG-OB2 12-12 1/2	S	150	98	1	94	e2,e7
0909023-005A	CKG-OB3 12 1/2-13	S	ND	ND	1	94	
0909023-006A	CKG-OB4 9-9 1/2	S	19	59	5	90	e7,e2
0909023-007A	CKG-OB5 11 1/2-12	S	63	18	1	94	e1
0909023-008A	CKG-OB6 5-5 1/2	S	ND	ND	1	94	
0909023-009A	CKG-OB7 7 1/2-8	S	9.9	ND	1	95	e3
0909023-010A	CKG-OB7 12-12 1/2	S	ND	ND	1	94	
0909023-011A	CKG-OB8 7 1/2-8	S	1800	390	20	98	e8,e7
0909023-012A	CKG-OB8 13-13 1/2	S	580	170	20	101	e8,e7
0909023-013A	CKG-OB9 4-4 1/2	S	140	200	5	96	e7,e2,e11
0909023-014A	CKG-OB9 14-14 1/2	S	760	190	10	111	e8/e1,e7
0909023-015A	CKG-OB11 11-11 1/2	S	ND	ND	1	99	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA	ug/L
	S	1.0	5.0	mg/Kg

\* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

# cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

- e1) unmodified or weakly modified diesel is significant; and/or e8) kerosene/kerosene range/jet fuel range
- 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; and/or e1) unmodified or weakly modified diesel is significant
- e11) stoddard solvent/mineral spirit (?)



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CKG Environmental  P.O. Box 246  St. Helena, CA 94574	Client Project ID: Owens Brockway	Date Sampled: 08/31/09-09/01/09
		Date Received: 09/01/09
	Client Contact: Chris Kennedy	Date Extracted: 09/01/09
	Client P.O.:	Date Analyzed: 09/01/09-09/06/09

### Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up\*

Extraction method: SW3550C/3630C

Analytical methods: SW8015B

Work Order: 0909023

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	DF	% SS	Comments
0909023-016A	CKG-OB11 13 1/2-14	S	800	360	5	101	e1,e7
0909023-017A	CKG-OB12 3 1/2-4	S	7500	3600	200	104	
0909023-018A	CKG-OB12 13 1/2-14	S	220	87	1	104	e8/e1,e7
0909023-019A	CKG-OB13 10-10 1/2	S	8.5	14	1	93	e7,e2
0909023-020A	CKG-OB14 10-10 1/2	S	3100	3200	200	117	e7,e2,e11
0909023-021A	CKG-OB14 15-15 1/2	S	290	260	10	90	e2,e7
0909023-022A	CKG-OB15 4-4 1/2	S	2.8	ND	1	93	e2,e11
0909023-023A	CKG-OB15 9-9 1/2	S	430	140	5	94	e1/e8,e7
0909023-024A	CKG-OB6 7 1/2-8	S	ND	ND	1	91	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA	ug/L
	S	1.0	5.0	mg/Kg

\* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

# cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

e1) unmodified or weakly modified diesel is significant; and/or e8) kerosene/kerosene range/jet fuel range  
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; and/or e1) unmodified or weakly modified diesel is significant  
e11) stoddard solvent/mineral spirit (?)



### QC SUMMARY REPORT FOR SW8270C

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 45482

WorkOrder 0909023

EPA Method SW8270C	Extraction SW3550C								Spiked Sample ID: 0909023-018A			
	Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)		
		mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD
Acenaphthene	ND<0.66	2	86.9	82	5.82	79.7	78.1	2.04	30 - 130	30	30 - 130	30
4-Chloro-3-methylphenol	ND<0.66	4	90.6	83.6	8.07	83.6	81.2	2.97	30 - 130	30	30 - 130	30
2-Chlorophenol	ND<0.66	4	88.4	85.6	3.23	98.8	97.1	1.76	30 - 130	30	30 - 130	30
1,4-Dichlorobenzene	ND<0.66	2	91.7	89.1	2.87	91.3	90	1.43	30 - 130	30	30 - 130	30
2,4-Dinitrotoluene	ND<0.66	2	83.5	83.4	0.0958	99.7	94.5	5.40	30 - 130	30	30 - 130	30
4-Nitrophenol	ND<3.2	4	81.4	82.9	1.82	63	58.2	7.89	30 - 130	30	30 - 130	30
N-Nitrosodi-n-propylamine	ND<0.66	2	128	126	1.74	84.5	80.2	5.25	30 - 130	30	30 - 130	30
Pentachlorophenol	ND<3.2	4	36.1	35.3	2.32	65.2	58.1	11.5	30 - 130	30	30 - 130	30
Phenol	ND<0.66	4	96	95.5	0.532	95.8	93.9	1.95	30 - 130	30	30 - 130	30
Pyrene	ND<0.66	2	80.8	78.7	2.64	77.8	73.5	5.59	30 - 130	30	30 - 130	30
1,2,4-Trichlorobenzene	ND<0.66	2	75.7	75	0.862	83.7	76.7	8.72	30 - 130	30	30 - 130	30
%SS1:	47	200	80	76	6.09	77	75	3.32	30 - 130	30	30 - 130	30
%SS2:	---#	200	78	75	4.29	81	78	3.74	30 - 130	30	30 - 130	30
%SS3:	47	200	75	72	3.15	75	69	7.35	30 - 130	30	30 - 130	30
%SS4:	67	200	67	64	4.98	76	78	2.00	30 - 130	30	30 - 130	30
%SS5:	35	200	73	75	1.75	76	70	7.40	30 - 130	30	30 - 130	30
%SS6:	52	200	67	64	4.51	67	66	2.97	30 - 130	30	30 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

