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THIRD QUARTER 2017 GROUNDWATER MONITORING AND REMEDIATION EFFECTIVENESS REPORT

OWENS-BROCKWAY GLASS CONTAINER FACILITY OAKLAND, CALIFORNIA

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

O-I: HONEST,
PURE,
ICONIC
GLASS

October 3, 2017

Ms. Dilan Roe
Alameda County Health Care Services
Environmental Health Services
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

Subject: **RO0000289**
THIRD QUARTER 2017 GROUNDWATER MONITORING AND REMEDIATION EFFECTIVENESS REPORT
OWENS-BROCKWAY GLASS CONTAINER INC. FACILITY.
3600 ALAMEDA AVENUE, OAKLAND, CALIFORNIA.

Dear Ms. Roe:

Owens-Brockway Glass Container Inc. is pleased to submit the attached Third Quarter 2017 Groundwater Monitoring and Remediation Effectiveness Report for the above site.

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

If you need further information, feel free to call me at (567) 336-7543.

Sincerely,

D. Randy Phillips

D. Randy Phillips
Technical Manager, Environmental Affairs

A Report Prepared for:

Mr. Randy Phillips
Environmental Affairs
One Michael Owens Way
Perrysburg, OH 43551-2999

THIRD QUARTER 2017 GROUNDWATER MONITORING AND REMEDIATION EFFECTIVENESS REPORT

OWENS-BROCKWAY GLASS CONTAINER FACILITY, OAKLAND, CALIFORNIA

October 5, 2017

Prepared by:

Christina J. Kennedy R.G.

Principal

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P.O. Box 246
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1.0 EXECUTIVE SUMMARY

The Owens-Brockway glass manufacturing facility is located at 3600 Alameda Avenue in Oakland, California. The site is located on the north side 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 closed glass manufacturing plant, warehouses, and offices.

Subsurface investigations to assess petroleum hydrocarbon releases from two underground fuel storage tank (UST) areas have been ongoing at the Oakland plant. The first UST area was located on the west side of the plant and included three fuel oil USTs. Impacts by fuel oil to the subsurface were observed when the associated USTs were removed. The second UST area was located near the central part of the plant adjacent to the compressor building. Originally there were four USTs in this area. When they were removed and replaced by two new USTs, a gasoline release to the subsurface was observed. In 1986 18 groundwater monitoring wells were installed. Since that time some of those wells had been destroyed and new ones added. As of November 2016, there are still 15 operating monitoring wells at the site.

Since 1986 a number of petroleum hydrocarbon recovery or remediation measures have been completed at the site. These include removing USTs, installing free product recovery wells, and excavating suspected source areas.

Property research conducted in May 2015 as part of a Phase I Environmental Site Assessment for the property revealed that prior to the glass manufacturing plant being constructed the property was occupied by an asphalt refinery. The refinery operations included a number of petroleum hydrocarbon storage vessels and equipment that likely contributed petroleum hydrocarbons to the subsurface. The overall remediation strategy for the site includes the installation and operation of a groundwater treatment biobarrier along the downgradient property boundary and targeted soil excavations to reduce potential exposure to impacted soil.

With the approval of the groundwater treatment biobarrier on September 4, 2014, the groundwater monitoring program was modified to add analysis for naphthalene, MTBE, lead

scavengers, inorganic constituents and heterotrophic plate counts in addition to petroleum hydrocarbons and benzene, toluene, ethylbenzene, and xylenes.

In late 2015 through early 2016 the groundwater treatment trench or “biobarrier” was installed along the southern property boundary. The biobarrier operates as a series of air sparging wells that introduce oxygen to the subsurface to promote natural biodegradation of petroleum hydrocarbons in groundwater as it migrates offsite to toward the Oakland Estuary. The biobarrier was started on July 20, 2016. Initially there were issues with the system producing too much heat which necessitating installing a heat exchanger. Since the heat exchanger was installed the system has been operating continuously with no problems. An engineering technician checks the system weekly and adjusts flow rates to each well if warranted based on individual well performance.

Groundwater monitoring is performed to evaluate the stability of petroleum hydrocarbons in the subsurface and to assess the effectiveness of remediation efforts. MTBE was detected in MW-17 at 2.4 µg/l. Petroleum hydrocarbon concentrations in MW-6, which is near wells near the biobarrier have decreased since the biobarrier started operating. Higher heterotrophic plate counts in wells nearer the biobarrier suggest that oxygen added to the subsurface by the biobarrier is promoting bacterial growth.

CKG recommends that Owens-Brockway submit this report to the Alameda County Health Agency.

2.0 INTRODUCTION

The following report presents the results and conclusions of the third quarter 2017 groundwater monitoring and groundwater treatment trench (biobarrier) performance. The work was performed in general accordance with CKG's Groundwater Treatment Biobarrier Design dated August 13, 2014. Any deviations from the work plan are discussed below.

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 former retail center to the east and residences to the north. Onsite facilities include the closed glass manufacturing plant, warehouses, and offices, (Plate 2).

UST Areas

USTs were formerly located on the west side and central area of the plant and included three former fuel oil USTs, (on the west side) and four USTs that contained diesel and gasoline in the central area. An eighth UST formerly used to store lube oil was located immediately adjacent to the plant building between the two areas. Fuel releases were observed when the USTs were removed in the late 1980s. Owens-Brockway excavated impacted soil at the time the USTs were removed, and has excavated petroleum hydrocarbon impacted soil in 2011 and 2014.

Former Asphalt Refinery Area

In May 2015, a review of Sanborn Maps showed that a historic asphalt refinery occupied the Western UST Area in the early 20th century, prior to the glass plant being constructed. Subsequent subsurface investigations have shown that the majority of petroleum hydrocarbon impacts in soil and groundwater at the site are the result of releases from the former asphalt refinery. These impacts occur underneath the glass plant building and warehouse and extend all the way to the Oakland Estuary.

3.0 GROUNDWATER MONITORING

3.1 GROUNDWATER GRADIENT

Depth to groundwater measurements were made on August 28, 2017, before the monitoring wells were sampled. Depth to static ground water was measured from a marked location at the top of the PVC casing. The depth of water was then subtracted from the elevation of the top of the well casing to provide a ground water elevation for each monitoring well. Plate 2 shows groundwater elevations and the interpreted groundwater flow direction. Based on the data measured on August 28, 2017 the groundwater flow direction is generally to the south-southwest. This groundwater flow direction has been observed in past monitoring events.. Monitoring well construction details are presented in Table 1. Depth to water measurements and groundwater elevations are summarized in Table 2. Well sampling and purge logs are contained in Appendix A.

3.2 WELL SAMPLING

On August 28, 2017 a round of groundwater sampling in the monitoring wells was performed. No separate phase product or visible sheen was observed in the wells. Absorbent socks were deployed and replaced in MW-13, MW-15, MW-16, MW-17 and MW-20. MW-1 could not be sampled because it was covered with equipment. MW-9 which was located in the middle of the loading ramp could not be located. It appeared that it may have been concreted over some years ago. MW-19 could not be located because the City of Oakland had recently added mulch to the area. CKG will locate, clear and remark MW-1 and MW-19 before the fourth quarter sampling event.

The wells were sampled using the following protocol.

- The depth-to-water was measured using a conductivity-based water level indicator.
- The volume of water standing in each well was calculated by subtracting the depth-to-water measurement from the total depth of the well, and multiplying by the appropriate volume conversion factor.

- A minimum of three well volumes of water was purged from each well using a centrifugal pump. The pump was decontaminated prior to use in each well by washing with TSP and rinsing with distilled water. Fresh tubing was used for each well
- Physical parameters of pH and temperature were monitored for stability during purging.
- Sample bottles, provided by the analytical laboratory were filled from a new clean disposable bailer at each well.
- Samples were immediately labeled and placed in an iced sample container. The samples were picked up by the analytical laboratory, under chain-of-custody control the following day.

3.3 CHEMICAL ANALYSIS

Groundwater samples were submitted under chain-of-custody to McCampbell Analytical Laboratory in Pacheco, California. McCampbell is a laboratory certified with the California Department of Health Services under the California Environmental Laboratory Accreditation Program (ELAP) for the requested analyses. The analytical program was completed in general accordance with CKG's workplan dated August 13, 2014. The chemical analyses performed include the following:

- Total Petroleum Hydrocarbons quantified as diesel, (TPHd,) motor oil (TPHmo) and gasoline (TPHg) by Modified EPA Method 8015;
- Benzene, Toluene, Ethylbenzene, Xylenes, Methyl-tert-butyl ether (MTBE), Naphthalene, 1, 2- Dichloroethane (1,2-DCA) and Ethylene dibromide (EDB) by EPA Method 8260B
- Nitrate, Nitrite and Sulfate by EPA Method 300.0
- Alkalinity (total and speciated) by EPA Method 310.1
- Heterotrophic Plate Count by Standard Method 9215.

3.5 INVESTIGATION DERIVED WASTES (IDW)

Investigation derived wastes (IDW) were generated during the investigation and included purge water. Purge water was placed into drums and left onsite pending proper disposal.

3.6 BIOBARRIER OPERATIONS AND MAINTENANCE

The biobarrier was started on July 20, 2016. After some initial issues with the system overheating, a heat exchanger was installed to mitigate the problem. The biobarrier has been operating continuously since the heat exchanger was installed. Part of the initial start-up activity was to evaluate the optimum flow rate for each well, then group wells according to flow rate so that they could be operated together. An engineering technician visits the site weekly to check the flow rate in each well and to assure that everything is operating properly or to affect repairs if necessary. Daily flow ratees are sent electronically to the engineering technician. From August 2 until August 29 the WIFI modem used to send the data malfunctioned so that data was not received however the weekly visits showed that the system was operating properly. The WIFI was repaired on August 29, 2017. A summary of observations made weekly from July 1, 2017 through September 29, 2017 (except for August 2-29) is provided in Appendix C.

4.0 FINDINGS

The following describes the results of the third quarter 2017 groundwater monitoring and weekly biobarrier monitoring at the Owens-Brockway Glass Container facility in Oakland, California. Comparisons are made between the data and appropriate regulatory standards and risk based screening levels where they are available. Groundwater sample results are presented in Tables 3-5. Analytical laboratory reports are included in Appendix B. Sample locations and pertinent data are presented on Plate 3.

4.1 SUMMARY OF GROUNDWATER RESULTS

4.1.1 Petroleum Hydrocarbons (gasoline, diesel and motor oil)

Petroleum hydrocarbons quantified as gasoline were detected in five of the wells sampled. These include, MW-5 (94 µg/l), MW-6 (110 µg/l), MW-8 (290 µg/l), MW-10 (200 µg/l), and MW-17 (330 µg/l). These wells are highly impacted by petroleum hydrocarbons and the TPHg detected likely represents the lighter end of the diesel range of contaminants that are present rather than primary gasoline constituents.

Petroleum hydrocarbons quantified as diesel were detected in 9 of the wells sampled. These include MW-2R (1900 µg/l), MW-5 (7100 µg/l), MW-6 (670 µg/l), MW-7 (720 µg/l), MW-8 (130 µg/l), MW-10 (270 µg/l), MW-13 (960 µg/l), MW-17 (2900 µg/l), and MW-21 (66 µg/l). These concentrations are generally lower than those observed in the last quarter, particularly at MW-6, which is most directly affected by air injection at the biobarrier. Other wells that are not near the influence of the biobarrier show some decreases in petroleum hydrocarbon concentrations but they may be just seasonal variations or a results of long term natural attenuation.

Petroleum hydrocarbons quantified as motor oil were detected in four of the wells sampled. These include MW-2R (2200 µg/l), MW-5 (7300 µg/l), MW-7 (490), and MW-17 (1500 µg/l). As observed for TPHd the TPHmo is generally lower in wells this quarter compared to last quarter. Petroleum hydrocarbon data is summarized on Table 3.

4.1.2 Naphthalene MTBE and Lead Scavengers

Table 4 summarizes the results of analyses for naphthalene, MTBE was detected in MW-17 at 2.4 µg/l. Naphthalene and other lead scavengers were not detected above the laboratory reporting limits in the third quarter of 2017.

4.1.3 Inorganic Constituents and Heterotrophic Plate Counts

Inorganic constituents such as nitrate, nitrite, sulfate, and alkalinity are analyzed to assess the extent to which bacteria are utilizing oxygen to biodegrade petroleum hydrocarbons in the groundwater. Dissolved oxygen and Oxidation Reduction Potential (ORP) are also measured in the field to provide some information regarding oxygen availability and utilization in groundwater as well. Heterotrophic plate counts are measured to evaluate the activity of microbes in the groundwater that may be contributing to the biodegradation of the petroleum hydrocarbons. The results of these analyses are summarized on Table 5. In general, it appears that higher heterotrophic plate counts and lower nitrate concentrations loosely correlate with higher ORC readings and to a less obvious extent higher dissolved oxygen concentrations. Very high heterotrophic plate counts were observed in February 2017 after very high rainfall in the San Francisco Bay Area. Further monitoring should illustrate the extent to which precipitation also effects the inorganic parameters in the groundwater.

4.2 SUMMARY OF BIOBARRIER OPERATIONS & MAINTENANCE

The biobarrier has been operating continuously since the heat exchanger was installed after initial start-up on July 20. The WIFI modem stopped operated on August 2 and was replaced by August 29. The system continued to operate properly during that time but operational data could not be transmitted to the engineering technician. Transmissions have been received reliably since the new modem was installed. All wells are receiving steady airflows without problems.

5.0 CONCLUSIONS AND RECOMMENDATIONS

On the basis of the quarterly monitoring the following conclusions and recommendations can be made:

5.1 CONCLUSIONS

The recent groundwater monitoring, as well as a review of historic data, shows that the petroleum hydrocarbon plumes at the site are stable and have and continue to attenuate over time. The petroleum hydrocarbon release on the west side of the site appears to extend off site.

The diesel release in the central part of the site has been attenuating.

The former gasoline release in the central part of the site has attenuated with no gasoline related constituents detected at MW-16. The MTBE detected at MW-17 is likely residual contamination associated with the gasoline release.

Petroleum hydrocarbon concentrations in wells nearest the biobarrier have fluctuated since the biobarrier started operating but have generally decreased. Increased heterotrophic plate counts suggest that oxygen added to the subsurface by the biobarrier is promoting bacterial growth.

The biobarrier is operating smoothly and all wells are receiving steady air flows.

5.2 RECOMMENDATIONS

CKG recommends that Owens-Brockway submit this report to the Alameda County Health Agency.

Groundwater monitoring will be continued to monitor the effectiveness of the groundwater treatment biobarrier.

6.0 REFERENCES

California Regional Water Quality Control Board – San Francisco Bay Region, Order No 99-045, 1999

CKG Environmental, Inc. 2017, Second Quarter 2017 Groundwater Monitoring and Remediation Effectiveness Report, Owens-Brockway Glass Container Facility, 3600 Alameda Avenue, Oakland, California, July 7, 2017

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CKG Environmental, Inc. 2016, Revised Work Plan to Complete a Soil Vapor Investigation, Owens-Brockway Glass Container Facility, Oakland, California, October 13, 2016.

CKG Environmental, Inc. 2016, Subsurface Investigation Report Former Fuel Storage and Historical Asphalt Refinery Operational Areas, Owens-Brockway Glass Container Facility, 3600 Alameda Avenue, Oakland, California, March 4, 2016

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2015 Report, December 14, 2016.
2014 Report, February 28, 2014.
2013 Report, April 30, 2013.
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Work Plan for Additional Targeted Excavation and Subsurface Investigation, Former Fuel Storage and Historical Asphalt Refinery Operational Areas, Owens-Brockway Glass Container Facility, 3600 Alameda Avenue, Oakland, California, dated December 2, 2015.

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CKG Environmental, Inc. 2014 Revised Corrective Action Plan Targeted Excavations and Groundwater Treatment Trench, Owens-Brockway Glass Container Facility, Oakland, California January 17, 2014.

CKG Environmental, Inc. 2005, Work Plan to Prepare a Site Conceptual Model, Owens-Brockway Glass Container Facility, Oakland, California. April 6, 2005.

CKG Environmental, Inc. Summary of Remediation History and Groundwater Impact by Petroleum Hydrocarbons, Owens-Brockway Glass Container Facility, 3600 Alameda Avenue, Oakland, California. April 4, 2003.

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CKG Environmental, Inc. Data Compilation and Closure Report Underground Fuel Storage Tank Locations, Owens-Brockway Glass Container Facility, Oakland, California, November 4, 2003.

Exeltech, Soil and Groundwater Contamination Investigation for Owens-Illinois Glass Container Division, 3600 Alameda Avenue, Oakland, California, December 1986.

Exeltech, Soil and Groundwater Contamination Investigation for Owens-Illinois Glass Container Division, 3600 Alameda Avenue, Oakland, California, February 1987.

Kennedy/Jenks, Consultants. Groundwater investigation Report, Owens-Brockway Glass Containers, February 16, 1999.

Kennedy/Jenks, Consultants. Annual Groundwater Monitoring Report, Owens-Brockway Glass Containers, January 21, 2003.

LIMITATIONS

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 proposal dated November 15, 2002. This scope of work includes groundwater sampling at total of 10 wells, and quantitative analysis of groundwater samples conducted by McCampbell Analytical. 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 1 Summary of Well Construction Details

Well Number	Date Installed	Top of Casing Elelvation[a]	Top of Screen[b]	Screen Length	Well Depth[c]	Casing Diameter (inches)	Comments
MW-1	9/12/1986	16.02	8	21	29	2	
MW-2	12-Sep-86	17.11	10	20	30	2	Destroyed
MW-2R	11-Sep-15	18.17	18	5	23	2	
MW-3	12-Sep-86	15.46	10	20	39	2	Destroyed
MW-3R	11-Sep-15	17.18	17	5	22	2	
MW-4	12-Sep-86	16.02	8.5	20	28.5	2	Destroyed
MW-5	12-Sep-86	16.19	8.5	20	28.5	2	
MW-6	12-Sep-86	17.48	12.5	16	28.5	2	
MW-7	12-Sep-86	16.11	12.5	11	23.5	2	
MW-8	12-Sep-86	16.57	15	13.5	28.5	2	
MW-9	12-Sep-86	7.33[d]	5	10	20	2	
MW-10	12-Sep-86	15.96	10	15	25	2	
MW-11	12-Sep-86	13.99	10	20	30	2	
MW-12	12-Sep-86	13.83	11	15	26	2	
MW-13	12-Sep-86	13.98	9.5	15	24.5	2	
MW-14	12-Sep-86	14.78	10	15	25	2	Destroyed
MW-15	12-Sep-86	15.16	9.5	20	29.5	2	
MW-16	12-Sep-86	13.48	10	14.5	24.5	2	
MW-17	12-Sep-86	14.17	9.5	15	24.5	2	
MW-18	12-Sep-86	14.89	9	15	24	2	Destroyed
MW-19	01-May-03	15.84	10	15	25	2	
MW-20	01-Dec-00	12.74	6.9	15	21.9	2	
MW-21	11-Sep-15	16.2	15	15	39	2	
R-1	1987	NM[e]	NA[f]	NA	24	36	Destroyed
R-2	1989	NM	NA	NA	NA	12	Destroyed

(a) Top of casing elevation (TOCE) except where noted;measured in feet above US Coast and Geodetic Datum (mean sea level). Elevations measured by Exceltech in 1986, and by PLS Surveys for MW-20 in 2000.