#### BATCH 45482 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909023-002A	08/31/09	09/01/09	09/05/09 10:24 PM	0909023-018A	09/01/09	09/01/09	09/03/09 4:02 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

#) surrogate diluted out of range; & = low or no recovery of surrogate or target analytes due to matrix interference.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



**QC SUMMARY REPORT FOR SW8021B/8015Bm**

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 45486

WorkOrder 0909023

EPA Method SW8021B/8015Bm		Extraction SW5030B							Spiked Sample ID: 0908737-002A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) <sup>f</sup>	ND	0.60	107	114	6.26	109	112	2.86	70 - 130	20	70 - 130	20
MTBE	ND	0.10	112	114	1.40	109	112	2.78	70 - 130	20	70 - 130	20
Benzene	ND	0.10	94.4	98.3	3.99	96.7	99.5	2.83	70 - 130	20	70 - 130	20
Toluene	ND	0.10	94.7	101	6.59	96.4	99.1	2.78	70 - 130	20	70 - 130	20
Ethylbenzene	ND	0.10	92.8	95.6	3.01	93.8	96.9	3.27	70 - 130	20	70 - 130	20
Xylenes	ND	0.30	94.2	96.2	2.11	94.6	97.9	3.39	70 - 130	20	70 - 130	20
%SS:	84	0.10	81	84	3.35	84	85	1.51	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

BATCH 45486 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909023-001A	08/31/09	09/01/09	09/05/09 1:11 AM	0909023-002A	08/31/09	09/01/09	09/03/09 8:43 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



**QC SUMMARY REPORT FOR SW8021B/8015Bm**

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 45523

WorkOrder 0909023

EPA Method SW8021B/8015Bm		Extraction SW5030B							Spiked Sample ID: 0909009-001A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) <sup>£</sup>	ND	0.60	108	111	2.69	107	111	4.04	70 - 130	20	70 - 130	20
MTBE	ND	0.10	91.6	98.1	6.90	100	102	1.52	70 - 130	20	70 - 130	20
Benzene	ND	0.10	91.3	95.6	4.65	93.4	98.2	5.10	70 - 130	20	70 - 130	20
Toluene	ND	0.10	89.4	94.6	5.63	92	95.9	4.15	70 - 130	20	70 - 130	20
Ethylbenzene	ND	0.10	90.5	95.4	5.26	93.4	96.5	3.28	70 - 130	20	70 - 130	20
Xylenes	ND	0.30	92.7	98.5	6.10	96	98.6	2.70	70 - 130	20	70 - 130	20
%SS:	95	0.10	98	100	1.83	106	99	6.58	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

BATCH 45523 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909023-024A	08/31/09	09/01/09	09/03/09 2:30 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



### QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 45533

WorkOrder 0909023

EPA Method SW8021B/8015Bm		Extraction SW5030B							Spiked Sample ID: 0909023-015A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) <sup>£</sup>	ND	0.60	114	122	6.09	118	112	4.62	70 - 130	20	70 - 130	20
MTBE	ND	0.10	122	123	0.705	118	117	0.407	70 - 130	20	70 - 130	20
Benzene	ND	0.10	98	97.7	0.322	95.9	92.5	3.56	70 - 130	20	70 - 130	20
Toluene	ND	0.10	95.6	95.6	0	93.8	90.1	4.01	70 - 130	20	70 - 130	20
Ethylbenzene	ND	0.10	94.2	94.6	0.368	92.4	89.3	3.41	70 - 130	20	70 - 130	20
Xylenes	ND	0.30	95.3	96.2	0.941	93.8	90.9	3.15	70 - 130	20	70 - 130	20
%SS:	84	0.10	90	98	8.44	88	81	9.03	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

#### BATCH 45533 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909023-003A	08/31/09	09/01/09	09/03/09 7:06 AM	0909023-004A	08/31/09	09/01/09	09/02/09 9:21 PM
0909023-005A	08/31/09	09/01/09	09/04/09 2:19 AM	0909023-006A	08/31/09	09/01/09	09/04/09 3:20 AM
0909023-007A	08/31/09	09/01/09	09/04/09 11:48 PM	0909023-008A	08/31/09	09/01/09	09/05/09 12:18 AM
0909023-009A	08/31/09	09/01/09	09/05/09 2:17 AM	0909023-010A	08/31/09	09/01/09	09/05/09 3:17 AM
0909023-011A	09/01/09	09/01/09	09/04/09 7:50 AM	0909023-012A	09/01/09	09/01/09	09/05/09 6:16 AM
0909023-013A	09/01/09	09/01/09	09/06/09 1:44 AM	0909023-014A	09/01/09	09/01/09	09/02/09 10:54 PM
0909023-015A	09/01/09	09/01/09	09/02/09 11:25 PM	0909023-016A	09/01/09	09/01/09	09/04/09 11:35 AM
0909023-017A	09/01/09	09/01/09	09/05/09 10:49 PM	0909023-018A	09/01/09	09/01/09	09/05/09 11:59 PM
0909023-019A	09/01/09	09/01/09	09/04/09 2:50 AM	0909023-020A	09/01/09	09/01/09	09/08/09 6:53 PM
0909023-021A	09/01/09	09/01/09	09/03/09 12:27 AM	0909023-022A	09/01/09	09/01/09	09/05/09 2:47 AM
0909023-023A	09/01/09	09/01/09	09/04/09 8:20 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.