(b) Depth to top of screened interval (feet below top of casing)

(c) Depth to bottom of screened interval (feet below top of casing)

(d) Well casing was not measured for this well; well is located beneath forklift ramp and this measurement is the ground surface elevation in MSL.

(e) NM = Not measured

(f) NA = Not available

Table 2 Groundwater Depths and Elevation August 28, 2017

Well Number	Date Installed	Top of Casing Elelvation[(a)]	Depth to Water	Product thickness (ft)*	Groundwater Elevation
MW-1	12-Sep-86	16.02	NA		NA
MW-2	12-Sep-86	17.11	Destroyed		
MW-2R	11-Sep-15	18.17	10.88		7.29
MW-3R	11-Sep-15	17.18	13.2		3.98
MW-4	12-Sep-86	NA	Destroyed		
MW-5	12-Sep-86	16.19	12.32		3.87
MW-6	12-Sep-86	17.48	13.62		3.86
MW-7	12-Sep-86	16.11	12.31		3.8
MW-8	12-Sep-86	16.57	9.71		6.86
MW-9	12-Sep-86	7.33[(d)]	Not measured, well cannot be located		
MW-10	12-Sep-86	15.96	10.11		5.85
MW-11	12-Sep-86	13.99	Destroyed		
MW-12	12-Sep-86	13.83	Destroyed		
MW-13	12-Sep-86	13.98	10.62		3.36
MW-14	12-Sep-86	NA	Destroyed		
MW-15	12-Sep-86	15.16	11.80		3.36
MW-16	12-Sep-86	13.48	9.18		4.3
MW-17	12-Sep-86	14.17	9.53		4.64
MW-19	01-May-03	15.84	NA		NA
MW-20	01-Dec-00	12.74	8.98		3.76
MW-21	11-Sep-15	16.20	12.36		3.84

(a) Top of casing elevation (TOCE) except where noted;measured in feet above US Coast and Geodetic Datum (mean sea level). Elevations measured by Exceltech in 1986, and by PLS Surveys for MW-20 in 2000.

(d) Well casing was not measured for this well; well is located beneath forklift ramp and this measurement is the ground surface elevation in MSL.

(e) NM = Not measured

(f) NA = Not available

* In the case where separate phase product is measured, groundwater elevation is corrected assuming a oil with product density of 0.893

Table 3 Summary of Petroleum Hydrocarbon Analytical Results
Owens-Brockway Glass Container Facility, Oakland, CA

	Date	B	T	E	X	TPHd	TPHg	TOG/TPHmo
MW-1	9/23/1986	<10	<10	NA	<10	<.01	<.01	25,000
	4/9/1987	<10	<10	NA	<10	<.01	NA	NA
	9/16/1987	not accessible						
	12/1/1987	not accessible						
	3/7/1988	not accessible						
	6/8/1988	not accessible						
	9/14/1988	not accessible						
	9/16/1997	<0.5	<0.5	<0.5	<0.5	190[(a)]	<50	NA
	11/2/1998	<0.5	<0.5	<0.5	<0.5	160[(a)]	<50	NA
	12/11/2001	not accessible						
	12/6/2002	<0.5	<0.5	<0.5	<0.5	69[(a)]	<50	NA
	3/15/2004	not accessible						
	6/30/2005	not accessible						
	10/19/2006	<0.5	<0.5	<0.5	<0.5	5400	120	3300
	10/17/2007	not accessible						
	10/21/2008	<0.5	<0.5	<0.5	<0.5	2000	69	1300
	10/16/2009	<0.5	<0.5	<0.5	<0.5	310	<50	310
	10/29/2010	<0.5	<0.5	<0.5	<0.5	100	<50	<250
	3/1/2012	<0.5	<0.5	<0.5	<0.5	92	<50	<250
	3/22/2013	not accessible						
	1/24/2014	not accessible						
	10/1/2015					<50	<50	<250
	11/10/2016	not accessible						
	2/9/2017	not accessible						
	5/27/2017	not accessible						
MW-2	4/9/1987	floating product						
	9/16/1987	floating product						
	12/1/1987	floating product						
	3/7/1988	floating product						
	6/8/1988	floating product						
	9/14/1988	floating product						
	9/16/1997	floating product						
	11/2/1998	floating product						
	12/11/2001	floating product						
	12/6/2002	floating product						
	3/15/2004	floating product						
	6/30/2005	<0.5	<0.5	<0.5	<0.5	1,600,000	2900	1,200,000
	9/11/2006	<2.5	4.4	19	60	830,000	13000[(b)]	530,000
	10/17/2007	floating product (1.25 feet)						
	10/21/2008	floating product						
	10/16/2009	floating product						
	10/29/2010	floating product (1.25 feet)						
	3/1/2012	Destroyed May 2011						

NOTES:

TPH-g - Total Petroleum Hydrocarbons as Gasoline in ug/l — B - Benzene in ug/l — X - Xylenes in ug/l

TPH-d - Total Petroleum Hydrocarbons as Diesel in ug/l — T - Toluene in ug/l — E - Ethylbenzene in ug/l

TOG - Total Oil and Grease in ug/l — TPHmo - Total Petroleum Hydrocarbons as Motor Oil ug/l (after 2004)

BDL - Below detection limit — NA - Not analyzed

(a) - Quantified as diesel but chromatogram did not match diesel pattern

(b) - Quantified as gasoline but chromatogram did not match gasoline pattern

Table 3 Summary of Petroleum Hydrocarbon Analytical Results
Owens-Brockway Glass Container Facility, Oakland, CA

	Date	B	T	E	X	TPHd	TPHg	TOG/TPHmo
MW-2R	10/1/2015	floating product (0.05 feet)						
	11/10/2016	<0.5	<0.5	<0.5	<0.5	1500	130	1400
	2/9/2017	<0.5	<0.5	<0.5	<1.5	460	<50	470
	5/25/2017	<0.5	<0.5	<0.5	<0.5	2200	150	2600
	8/28/2017	<0.5	<0.5	<0.5	<0.5	1900	<50	2200
MW-3	9/23/1986	<10	<10	NA	<10	NA	<10	18
	4/9/1987	BDL	BDL	NA	BDL	NA	370	NA
	9/16/1987	floating product						
	12/1/1987	floating product						
	3/7/1988	NA	NA	NA	NA	190,000	NA	NA
	6/8/1988	NA	NA	NA	NA	16,000	NA	NA
	9/14/1988	floating product						
		Destroyed						
MW-3R	10/1/2015	<0.5	<0.5	<0.5	<0.5	71	<50	<250
	11/10/2016	<0.5	<0.5	<0.5	<0.5	<50	<50	<50
	2/9/2017	<0.5	<0.5	<0.5	<1.5	<50	<50	<250
	5/25/2017	<0.5	<0.5	<0.5	<0.5	100	<50	<250
	8/28/2017	<0.5	<0.5	<0.5	<0.5	<30	<50	<250
MW-4	9/23/1986	<5	<5	NA	<5	NA	20	7,200
	4/9/1987	BDL	BDL	NA	BDL	NA	BDL	NA
	9/16/1987	BDL	BDL	NA	BDL	660	1.3	NA
	12/1/1987	BDL	BDL	NA	8.9	100	BDL	NA
	3/7/1988	BDL	BDL	NA	BDL	BDL	BDL	NA
	6/8/1988	BDL	BDL	NA	BDL	BDL	BDL	NA
	9/14/1988	BDL	BDL	NA	BDL	100	BDL	NA
		Destroyed						

NOTES:

TPH-g - Total Petroleum Hydrocarbons as Gasoline in ug/l
B - Benzene in ug/l
X - Xylenes in ug/l

TPH-d - Total Petroleum Hydrocarbons as Diesel in ug/l
T - Toluene in ug/l
E - Ethylbenzene in ug/l

TOG - Total Oil and Grease in ug/l
TPHmo - Total Petroleum Hydrocarbons as Motor Oil ug/l (after 2004)

BDL - Below detection limit
NA - Not analyzed

(a) - Quantified as diesel but chromatogram did not match diesel pattern

(b) - Quantified as gasoline but chromatogram did not match gasoline pattern

Table 3 Summary of Petroleum Hydrocarbon Analytical Results
Owens-Brockway Glass Container Facility, Oakland, CA

	Date	B	T	E	X	TPHd	TPHg	TOG/TPHmo
MW-5	10/3/1986	<5	<5	NA	6.6	NA	1400	24,000
	4/9/1987	<5	<5	NA	<5	NA	54	NA
	9/16/1987	NA	NA	NA	NA	960	NA	NA
	12/1/1987	NA	NA	NA	NA	2000	NA	NA
	3/9/1988	NA	NA	NA	NA	<50	NA	NA
	6/8/1988	NA	NA	NA	NA	12,000	NA	NA
	9/14/1988	NA	NA	NA	NA	6,300	NA	NA
	9/16/1997	<0.5	<0.5	<0.5	<0.5	11,600	<50	NA
	11/2/1998	floating product						
	12/6/2000	<0.5	<0.5	<0.5	<0.5	11,700[a]	1000	NA
	12/12/2001	<0.5	<0.5	<0.5	<0.5	10,000[a]	360[b]	NA
	12/6/2002	<0.5	<0.5	<0.5	<0.5	5,200[a]	150[b]	NA
	3/15/2004	<0.5	<0.5	<0.5	<0.5	46,000[a]	180[b]	NA
	6/30/2005	<0.5	<0.5	<0.5	<0.5	34,000	100	26,000
	9/11/2006	<0.5	<0.5	<0.5	<0.5	45,000	300[a]	33,000
	10/17/2007	<0.5	<0.5	<0.5	<0.5	34,000	120	31,000
	10/21/2008	<0.5	<0.5	<0.5	<0.5	13,000	150	11,000
	10/16/2009	<0.5	<0.5	<0.5	<0.5	160,000	180	140,000
	10/29/2010	floating product (0.04 ft)						
	3/1/2012	<0.5	<0.5	<0.5	<0.5	8,600	190	8,900
	3/22/2013	floating product (0.03 ft)						
	1/24/2014	<0.5	<0.5	<0.5	<0.5	5,100	160	4,500
	10/1/2015	floating product (0.03 feet)						
	11/10/2016	<0.5	<0.5	<0.5	<0.5	940	94	590
	2/9/2017	<0.5	<0.5	<0.5	<1.5	6,700	<50	7,600
	5/25/2017	<0.5	<0.5	<0.5	<0.5	7,200	390	7,500
	8/28/2017	<0.5	<0.5	<0.5	<0.5	7,100	<50	7,300

NOTES:

TPH-g - Total Petroleum Hydrocarbons as Gasoline in ug/l
B - Benzene in ug/l
X - Xylenes in ug/l

TPH-d - Total Petroleum Hydrocarbons as Diesel in ug/l
T - Toluene in ug/l
E - Ethylbenzene in ug/l

TOG - Total Oil and Grease in ug/l
TPHmo - Total Petroleum Hydrocarbons as Motor Oil ug/l (after 2004)

BDL - Below detection limit
NA - Not analyzed

(a) - Quantified as diesel but chromatogram did not match diesel pattern

(b) - Quantified as gasoline but chromatogram did not match gasoline pattern

Table 3 Summary of Petroleum Hydrocarbon Analytical Results
Owens-Brockway Glass Container Facility, Oakland, CA

	Date	B	T	E	X	TPHd	TPHg	TOG/TPHmo
MW-6	4/9/1987	floating product						
	9/16/1987	NA	NA	NA	NA	400,000	NA	NA
	12/1/1987	NA	NA	NA	NA	30,000	NA	NA
	3/7/1988	NA	NA	NA	NA	9,800	NA	NA
	6/8/1988	NA	NA	NA	NA	63,000	NA	NA
	9/14/1988	NA	NA	NA	NA	140,000	NA	NA
	9/16/1997	floating product						
	11/2/1998	floating product						
	12/11/2001	floating product						
	12/6/2002	floating product						
	3/15/2004	floating product						
	6/30/2005	<0.5	<0.5	<0.5	<0.5	270,000	300	200,000
	9/11/2006	<0.5	<0.5	<0.5	<0.5	100,000	700[(a)]	77,000
	10/17/2007	<1	<1	<1	11.00	290,000	3400	190,000
	10/21/2008	<1	<1	<1	<1	38,000	330	28,000
	10/16/2009	<0.5	<0.5	<0.5	<0.5	98,000	490	89,000
	10/29/2010	floating product (0.05 ft)						
	3/1/2012	floating product (0.01 ft)						
	3/22/2013	floating product (0.02 ft)						
	1/24/2014	<0.5	<0.5	<0.5	<0.5	87,000	230	73,000
	10/1/2015	floating product (0.02 ft)						
	11/10/2016	<0.5	<0.5	<0.5	<0.5	13,000	260	11,000
	2/9/2017	<0.5	<0.5	<0.5	<1.5	23,000	140	21,000
	5/25/2017	<0.5	<0.5	<0.5	<0.5	9,100	110	7,800
	8/28/2017	<0.5	<0.5	<0.5	<0.5	670	110	<500

NOTES:

TPH-g - Total Petroleum Hydrocarbons as Gasoline in ug/l
B - Benzene in ug/l
X - Xylenes in ug/l

TPH-d - Total Petroleum Hydrocarbons as Diesel in ug/l
T - Toluene in ug/l
E - Ethylbenzene in ug/l

TOG - Total Oil and Grease in ug/l
TPHmo - Total Petroleum Hydrocarbons as Motor Oil ug/l (after 2004)

BDL - Below detection limit
NA - Not analyzed

(a) - Quantified as diesel but chromatogram did not match diesel pattern

(b) - Quantified as gasoline but chromatogram did not match gasoline pattern

Table 3 Summary of Petroleum Hydrocarbon Analytical Results
Owens-Brockway Glass Container Facility, Oakland, CA

	Date	B	T	E	X	TPHd	TPHg	TOG/TPHmo
MW-7	10/3/1986	<5	<5	NA	<5	NA	260	8,000
	4/9/1987	floating product						
	9/16/1987	NA	NA	NA	NA	790,000	NA	NA
	12/1/1987	NA	NA	NA	NA	5,300	NA	NA
	3/9/1988	NA	NA	NA	NA	<50	NA	NA
	6/9/1988	NA	NA	NA	NA	12,000	NA	NA
	9/14/1988	NA	NA	NA	NA	67,000	NA	NA
	9/16/1997	<0.5	<0.5	<0.5	<0.5	37,000[(a)]	850	NA
	11/2/1998	floating product						
	12/6/2000	<5	<.05	<.05	1.90	3,580[(a)]	540	NA
	12/12/2001	<1	<1	<1	<1	12,600[(a)]	1200[(b)]	NA
	12/6/2002	<0.5	<0.5	<0.5	<0.5	27,600[(a)]	480[(b)]	NA
	3/15/2004	<0.5	<0.5	0.57	1.10	170,000[(a)]	890[(b)]	NA
	6/30/2005	<.05	<.05	3.1	<.05	290,000	3000	150,000
	9/11/2006	<5	<5	<5	<5	310,000	6600[(a)]	150,000
	10/17/2007	<1	<1	<1	2.70	330,000	1900	190,000
	10/21/2008	<1	<1	<1	<1	82,000	1100	43,000
	10/16/2009	<5	<5	<5	<5	60,000	2200	35,000
	10/29/2010	floating product (0.03 ft)						
	3/1/2012	floating product (0.01 ft)						
	3/22/2013	floating product (0.02 ft)						
	1/24/2014	<.05	<.05	0.052	1.6	130,000	650	82,000
	10/1/2015	not sampled, could not be located						
	11/10/2016	<0.5	<0.5	<0.5	<0.5	760	<50	720
	2/9/2017	<0.5	<0.5	<0.5	<1.5	1,900	290	730
	5/25/2017	<0.5	<0.5	<0.5	<0.5	2,000	86	630
	8/28/2017	<0.5	<0.5	<0.5	<0.5	720	<50	490

NOTES:

TPH-g - Total Petroleum Hydrocarbons as Gasoline in ug/l
B - Benzene in ug/l
X - Xylenes in ug/l

TPH-d - Total Petroleum Hydrocarbons as Diesel in ug/l
T - Toluene in ug/l
E - Ethylbenzene in ug/l

TOG - Total Oil and Grease in ug/l
TPHmo - Total Petroleum Hydrocarbons as Motor Oil ug/l (after 2004)

BDL - Below detection limit
NA - Not analyzed

(a) - Quantified as diesel but chromatogram did not match diesel pattern

(b) - Quantified as gasoline but chromatogram did not match gasoline pattern

Table 3 Summary of Petroleum Hydrocarbon Analytical Results
Owens-Brockway Glass Container Facility, Oakland, CA

	Date	B	T	E	X	TPHd	TPHg	TOG/TPHmo
MW-8	10/23/1986	<0.2	<0.2	NA	<1	NA	190	14,000
	4/9/1987	<0.5	<0.2	NA	<1	NA	73	NA
	9/16/1987	floating product						
	12/1/1987	NA	NA	NA	NA	630	NA	NA
	3/9/1988	NA	NA	NA	NA	2,600	NA	NA
	6/9/1988	NA	NA	NA	NA	1,700	NA	NA
	9/14/1988	NA	NA	NA	NA	150	NA	NA
	8/12/1997	floating product						
	9/16/1997	<0.5	<0.5	<0.5	<0.5	290[a]	<50	NA
	11/2/1998	<0.5	<0.5	<0.5	<0.5	1,300[a]	<50	NA
	12/6/2000	<0.5	<0.5	<0.5	<0.5	160[a]	<50	NA
	12/12/2001	<0.5	<0.5	<0.5	<0.5	<50	<50	NA
	12/5/2002	<0.5	<0.5	<0.5	<0.5	170[a]	55[b]	NA
	3/15/2004	<0.5	<0.5	<0.5	<0.5	3,000[a]	320[b]	NA
	6/30/2005	<0.5	<0.5	<0.5	<0.5	4,600	1100	1,400
	9/11/2006	<0.5	<0.5	<0.5	2.1	1800	1200	760
	10/17/2007	<0.5	<0.5	<0.5	<0.5	1,300	390	2,100
	10/21/2008	<0.5	<0.5	<0.5	<0.5	380	74	470
	10/16/2009	<0.5	<0.5	<0.5	<0.5	340	280	<250
	10/29/2010	<0.5	<0.5	<0.5	<0.5	84	150	<250
	3/1/2012	<0.5	<0.5	<0.5	<0.5	410	560	600
	3/22/2013	<0.5	<0.5	<0.5	<0.5	570	420	310
	1/24/2014	<0.5	<0.5	<0.5	<0.5	110	82	<250
	10/1/2015	<0.5	<0.5	<0.5	<0.5	120	190	<250
	11/10/2016	<0.5	<0.5	<0.5	<0.5	150	210	340
	2/9/2017	<0.5	<0.5	<0.5	<1.5	<100	200	<500
	5/25/2017	<0.5	<0.5	<0.5	<0.5	590	1200	<250
	8/28/2017	<0.5	<0.5	<0.5	<0.5	130	290	<250