**QC SUMMARY REPORT FOR SW8015B**

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 45457

WorkOrder: 0909023

EPA Method SW8015B		Extraction SW3550C/3630C							Spiked Sample ID: 0908738-001A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	ND	20	91.6	91.8	0.180	93.1	92.9	0.279	70 - 130	30	70 - 130	30
%SS:	94	50	99	99	0	96	95	0.594	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

BATCH 45457 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909023-021A	09/01/09	09/01/09	09/06/09 1:17 PM	0909023-022A	09/01/09	09/01/09	09/05/09 12:57 PM
0909023-023A	09/01/09	09/01/09	09/05/09 11:47 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



### QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 45534

WorkOrder: 0909023

EPA Method SW8015B		Extraction SW3550C/3630C							Spiked Sample ID: 0909023-020A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	3100	20	NR	NR	NR	94.9	95.2	0.394	70 - 130	30	70 - 130	30
%SS:	117	50	95	105	9.59	101	102	0.972	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

#### BATCH 45534 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909023-001A	08/31/09	09/01/09	09/01/09 10:45 PM	0909023-002A	08/31/09	09/01/09	09/03/09 4:31 AM
0909023-003A	08/31/09	09/01/09	09/01/09 10:36 PM	0909023-004A	08/31/09	09/01/09	09/02/09 3:18 AM
0909023-005A	08/31/09	09/01/09	09/02/09 4:27 AM	0909023-006A	08/31/09	09/01/09	09/02/09 11:44 PM
0909023-007A	08/31/09	09/01/09	09/02/09 5:35 AM	0909023-008A	08/31/09	09/01/09	09/02/09 6:43 AM
0909023-009A	08/31/09	09/01/09	09/02/09 7:52 AM	0909023-010A	08/31/09	09/01/09	09/02/09 9:00 AM
0909023-011A	09/01/09	09/01/09	09/02/09 3:18 AM	0909023-012A	09/01/09	09/01/09	09/02/09 4:28 AM
0909023-013A	09/01/09	09/01/09	09/02/09 5:37 AM	0909023-014A	09/01/09	09/01/09	09/02/09 6:52 PM
0909023-015A	09/01/09	09/01/09	09/02/09 7:57 AM	0909023-016A	09/01/09	09/01/09	09/02/09 9:08 AM
0909023-017A	09/01/09	09/01/09	09/03/09 3:20 AM	0909023-018A	09/01/09	09/01/09	09/03/09 8:03 AM
0909023-019A	09/01/09	09/01/09	09/05/09 9:26 AM	0909023-020A	09/01/09	09/01/09	09/05/09 8:17 AM
0909023-024A	08/31/09	09/01/09	09/05/09 7:08 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



**McC Campbell Analytical, Inc.**

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Web: www.mcccampbell.com E-mail: main@mcccampbell.com  
Telephone: 877-252-9262 Fax: 925-252-9269

CKG Environmental  P.O. Box 246  St. Helena, CA 94574	Client Project ID: Owens Brockway	Date Sampled: 08/31/09-09/01/09
		Date Received: 09/01/09
	Client Contact: Chris Kennedy	Date Reported: 09/09/09
	Client P.O.:	Date Completed: 09/09/09

**WorkOrder: 0909021**

September 09, 2009

Dear Chris:

Enclosed within are:

- 1) The results of the **12** analyzed samples from your project: **Owens Brockway**,
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
Laboratory Manager  
McC Campbell Analytical, Inc.



# 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

GeoTracker EDF  PDF  Excel  Write On (DW)  
 Check if sample is effluent and "J" flag is required

0909021

Report To: CHRIS KENNEDY Bill To: \_\_\_\_\_  
 Company: CKG ENVIRONMENTAL  
 E-Mail: \_\_\_\_\_  
 Tele: ( ) Fax: ( )  
 Project #: \_\_\_\_\_ Project Name: OWENS BRICKWAY  
 Project Location: OAKLAND  
 Sampler Signature: [Signature]

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED				Analysis Request	Other	Comments
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO <sub>3</sub>	Other			
+25 CKG-OB1		8/31/09	0930	3	V	X						X					Filter Samples for Metals analysis: Yes / No
CKG-OB1			0930	1	A	X						X					
-20 CKG-OB2			1030	3	V	X						X					
CKG-OB2			1030	1	A	X						X					
+5 CKG-OB3			1130	3	V	X						X					
CKG-OB3			1130	1	A	X						X					
+5 CKG-OB4			1330	3	V	X						X					
CKG-OB4			1330	1	A	X						X					
+5 CKG-OB5			1430	3	V	X						X					
CKG-OB5			1430	1	A	X						X					
+30 CKG-OB6			1530	3	V	X						X					
CKG-OB6			1530	1	A	X						X					
+25 CKG-OB8		9/1/09	0830	3	V	X						X					
CKG-OB8		9/1/09	0830	1	A	X						X					

Relinquished By: [Signature] Date: 9/1/09 Time: 330 Received By: \_\_\_\_\_  
 Relinquished By: [Signature] Date: 9/1/09 Time: 515 Received By: [Signature]  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_

ICE/46  
 GOOD CONDITION   
 HEAD SPACE ABSENT \_\_\_\_\_  
 DECHLORINATED IN LAB \_\_\_\_\_  
 APPROPRIATE CONTAINERS \_\_\_\_\_  
 PRESERVED IN LAB   
 PRESERVATION VOAS  O&G METALS OTHER  
 pH<2

+25  
-20  
+5  
+5  
+30  
+25



**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  
 GeoTracker EDF  PDF  Excel  Write On (DW)   
 Check if sample is effluent and "J" flag is required