NOTES:

TPH-g - Total Petroleum Hydrocarbons as Gasoline in ug/l
B - Benzene in ug/l
X - Xylenes in ug/l
TPH-d - Total Petroleum Hydrocarbons as Diesel in ug/l
T - Toluene in ug/l
E - Ethylbenzene in ug/l
TOG - Total Oil and Grease in ug/l
TPHmo - Total Petroleum Hydrocarbons as Motor Oil ug/l (after 2004)
BDL - Below detection limit
NA - Not analyzed
(a) - Quantified as diesel but chromatogram did not match diesel pattern
(b) - Quantified as gasoline but chromatogram did not match gasoline pattern

Table 3 Summary of Petroleum Hydrocarbon Analytical Results
Owens-Brockway Glass Container Facility, Oakland, CA

	Date	B	T	E	X	TPHd	TPHg	TOG/TPHmo
MW-9	4/9/1987	floating product						
	9/16/1987	NA	NA	NA	NA	1,300	NA	NA
	12/1/1987	NA	NA	NA	NA	18,000	NA	NA
	3/9/1988	NA	NA	NA	NA	47,000	NA	NA
	6/8/1988	floating product						
	9/14/1988	floating product						
	9/16/1997	<13	<13	<13	18.00	28,000[(a)]	6000	NA
	11/2/1998	floating product						
	12/6/2000	<5	<.5	<.5	<.5	102,000[(a)]	790	NA
	12/12/2001	innaccessible						
	12/5/2002	innaccessible						
	3/15/2004	innaccessible						
	6/30/2005	innaccessible						
	9/11/2006	innaccessible						
	10/17/2007	innaccessible						
	10/21/2008	innaccessible						
	10/16/2009	innaccessible						
	10/29/2010	innaccessible						
	3/1/2012	innaccessible						
	3/22/2013	innaccessible						
	1/24/2014	innaccessible						
	10/1/2015	innaccessible						
	From 11/16	could not be located						

NOTES:

TPH-g - Total Petroleum Hydrocarbons as Gasoline in ug/l
B - Benzene in ug/l
X - Xylenes in ug/l

TPH-d - Total Petroleum Hydrocarbons as Diesel in ug/l
T - Toluene in ug/l
E - Ethylbenzene in ug/l

TOG - Total Oil and Grease in ug/l
TPHmo - Total Petroleum Hydrocarbons as Motor Oil ug/l (after 2004)

BDL - Below detection limit
NA - Not analyzed

(a) - Quantified as diesel but chromatogram did not match diesel pattern
(b) - Quantified as gasoline but chromatogram did not match gasoline pattern

Table 3 Summary of Petroleum Hydrocarbon Analytical Results
Owens-Brockway Glass Container Facility, Oakland, CA

	Date	B	T	E	X	TPHd	TPHg	TOG/TPHmo
MW-10	10/23/1986	<0.2	<0.2	NA	<0.2	NA	380	7,200
	4/9/1987	<0.2	<0.2	NA	<0.2	NA	300	NA
	9/16/1987	NA	NA	NA	NA	3,800	NA	NA
	12/1/1987	NA	NA	NA	NA	590	NA	NA
	3/8/1988	NA	NA	NA	NA	<50	NA	NA
	6/8/1988	NA	NA	NA	NA	3,800	NA	NA
	9/14/1988	NA	NA	NA	NA	570	NA	NA
	9/16/1997	<0.5	<0.5	<0.5	<0.5	1,300[a]	<50	NA
	11/2/1998	<0.5	<0.5	<0.5	<0.5	1400[a]	<50	NA
	12/6/2000	<0.5	<0.5	<0.5	0.70	730[a]	150	NA
	12/11/2001	<0.5	<0.5	<0.5	<0.5	630[a]	210[b]	NA
	12/5/2002	<0.5	<0.5	<0.5	<0.5	840[a]	210[b]	NA
	3/15/2004	<0.5	<0.5	<0.5	0.8	2,500[a]	160[b]	NA
	6/30/2005	<0.5	<0.5	<0.5	<0.5	2900	140	2300
	9/11/2006	<0.5	<0.5	<0.5	0.81	3400	270	2600
	10/17/2007	<0.5	<0.5	<0.5	<0.5	1700	140	1500
	10/21/2008	<0.5	<0.5	<0.5	<0.5	2300	240	1500
	10/16/2009	<0.5	<0.5	<0.5	<0.5	4700	110	4600
	10/29/2010	<0.5	<0.5	<0.5	<0.5	640	190	530
	3/1/2012	<0.5	<0.5	<0.5	<0.5	2000	140	2400
	3/22/2013	<0.5	<0.5	<0.5	<0.5	3100	150	3200
	1/24/2014	<0.5	<0.5	<0.5	0.91	1100	290	830
	10/1/2015	<0.5	<0.5	<0.5	<0.5	320	220	<250
	11/10/2016	<0.5	<0.5	<0.5	<0.5	310	140	<250
	2/9/2017	<0.5	<0.5	<0.5	<1.5	180	<50	570
	5/25/2017	<0.5	<0.5	<0.5	<0.5	2600	190	3400
	8/28/2017	<0.5	<0.5	<0.5	<0.5	270	200	<250
MW-11	9/23/1986	<0.4	<0.4	NA	1.4	NA	<8	1,200
	4/9/1987	BDL	BDL	NA	BDL	NA	BDL	NA
	9/16/1987	BDL	BDL	NA	BDL	NA	BDL	NA
	12/1/1987	0.8	BDL	NA	10	NA	BDL	NA
	3/7/1988	BDL	BDL	NA	BDL	BDL	BDL	NA
	6/8/1988	BDL	BDL	NA	BDL	BDL	BDL	NA
	9/14/1988	BDL	BDL	NA	BDL	100,000	BDL	NA
		Destroyed						
MW-12	9/23/1986	0.49	1	NA	1.3	NA	100	2,500
	4/9/1987	BDL	BDL	NA	BDL	NA	BDL	NA
	9/16/1987	BDL	BDL	NA	BDL	NA	BDL	NA
	12/1/1987	BDL	BDL	NA	13	NA	BDL	NA
	3/7/1988	BDL	BDL	NA	BDL	BDL	BDL	NA
	6/8/1988	BDL	BDL	NA	BDL	BDL	BDL	NA
	9/14/1988	BDL	BDL	NA	BDL	120	BDL	NA
	6/30/2005	Destroyed						

NOTES:

TPH-g - Total Petroleum Hydrocarbons as Gasoline in ug/l
B - Benzene in ug/l
X - Xylenes in ug/l

TPH-d - Total Petroleum Hydrocarbons as Diesel in ug/l
T - Toluene in ug/l
E - Ethylbenzene in ug/l

TOG - Total Oil and Grease in ug/l
TPHmo - Total Petroleum Hydrocarbons as Motor Oil ug/l (after 2004)

BDL - Below detection limit
NA - Not analyzed

(a) - Quantified as diesel but chromatogram did not match diesel pattern

(b) - Quantified as gasoline but chromatogram did not match gasoline pattern

Table 3 Summary of Petroleum Hydrocarbon Analytical Results
Owens-Brockway Glass Container Facility, Oakland, CA

	Date	B	T	E	X	TPHd	TPHg	TOG/TPHmo
MW-13	12/24/1986	<0.2	<0.9	NA	<0.9	NA	<10	57,000
	4/9/1987	<5	<5	NA	<5	NA	<10	NA
	9/16/1987	<5	<5	NA	<5	NA	<10	NA
	12/1/1987	1.6	<5	NA	12	NA	<10	NA
	3/8/1988	<5	<5	NA	<5	<50	7.7	NA
	6/8/1988	<5	<5	NA	<5	<50	<10	NA
	9/14/1988	<5	<5	NA	<5	130	<10	NA
	9/16/1997	<5	<5	<5	<5	120[(a)]	<50	NA
	11/2/1998	<5	<5	<5	<5	120[(a)]	<50	NA
	12/6/2000	<0.5	<0.5	<0.5	<0.5	200[(a)]	<50	NA
	12/11/2001	<0.5	<0.5	<0.5	<0.5	91[(a)\]	<50	NA
	12/5/2002	<0.5	<0.5	<0.5	<0.5	190[(a)]	<50	NA
	3/15/2004	<0.5	<0.5	<0.5	<0.5	<50	<50	NA
	6/30/2005	<1.0	<1.0	<1.0	<1.0	56	<50	<250
	9/11/2006	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	10/17/2007	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	10/21/2008	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	10/16/2009	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	10/29/2010	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	3/1/2012	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	3/22/2013	<0.5	<0.5	<0.5	<0.5	88	<50	<250
	1/24/2014	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	10/1/2015	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	11/10/2016	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	2/9/2017	<0.5	<0.5	<0.5	<1.5	<50	<50	<250
	5/25/2017	<0.5	<0.5	<0.5	<0.5	100	<50	<250
	8/28/2017	<0.5	<0.5	<0.5	<0.5	96	<50	<250
MW-14	9/23/1986	<0.4	<0.2	NA	<0.2	NA	<8	3,200
	4/9/1987	BDL	BDL	NA	BDL	NA	BDL	NA
	9/16/1987	BDL	BDL	NA	BDL	56	1.7	NA
	12/1/1987	1.2	4	NA	10	66	BDL	NA
	3/7/1988	BDL	BDL	NA	BDL	BDL	20	NA
	6/8/1988	inaccessible						
	9/14/1988	inaccessible						
		Destroyed						

NOTES:

TPH-g - Total Petroleum Hydrocarbons as Gasoline in ug/l B - Benzene in ug/l X - Xylenes in ug/l

TPH-d - Total Petroleum Hydrocarbons as Diesel in ug/l T - Toluene in ug/l E - Ethylbenzene in ug/l

TOG - Total Oil and Grease in ug/l TPHmo - Total Petroleum Hydrocarbons as Motor Oil ug/l (after 2004)

BDL - Below detection limit NA - Not analyzed

(a) - Quantified as diesel but chromatogram did not match diesel pattern

(b) - Quantified as gasoline but chromatogram did not match gasoline pattern

Table 3 Summary of Petroleum Hydrocarbon Analytical Results
Owens-Brockway Glass Container Facility, Oakland, CA

	Date	B	T	E	X	TPHd	TPHg	TOG/TPHmo
MW-15	12/24/1986	<0.2	<0.9	NA	9.20	NA	120	1,600
	4/9/1987	<5	<5	NA	<5	NA	<0.5	NA
	9/16/1987	<5	<5	NA	<5	<100	8.4	NA
	12/1/1987	3.30	0.84	NA	14	NA	<0.5	NA
	3/8/1988	0.80	<5	NA	<5	<100	90	NA
	6/9/1988	<5	<5	NA	<5	<100	53	NA
	9/14/1988	NA	NA	NA	NA	100	NA	NA
	9/16/1997	<0.5	<0.5	<0.5	<0.5	127[(a)]	<50	NA
	11/2/1998	<0.5	<0.5	<0.5	<0.5	340[(a)]	<50	NA
	12/6/2000	<0.5	<0.5	<0.5	<0.5	400[(a)]	<50	NA
	12/11/2001	<0.5	<0.5	<0.5	<0.5	290[(a)]	<50	NA
	12/5/2002	<0.5	<0.5	<0.5	<0.5	440[(a)]	<50	NA
	3/15/2004	<0.5	<0.5	<0.5	<0.5	<50	<50	NA
	6/30/2005	<0.5	<0.5	<0.5	<0.5	240	<50	360
	9/11/2006	<0.5	<0.5	<0.5	<0.5	56	<50	<250
	10/17/2007	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	10/21/2008	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	10/16/2009	<0.5	<0.5	<0.5	<0.5	55	<50	<250
	10/29/2010	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	3/1/2012	<0.5	<0.5	<0.5	<0.5	100	<50	<250
	3/22/2013	floating product (0.01 ft)						
	1/24/2014	<0.5	<0.5	<0.5	<0.5	65	<50	<250
	10/1/2015	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	11/10/2016	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	2/9/2017	<0.5	<0.5	<0.5	<1.5	67	<50	340
	5/25/2017	<0.5	<0.5	<0.5	<0.5	270	<50	330
	8/28/2017	<0.5	<0.5	<0.5	<0.5	<50	<50	<250

NOTES:

TPH-g - Total Petroleum Hydrocarbons as Gasoline in ug/l
B - Benzene in ug/l
X - Xylenes in ug/l

TPH-d - Total Petroleum Hydrocarbons as Diesel in ug/l
T - Toluene in ug/l
E - Ethylbenzene in ug/l

TOG - Total Oil and Grease in ug/l
TPHmo - Total Petroleum Hydrocarbons as Motor Oil ug/l (after 2004)

BDL - Below detection limit
NA - Not analyzed

(a) - Quantified as diesel but chromatogram did not match diesel pattern

(b) - Quantified as gasoline but chromatogram did not match gasoline pattern

Table 3 Summary of Petroleum Hydrocarbon Analytical Results
Owens-Brockway Glass Container Facility, Oakland, CA

	Date	B	T	E	X	TPHd	TPHg	TOG/TPHmo
MW-16	12/24/1986	<0.2	<0.9	NA	<.9	NA	<10	1,200
	4/9/1987	<5	<5	NA	<5	NA	<.5	NA
	9/16/1987	<5	<5	NA	<5	64	<.5	NA
	12/1/1987	1.00	0.37	NA	9.1	150	120	NA
	3/7/1988	0.50	<5	NA	<5	<100	10	NA
	6/8/1988	<5	<5	NA	<5	<100	<0.5	NA
	9/14/1988	<5	<5	NA	<5	190	<0.5	NA
	9/16/1997	floating product						
	12/6/2000	<0.5	<0.5	<0.5	<0.5	97[(a)]	<50	NA
	12/11/2001	<0.5	<0.5	<0.5	<0.5	<50	<50	NA
	12/5/2002	<0.5	<0.5	<0.5	<0.5	51[(a)]	<50	NA
	3/15/2004	<0.5	<0.5	<0.5	<0.5	63	<50	NA
	6/30/2005	<0.5	<0.5	<0.5	<0.5	66	<50	<250
	9/11/2006	<0.5	<0.5	<0.5	<0.5	140	<50	550
	10/17/2007	<0.5	<0.5	<0.5	<0.5	92	<50	290
	10/21/2008	<0.5	<0.5	<0.5	<0.5	76	<50	<250
	10/16/2009	<0.5	<0.5	<0.5	<0.5	780	<50	910
	10/29/2010	<0.5	<0.5	<0.5	<0.5	390	<50	1500
	3/1/2012	<0.5	<0.5	<0.5	<0.5	270	<50	1600
	3/22/2013	<0.5	<0.5	<0.5	<0.5	220	<50	1700
	1/24/2014	<0.5	<0.5	<0.5	<0.5	120	<50	990
	10/1/2015	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	11/10/2016	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	2/9/2017	<0.5	<0.5	<0.5	<1.5	83	<50	1300
	5/25/2017	<0.5	<0.5	<0.5	<0.5	98	<50	<250
	8/28/2017	<0.5	<0.5	<0.5	<0.5	<50	<50	<250

NOTES:

TPH-g - Total Petroleum Hydrocarbons as Gasoline in ug/l B - Benzene in ug/l X - Xylenes in ug/l

TPH-d - Total Petroleum Hydrocarbons as Diesel in ug/l T - Toluene in ug/l E - Ethylbenzene in ug/l

TOG - Total Oil and Grease in ug/l TPHmo - Total Petroleum Hydrocarbons as Motor Oil ug/l (after 2004)

BDL - Below detection limit NA - Not analyzed

(a) - Quantified as diesel but chromatogram did not match diesel pattern

(b) - Quantified as gasoline but chromatogram did not match gasoline pattern

Table 3 Summary of Petroleum Hydrocarbon Analytical Results
Owens-Brockway Glass Container Facility, Oakland, CA

	Date	B	T	E	X	TPHd	TPHg	TOG/TPHmo
MW-17	12/24/1986	5	1.20	NA	14.00	NA	240	2,400
	4/9/1987	<5	<5	NA	<5	NA	<0.5	NA
	9/16/1987	<5	<5	NA	0.55	680	44	NA
	12/1/1987	7.80	2.40	NA	28	1,300	540	NA
	3/8/1988	83.00	<5	NA	46	3,800	4300	NA
	6/8/1988	innaccessible						
	9/14/1988	<0.5	<0.5	<0.5	<0.5	64,000	54000	NA
	9/16/1997	<0.5	<0.5	<0.5	<0.5	119,600[(a)]	1900	NA
	11/2/1998	<0.5	<0.5	<0.5	0.60	16,000[(a)]	<50	NA
	12/6/2000	<0.5	<0.5	<0.5	<0.5	47,800[(a)]	340	NA
	12/11/2001	<10	<10	<10	<10	101,000[(a)]	5300[(b)]	NA
	12/5/2002	<0.5	<0.5	<0.5	<0.5	71,000[(a)]	700[(b)]	NA
	3/15/2004	2.1	0.71	<0.5	1.5	660,000[(a)]	1400[(b)]	NA
	6/30/2005	<0.5	2.4	<0.5	1.1	1,600,000	1700	NA
	9/11/2006	<2.5	36	9.50	79	2,300,000	26,000	810,000
re-test	10/19/2006	5.90	<1.0	<1.0	3.7	1,100,000	1,600	480,000
	10/17/2007	<2.5	<2.5	<2.5	<2.5	710,000	4,400	270,000
	10/21/2008	<2.5	<2.5	<2.5	<2.5	330,000	3,300	130,000
	10/16/2009	<1.0	2.9	<1.0	<1.0	900,000	2,400	350,000
	10/29/2010	<5.0	5.0	0.92	12	610,000	5,000	360,000
	3/1/2012	<5.0	<5.0	<5.0	<5.0	390,000	3,000	160,000
	3/22/2013	8.2	1.4	<5.0	4.1	570,000	4,500	220,000
	1/24/2014	<5.0	<5.0	<5.0	<5.0	59,000	370	32,000
	10/1/2015	<5.0	<5.0	<5.0	0.52	51,000	460	27,000
	11/10/2016	<0.5	<0.5	<0.5	<0.5	910,000	530	360,000
	2/9/2017	<0.5	<0.5	<0.5	<1.5	10,000	100	5,700
	5/25/2017	<0.5	<0.5	<0.5	<0.5	3,000	300	1,800
	8/28/2017	<0.5	<0.5	<0.5	<0.5	2,900	330	1,500
MW-18	9/23/1986	<0.3	<0.3	NA	0.99	NA	<20	1,600
	4/9/1987	BDL	BDL	NA	BDL	NA	BDL	NA
	9/16/1987	BDL	BDL	NA	BDL	480	BDL	NA
	12/1/1987	BDL	BDL	NA	6.6	180	BDL	NA
	3/7/1988	BDL	BDL	NA	BDL	BDL	BDL	NA
	6/8/1988	BDL	BDL	NA	BDL	BDL	BDL	NA
	9/14/1988	BDL	BDL	NA	BDL	190	BDL	NA
		Destroyed						

NOTES:

TPH-g - Total Petroleum Hydrocarbons as Gasoline in ug/l — B - Benzene in ug/l — X - Xylenes in ug/l

TPH-d - Total Petroleum Hydrocarbons as Diesel in ug/l — T - Toluene in ug/l — E - Ethylbenzene in ug/l

TOG - Total Oil and Grease in ug/l — TPHmo - Total Petroleum Hydrocarbons as Motor Oil ug/l (after 2004)

BDL - Below detection limit — NA - Not analyzed

(a) - Quantified as diesel but chromatogram did not match diesel pattern

(b) - Quantified as gasoline but chromatogram did not match gasoline pattern

Table 3 Summary of Petroleum Hydrocarbon Analytical Results
Owens-Brockway Glass Container Facility, Oakland, CA

	Date	B	T	E	X	TPHd	TPHg	TOG/TPHmo
MW-19	6/23/2004	<0.5	<0.5	<0.5	<0.5	1,100	480	NA
	3/15/2004	<0.5	<0.5	<0.5	<0.5	1,100[a]	330[b]	NA
	6/30/2005	<0.5	<0.5	1.5	4.5	1700	840	350
	9/18/2006	<0.5	<0.5	<0.5	0.83	890	280	280
	10/17/2007	<0.5	<0.5	<0.5	0.61	1200	880	<250
	10/21/2008	<0.5	<0.5	<0.5	<0.5	300	340	<250
	10/16/2009	<0.5	<0.5	<0.5	<0.5	440	390	<250
	10/29/2010	<0.5	<0.5	<0.5	0.95	460	670	<250
	3/1/2012	<0.5	<0.5	<0.5	<0.5	440	310	<250
	3/22/2013	<0.5	<0.5	<0.5	1.1	780	620	<250
	1/24/2014	<0.5	<0.5	<0.5	0.82	490	380	<250
	10/1/2015	<0.5	<0.5	<0.5	<0.5	430	170	<250
	11/10/2016	<0.5	<0.5	<0.5	<0.5	900	330	<250
	2/9/2017	<0.5	<0.5	<0.5	<1.5	110	170	<250
	5/25/2017	<0.5	<0.5	<0.5	<0.5	230	200	<250
	8/28/2017	Well could not be located						
MW-20	12/11/2000	<0.5	<0.5	<0.5	<0.5	110[a]	<50	NA
	4/6/2001	<0.5	<0.5	<0.5	<0.5	57[a]	<50	NA
	7/6/2001	<0.5	<0.5	<0.5	<0.5	120[a]	<50	NA
	9/19/2001	<0.5	<0.5	<0.5	<0.5	160[a]	<50	NA
	12/11/2001	<0.5	<0.5	<0.5	<0.5	82[a]	86[b]	NA
	2/6/2002	<0.5	<0.5	<0.5	<0.5	85[a]	<50	NA
	3/15/2004	<0.5	<0.5	<0.5	<0.5	<0.5	<50	NA
	6/30/2005	<0.5	<0.5	<0.5	<0.5	<500	<50	NA
	9/11/2006	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	10/17/2007	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	10/21/2008	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	10/16/2009	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	10/29/2010	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	3/1/2012	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	3/22/2013	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	1/24/2014	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	10/1/2015	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	11/10/2016	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	2/9/2017	<0.5	<0.5	<0.5	<1.5	76	<50	<250
	5/25/2017	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	8/28/2017	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
MW-21	10/1/2015	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	11/10/2016	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	2/9/2017	<0.5	<0.5	<0.5	<1.5	110	<50	280
	5/25/2017	<0.5	<0.5	<0.5	<0.5	100	<50	<250
	8/28/2017	<0.5	<0.5	<0.5	<0.5	66	<50	<250

NOTES:

TPH-g - Total Petroleum Hydrocarbons as Gasoline in ug/l B - Benzene in ug/l X - Xylenes i

TPH-d - Total Petroleum Hydrocarbons as Diesel in ug/l T - Toluene in ug/l E - Ethylbenzene in ug/l

TOG - Total Oil and Grease in ug/l TPHmo - Total Petroleum Hydrocarbons as Motor Oil ug/l (after 2004)

BDL - Below detection limit NA - Not analyzed

(a) - Quantified as diesel but chromatogram did not match diesel pattern

(b) - Quantified as gasoline but chromatogram did not match gasoline pattern

Table 4 Summary of MTBE, Naphthalene and Lead Scavenger Results

Well Number	Date Sampled	EDB (ug/l)	1,2,DCA (ug/l)	MTBE (ug/l)	Naphthalene (ug/l)
MW-1	01-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<0.5	<0.5	<0.5	<0.5
	9-Feb-17	Innaccessible			
	25-May-17	Innaccessible			
	28-Aug-17	Innaccessible			
MW-2R	01-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<0.5	<0.5	<0.5	<0.5
	9-Feb-17	<0.5	<0.5	<0.5	<0.5
	25-May-17	<0.5	<0.5	<0.5	<0.5
	28-Aug-17	<0.5	<0.5	<0.5	<0.5
MW-3R	01-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<0.5	<0.5	<0.5	<0.5
	9-Feb-17	<0.5	<0.5	<0.5	<0.5
	25-May-17	<0.5	<0.5	<0.5	<0.5
	28-Aug-17	<0.5	<0.5	<0.5	<0.5
MW-5	01-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<0.5	<0.5	<0.5	<0.5
	9-Feb-17	<0.5	<0.5	<0.5	<0.5
	25-May-17	<0.5	<0.5	<0.5	<0.5
	28-Aug-17	<0.5	<0.5	<0.5	<0.5
MW-6	01-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<0.5	<0.5	<0.5	<0.5
	9-Feb-17	<0.5	<0.5	<0.5	<0.5
	25-May-17	<0.5	<0.5	<0.5	<0.5
	28-Aug-17	<0.5	<0.5	<0.5	<0.5
MW-7	01-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<0.5	<0.5	<0.5	<0.5
	9-Feb-17	<0.5	<0.5	<0.5	<0.5
	25-May-17	<0.5	<0.5	<0.5	0.99
	28-Aug-17	<0.5	<0.5	<0.5	<0.5
MW-8	01-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<0.5	<0.5	<0.5	<0.5
	9-Feb-17	<0.5	<0.5	<0.5	<0.5
	25-May-17	<0.5	<0.5	<0.5	2.5
	28-Aug-17	<0.5	<0.5	<0.5	<0.5
MW-9	01-Oct-15	Innaccessible			
	From 11/16	Could not be located			

Table 4 Summary of MTBE, Naphthalene and Lead Scavenger Results

Well Number	Date Sampled	EDB (ug/l)	1,2,DCA (ug/l)	MTBE (ug/l)	Naphthalene (ug/l)
MW-10	01-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<0.5	<0.5	<0.5	<0.5
	9-Feb-17	<0.5	<0.5	<0.5	<0.5
	25-May-17	<0.5	<0.5	<0.5	1.2
	28-Aug-17	<0.5	<0.5	<0.5	<0.5
MW-13	01-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<0.5	<0.5	<0.5	<0.5
	9-Feb-17	<0.5	<0.5	<0.5	<0.5
	25-May-17	<0.5	<0.5	<0.5	<0.5
	28-Aug-17	<0.5	<0.5	<0.5	<0.5
MW-15	01-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<0.5	<0.5	<0.5	<0.5
	9-Feb-17	<0.5	<0.5	<0.5	<0.5
	25-May-17	<0.5	<0.5	<0.5	<0.5
	28-Aug-17	<0.5	<0.5	<0.5	<0.5
MW-16	01-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<0.5	<0.5	<0.5	<0.5
	9-Feb-17	<0.5	<0.5	<0.5	<0.5
	25-May-17	<0.5	<0.5	<0.5	<0.5
	28-Aug-17	<0.5	<0.5	<0.5	<0.5
MW-17	01-Oct-15	<0.5	<0.5	**5.8**	<0.5
	10-Nov-16	<0.5	<0.5	**3.7**	<0.5
	9-Feb-17	<0.5	<0.5	<0.5	<0.5
	25-May-17	<0.5	<0.5	**2.5**	**0.61**
	28-Aug-17	<0.5	<0.5	**2.4**	<0.5
MW-19	01-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<0.5	<0.5	<0.5	**6.7**
	9-Feb-17	<0.5	<0.5	<0.5	<0.5
	25-May-17	<0.5	<0.5	<0.5	<0.5
	28-Aug-17	Not sampled, well could not be located			
MW-20	01-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<0.5	<0.5	<0.5	<0.5
	9-Feb-17	<0.5	<0.5	<0.5	<0.5
	25-May-17	<0.5	<0.5	<0.5	<0.5
	28-Aug-17	<0.5	<0.5	<0.5	<0.5

Table 4 Summary of MTBE, Naphthalene and Lead Scavenger Results

Well Number	Date Sampled	EDB (ug/l)	1,2,DCA (ug/l)	MTBE (ug/l)	Naphthalene (ug/l)
MW-21	1-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<0.5	<0.5	<0.5	<0.5
	9-Feb-17	<0.5	<0.5	<0.5	<0.5
	25-May-17	<0.5	<0.5	<0.5	<0.5
	28-Aug-17	<0.5	<0.5	<0.5	<0.5

EDB = Ethylene dibromide
1,2,-DCA = !,2 Dichloroethane
MTBE = Methyl-ter-butyl ether
ug/l = micrograms per liter

Table 5 Summary of Inorganic Constituent Results

Well Number	Date Sampled	Nitrate as N (mg/l)	Nitrite as N (mg/l)	Sulfate (mg/l)	Total Alkalinity (mg/l)	Carbonate (mg/l)	Bicarbonate (mg/l)	Hydroxide (mg/l)	Heterotrophic Plate Count (CFU/ml)	DO (mg/l)	ORC (mV)
MW-1	01-Oct-15	3	<0.1	41	248	<1	248	<1	1,800	0.81	185
	10-Nov-16	Could not be sampled because it was inaccessible									
	9-Feb-17	Could not be sampled because it was inaccessible									
	25-May-17	Could not be sampled because it was inaccessible									
	28-Aug-17	Could not be sampled because it was inaccessible									
MW-2R	01-Oct-15	Floating product, not sampled									
	10-Nov-16	0.8	2.3	41	604	124	<5	480	<1		
	9-Feb-17	<0.1	1.1	65	1090	308	<10	784	3.00	1.27	-112
	25-May-17	0.15	0.12	78	712	560	<10	152	2.00	2.13	147
	28-Aug-17	0.35	1.4	67	599	599	<125	<125	18	2.05	-78
MW-3R	01-Oct-15	<0.1	<0.1	130	581	<1	581	<1	19,000	1.00	170
	10-Nov-16	0.11	<0.1	84	867	<1	480	<1	7,100	NA	NA
	9-Feb-17	0.49	<0.1	130	655	<1	655	<1	22,000	0.23	-11
	25-May-17	0.12	<0.1	150	722	<1	722	<1	12,000	2.81	73
	28-Aug-17	0.29	<0.2	85	867	<5	867	<5	7,000	5.83	49
MW-5	01-Oct-15	Floating product, not sampled									
	10-Nov-16	0.11	0.2	8.2	646	<1	646	<1	210	NA	NA
	9-Feb-17	2.5	<0.1	43	728	<1	728	<1	4,100	0.92	-86
	25-May-17	<0.1	<0.1	19	680	<1	680	<1	89	0.78	-101
	28-Aug-17	<0.2	<0.2	5.4	622	<5	622	<5	11,000	3.11	110
MW-6	01-Oct-15	Floating product, not sampled									
	10-Nov-16	<0.1	<0.1	150	356	<1	356	<1	23,000	NA	NA
	9-Feb-17	<0.1	<0.1	120	333	<1	333	<1	110,000	2.34	64
	25-May-17	<0.1	<0.1	100	382	<1	382	<1	5,500	2.12	22
	28-Aug-17	<0.2	<0.2	210	292	<5	292	<5	91,000	2.57	110

Table 5 Summary of Inorganic Constituent Results

Well Number	Date Sampled	Nitrate as N (mg/l)	Nitrite as N (mg/l)	Sulfate (mg/l)	Total Alkalinity (mg/l)	Carbonate (mg/l)	Bicarbonate (mg/l)	Hydroxide (mg/l)	Heterotrophic Plate Count (CFU/ml)	DO (mg/l)	ORC (mV)
MW-7	01-Oct-15	Could not locate									
	10-Nov-16	<0.1	<0.1	500	237	<1	237	<1	4,400	NA	NA
	9-Feb-17	<0.1	<0.1	580	579	<1	579	<1	38,000	1.37	-36
	25-May-17	<0.1	<0.1	1300	681	<1	681	<1	2,200	1.12	72
	28-Aug-17	<0.2	<0.2	640	516	<5	516	<5	3,700	2.26	124
MW-8	01-Oct-15	2.9	<0.1	100	404	<1	404	<1	350	0.45	141
	10-Nov-16	3.7	0.23	100	460	<1	460	<1	680	NA	NA
	9-Feb-17	4.7	0.13	100	384	<1	384	<1	670	1.47	-17
	25-May-17	0.54	<0.1	44	898	<1	898	<1	69	1.77	55
	28-Aug-17	3.5	0.27	94	452	<5	452	<5	300	1.11	-31
MW-9	01-Oct-15	Inaccessible									
	From 11/16	Could not be located									
MW-10	01-Oct-15	<0.1	<0.1	0.53	576	<1	576	<1	2,800	0.35	180
	10-Nov-16	<0.1	<0.1	0.22	763	<1	763	<1	1,100	NA	NA
	9-Feb-17	<0.1	<0.1	5.7	326	<1	326	<1	20,000	2.46	87.2
	25-May-17	<0.1	<0.1	0.89	436	<1	436	<1	920	1.73	-32
	28-Aug-17	0.28	<0.2	1.5	443	<5	443	<5	4,100	0.71	26
MW-13	01-Oct-15	25	<0.1	39	381	<1	381	<1	1,400	1.10	80
	10-Nov-16	0.96	0.16	62	474	<1	474	<1	2,000	NA	NA
	9-Feb-17	0.24	<0.1	6.4	153	<1	153	<1	24,000	0.48	207
	25-May-17	1	0.2	120	459	<1	459	<1	180	1.30	80
	28-Aug-17	0.55	0.24	120	411	<5	411	<5	810	0.60	138
MW-15	01-Oct-15	4.3	<0.1	96	522	<1	522	<1	8	2.29	95
	10-Nov-16	1.8	<0.1	140	833	<1	833	<1	1,200	NA	NA
	9-Feb-17	0.24	<0.1	280	738	<1	738	<1	9,600	0.61	104
	25-May-17	0.41	<0.1	370	871	<1	871	<1	130	2.27	110
	28-Aug-17	1.2	0.22	240	752	<5	752	<5	3,600	2.33	81
MW-16	01-Oct-15	0.27	<0.1	49	253	<1	253	<1	900	0.35	-31
	10-Nov-16	0.92	0.13	57	320	<1	320	<1	2,200	NA	NA
	9-Feb-17	<0.1	<0.1	1.0	31.9	<1	31.9	<1	21,000	0.54	245
	25-May-17	0.89	<0.1	46	216	<1	216	<1	190	0.26	64
	28-Aug-17	1.5	0.18	64	239	<5	239	<5	530	0.50	81

Table 5 Summary of Inorganic Constituent Results

Well Number	Date Sampled	Nitrate as N (mg/l)	Nitrite as N (mg/l)	Sulfate (mg/l)	Total Alkalinity (mg/l)	Carbonate (mg/l)	Bicarbonate (mg/l)	Hydroxide (mg/l)	Heterotrophic Plate Count (CFU/ml)	DO (mg/l)	ORC (mV)
MW-17	01-Oct-15	0.13	<0.1	6.6	422	<1	422	<1	210	0.28	72
	10-Nov-16	0.18	<0.1	5.1	503	<1	503	<1	320	NA	NA
	9-Feb-17	<0.1	<0.1	6.3	165	<1	165	<1	34,000	0.81	-43
	25-May-17	1.1	0.18	37	451	<1	451	<1	320	0.34	-8
	28-Aug-17	1.3	0.28	38	364	<5	364	<5	980	0.66	-44
MW-19	01-Oct-15	<0.1	<0.1	1.2	476	<1	476	<1	950	0.60	-101
	10-Nov-16	<0.1	<0.1	0.18	544	<1	544	<1	160	NA	NA
	9-Feb-17	0.73	<0.1	53	742	<1	742	<1	8,500	0.28	270
	25-May-17	<0.1	<0.1	11	576	<1	576	<1	1,100	0.48	-103
	28-Aug-17	Not sampled, well could not be located									
MW-20	01-Oct-15	1.3	<0.1	56	296	<1	296	<1	350	1.20	20
	10-Nov-16	0.91	<0.1	57	393	<1	393	<1	96	NA	NA
	9-Feb-17	0.64	<0.1	28	113	<1	113	<1	15,000	0.47	270
	25-May-17	1.1	<0.1	58	304	<1	304	<1	180	2.78	26
	28-Aug-17	0.99	<0.2	64	328	<5	328	<5	280	2.96	103
MW-21	01-Oct-15	3.8	0.27	160	626	<1	626	<1	21,000	0.78	1
	10-Nov-16	5.5	0.24	130	792	<1	792	<1	1,800	NA	NA
	9-Feb-17	4.7	0.78	160	930	<1	930	<1	110,000	0.63	113
	25-May-17	5.3	0.34	1600	897	<1	897	<1	670	0.75	93
	28-Aug-17	5.6	0.46	150	784	<5	784	<5	1,700	3.24	160