Report To: *CHRIS KENNEDY* \* Bill To:  
 Company: *CKG ENVIRONMENTAL*  
 E-Mail:  
 Tele: ( ) Fax: ( )  
 Project #: Project Name: *OWENS BRANCH*  
 Project Location: *OAKLAND*  
 Sampler Signature: *[Signature]*

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED				Analysis Request	Other	Comments
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO <sub>3</sub>	Other			
<i>CKG-0B9</i>		<i>9/1/09</i>		<i>3</i>	<i>V</i>	<i>X</i>						<i>X</i>					Filter Samples for Metals analysis: Yes / No
<i>CKG-0B9</i>				<i>1</i>	<i>A</i>	<i>X</i>						<i>X</i>					
<i>CKG-0B11</i>				<i>3</i>	<i>V</i>	<i>X</i>						<i>X</i>					
<i>CKG-0B11</i>				<i>1</i>	<i>A</i>	<i>X</i>						<i>X</i>					
<i>CKG-0B13</i>				<i>3</i>	<i>V</i>	<i>X</i>						<i>X</i>					
<i>CKG-0B13</i>				<i>1</i>	<i>A</i>	<i>X</i>						<i>X</i>					
<i>CKG-0B12</i>				<i>3</i>	<i>V</i>	<i>X</i>						<i>X</i>					
<i>CKG-0B12</i>				<i>1</i>	<i>A</i>	<i>X</i>						<i>X</i>					
<i>CKG-0B15</i>				<i>3</i>	<i>V</i>	<i>X</i>						<i>X</i>					
<i>CKG-0B15</i>				<i>1</i>	<i>A</i>	<i>X</i>						<i>X</i>					

*X*  
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*X*  
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*X*  
*X*  
*X*

Relinquished By: *[Signature]* Date: *9/1/09* Time: *3:30* Received By: *[Signature]*  
 Relinquished By: *[Signature]* Date: *9/1/09* Time: *5:15* Received By: *[Signature]*  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_

ICE/° \_\_\_\_\_ COMMENTS:  
 GOOD CONDITION \_\_\_\_\_  
 HEAD SPACE ABSENT \_\_\_\_\_  
 DECHLORINATED IN LAB \_\_\_\_\_  
 APPROPRIATE CONTAINERS \_\_\_\_\_  
 PRESERVED IN LAB \_\_\_\_\_  
 VOAS O&G METALS OTHER  
 PRESERVATION pH<2

# McC Campbell Analytical, Inc.



1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 0909021

ClientCode: CKGS

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
 Email   
 HardCopy   
 ThirdParty   
 J-flag

**Report to:**

Chris Kennedy  
CKG Environmental  
P.O. Box 246  
St. Helena, CA 94574  
(707) 967-8080    FAX (707) 967-8080

Email: ckennedy@geologist.com  
cc:  
PO:  
ProjectNo: Owens Brockway

**Bill to:**

Accounts Payable  
CKG Environmental  
P.O. Box 246  
St. Helena, CA 94574

**Requested TAT: 5 days**

**Date Received: 09/01/2009**

**Date Printed: 09/01/2009**

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	
0909021-001	CKG-0B1	Water	8/31/2009 9:30	<input type="checkbox"/>	B	A	C										
0909021-002	CKG-0B2	Water	8/31/2009 10:30	<input type="checkbox"/>		A	B										
0909021-003	CKG-0B3	Water	8/31/2009 11:30	<input type="checkbox"/>		A	B										
0909021-004	CKG-0B4	Water	8/31/2009 13:30	<input type="checkbox"/>		A	B										
0909021-005	CKG-0B5	Water	8/31/2009 14:30	<input type="checkbox"/>		A	B										
0909021-006	CKG-0B6	Water	8/31/2009 15:30	<input type="checkbox"/>		A	B										
0909021-007	CKG-0B8	Water	9/1/2009 8:30	<input type="checkbox"/>		A	B										
0909021-008	CKG-0B9	Water	9/1/2009	<input type="checkbox"/>		A	B										
0909021-009	CKG-0B11	Water	9/1/2009	<input type="checkbox"/>		A	B										
0909021-010	CKG-0B13	Water	9/1/2009	<input type="checkbox"/>		A	B										
0909021-011	CKG-0B12	Water	9/1/2009	<input type="checkbox"/>	B	A	C										
0909021-012	CKG-0B15	Water	9/1/2009	<input type="checkbox"/>		A	B										

**Test Legend:**

1	8260B_W	2	G-MBTEX_W	3	TPH(DMO)_W	4		5	
6		7		8		9		10	
11		12							

**Prepared by: Ana 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.



### Sample Receipt Checklist

Client Name: **CKG Environmental**

Date and Time Received: **9/1/2009 7:08:14 PM**

Project Name: **Owens Brockway**

Checklist completed and reviewed by: **Ana Venegas**

WorkOrder N°: **0909021** Matrix Water

Carrier: Rob Pringle (MAI Courier)

#### 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
  - Container/Temp Blank temperature Cooler Temp: 4.6°C NA
  - Water - VOA vials have zero headspace / no bubbles? Yes  No  No VOA vials submitted
  - Sample labels checked for correct preservation? Yes  No
  - TTLC Metal - pH acceptable upon receipt (pH<2)? Yes  No  NA
  - Samples Received on Ice? Yes  No
- (Ice Type: WET ICE )

\* NOTE: If the "No" box is checked, see comments below.

-----

Client contacted:

Date contacted:

Contacted by:

Comments:



# McC Campbell Analytical, Inc.

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Telephone: 877-252-9262 Fax: 925-252-9269

CKG Environmental P.O. Box 246 St. Helena, CA 94574	Client Project ID: Owens Brockway	Date Sampled: 08/31/09
		Date Received: 09/01/09
	Client Contact: Chris Kennedy	Date Extracted: 09/03/09
	Client P.O.:	Date Analyzed 09/03/09

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0909021

Lab ID	0909021-001B
Client ID	CKG-0B1
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND<330	33	10	tert-Amyl methyl ether (TAME)	ND<17	33	0.5
Benzene	710	33	0.5	Bromobenzene	ND<17	33	0.5
Bromochloromethane	ND<17	33	0.5	Bromodichloromethane	ND<17	33	0.5
Bromoform	ND<17	33	0.5	Bromomethane	ND<17	33	0.5
2-Butanone (MEK)	ND<67	33	2.0	t-Butyl alcohol (TBA)	ND<67	33	2.0
n-Butyl benzene	100	33	0.5	sec-Butyl benzene	22	33	0.5
tert-Butyl benzene	ND<17	33	0.5	Carbon Disulfide	ND<17	33	0.5
Carbon Tetrachloride	ND<17	33	0.5	Chlorobenzene	ND<17	33	0.5
Chloroethane	ND<17	33	0.5	Chloroform	ND<17	33	0.5
Chloromethane	ND<17	33	0.5	2-Chlorotoluene	ND<17	33	0.5
4-Chlorotoluene	ND<17	33	0.5	Dibromochloromethane	ND<17	33	0.5
1,2-Dibromo-3-chloropropane	ND<6.7	33	0.2	1,2-Dibromoethane (EDB)	ND<17	33	0.5
Dibromomethane	ND<17	33	0.5	1,2-Dichlorobenzene	ND<17	33	0.5
1,3-Dichlorobenzene	ND<17	33	0.5	1,4-Dichlorobenzene	ND<17	33	0.5
Dichlorodifluoromethane	ND<17	33	0.5	1,1-Dichloroethane	ND<17	33	0.5
1,2-Dichloroethane (1,2-DCA)	ND<17	33	0.5	1,1-Dichloroethene	ND<17	33	0.5
cis-1,2-Dichloroethene	ND<17	33	0.5	trans-1,2-Dichloroethene	ND<17	33	0.5
1,2-Dichloropropane	ND<17	33	0.5	1,3-Dichloropropane	ND<17	33	0.5
2,2-Dichloropropane	ND<17	33	0.5	1,1-Dichloropropene	ND<17	33	0.5
cis-1,3-Dichloropropene	ND<17	33	0.5	trans-1,3-Dichloropropene	ND<17	33	0.5
Diisopropyl ether (DIPE)	ND<17	33	0.5	Ethylbenzene	360	33	0.5
Ethyl tert-butyl ether (ETBE)	ND<17	33	0.5	Freon 113	ND<330	33	10
Hexachlorobutadiene	ND<17	33	0.5	Hexachloroethane	ND<17	33	0.5
2-Hexanone	ND<17	33	0.5	Isopropylbenzene	91	33	0.5
4-Isopropyl toluene	ND<17	33	0.5	Methyl-t-butyl ether (MTBE)	320	33	0.5
Methylene chloride	ND<17	33	0.5	4-Methyl-2-pentanone (MIBK)	ND<17	33	0.5
Naphthalene	190	33	0.5	n-Propyl benzene	220	33	0.5
Styrene	ND<17	33	0.5	1,1,1,2-Tetrachloroethane	ND<17	33	0.5
1,1,1,2-Tetrachloroethane	ND<17	33	0.5	Tetrachloroethene	ND<17	33	0.5
Toluene	ND<17	33	0.5	1,2,3-Trichlorobenzene	ND<17	33	0.5
1,2,4-Trichlorobenzene	ND<17	33	0.5	1,1,1-Trichloroethane	ND<17	33	0.5
1,1,2-Trichloroethane	ND<17	33	0.5	Trichloroethene	ND<17	33	0.5
Trichlorofluoromethane	ND<17	33	0.5	1,2,3-Trichloropropane	ND<17	33	0.5
1,2,4-Trimethylbenzene	92	33	0.5	1,3,5-Trimethylbenzene	190	33	0.5
Vinyl Chloride	ND<17	33	0.5	Xylenes	320	33	0.5

### Surrogate Recoveries (%)

%SS1:	95	%SS2:	93
%SS3:	81		

Comments: b6,b1

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

b1) aqueous sample that contains greater than ~1 vol. % sediment

b6) lighter than water immiscible sheen/product is present





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CKG Environmental P.O. Box 246 St. Helena, CA 94574	Client Project ID: Owens Brockway	Date Sampled: 09/01/09
		Date Received: 09/01/09
	Client Contact: Chris Kennedy	Date Extracted: 09/04/09
	Client P.O.:	Date Analyzed 09/04/09