Notes:

mg/l = milligrams per liter

DO = Dissolved Oxygen

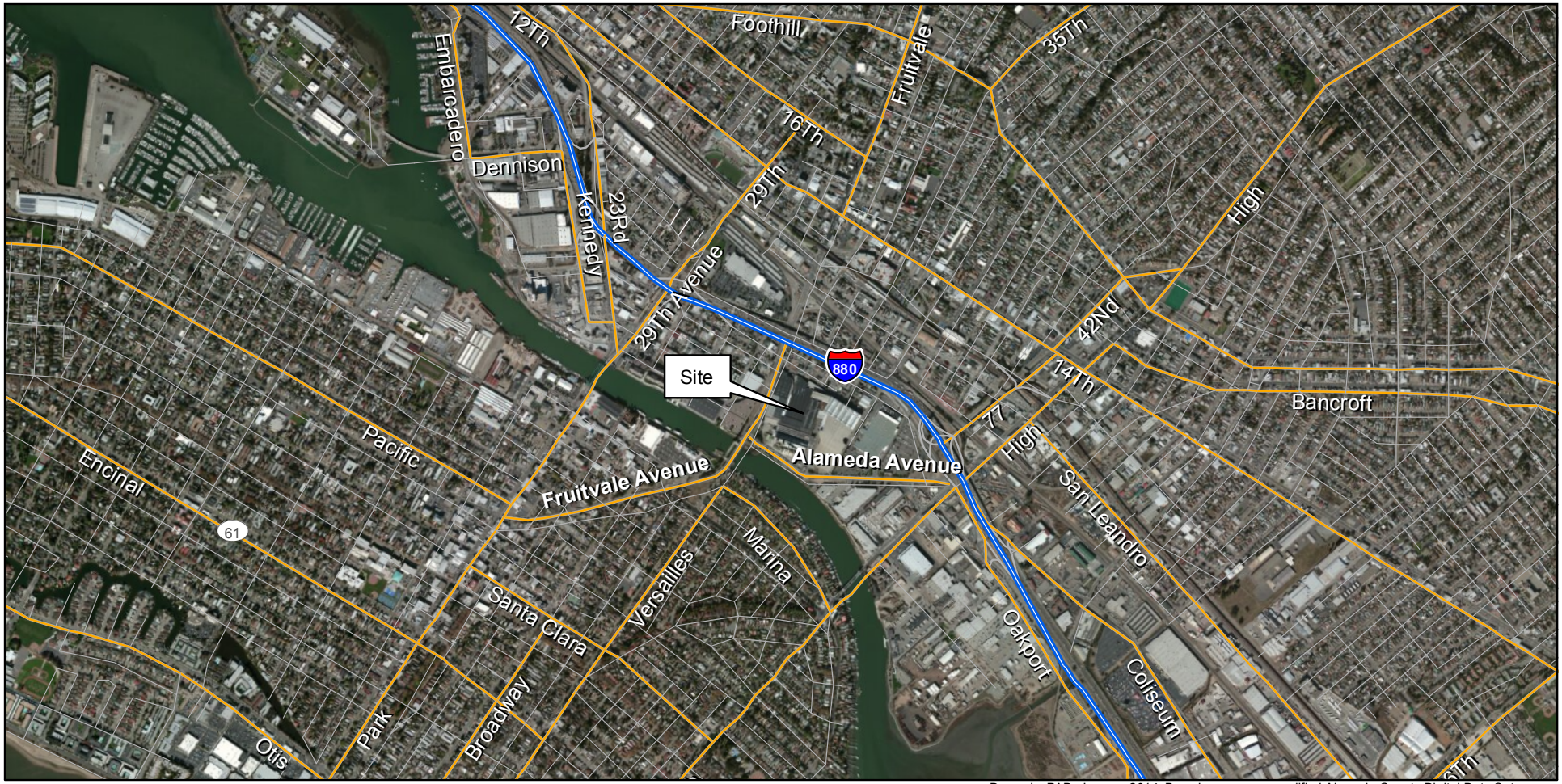
mV = millivolts

CFU/ml = Colony forming unit/milliliter

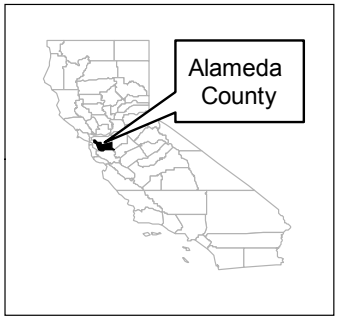
ORC = Oxidation Reduction Potential

NA = Not available

PLATES



Drawn by PAD. January 2014. Base layers are unmodified Alameda County Digital Data Sets.



0 1,000 2,000

Scale in Feet

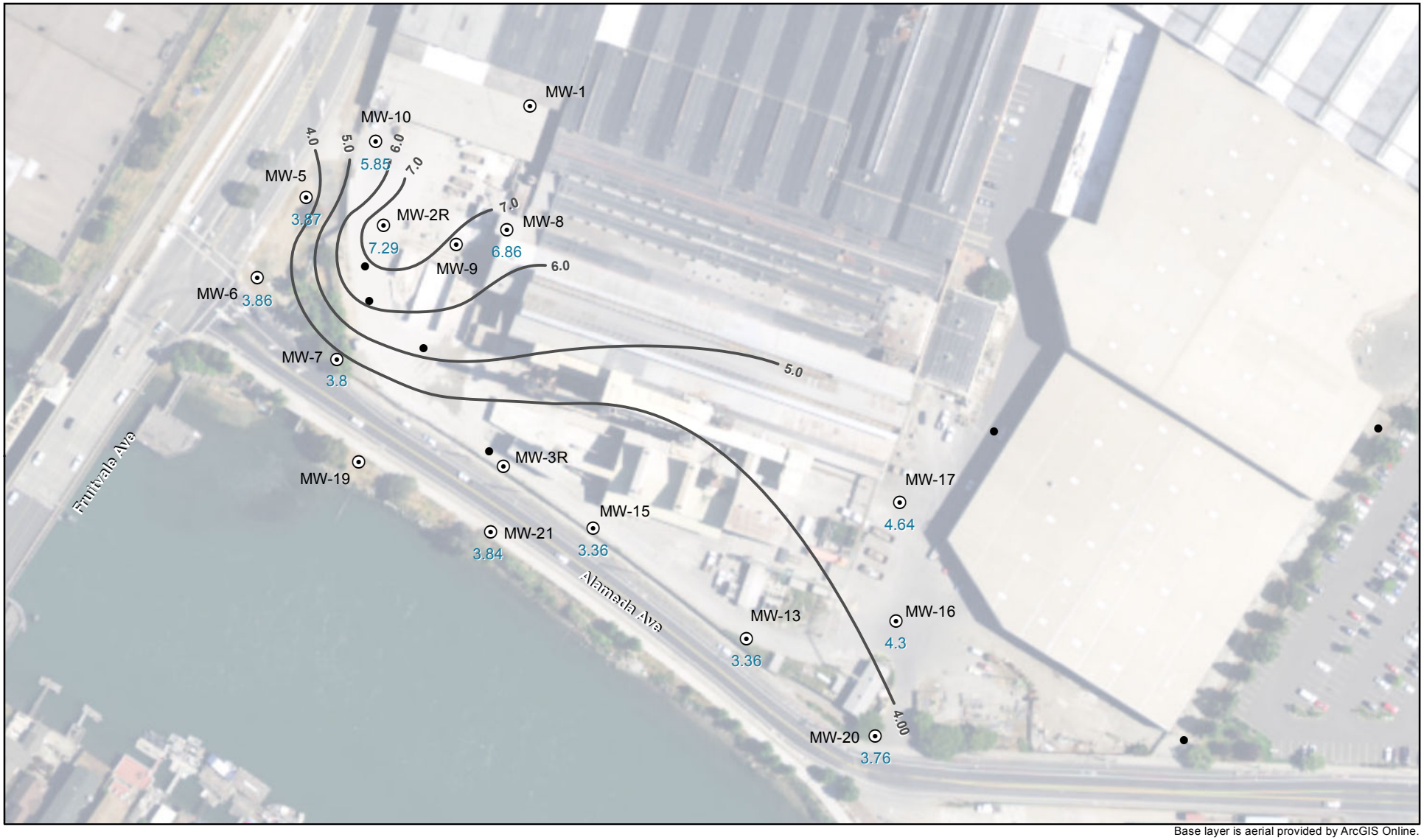
N

S

CKG Environmental, Inc.

Site Location Map
Owens-Brockway Glass Container Facility
3600 Alameda Avenue, Oakland, California

PLATE
1



Base layer is aerial provided by ArcGIS Online.

EXPLANATION

- Lines of Equal Groundwater Elevation
- Monitoring Well
- Destroyed Well
- 3.57 Groundwater Elevation
- NA Not Available
- NM Not Measured

0 75 150

Scale in Feet

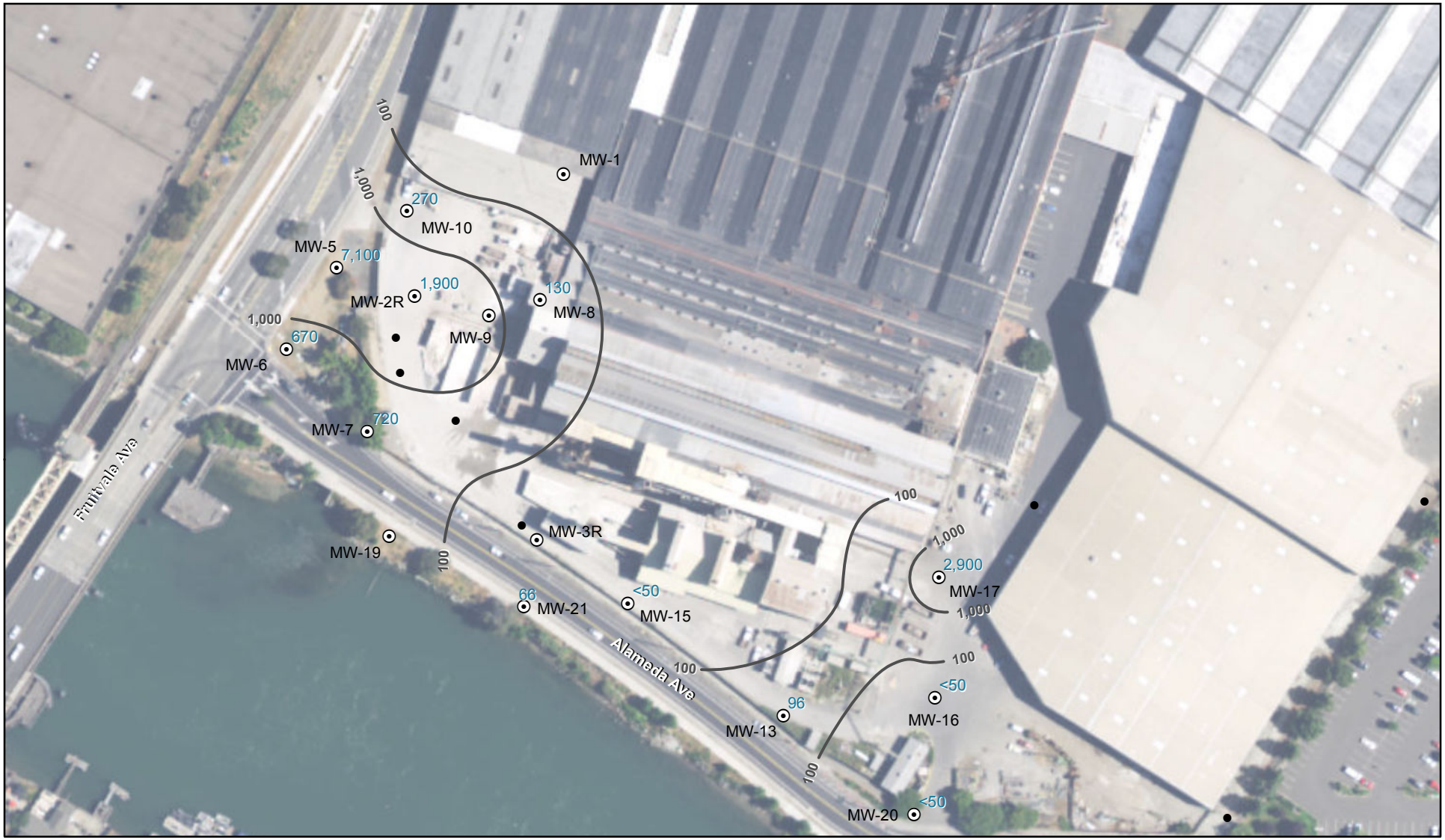
N

S

CKG Environmental, Inc.

Groundwater Elevation Contour Map, August 28, 2017
Owens-Brockway Glass Container Facility
3600 Alameda Avenue, Oakland California

PLATE
2



Drawn by PAD October 2017. Base layer is aerial provided by ArcGIS Online.

EXPLANATION

- Monitoring Well
- Destroyed Well
- Line of Equal Concentration
- Dashed where approximate

490 TPHd Concentration ug/L

NA Not Available

0 75 150

Scale in Feet

N

S

CKG Environmental, Inc.

Fuel Oil/Diesel Contour Map, August 28, 2017
Owens-Brockway Glass Container Facility
3600 Alameda Avenue, Oakland California

PLATE
3

APPENDIX A

WELL GAUGING DATA

Project # 170828-MM1 Date 8-28-17 Client CKG Environmental

Site 3600 Alameda Ave. Oakland CA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
MW-1	—	UNABLE TO LOCATE								
MW-2R	0822	2					10.88	22.46		
MW-3R	0830	2					13.20	21.75		
MW-5	0908	2					12.32	22.62		
MW-6	0916	2					13.62	16.73		
MW-7	0913	2					12.31	16.14		
MW-8	0830	2					9.71	23.66		
MW-9	—	UNABLE TO LOCATE								
MW-10	0817	2					10.11	18.83		
MW-13	0845	2					10.62	18.18		sock
MW-15	0823	2					11.80	28.96		sock
MW-16	0815	2					9.18	19.73		sock
MW-17	0810	2					9.53	15.90		sock
MW-19	—	UNABLE TO LOCATE								
MW-20	0900	2					8.98	21.82		sock
MW-21	0920	2					12.36	28.77		

WELL MONITORING DATA SHEET

Project #: 170828-MM1	Client: CKG Environmental
Sampler: MM	Date: 8-28-17
Well I.D.: MW-1	Well Diameter: 2 3 4 6 8 ___
Total Well Depth (TD): —	Depth to Water (DTW): —
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: —	

Purge Method: Bailer / Disposable Bailer / Positive Air Displacement / Electric Submersible / Waterra / Peristaltic / Extraction Pump / Other_____

Sampling Method: Bailer / Disposable Bailer / Extraction Port / Dedicated Tubing / Other: _____

— (Gals.) X	—	= — Gals.
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
	UNABLE TO LOCATE WELL					
	NO SAMPLE TAKEN					

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date: Sampling Time: Depth to Water:

Sample I.D.: Laboratory:

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:		mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:		mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 170828-MM1	Client: CKG Environmental
Sampler: CR	Date: 8/28/17
Well I.D.: MW-2R	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 22.46	Depth to Water (DTW): 10.88
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 13.20	

Purge Method: Bailer, (Disposable Bailer), Positive Air Displacement, Electric Submersible, Waterra, Peristaltic, Extraction Pump, Other_____

Sampling Method: Bailer, (Disposable Bailer), Extraction Port, Dedicated Tubing, Other: _____

1.9 (Gals.) X 3 = 5.7 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	(0.16)	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
0956	21.8	11.32	2348	93	1.9	odor
1001	22.0	11.37	2405	52	3.8	↓
1005	22.2	11.42	2409	60	5.7	↓

Did well dewater? Yes (No) Gallons actually evacuated: 5.7

Sampling Date: 8/28/17 Sampling Time: 1220 Depth to Water: 10.90

Sample I.D.: MW-2R Laboratory: McCampbell

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	— mg/L	Post-purge:	2.05 mg/L	
O.R.P. (if req'd):	Pre-purge:	— mV	Post-purge:	-78 mV	

WELL MONITORING DATA SHEET

Project #: 170828-MM1	Client: CKG Environmental
Sampler: MM	Date: 8-28-17
Well I.D.: MW-3R	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 21.75	Depth to Water (DTW): 13.20
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.91	

Purge Method: Bailer, ~~Disposable Bailer~~, Positive Air Displacement, Electric Submersible, Waterra, Peristaltic, Extraction Pump, Other_____

Sampling Method: Bailer, ~~Disposable Bailer~~, Extraction Port, Dedicated Tubing, Other: _____

1.4 (Gals.) X 3 = 4.2 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1043	22.8	7.60	1831	>1000	1.4	Brown
1046	22.0	7.60	1867	>1000	2.8	↓
1048	21.8	7.60	1853	>1000	4.2	↓

Did well dewater? Yes (No) Gallons actually evacuated: 4.5

Sampling Date: 8-28-17 Sampling Time: 1315 Depth to Water: 14.71

Sample I.D.: MW-3R Laboratory: McCampbell

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: see COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	(Post-purge:)	5.83	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	(Post-purge:)	49	mV

WELL MONITORING DATA SHEET

Project #: 170928 - MM1	Client: CKG
Sampler: WS	Date: 08/28/17
Well I.D.: MW-5	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 22.62	Depth to Water (DTW): 12.32
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.38	

Purge Method: Bailer — 10.3
✓ Disposable Bailer
Positive Air Displacement
Electric Submersible
Waterra
Peristaltic
Extraction Pump
Other_____

Sampling Method: Bailer
✓ Disposable Bailer
Extraction Port
Dedicated Tubing
Other: _____

1.65 (Gals.) X 3 = 4.95 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1002	68.6	8.35	1169	864	1.75	Turbid, odor
1005	68.4	8.11	1236	>1000	3.50	Stronger odor
1008	68.3	7.74	1301	>1000	5.25	↓

Did well dewater? Yes (No) Gallons actually evacuated: 5.25

Sampling Date: 08/28/17 Sampling Time: 1215 Depth to Water: 14.14

Sample I.D.: MW-5 Laboratory: McCampbell

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See CoC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	3.11	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	110	mV

WELL MONITORING DATA SHEET

Project #: 170828-MM1	Client: CKG
Sampler: CDS	Date: 8/28/17
Well I.D.: MW-6	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 16.73	Depth to Water (DTW): 13.62
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.24	

Purge Method: ✓Bailer (S.U) Waterra
✓Disposable Bailer Peristaltic
Positive Air Displacement Extraction Pump
Electric Submersible Other_____

Sampling Method: Bailer
✓Disposable Bailer
Extraction Port
Dedicated Tubing
Other: _____

1 Case Volume		Specified Volumes		Calculated Volume
.50	(Gals.) X	3	=	1.50 Gals.

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0946	69.6	8.50	1149	>1000	0.50	Highly turbid
0947	* Well dewatered @ 0.75 gallons *					
1221	69.6	8.32	1179	>1000	GRAB	

Did well dewater? (Yes) No Gallons actually evacuated: 0.75

Sampling Date: 8/29/17 Sampling Time: 1230 Depth to Water: 13.63

Sample I.D.: MW-6 Laboratory: McCampbell

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See CoC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	2.59 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	110 mV