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0909021

Lab ID	0909021-011B
Client ID	CKG-0B12
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	13	1.0	10	tert-Amyl methyl ether (TAME)	ND	1.0	0.5
Benzene	ND	1.0	0.5	Bromobenzene	ND	1.0	0.5
Bromochloromethane	ND	1.0	0.5	Bromodichloromethane	ND	1.0	0.5
Bromoform	ND	1.0	0.5	Bromomethane	ND	1.0	0.5
2-Butanone (MEK)	ND	1.0	2.0	t-Butyl alcohol (TBA)	ND	1.0	2.0
n-Butyl benzene	6.1	1.0	0.5	sec-Butyl benzene	8.7	1.0	0.5
tert-Butyl benzene	1.4	1.0	0.5	Carbon Disulfide	ND	1.0	0.5
Carbon Tetrachloride	ND	1.0	0.5	Chlorobenzene	ND	1.0	0.5
Chloroethane	ND	1.0	0.5	Chloroform	ND	1.0	0.5
Chloromethane	ND	1.0	0.5	2-Chlorotoluene	ND	1.0	0.5
4-Chlorotoluene	ND	1.0	0.5	Dibromochloromethane	ND	1.0	0.5
1,2-Dibromo-3-chloropropane	ND	1.0	0.2	1,2-Dibromoethane (EDB)	ND	1.0	0.5
Dibromomethane	ND	1.0	0.5	1,2-Dichlorobenzene	ND	1.0	0.5
1,3-Dichlorobenzene	ND	1.0	0.5	1,4-Dichlorobenzene	ND	1.0	0.5
Dichlorodifluoromethane	ND	1.0	0.5	1,1-Dichloroethane	ND	1.0	0.5
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.5	1,1-Dichloroethene	ND	1.0	0.5
cis-1,2-Dichloroethene	ND	1.0	0.5	trans-1,2-Dichloroethene	ND	1.0	0.5
1,2-Dichloropropane	ND	1.0	0.5	1,3-Dichloropropane	ND	1.0	0.5
2,2-Dichloropropane	ND	1.0	0.5	1,1-Dichloropropene	ND	1.0	0.5
cis-1,3-Dichloropropene	ND	1.0	0.5	trans-1,3-Dichloropropene	ND	1.0	0.5
Diisopropyl ether (DIPE)	ND	1.0	0.5	Ethylbenzene	ND	1.0	0.5
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.5	Freon 113	ND	1.0	10
Hexachlorobutadiene	ND	1.0	0.5	Hexachloroethane	ND	1.0	0.5
2-Hexanone	ND	1.0	0.5	Isopropylbenzene	2.3	1.0	0.5
4-Isopropyl toluene	3.9	1.0	0.5	Methyl-t-butyl ether (MTBE)	ND	1.0	0.5
Methylene chloride	ND	1.0	0.5	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.5
Naphthalene	ND	1.0	0.5	n-Propyl benzene	ND	1.0	0.5
Styrene	ND	1.0	0.5	1,1,1,2-Tetrachloroethane	ND	1.0	0.5
1,1,2,2-Tetrachloroethane	ND	1.0	0.5	Tetrachloroethene	ND	1.0	0.5
Toluene	ND	1.0	0.5	1,2,3-Trichlorobenzene	ND	1.0	0.5
1,2,4-Trichlorobenzene	ND	1.0	0.5	1,1,1-Trichloroethane	ND	1.0	0.5
1,1,2-Trichloroethane	ND	1.0	0.5	Trichloroethene	ND	1.0	0.5
Trichlorofluoromethane	ND	1.0	0.5	1,2,3-Trichloropropane	ND	1.0	0.5
1,2,4-Trimethylbenzene	ND	1.0	0.5	1,3,5-Trimethylbenzene	ND	1.0	0.5
Vinyl Chloride	ND	1.0	0.5	Xylenes	ND	1.0	0.5

#### Surrogate Recoveries (%)

%SS1:	77	%SS2:	97
%SS3:	109		

Comments: b6,b1

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

b1) aqueous sample that contains greater than ~1 vol. % sediment

b6) lighter than water immiscible sheen/product is present



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CKG Environmental  P.O. Box 246  St. Helena, CA 94574	Client Project ID: Owens Brockway	Date Sampled: 08/31/09-09/01/09
		Date Received: 09/01/09
	Client Contact: Chris Kennedy	Date Extracted: 09/03/09-09/08/09
	Client P.O.:	Date Analyzed: 09/03/09-09/08/09

## Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE\*

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0909021

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	CKG-0B1	W	17,000	---	720	ND<25	400	340	50	112	d1,b6,b1
002A	CKG-0B2	W	15,000	---	ND<10	ND<10	ND<10	ND<10	20	101	d7,b6,b1
003A	CKG-0B3	W	ND	---	ND	ND	ND	ND	1	100	b1
004A	CKG-0B4	W	ND	---	ND	ND	ND	ND	1	97	b1
005A	CKG-0B5	W	240	---	ND	1.6	ND	ND	1	109	d9,b1
006A	CKG-0B6	W	ND	---	ND	ND	ND	ND	1	96	b1
007A	CKG-0B8	W	---	---	ND<10	ND<10	17	ND<10	20	108	d7,d9,b6,b1
008A	CKG-0B9	W	23,000	---	ND<10	ND<10	46	200	20	107	d7,d9,b6,b1
009A	CKG-0B11	W	---	---	ND	ND	ND	ND	1	96	d7,b1
010A	CKG-0B13	W	---	---	ND	ND	ND	ND	1	97	b1
011A	CKG-0B12	W	---	---	ND<2.5	ND<2.5	3.8	10	5	115	d7,b6,b1
012A	CKG-0B15	W	---	---	ND<5.0	ND<5.0	ND<5.0	ND<5.0	10	100	d7,b6,b1

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	0.5	μg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	0.005	mg/Kg

\* water and vapor samples are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in μg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts in mg/L.

# cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

b1) aqueous sample that contains greater than ~1 vol. % sediment  
b6) lighter than water immiscible sheen/product is present  
d1) weakly modified or unmodified gasoline is significant  
d7) strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram  
d9) no recognizable pattern



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CKG Environmental  P.O. Box 246  St. Helena, CA 94574	Client Project ID: Owens Brockway	Date Sampled: 08/31/09-09/01/09
		Date Received: 09/01/09
	Client Contact: Chris Kennedy	Date Extracted: 09/01/09
	Client P.O.:	Date Analyzed 09/02/09-09/09/09

### Total Extractable Petroleum Hydrocarbons\*

Extraction Method: SW3510C

Analytical Method: SW8015B

Work Order: 0909021

Lab ID	0909021-001C	0909021-002B	0909021-003B	0909021-004B	Reporting Limit for DF =1	
Client ID	CKG-0B1	CKG-0B2	CKG-0B3	CKG-0B4		
Matrix	W	W	W	W		
DF	50	400	1	1		
Compound	Concentration				ug/kg	µg/L
TPH-Diesel (C10-C23)	220,000	720,000	270	410	NA	50
TPH-Motor Oil (C18-C36)	53,000	630,000	310	520	NA	250

### Surrogate Recoveries (%)

%SS:	102	96	97	111	
Comments	e11/e8,e3,e7,b6,b	e7,e2,b6,b1	e7,e2,b1	e7,e2,b1	

\* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

# cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

- b1) aqueous sample that contains greater than ~1 vol. % sediment
- b6) lighter than water immiscible sheen/product is present
- e1) unmodified or weakly modified diesel is significant; and/or e8) kerosene/kerosene range/jet fuel range
- 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; and/or e1) unmodified or weakly modified diesel is significant
- e11) stoddard solvent/mineral spirit (?); and/or e8) kerosene/kerosene range/jet fuel range



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CKG Environmental  P.O. Box 246  St. Helena, CA 94574	Client Project ID: Owens Brockway	Date Sampled: 08/31/09-09/01/09
		Date Received: 09/01/09
	Client Contact: Chris Kennedy	Date Extracted: 09/01/09
	Client P.O.:	Date Analyzed 09/02/09-09/09/09

### Total Extractable Petroleum Hydrocarbons\*

Extraction Method: SW3510C

Analytical Method: SW8015B

Work Order: 0909021

Lab ID	0909021-005B	0909021-006B	0909021-007B	0909021-008B	Reporting Limit for DF =1	
Client ID	CKG-0B5	CKG-0B6	CKG-0B8	CKG-0B9		
Matrix	W	W	W	W		
DF	1	2	50	100		
Compound	Concentration				ug/kg	µg/L
TPH-Diesel (C10-C23)	1200	3900	170,000	330,000	NA	50
TPH-Motor Oil (C18-C36)	850	3400	62,000	120,000	NA	250

### Surrogate Recoveries (%)

%SS:	95	74	89	111	
Comments	e2,e7,b1	e2,e7,b1	e8,e7,b6,b1	e8/e1,e7,b6,b1	

\* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

# cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

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- b1) aqueous sample that contains greater than ~1 vol. % sediment
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- e1) unmodified or weakly modified diesel is significant; and/or e8) kerosene/kerosene range/jet fuel range
- 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; and/or e1) unmodified or weakly modified diesel is significant
- e11) stoddard solvent/mineral spirit (?); and/or e8) kerosene/kerosene range/jet fuel range



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CKG Environmental  P.O. Box 246  St. Helena, CA 94574	Client Project ID: Owens Brockway	Date Sampled: 08/31/09-09/01/09
		Date Received: 09/01/09
	Client Contact: Chris Kennedy	Date Extracted: 09/01/09
	Client P.O.:	Date Analyzed 09/02/09-09/09/09

### Total Extractable Petroleum Hydrocarbons\*

Extraction Method: SW3510C

Analytical Method: SW8015B

Work Order: 0909021

Lab ID	0909021-009B	0909021-010B	0909021-011C	0909021-012B	Reporting Limit for DF =1	
Client ID	CKG-0B11	CKG-0B13	CKG-0B12	CKG-0B15		
Matrix	W	W	W	W		
DF	5	10	50	20		

Compound	Concentration				ug/kg	µg/L
TPH-Diesel (C10-C23)	3100	6300	150,000	34,000	NA	50
TPH-Motor Oil (C18-C36)	3200	10,000	100,000	19,000	NA	250

### Surrogate Recoveries (%)

%SS:	100	87	84	107	
Comments	e7,e2,b1	e7,e2,b1	e1/e8,e7,b6,b1	e1,e7,b6,b1	

\* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

# cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

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- 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; and/or e1) unmodified or weakly modified diesel is significant
- e11) stoddard solvent/mineral spirit (?); and/or e8) kerosene/kerosene range/jet fuel range



**QC SUMMARY REPORT FOR SW8260B**

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 45542

WorkOrder 0909021

EPA Method SW8260B	Extraction SW5030B								Spiked Sample ID: 0909034-001C			
	Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	10	89	88.6	0.343	94	93.9	0.117	70 - 130	30	70 - 130	30
Benzene	ND	10	89.4	99.7	10.9	116	114	1.95	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	50	105	92	12.9	86.3	91	5.25	70 - 130	30	70 - 130	30
Chlorobenzene	ND	10	93.6	98.2	4.72	100	99.4	0.596	70 - 130	30	70 - 130	30
1,2-Dibromoethane (EDB)	ND	10	102	93.8	8.74	100	100	0	70 - 130	30	70 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	10	106	107	1.40	105	103	1.54	70 - 130	30	70 - 130	30
1,1-Dichloroethene	ND	10	92	99	7.35	109	109	0	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	10	89	107	18.2	123	121	1.37	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	10	98.2	104	5.80	110	109	1.61	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	10	106	103	2.21	104	105	0.482	70 - 130	30	70 - 130	30
Toluene	ND	10	92.2	91.9	0.304	108	106	2.28	70 - 130	30	70 - 130	30
Trichloroethene	ND	10	102	105	3.07	110	108	1.03	70 - 130	30	70 - 130	30
%SS1:	80	25	95	90	5.53	77	77	0	70 - 130	30	70 - 130	30
%SS2:	99	25	96	94	2.47	101	101	0	70 - 130	30	70 - 130	30
%SS3:	94	2.5	110	98	11.2	99	99	0	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