WELL MONITORING DATA SHEET

Project #: 170829-MM1	Client: CRT
Sampler: WS	Date: 08/28/17
Well I.D.: MW-7	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 16.14	Depth to Water (DTW): 12.31
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 13.08	

Purge Method: ✓Bailer / ✓Disposable Bailer / Positive Air Displacement / Electric Submersible / Waterra / Peristaltic / Extraction Pump / Other_____

Sampling Method: Bailer / ✓Disposable Bailer / Extraction Port / Dedicated Tubing / Other: _____

0.62 (Gals.) X 3 = 1.86 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
0929	72.3	8.53	3810	71000	0.75	Highly turbid
0931	72.5	7.92	3786	71000	1.50	↓
0933	72.4	7.76	3715	>1000	2.25	↓

Did well dewater? Yes (No) Gallons actually evacuated: 2.25

Sampling Date: 08/28/17 Sampling Time: 1245 Depth to Water: 12.73

Sample I.D.: ~~See CoC~~ (60) MW-5 Laboratory: McCampbell

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See CoC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	2.26 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	124 mV

WELL MONITORING DATA SHEET

Project #: 170828-MM1	Client: CKG Environmental
Sampler: CR	Date: 8/28/17
Well I.D.: MW-8	Well Diameter: 2 3 4 6 8 ___
Total Well Depth (TD): 23.66	Depth to Water (DTW): 9.71
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.50	

Purge Method: Bailer, (Disposable Bailer), Positive Air Displacement, Electric Submersible, Waterra, Peristaltic, Extraction Pump, Other_____

Sampling Method: Bailer, (Disposable Bailer), Extraction Port, Dedicated Tubing, Other:_____

2.2 (Gals.) X 3 = 6.6 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	(0.16)	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1046	18.7	7.06	3376	599	2.2	gray
1051	18.2	7.27	1576	656	4.4	↓
1056	18.3	7.25	1513	497	6.6	↓

Did well dewater? Yes (No) Gallons actually evacuated: 6.6

Sampling Date: 8/28/17 Sampling Time: 1250 Depth to Water: 9.76

Sample I.D.: MW-8 Laboratory: McCampbell

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	— mg/L	Post-purge:	1.11	mg/L
O.R.P. (if req'd):	Pre-purge:	— mV	Post-purge:	-31	mV

WELL MONITORING DATA SHEET

Project #: 170828-MM1	Client: CKG Environmental
Sampler: MM	Date: 8-28-17
Well I.D.: MW-9	Well Diameter: 2 3 4 6 8 ___
Total Well Depth (TD): —	Depth to Water (DTW): —
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: —	

Purge Method: Bailer / Disposable Bailer / Positive Air Displacement / Electric Submersible / Waterra / Peristaltic / Extraction Pump / Other_____

Sampling Method: Bailer / Disposable Bailer / Extraction Port / Dedicated Tubing / Other: _____

— (Gals.) X — = — Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
	UNABLE TO LOCATE					
	NO SAMPLE TAKEN					

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date: Sampling Time: Depth to Water:

Sample I.D.: Laboratory:

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ELL MONITORING DATA SH T

Project #: 170828-MM1	Client: CKG Environmental
Sampler: CR	Date: 8/28/17
Well I.D.: MW-10	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 18.83	Depth to Water (DTW): 10.11
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.85	

Purge Method: Bailer, (Disposable Bailer), Positive Air Displacement, Electric Submersible, Waterra, Peristaltic, Extraction Pump, Other_____

Sampling Method: Bailer, (Disposable Bailer), Extraction Port, Dedicated Tubing, Other: _____

1.4 (Gals.) X 3 = 4.2 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	(0.16)	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1021	22.6	7.45	716	>1000	1.4	gray
1024	22.4	7.12	736	>1000	2.8	↓
1027	22.5	7.12	754	>1000	4.2	↓

Did well dewater? Yes (No) Gallons actually evacuated: 4.2

Sampling Date: 8/28/17 Sampling Time: 1235 Depth to Water: 10.22

Sample I.D.: MW-10 Laboratory: McCampbell

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	—	mg/L	Post-purge:	0.71 mg/L
O.R.P. (if req'd):	Pre-purge:	—	mV	Post-purge:	26 mV

WELL MONITORING DATA SHEET

Project #: 170828-MM1	Client: CKG Environmental
Sampler: MM	Date: 8-28-17
Well I.D.: MW-13	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 18.18	Depth to Water (DTW): 10.62
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.13	

Purge Method: Bailer / (Disposable Bailer) / Positive Air Displacement / Electric Submersible / Waterra / Peristaltic / Extraction Pump / Other_____

Sampling Method: Bailer / (Disposable Bailer) / Extraction Port / Dedicated Tubing / Other: _____

1.2 (Gals.) X 3 = 3.6 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1024	24.0	7.29	1183	344	1.2	cloudy
1027	22.5	7.37	1193	511	2.4	
1030	23.0	7.38	1190	569	3.6	
	Installed NEW SOCK					

Did well dewater? Yes (No) Gallons actually evacuated: 4

Sampling Date: 8-28-17 Sampling Time: 1250 Depth to Water: 10.64

Sample I.D.: MW-13 Laboratory: McCampbell

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: see COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	(Post-purge:)	0.60	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	(Post-purge:)	138	mV

WELL MONITORING DATA SHEET

Project #: 170828-MM1	Client: CLG
Sampler: WS	Date: 8/28/17
Well I.D.: MW-15	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 28.96	Depth to Water (DTW): 11.90
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 15.23	

Purge Method: Bailer / ✓Disposable Bailer / Positive Air Displacement / Electric Submersible / 17.16 / Waterra / Peristaltic / Extraction Pump / Other____

Sampling Method: Bailer / ✓Disposable Bailer / Extraction Port / Dedicated Tubing / Other: ____

2.75 (Gals.) X 3 = 8.25 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1049	70.7	8.26	1751	>1000	2.75	turbid, odor
1051	* Well dewatered @ 3.50 gallons*					

Did well dewater? (Yes) No Gallons actually evacuated: 3.50

Sampling Date: 8/28/17 Sampling Time: 1335 Depth to Water: 11.80

Sample I.D.: MW-15 Laboratory: McCampbell

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See CoC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	2.33	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	81	mV

WELL MONITORING DATA SHEET

Project #: 170826-MM1	Client: CKG Environmental
Sampler: MM	Date: 8-28-17
Well I.D.: MW-16	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 19.23	Depth to Water (DTW): 9.18
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.19	

Purge Method: Bailer; (Disposable Bailer); Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: Bailer; (Disposable Bailer); Extraction Port; Dedicated Tubing; Other: _____

1.6 (Gals.) X 3 = 4.8 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1003	24.6	7.28	706	145	1.6	cloudy, odor
1006	24.3	7.19	701	230	3.2	↓ ↓
1009	24.1	7.17	699	241	4.8	
	Installed new sock					

Did well dewater? Yes (No) Gallons actually evacuated: 5

Sampling Date: 8-28-17 (MW-16) Sampling Time: 1235 Depth to Water: 9.18

Sample I.D.: MW-16 Laboratory: McCampbell

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: see COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:		mg/L	(Post-purge:)	0.50 mg/L
O.R.P. (if req'd):	Pre-purge:		mV	(Post-purge:)	81 mV

WELL MONITORING DATA SHEET

Project #: 170828-MM1	Client: CKG
Sampler: MM	Date: 8-28-17
Well I.D.: MW-17	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 15.90	Depth to Water (DTW): 9.53
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.80	

Purge Method: Bailer; (Disposable Bailer); Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: Bailer; (Disposable Bailer); Extraction Port; Dedicated Tubing; Other: _____

1.0 (Gals.) X	3	=	3.0 Gals.
1 Case Volume	Specified Volumes		Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
0944	23.4	6.26	858	562	1.0	cloudy, odor
0947	23.2	6.51	881	>1000	2.0	↓ ↓
0949	23.3	6.72	899	>1000	3.0	
	installed new Sock					

Did well dewater? Yes (No) Gallons actually evacuated: 3.0

Sampling Date: 8-28-17 Sampling Time: 1220 Depth to Water: 9.67

Sample I.D.: MW-17 Laboratory: McCampbell

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: see COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	(Post-purge:)	0.66	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	(Post-purge:)	-44	mV

WELL MONITORING DATA SHEET

Project #: 170828-MM1	Client: CKG Environmental
Sampler: MM	Date: 8-28-17
Well I.D.: MW-19	Well Diameter: 2 3 4 6 8 ___
Total Well Depth (TD): —	Depth to Water (DTW): —
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: —	

Purge Method: Bailer, Disposable Bailer, Positive Air Displacement, Electric Submersible, Waterra, Peristaltic, Extraction Pump, Other_____

Sampling Method: Bailer, Disposable Bailer, Extraction Port, Dedicated Tubing, Other: _____

— (Gals.) X — = — Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
	UNABLE TO LOCATE					
	NO SAMPLE TAKEN					

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date: Sampling Time: Depth to Water:

Sample I.D.: Laboratory:

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ELL MONITORING DATA SH T

Project #: 170828mm-1	Client: CKG
Sampler: BD	Date: 08/28/17
Well I.D.: MW-20	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 21.82	Depth to Water (DTW): 8.98
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	D.O. Meter (if req'd): ~~YSI~~ (HACH)
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.55	

12.84 x 0.20 + 8.98

Purge Method: Bailer / Disposable Bailer / Positive Air Displacement / ~~Electric Submersible~~ / Waterra / Peristaltic / Extraction Pump / Other_____

Sampling Method: Bailer / ~~Disposable Bailer~~ / Extraction Port / Dedicated Tubing / Other: _____

1 Case Volume	Specified Volumes	Calculated Volume
2.25 (Gals.) X	3 =	6.75 Gals.

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
(2")	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1031	69.6	7.81	872.4	780	2.25	cloudy/light brown
1033	69.3	7.68	840.9	535	4.50	cloudy/light brown
1035		Well dewatered @ 5.5 gallons ~~6.75~~ BD				
1258	71.6	8.02	831.2	68	GRAB	clear

Did well dewater? (Yes) No Gallons actually evacuated: 5.50

Sampling Date: 08/28/17 Sampling Time: 1303 Depth to Water: 9.14

Sample I.D.: MW-20 Laboratory: McCampbell

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	2.96 mg/L
R.P. (if req'd):	Pre-purge:	mV	Post-purge:	103 mV

ELL MONITORING DATA SE T

Project #: 17082 mm-1	Client: CKG
Sampler: BP	Date: 08/28/
Well I.D.: MW-21	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 28.77	Depth to Water (DTW): 12.36
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI (HACH)
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 15.64	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; ~~Electric Submersible~~; Peristaltic; Extraction Pump; Other_____

16.41 x 0.20 + 12.36 Waterra

Sampling Method: Bailer; (Disposable Bailer); Extraction Port; Dedicated Tubing; Other: _____

2.75 (Gals.) X 3 = 8.25 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
~~2"~~	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1000	70.0	7.53	1838	668	2.75	cloudy/light brown
1003	69.3	7.03	1822	>1000	5.50	cloudy/light brown
1006	69.2	7.18	1784	>1000	8.25	cloudy/light brown

Did well dewater? Yes (No) Gallons actually evacuated: 8.25

Sampling Date: 08/28/17 Sampling Time: 1243 Depth to Water: 12.70

Sample I.D.: MW-21 Laboratory: McCampbell

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	3.24 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	160 mV

WELLHEAD INSPECTION CHECKLIST

Client CKG Environmental Date 8-28-17

Site Address 3600 Alameda Ave. Oakland CA

Job Number 170828-MM1 Technician MM, CR

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)	Repair Order Submitted
MW-1		UNABLE TO LOCATE						
MW-2R	X							
MW-3R	X							
MW-5						X		
MW-6	X							
MW-7	X							
MW-8	X							
MW-9		UNABLE TO LOCATE						
MW-10						X		
MW-13						X		
MW-15						X		
MW-16						X		
MW-17						X		
MW-19		UNABLE TO LOCATE						
MW-20						X		
MW-21	X							

NOTES: MW-17 -2/2 bolts MW-16 -2/2 bolts

MW-15 -2/2 bolts MW-13 well lid broken

MW-10 NO WELL CID MW-5 2/2 bolts missing

MW-20 -2/2 bolts

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME 3600 Alameda Ave. Oakland ca				PROJECT NUMBER 170828-MM1			
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS
MYRON L Ultrameter II	6210806	8-28-17	pH 7.0 10.0 4.0	pH 6.98 10.01 4.02	yes		mm
↓	↓		Cond. 3900 µs	Cond 3897 µs	yes		mm
↓	↓	↓	ORP 231.0 mv	ORP 228.6 mv	yes	25 C	mm
YSI 556	BTS 001	↓	DO 100%	DO 101.2%	yes		mm

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME	CKG Environmental Owens Brockway Glass Plant Oakland, CA			PROJECT NUMBER	170828-MM1		
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS
Myron L Ultrameter II	8246209	8/28/17 0940	pH 7, 10, 4	7.01, 10.00, 4.01	yes	20.9	CR
↓	↓	↓	Cond 3900 ms	3898	yes	20.7	CR
↓	↓	↓	ORP 236	236.0	yes	21.1	CR
D.O. YSI Meter	06E1424AJ	8/28/17 0945	D.O. %	100.1%	yes		CR

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME 3600 Alameda Ave. Oakland CA				PROJECT NUMBER 170828mm-1			
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP. F	INITIALS
Myron L	6d42106	0930 8/28/17	pH 7 10 4	7.00 10.00 4.00	✓	75.9 76.2 76.3	BD
↓	↓	↓	cond 3900	3900	✓	76.4	BD
YSI 556 DO	04F0802DAE	0930 8/28/17	DO 100%	103.6%	✓	70.6	BD

APPENDIX B

McCampbell Analytical, Inc.
"When Quality Counts"

Analytical Report

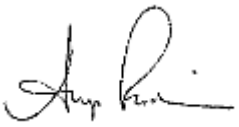
WorkOrder: 1708D30

Report Created for: CKG Environmental

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

Project Contact: Christina Kennedy
Project P.O.:
Project Name: 170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA
Project Received: 08/28/2017

Analytical Report reviewed & approved for release on 09/05/2017 by:



Angela Rydelius,
Laboratory Manager

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"When Quality Counts"

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Glossary of Terms & Qualifier Definitions

Client: CKG Environmental
Project: 170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA
WorkOrder: 1708D30

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

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"When Quality Counts"

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Glossary of Terms & Qualifier Definitions

Client: CKG Environmental
Project: 170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA
WorkOrder: 1708D30

Analytical Qualifiers

S	Surrogate spike recovery outside accepted recovery limits
a4	Reporting limits raised due to the sample's matrix prohibiting a full volume extraction.
a14	Reporting limit raised due to the physical nature of the sample
b1	Aqueous sample that contains greater than ~1 vol. % sediment
b6	Lighter than water immiscible sheen/product is present
c2	Surrogate recovery outside of the control limits due to matrix interference.
d7	Strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram
d9	No recognizable pattern
e2	Diesel range compounds are significant; no recognizable pattern
e3	Aged diesel is significant
e4/e11	Gasoline range compounds are significant.; and/or Pattern resembles stoddard solvent/mineral spirit
e4	Gasoline range compounds are significant.
e7	Oil range compounds are significant
e8	Pattern resembles kerosene/kerosene range/jet fuel range

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	E300.1
Date Prepared:	8/28/17-8/30/17	**Analytical Method:**	E300.1
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	mg/L

Inorganic Anions by IC

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-2R	**1708D30-001C**	**Water**	**08/28/2017 12:20**	**IC3**	**144654**

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	**0.35**	0.20	2	08/28/2017 23:11
Nitrate as $NO3^{-}$	**1.5**	0.88	2	08/28/2017 23:11
Nitrite as N	**1.4**	0.20	2	08/28/2017 23:11
Nitrite as $NO2^{-}$	**4.6**	0.66	2	08/28/2017 23:11
Nitrate & Nitrite as N	**1.8**	0.20	2	08/28/2017 23:11
Sulfate	**67**	10	100	08/29/2017 17:08

Surrogates	REC (%)	Limits	
Formate	99	85-115	08/28/2017 23:11

Analyst(s): AO Analytical Comments: a14

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3R	**1708D30-002C**	**Water**	**08/28/2017 13:15**	**IC3**	**144654**

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	**0.29**	0.20	2	08/28/2017 23:29
Nitrate as $NO3^{-}$	**1.3**	0.88	2	08/28/2017 23:29
Nitrite as N	ND	0.20	2	08/28/2017 23:29
Nitrite as $NO2^{-}$	ND	0.66	2	08/28/2017 23:29
Nitrate & Nitrite as N	**0.29**	0.20	2	08/28/2017 23:29
Sulfate	**85**	10	100	08/29/2017 17:25

Surrogates	REC (%)	Limits	
Formate	90	85-115	08/28/2017 23:29

Analyst(s): AO Analytical Comments: a14,c2

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	E300.1
Date Prepared:	8/28/17-8/30/17	**Analytical Method:**	E300.1
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	mg/L

Inorganic Anions by IC

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-5	**1708D30-003C**	**Water**	**08/28/2017 12:15**	**IC3**	**144654**

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	ND	0.20	2	08/28/2017 23:46
Nitrate as $NO3^{-}$	ND	0.88	2	08/28/2017 23:46
Nitrite as N	ND	0.20	2	08/28/2017 23:46
Nitrite as $NO2^{-}$	ND	0.66	2	08/28/2017 23:46
Nitrate & Nitrite as N	ND	0.20	2	08/28/2017 23:46
Sulfate	**5.4**	0.20	2	08/28/2017 23:46

Surrogates	REC (%)	Limits	
Formate	91	85-115	08/28/2017 23:46

Analyst(s): AO Analytical Comments: a14

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-6	**1708D30-004C**	**Water**	**08/28/2017 12:30**	**IC3**	**144654**

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	ND	0.20	2	08/29/2017 00:04
Nitrate as $NO3^{-}$	ND	0.88	2	08/29/2017 00:04
Nitrite as N	ND	0.20	2	08/29/2017 00:04
Nitrite as $NO2^{-}$	ND	0.66	2	08/29/2017 00:04
Nitrate & Nitrite as N	ND	0.20	2	08/29/2017 00:04
Sulfate	**210**	20	200	08/29/2017 17:43

Surrogates	REC (%)	Limits	
Formate	92	85-115	08/29/2017 00:04

Analyst(s): AO Analytical Comments: a14,b1

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	E300.1
Date Prepared:	8/28/17-8/30/17	**Analytical Method:**	E300.1
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	mg/L

Inorganic Anions by IC

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-7	**1708D30-005C**	**Water**	**08/28/2017 12:45**	**IC3**	**144654**

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	ND	0.50	5	08/29/2017 00:22
Nitrate as $NO3^{-}$	ND	2.2	5	08/29/2017 00:22
Nitrite as N	ND	0.50	5	08/29/2017 00:22
Nitrite as $NO2^{-}$	ND	1.6	5	08/29/2017 00:22
Nitrate & Nitrite as N	ND	0.50	5	08/29/2017 00:22
Sulfate	**640**	50	500	08/29/2017 18:00

Surrogates	REC (%)	Qualifiers	Limits	
Formate	0	S	85-115	08/29/2017 00:22

Analyst(s): AO Analytical Comments: a14,c2

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-8	**1708D30-006C**	**Water**	**08/28/2017 12:50**	**IC3**	**144654**

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	**3.5**	0.20	2	08/29/2017 00:39
Nitrate as $NO3^{-}$	**15**	0.88	2	08/29/2017 00:39
Nitrite as N	**0.27**	0.20	2	08/29/2017 00:39
Nitrite as $NO2^{-}$	**0.88**	0.66	2	08/29/2017 00:39
Nitrate & Nitrite as N	**3.8**	0.20	2	08/29/2017 00:39
Sulfate	**94**	10	100	08/29/2017 18:18

Surrogates	REC (%)	Limits	
Formate	91	85-115	08/29/2017 00:39

Analyst(s): AO

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	E300.1
Date Prepared:	8/28/17-8/30/17	**Analytical Method:**	E300.1
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	mg/L

Inorganic Anions by IC

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-10	**1708D30-007C**	**Water**	**08/28/2017 12:35**	**IC3**	**144654**

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	**0.28**	0.20	2	08/29/2017 00:57
Nitrate as $NO3^{-}$	**1.2**	0.88	2	08/29/2017 00:57
Nitrite as N	ND	0.20	2	08/29/2017 00:57
Nitrite as $NO2^{-}$	ND	0.66	2	08/29/2017 00:57
Nitrate & Nitrite as N	**0.28**	0.20	2	08/29/2017 00:57
Sulfate	**1.5**	0.20	2	08/29/2017 00:57

Surrogates	REC (%)	Limits	
Formate	95	85-115	08/29/2017 00:57

Analyst(s): AO Analytical Comments: a14

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-13	**1708D30-008C**	**Water**	**08/28/2017 12:50**	**IC3**	**144654**

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	**0.55**	0.20	2	08/29/2017 01:50
Nitrate as $NO3^{-}$	**2.5**	0.88	2	08/29/2017 01:50
Nitrite as N	**0.24**	0.20	2	08/29/2017 01:50
Nitrite as $NO2^{-}$	**0.79**	0.66	2	08/29/2017 01:50
Nitrate & Nitrite as N	**0.80**	0.20	2	08/29/2017 01:50
Sulfate	**120**	10	100	08/29/2017 19:10

Surrogates	REC (%)	Limits	
Formate	91	85-115	08/29/2017 01:50

Analyst(s): AO

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	E300.1
Date Prepared:	8/28/17-8/30/17	**Analytical Method:**	E300.1
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	mg/L

Inorganic Anions by IC

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-15	**1708D30-009C**	**Water**	**08/28/2017 13:35**	**IC3**	**144654**

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	**1.2**	0.20	2	08/29/2017 02:07
Nitrate as $NO3^-$	**5.2**	0.88	2	08/29/2017 02:07
Nitrite as N	**0.22**	0.20	2	08/29/2017 02:07
Nitrite as $NO2^-$	**0.71**	0.66	2	08/29/2017 02:07
Nitrate & Nitrite as N	**1.4**	0.20	2	08/29/2017 02:07
Sulfate	**240**	20	200	08/29/2017 19:28

Surrogates	REC (%)	Qualifiers	Limits	
Formate	84	S	85-115	08/29/2017 02:07

Analyst(s): AO Analytical Comments: c2

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-16	**1708D30-010C**	**Water**	**08/28/2017 12:35**	**IC3**	**144654**

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	**1.5**	0.10	1	08/29/2017 02:25
Nitrate as $NO3^-$	**6.5**	0.44	1	08/29/2017 02:25
Nitrite as N	**0.18**	0.10	1	08/29/2017 02:25
Nitrite as $NO2^-$	**0.60**	0.33	1	08/29/2017 02:25
Nitrate & Nitrite as N	**1.7**	0.10	1	08/29/2017 02:25
Sulfate	**64**	10	100	08/30/2017 00:42

Surrogates	REC (%)	Limits	
Formate	107	85-115	08/29/2017 02:25

Analyst(s): AO

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	E300.1
Date Prepared:	8/28/17-8/30/17	**Analytical Method:**	E300.1
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	mg/L

Inorganic Anions by IC

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-17	**1708D30-011C**	**Water**	**08/28/2017 12:20**	**IC3**	**144654**

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	**1.3**	0.20	2	08/29/2017 03:18
Nitrate as $NO3^-$	**5.8**	0.88	2	08/29/2017 03:18
Nitrite as N	**0.28**	0.20	2	08/29/2017 03:18
Nitrite as $NO2^-$	**0.93**	0.66	2	08/29/2017 03:18
Nitrate & Nitrite as N	**1.6**	0.20	2	08/29/2017 03:18
Sulfate	**38**	2.0	20	08/30/2017 01:34

Surrogates	REC (%)	Qualifiers	Limits	
Formate	131	S	85-115	08/29/2017 03:18

Analyst(s): AO

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-20	**1708D30-012C**	**Water**	**08/28/2017 13:03**	**IC3**	**144654**

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	**0.99**	0.20	2	08/29/2017 03:35
Nitrate as $NO3^-$	**4.4**	0.88	2	08/29/2017 03:35
Nitrite as N	ND	0.20	2	08/29/2017 03:35
Nitrite as $NO2^-$	ND	0.66	2	08/29/2017 03:35
Nitrate & Nitrite as N	**0.99**	0.20	2	08/29/2017 03:35
Sulfate	**64**	10	100	08/30/2017 01:52

Surrogates	REC (%)	Limits	
Formate	92	85-115	08/29/2017 03:35

Analyst(s): AO Analytical Comments: a14

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	E300.1
Date Prepared:	8/28/17-8/30/17	**Analytical Method:**	E300.1
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	mg/L

Inorganic Anions by IC

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-21	**1708D30-013C**	**Water**	**08/28/2017 12:43**	**IC3**	**144654**

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	**5.6**	0.20	2	08/29/2017 03:53
Nitrate as $NO3^{-}$	**25**	0.88	2	08/29/2017 03:53
Nitrite as N	**0.46**	0.20	2	08/29/2017 03:53
Nitrite as $NO2^{-}$	**1.5**	0.66	2	08/29/2017 03:53
Nitrate & Nitrite as N	**6.1**	0.20	2	08/29/2017 03:53
Sulfate	**150**	20	200	08/30/2017 02:09

Surrogates	REC (%)	Limits	
Formate	86	85-115	08/29/2017 03:53

Analyst(s): AO

Analytical Comments: c2

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	SW3510C
Date Prepared:	8/28/17	**Analytical Method:**	SW8082
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	µg/L

Polychlorinated Biphenyls (PCBs) Aroclors (Decanted)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3R	1708D30-002F	Water	08/28/2017 13:15	GC20	144488

Analytes	Result	RL	DF	Date Analyzed
Aroclor1016	ND	0.50	1	08/31/2017 16:21
Aroclor1221	ND	0.50	1	08/31/2017 16:21
Aroclor1232	ND	0.50	1	08/31/2017 16:21
Aroclor1242	ND	0.50	1	08/31/2017 16:21
Aroclor1248	ND	0.50	1	08/31/2017 16:21
Aroclor1254	ND	0.50	1	08/31/2017 16:21
Aroclor1260	ND	0.50	1	08/31/2017 16:21
PCBs, total	ND	0.50	1	08/31/2017 16:21

Surrogates	REC (%)	Limits	
Decachlorobiphenyl	91	70-130	08/31/2017 16:21

Analyst(s): CK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-15	1708D30-009F	Water	08/28/2017 13:35	GC20	144488

Analytes	Result	RL	DF	Date Analyzed
Aroclor1016	ND	0.50	1	09/01/2017 01:27
Aroclor1221	ND	0.50	1	09/01/2017 01:27
Aroclor1232	ND	0.50	1	09/01/2017 01:27
Aroclor1242	ND	0.50	1	09/01/2017 01:27
Aroclor1248	ND	0.50	1	09/01/2017 01:27
Aroclor1254	ND	0.50	1	09/01/2017 01:27
Aroclor1260	ND	0.50	1	09/01/2017 01:27
PCBs, total	ND	0.50	1	09/01/2017 01:27

Surrogates	REC (%)	Limits	
Decachlorobiphenyl	102	70-130	09/01/2017 01:27

Analyst(s): CK

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	SW3510C
Date Prepared:	8/28/17	**Analytical Method:**	SW8082
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	µg/L

Polychlorinated Biphenyls (PCBs) Aroclors (Decanted)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-21	**1708D30-013F**	**Water**	**08/28/2017 12:43**	**GC20**	**144488**

Analytes	Result	RL	DF	Date Analyzed
Aroclor1016	ND	0.50	1	09/01/2017 02:16
Aroclor1221	ND	0.50	1	09/01/2017 02:16
Aroclor1232	ND	0.50	1	09/01/2017 02:16
Aroclor1242	ND	0.50	1	09/01/2017 02:16
Aroclor1248	ND	0.50	1	09/01/2017 02:16
Aroclor1254	ND	0.50	1	09/01/2017 02:16
Aroclor1260	ND	0.50	1	09/01/2017 02:16
PCBs, total	ND	0.50	1	09/01/2017 02:16

Surrogates	REC (%)	Limits	
Decachlorobiphenyl	99	70-130	09/01/2017 02:16

Analyst(s): CK

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	SW5030B
Date Prepared:	9/1/17-9/2/17	**Analytical Method:**	SW8260B
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-2R	**1708D30-001B**	**Water**	**08/28/2017 12:20**	**GC18**	**144832**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	09/01/2017 19:24
1,2-Dibromoethane (EDB)	ND	0.50	1	09/01/2017 19:24
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	09/01/2017 19:24
Ethylbenzene	ND	0.50	1	09/01/2017 19:24
Methyl-t-butyl ether (MTBE)	ND	0.50	1	09/01/2017 19:24
Naphthalene	ND	0.50	1	09/01/2017 19:24
Toluene	ND	0.50	1	09/01/2017 19:24
Xylenes, Total	ND	0.50	1	09/01/2017 19:24

Surrogates	REC (%)	Limits	
Dibromofluoromethane	109	78-134	09/01/2017 19:24
Toluene-d8	113	82-120	09/01/2017 19:24
4-BFB	91	69-131	09/01/2017 19:24

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3R	**1708D30-002B**	**Water**	**08/28/2017 13:15**	**GC18**	**144832**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	09/01/2017 20:05
1,2-Dibromoethane (EDB)	ND	0.50	1	09/01/2017 20:05
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	09/01/2017 20:05
Ethylbenzene	ND	0.50	1	09/01/2017 20:05
Methyl-t-butyl ether (MTBE)	ND	0.50	1	09/01/2017 20:05
Naphthalene	ND	0.50	1	09/01/2017 20:05
Toluene	ND	0.50	1	09/01/2017 20:05
Xylenes, Total	ND	0.50	1	09/01/2017 20:05

Surrogates	REC (%)	Limits	
Dibromofluoromethane	112	78-134	09/01/2017 20:05
Toluene-d8	116	82-120	09/01/2017 20:05
4-BFB	92	69-131	09/01/2017 20:05

Analyst(s): AK

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	SW5030B
Date Prepared:	9/1/17-9/2/17	**Analytical Method:**	SW8260B
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-5	**1708D30-003B**	**Water**	**08/28/2017 12:15**	**GC18**	**144832**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	09/01/2017 20:45
1,2-Dibromoethane (EDB)	ND	0.50	1	09/01/2017 20:45
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	09/01/2017 20:45
Ethylbenzene	ND	0.50	1	09/01/2017 20:45
Methyl-t-butyl ether (MTBE)	ND	0.50	1	09/01/2017 20:45
Naphthalene	ND	0.50	1	09/01/2017 20:45
Toluene	ND	0.50	1	09/01/2017 20:45
Xylenes, Total	ND	0.50	1	09/01/2017 20:45

Surrogates	REC (%)	Limits	
Dibromofluoromethane	113	78-134	09/01/2017 20:45
Toluene-d8	115	82-120	09/01/2017 20:45
4-BFB	93	69-131	09/01/2017 20:45

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-6	**1708D30-004B**	**Water**	**08/28/2017 12:30**	**GC18**	**144832**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	09/01/2017 21:26
1,2-Dibromoethane (EDB)	ND	0.50	1	09/01/2017 21:26
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	09/01/2017 21:26
Ethylbenzene	ND	0.50	1	09/01/2017 21:26
Methyl-t-butyl ether (MTBE)	ND	0.50	1	09/01/2017 21:26
Naphthalene	ND	0.50	1	09/01/2017 21:26
Toluene	ND	0.50	1	09/01/2017 21:26
Xylenes, Total	ND	0.50	1	09/01/2017 21:26

Surrogates	REC (%)	Limits	
Dibromofluoromethane	115	78-134	09/01/2017 21:26
Toluene-d8	115	82-120	09/01/2017 21:26
4-BFB	95	69-131	09/01/2017 21:26

Analyst(s): AK Analytical Comments: b1

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	SW5030B
Date Prepared:	9/1/17-9/2/17	**Analytical Method:**	SW8260B
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-7	**1708D30-005B**	**Water**	**08/28/2017 12:45**	**GC18**	**144832**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	09/01/2017 22:08
1,2-Dibromoethane (EDB)	ND	0.50	1	09/01/2017 22:08
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	09/01/2017 22:08
Ethylbenzene	ND	0.50	1	09/01/2017 22:08
Methyl-t-butyl ether (MTBE)	ND	0.50	1	09/01/2017 22:08
Naphthalene	ND	0.50	1	09/01/2017 22:08
Toluene	ND	0.50	1	09/01/2017 22:08
Xylenes, Total	ND	0.50	1	09/01/2017 22:08

Surrogates	REC (%)	Limits	
Dibromofluoromethane	115	78-134	09/01/2017 22:08
Toluene-d8	116	82-120	09/01/2017 22:08
4-BFB	94	69-131	09/01/2017 22:08

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-8	**1708D30-006B**	**Water**	**08/28/2017 12:50**	**GC18**	**144832**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	09/01/2017 22:50
1,2-Dibromoethane (EDB)	ND	0.50	1	09/01/2017 22:50
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	09/01/2017 22:50
Ethylbenzene	ND	0.50	1	09/01/2017 22:50
Methyl-t-butyl ether (MTBE)	ND	0.50	1	09/01/2017 22:50
Naphthalene	ND	0.50	1	09/01/2017 22:50
Toluene	ND	0.50	1	09/01/2017 22:50
Xylenes, Total	ND	0.50	1	09/01/2017 22:50

Surrogates	REC (%)	Limits	
Dibromofluoromethane	113	78-134	09/01/2017 22:50
Toluene-d8	114	82-120	09/01/2017 22:50
4-BFB	95	69-131	09/01/2017 22:50

Analyst(s): AK

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	SW5030B
Date Prepared:	9/1/17-9/2/17	**Analytical Method:**	SW8260B
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-10	**1708D30-007B**	**Water**	**08/28/2017 12:35**	**GC18**	**144832**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	09/01/2017 23:32
1,2-Dibromoethane (EDB)	ND	0.50	1	09/01/2017 23:32
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	09/01/2017 23:32
Ethylbenzene	ND	0.50	1	09/01/2017 23:32
Methyl-t-butyl ether (MTBE)	ND	0.50	1	09/01/2017 23:32
Naphthalene	ND	0.50	1	09/01/2017 23:32
Toluene	ND	0.50	1	09/01/2017 23:32
Xylenes, Total	ND	0.50	1	09/01/2017 23:32

Surrogates	REC (%)	Limits	
Dibromofluoromethane	115	78-134	09/01/2017 23:32
Toluene-d8	114	82-120	09/01/2017 23:32
4-BFB	100	69-131	09/01/2017 23:32

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-13	**1708D30-008B**	**Water**	**08/28/2017 12:50**	**GC18**	**144832**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	09/02/2017 00:14
1,2-Dibromoethane (EDB)	ND	0.50	1	09/02/2017 00:14
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	09/02/2017 00:14
Ethylbenzene	ND	0.50	1	09/02/2017 00:14
Methyl-t-butyl ether (MTBE)	ND	0.50	1	09/02/2017 00:14
Naphthalene	ND	0.50	1	09/02/2017 00:14
Toluene	ND	0.50	1	09/02/2017 00:14
Xylenes, Total	ND	0.50	1	09/02/2017 00:14

Surrogates	REC (%)	Limits	
Dibromofluoromethane	116	78-134	09/02/2017 00:14
Toluene-d8	115	82-120	09/02/2017 00:14
4-BFB	96	69-131	09/02/2017 00:14

Analyst(s): AK

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	SW5030B
Date Prepared:	9/1/17-9/2/17	**Analytical Method:**	SW8260B
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-15	**1708D30-009B**	**Water**	**08/28/2017 13:35**	**GC18**	**144832**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	09/02/2017 00:55
1,2-Dibromoethane (EDB)	ND	0.50	1	09/02/2017 00:55
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	09/02/2017 00:55
Ethylbenzene	ND	0.50	1	09/02/2017 00:55
Methyl-t-butyl ether (MTBE)	ND	0.50	1	09/02/2017 00:55
Naphthalene	ND	0.50	1	09/02/2017 00:55
Toluene	ND	0.50	1	09/02/2017 00:55
Xylenes, Total	ND	0.50	1	09/02/2017 00:55

Surrogates	REC (%)	Limits	
Dibromofluoromethane	114	78-134	09/02/2017 00:55
Toluene-d8	115	82-120	09/02/2017 00:55
4-BFB	91	69-131	09/02/2017 00:55

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-16	**1708D30-010B**	**Water**	**08/28/2017 12:35**	**GC18**	**144832**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	09/02/2017 01:37
1,2-Dibromoethane (EDB)	ND	0.50	1	09/02/2017 01:37
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	09/02/2017 01:37
Ethylbenzene	ND	0.50	1	09/02/2017 01:37
Methyl-t-butyl ether (MTBE)	ND	0.50	1	09/02/2017 01:37
Naphthalene	ND	0.50	1	09/02/2017 01:37
Toluene	ND	0.50	1	09/02/2017 01:37
Xylenes, Total	ND	0.50	1	09/02/2017 01:37

Surrogates	REC (%)	Limits	
Dibromofluoromethane	114	78-134	09/02/2017 01:37
Toluene-d8	114	82-120	09/02/2017 01:37
4-BFB	88	69-131	09/02/2017 01:37