BATCH 45542 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909021-001B	08/31/09 9:30 AM	09/03/09	09/03/09 5:35 PM	0909021-011B	09/01/09	09/04/09	09/04/09 1:32 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



### QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 45526

WorkOrder: 0909021

Analyte	EPA Method SW8021B/8015Bm		Extraction SW5030B						Spiked Sample ID: 0909014-011A			
	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) <sup>£</sup>	ND	60	115	122	5.59	122	119	2.82	70 - 130	20	70 - 130	20
MTBE	ND	10	113	112	1.20	111	115	3.19	70 - 130	20	70 - 130	20
Benzene	ND	10	105	105	0	104	105	0.917	70 - 130	20	70 - 130	20
Toluene	ND	10	93.1	93.7	0.644	93.2	93.1	0.119	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	82.8	94.8	13.6	95	94.1	0.906	70 - 130	20	70 - 130	20
Xylenes	ND	30	108	109	0.540	109	108	1.06	70 - 130	20	70 - 130	20
%SS:	99	10	96	98	2.07	97	99	2.52	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

#### BATCH 45526 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909021-001A	08/31/09 9:30 AM	09/03/09	09/03/09 8:31 AM	0909021-002A	08/31/09 10:30 AM	09/03/09	09/03/09 9:05 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



**QC SUMMARY REPORT FOR SW8021B/8015Bm**

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 45541

WorkOrder: 0909021

Analyte	EPA Method SW8021B/8015Bm		Extraction SW5030B						Spiked Sample ID: 0909021-010A			
	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) <sup>f</sup>	ND	60	107	105	1.90	105	104	0.492	70 - 130	20	70 - 130	20
MTBE	ND	10	99.5	93.4	6.30	103	95.7	7.02	70 - 130	20	70 - 130	20
Benzene	ND	10	97	93.8	3.28	95.4	96.1	0.688	70 - 130	20	70 - 130	20
Toluene	ND	10	97.9	94.8	3.23	96.3	96	0.291	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	97.8	94.5	3.41	95.1	96.9	1.95	70 - 130	20	70 - 130	20
Xylenes	ND	30	101	97.4	3.33	97.8	97.8	0	70 - 130	20	70 - 130	20
%SS:	97	10	96	95	1.27	98	96	1.27	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

BATCH 45541 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909021-003A	08/31/09 11:30 AM	09/04/09	09/04/09 5:13 PM	0909021-004A	08/31/09 1:30 PM	09/03/09	09/03/09 11:48 PM
0909021-005A	08/31/09 2:30 PM	09/04/09	09/04/09 12:18 AM	0909021-006A	08/31/09 3:30 PM	09/04/09	09/04/09 6:13 PM
0909021-007A	09/01/09 8:30 AM	09/03/09	09/03/09 7:29 AM	0909021-008A	09/01/09	09/03/09	09/03/09 7:59 AM
0909021-009A	09/01/09	09/08/09	09/08/09 7:20 PM	0909021-010A	09/01/09	09/03/09	09/03/09 7:46 PM
0909021-011A	09/01/09	09/04/09	09/04/09 10:39 PM	0909021-012A	09/01/09	09/03/09	09/03/09 2:31 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.





### QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 45490

WorkOrder 0909021

EPA Method SW8015B		Extraction SW3510C							Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	99.5	101	1.48	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	94	95	0.551	N/A	N/A	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

#### BATCH 45490 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909021-001C	08/31/09 9:30 AM	09/01/09	09/08/09 6:37 PM	0909021-002B	08/31/09 10:30 AM	09/01/09	09/04/09 7:41 PM
0909021-003B	08/31/09 11:30 AM	09/01/09	09/04/09 8:21 AM	0909021-004B	08/31/09 1:30 PM	09/01/09	09/06/09 5:59 PM
0909021-005B	08/31/09 2:30 PM	09/01/09	09/05/09 1:28 AM	0909021-006B	08/31/09 3:30 PM	09/01/09	09/09/09 12:14 PM
0909021-007B	09/01/09 8:30 AM	09/01/09	09/04/09 11:10 PM	0909021-008B	09/01/09	09/01/09	09/02/09 8:05 PM
0909021-009B	09/01/09	09/01/09	09/08/09 4:14 PM	0909021-010B	09/01/09	09/01/09	09/05/09 12:19 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.  
 % Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).  
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.  
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.  
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



### QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 45512

WorkOrder 0909021

EPA Method SW8015B		Extraction SW3510C							Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	95.1	92.9	2.44	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	96	95	0.704	N/A	N/A	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

#### BATCH 45512 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909021-011C	09/01/09	09/01/09	09/02/09 6:52 PM	0909021-012B	09/01/09	09/01/09	09/04/09 6:31 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery =  $100 * (MS - Sample) / (Amount Spiked)$ ; RPD =  $100 * (MS - MSD) / ((MS + MSD) / 2)$ .

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.