Analyst(s): AK

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	SW5030B
Date Prepared:	9/1/17-9/2/17	**Analytical Method:**	SW8260B
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-17	**1708D30-011B**	**Water**	**08/28/2017 12:20**	**GC18**	**144832**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	09/02/2017 02:18
1,2-Dibromoethane (EDB)	ND	0.50	1	09/02/2017 02:18
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	09/02/2017 02:18
Ethylbenzene	ND	0.50	1	09/02/2017 02:18
Methyl-t-butyl ether (MTBE)	**2.4**	0.50	1	09/02/2017 02:18
Naphthalene	ND	0.50	1	09/02/2017 02:18
Toluene	ND	0.50	1	09/02/2017 02:18
Xylenes, Total	ND	0.50	1	09/02/2017 02:18

Surrogates	REC (%)	Limits	
Dibromofluoromethane	111	78-134	09/02/2017 02:18
Toluene-d8	110	82-120	09/02/2017 02:18
4-BFB	95	69-131	09/02/2017 02:18

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-20	**1708D30-012B**	**Water**	**08/28/2017 13:03**	**GC38**	**144832**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	09/02/2017 21:22
1,2-Dibromoethane (EDB)	ND	0.50	1	09/02/2017 21:22
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	09/02/2017 21:22
Ethylbenzene	ND	0.50	1	09/02/2017 21:22
Methyl-t-butyl ether (MTBE)	ND	0.50	1	09/02/2017 21:22
Naphthalene	ND	0.50	1	09/02/2017 21:22
Toluene	ND	0.50	1	09/02/2017 21:22
Xylenes, Total	ND	0.50	1	09/02/2017 21:22

Surrogates	REC (%)	Limits	
Dibromofluoromethane	121	78-134	09/02/2017 21:22
Toluene-d8	109	82-120	09/02/2017 21:22
4-BFB	108	69-131	09/02/2017 21:22

Analyst(s): HK

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	SW5030B
Date Prepared:	9/1/17-9/2/17	**Analytical Method:**	SW8260B
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-21	**1708D30-013B**	**Water**	**08/28/2017 12:43**	**GC38**	**144832**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	09/02/2017 22:01
1,2-Dibromoethane (EDB)	ND	0.50	1	09/02/2017 22:01
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	09/02/2017 22:01
Ethylbenzene	ND	0.50	1	09/02/2017 22:01
Methyl-t-butyl ether (MTBE)	ND	0.50	1	09/02/2017 22:01
Naphthalene	ND	0.50	1	09/02/2017 22:01
Toluene	ND	0.50	1	09/02/2017 22:01
Xylenes, Total	ND	0.50	1	09/02/2017 22:01

Surrogates	REC (%)	Limits	
Dibromofluoromethane	120	78-134	09/02/2017 22:01
Toluene-d8	110	82-120	09/02/2017 22:01
4-BFB	105	69-131	09/02/2017 22:01

Analyst(s): HK

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	SM2320 B-1997
Date Prepared:	8/29/17	**Analytical Method:**	SM2320 B
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	mg $CaCO_3$/L

Total & Speciated Alkalinity as Calcium Carbonate

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-2R	**1708D30-001D**	**Water**	**08/28/2017 12:20**	**Titrino**	**144569**

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	**590**	125	25	08/29/2017 12:30
Carbonate	**590**	125	25	08/29/2017 12:30
Bicarbonate	ND	125	25	08/29/2017 12:30
Hydroxide	ND	125	25	08/29/2017 12:30

Analyst(s): HN

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3R	**1708D30-002D**	**Water**	**08/28/2017 13:15**	**Titrino**	**144569**

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	**867**	5.00	1	08/29/2017 12:48
Carbonate	ND	5.00	1	08/29/2017 12:48
Bicarbonate	**867**	5.00	1	08/29/2017 12:48
Hydroxide	ND	5.00	1	08/29/2017 12:48

Analyst(s): HN

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-5	**1708D30-003D**	**Water**	**08/28/2017 12:15**	**Titrino**	**144569**

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	**622**	5.00	1	08/29/2017 13:02
Carbonate	ND	5.00	1	08/29/2017 13:02
Bicarbonate	**622**	5.00	1	08/29/2017 13:02
Hydroxide	ND	5.00	1	08/29/2017 13:02

Analyst(s): HN

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	SM2320 B-1997
Date Prepared:	8/29/17	**Analytical Method:**	SM2320 B
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	mg $CaCO_3$/L

Total & Speciated Alkalinity as Calcium Carbonate

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-6	**1708D30-004D**	**Water**	**08/28/2017 12:30**	**Titrino**	**144569**

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	**292**	5.00	1	08/29/2017 13:10
Carbonate	ND	5.00	1	08/29/2017 13:10
Bicarbonate	**292**	5.00	1	08/29/2017 13:10
Hydroxide	ND	5.00	1	08/29/2017 13:10

Analyst(s): HN Analytical Comments: b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-7	**1708D30-005D**	**Water**	**08/28/2017 12:45**	**Titrino**	**144569**

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	**516**	5.00	1	08/29/2017 13:22
Carbonate	ND	5.00	1	08/29/2017 13:22
Bicarbonate	**516**	5.00	1	08/29/2017 13:22
Hydroxide	ND	5.00	1	08/29/2017 13:22

Analyst(s): HN

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-8	**1708D30-006D**	**Water**	**08/28/2017 12:50**	**Titrino**	**144569**

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	**452**	5.00	1	08/29/2017 13:33
Carbonate	ND	5.00	1	08/29/2017 13:33
Bicarbonate	**452**	5.00	1	08/29/2017 13:33
Hydroxide	ND	5.00	1	08/29/2017 13:33

Analyst(s): HN

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	SM2320 B-1997
Date Prepared:	8/29/17	**Analytical Method:**	SM2320 B
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	mg $CaCO_3$/L

Total & Speciated Alkalinity as Calcium Carbonate

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-10	**1708D30-007D**	**Water**	**08/28/2017 12:35**	**Titrino**	**144569**

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	**443**	5.00	1	08/29/2017 13:47
Carbonate	ND	5.00	1	08/29/2017 13:47
Bicarbonate	**443**	5.00	1	08/29/2017 13:47
Hydroxide	ND	5.00	1	08/29/2017 13:47

Analyst(s): HN

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-13	**1708D30-008D**	**Water**	**08/28/2017 12:50**	**Titrino**	**144569**

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	**411**	5.00	1	08/29/2017 14:06
Carbonate	ND	5.00	1	08/29/2017 14:06
Bicarbonate	**411**	5.00	1	08/29/2017 14:06
Hydroxide	ND	5.00	1	08/29/2017 14:06

Analyst(s): HN

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-15	**1708D30-009D**	**Water**	**08/28/2017 13:35**	**Titrino**	**144569**

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	**752**	5.00	1	08/29/2017 14:22
Carbonate	ND	5.00	1	08/29/2017 14:22
Bicarbonate	**752**	5.00	1	08/29/2017 14:22
Hydroxide	ND	5.00	1	08/29/2017 14:22

Analyst(s): HN

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	SM2320 B-1997
Date Prepared:	8/29/17	**Analytical Method:**	SM2320 B
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	mg $CaCO_3$/L

Total & Speciated Alkalinity as Calcium Carbonate

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-16	**1708D30-010D**	**Water**	**08/28/2017 12:35**	**Titrino**	**144569**

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	**239**	5.00	1	08/29/2017 14:29
Carbonate	ND	5.00	1	08/29/2017 14:29
Bicarbonate	**239**	5.00	1	08/29/2017 14:29
Hydroxide	ND	5.00	1	08/29/2017 14:29

Analyst(s): HN

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-17	**1708D30-011D**	**Water**	**08/28/2017 12:20**	**Titrino**	**144569**

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	**364**	5.00	1	08/29/2017 14:38
Carbonate	ND	5.00	1	08/29/2017 14:38
Bicarbonate	**364**	5.00	1	08/29/2017 14:38
Hydroxide	ND	5.00	1	08/29/2017 14:38

Analyst(s): HN

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-20	**1708D30-012D**	**Water**	**08/28/2017 13:03**	**Titrino**	**144569**

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	**328**	5.00	1	08/29/2017 14:46
Carbonate	ND	5.00	1	08/29/2017 14:46
Bicarbonate	**328**	5.00	1	08/29/2017 14:46
Hydroxide	ND	5.00	1	08/29/2017 14:46

Analyst(s): HN

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	SM2320 B-1997
Date Prepared:	8/29/17	**Analytical Method:**	SM2320 B
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	mg $CaCO_3$/L

Total & Speciated Alkalinity as Calcium Carbonate

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-21	**1708D30-013D**	**Water**	**08/28/2017 12:43**	**Titrino**	**144569**

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	**784**	5.00	1	08/29/2017 15:03
Carbonate	ND	5.00	1	08/29/2017 15:03
Bicarbonate	**784**	5.00	1	08/29/2017 15:03
Hydroxide	ND	5.00	1	08/29/2017 15:03

Analyst(s): HN

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	SW5030B
Date Prepared:	9/1/17-9/2/17	**Analytical Method:**	SW8021B/8015Bm
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	µg/L

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-2R	**1708D30-001A**	**Water**	**08/28/2017 12:20**	**GC3**	**144775**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	09/01/2017 08:57
MTBE	---	5.0	1	09/01/2017 08:57
Benzene	---	0.50	1	09/01/2017 08:57
Toluene	---	0.50	1	09/01/2017 08:57
Ethylbenzene	---	0.50	1	09/01/2017 08:57
Xylenes	---	1.5	1	09/01/2017 08:57

Surrogates	REC (%)	Limits	
aaa-TFT	103	89-115	09/01/2017 08:57

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3R	**1708D30-002A**	**Water**	**08/28/2017 13:15**	**GC3**	**144775**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	09/01/2017 09:28
MTBE	---	5.0	1	09/01/2017 09:28
Benzene	---	0.50	1	09/01/2017 09:28
Toluene	---	0.50	1	09/01/2017 09:28
Ethylbenzene	---	0.50	1	09/01/2017 09:28
Xylenes	---	1.5	1	09/01/2017 09:28

Surrogates	REC (%)	Limits	
aaa-TFT	99	89-115	09/01/2017 09:28

Analyst(s): IA

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	SW5030B
Date Prepared:	9/1/17-9/2/17	**Analytical Method:**	SW8021B/8015Bm
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	µg/L

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-5	**1708D30-003A**	**Water**	**08/28/2017 12:15**	**GC3**	**144835**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	**94**	50	1	09/01/2017 20:31
MTBE	**---**	5.0	1	09/01/2017 20:31
Benzene	**---**	0.50	1	09/01/2017 20:31
Toluene	**---**	0.50	1	09/01/2017 20:31
Ethylbenzene	**---**	0.50	1	09/01/2017 20:31
Xylenes	**---**	1.5	1	09/01/2017 20:31

Surrogates	REC (%)	Limits	
aaa-TFT	94	89-115	09/01/2017 20:31

Analyst(s): IA Analytical Comments: d7

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-6	**1708D30-004A**	**Water**	**08/28/2017 12:30**	**GC3**	**144835**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	**110**	50	1	09/01/2017 21:04
MTBE	**---**	5.0	1	09/01/2017 21:04
Benzene	**---**	0.50	1	09/01/2017 21:04
Toluene	**---**	0.50	1	09/01/2017 21:04
Ethylbenzene	**---**	0.50	1	09/01/2017 21:04
Xylenes	**---**	1.5	1	09/01/2017 21:04

Surrogates	REC (%)	Limits	
aaa-TFT	95	89-115	09/01/2017 21:04

Analyst(s): IA Analytical Comments: d7,b1

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	SW5030B
Date Prepared:	9/1/17-9/2/17	**Analytical Method:**	SW8021B/8015Bm
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	µg/L

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-7	**1708D30-005A**	**Water**	**08/28/2017 12:45**	**GC3**	**144835**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	09/01/2017 21:36
MTBE	---	5.0	1	09/01/2017 21:36
Benzene	---	0.50	1	09/01/2017 21:36
Toluene	---	0.50	1	09/01/2017 21:36
Ethylbenzene	---	0.50	1	09/01/2017 21:36
Xylenes	---	1.5	1	09/01/2017 21:36

Surrogates	REC (%)	Limits	
aaa-TFT	99	89-115	09/01/2017 21:36

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-8	**1708D30-006A**	**Water**	**08/28/2017 12:50**	**GC3**	**144835**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	**290**	50	1	09/01/2017 22:08
MTBE	---	5.0	1	09/01/2017 22:08
Benzene	---	0.50	1	09/01/2017 22:08
Toluene	---	0.50	1	09/01/2017 22:08
Ethylbenzene	---	0.50	1	09/01/2017 22:08
Xylenes	---	1.5	1	09/01/2017 22:08

Surrogates	REC (%)	Limits	
aaa-TFT	98	89-115	09/01/2017 22:08

Analyst(s): IA Analytical Comments: d7,d9

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	SW5030B
Date Prepared:	9/1/17-9/2/17	**Analytical Method:**	SW8021B/8015Bm
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	µg/L

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-10	**1708D30-007A**	**Water**	**08/28/2017 12:35**	**GC3**	**144835**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	**200**	50	1	09/02/2017 01:52
MTBE	---	5.0	1	09/02/2017 01:52
Benzene	---	0.50	1	09/02/2017 01:52
Toluene	---	0.50	1	09/02/2017 01:52
Ethylbenzene	---	0.50	1	09/02/2017 01:52
Xylenes	---	1.5	1	09/02/2017 01:52

Surrogates	REC (%)	Limits	
aaa-TFT	90	89-115	09/02/2017 01:52

Analyst(s): IA Analytical Comments: d7,d9

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-13	**1708D30-008A**	**Water**	**08/28/2017 12:50**	**GC3**	**144835**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	09/01/2017 22:41
MTBE	---	5.0	1	09/01/2017 22:41
Benzene	---	0.50	1	09/01/2017 22:41
Toluene	---	0.50	1	09/01/2017 22:41
Ethylbenzene	---	0.50	1	09/01/2017 22:41
Xylenes	---	1.5	1	09/01/2017 22:41

Surrogates	REC (%)	Limits	
aaa-TFT	100	89-115	09/01/2017 22:41

Analyst(s): IA

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	SW5030B
Date Prepared:	9/1/17-9/2/17	**Analytical Method:**	SW8021B/8015Bm
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	µg/L

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-15	**1708D30-009A**	**Water**	**08/28/2017 13:35**	**GC3**	**144835**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	09/01/2017 23:13
MTBE	---	5.0	1	09/01/2017 23:13
Benzene	---	0.50	1	09/01/2017 23:13
Toluene	---	0.50	1	09/01/2017 23:13
Ethylbenzene	---	0.50	1	09/01/2017 23:13
Xylenes	---	1.5	1	09/01/2017 23:13

Surrogates	REC (%)	Limits	
aaa-TFT	105	89-115	09/01/2017 23:13

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-16	**1708D30-010A**	**Water**	**08/28/2017 12:35**	**GC3**	**144835**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	09/01/2017 23:45
MTBE	---	5.0	1	09/01/2017 23:45
Benzene	---	0.50	1	09/01/2017 23:45
Toluene	---	0.50	1	09/01/2017 23:45
Ethylbenzene	---	0.50	1	09/01/2017 23:45
Xylenes	---	1.5	1	09/01/2017 23:45

Surrogates	REC (%)	Limits	
aaa-TFT	99	89-115	09/01/2017 23:45

Analyst(s): IA

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	SW5030B
Date Prepared:	9/1/17-9/2/17	**Analytical Method:**	SW8021B/8015Bm
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	µg/L

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-17	**1708D30-011A**	**Water**	**08/28/2017 12:20**	**GC3**	**144835**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	**330**	50	1	09/02/2017 00:17
MTBE	---	5.0	1	09/02/2017 00:17
Benzene	---	0.50	1	09/02/2017 00:17
Toluene	---	0.50	1	09/02/2017 00:17
Ethylbenzene	---	0.50	1	09/02/2017 00:17
Xylenes	---	1.5	1	09/02/2017 00:17

Surrogates	REC (%)	Limits	
aaa-TFT	115	89-115	09/02/2017 00:17

Analyst(s): IA Analytical Comments: d7,d9

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-20	**1708D30-012A**	**Water**	**08/28/2017 13:03**	**GC3**	**144835**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	09/02/2017 00:49
MTBE	---	5.0	1	09/02/2017 00:49
Benzene	---	0.50	1	09/02/2017 00:49
Toluene	---	0.50	1	09/02/2017 00:49
Ethylbenzene	---	0.50	1	09/02/2017 00:49
Xylenes	---	1.5	1	09/02/2017 00:49

Surrogates	REC (%)	Limits	
aaa-TFT	99	89-115	09/02/2017 00:49

Analyst(s): IA

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	SW5030B
Date Prepared:	9/1/17-9/2/17	**Analytical Method:**	SW8021B/8015Bm
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	µg/L

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-21	**1708D30-013A**	**Water**	**08/28/2017 12:43**	**GC3**	**144835**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	09/02/2017 01:20
MTBE	---	5.0	1	09/02/2017 01:20
Benzene	---	0.50	1	09/02/2017 01:20
Toluene	---	0.50	1	09/02/2017 01:20
Ethylbenzene	---	0.50	1	09/02/2017 01:20
Xylenes	---	1.5	1	09/02/2017 01:20

Surrogates	REC (%)	Limits	
aaa-TFT	99	89-115	09/02/2017 01:20

Analyst(s): IA

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	SM9215B
Date Prepared:	8/28/17	**Analytical Method:**	SM9215B
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	CFU/ml

Heterotrophic Bacteria

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-2R	**1708D30-001E**	**Water**	**08/28/2017 12:20**	**MICROBIOLOGY**	**144539**

Analytes	Result	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	**18**	1.0	1	---	08/31/2017 10:03

Analyst(s): AB

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3R	**1708D30-002E**	**Water**	**08/28/2017 13:15**	**MICROBIOLOGY**	**144539**

Analytes	Result	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	**7000**	100	100	---	08/31/2017 10:05

Analyst(s): AB

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-5	**1708D30-003E**	**Water**	**08/28/2017 12:15**	**MICROBIOLOGY**	**144539**

Analytes	Result	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	**11,000**	100	100	---	08/31/2017 10:07

Analyst(s): AB

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-6	**1708D30-004E**	**Water**	**08/28/2017 12:30**	**MICROBIOLOGY**	**144539**

Analytes	Result	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	**91,000**	1000	1,000	---	08/31/2017 10:09

Analyst(s): AB Analytical Comments: b1

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CA ELAP 1644

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	SM9215B
Date Prepared:	8/28/17	**Analytical Method:**	SM9215B
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	CFU/ml

Heterotrophic Bacteria

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-7	1708D30-005E	Water	08/28/2017 12:45	MICROBIOLOGY	144539

Analytes	Result	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	**3700**	100	100	---	08/31/2017 10:11

Analyst(s): AB

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-8	1708D30-006E	Water	08/28/2017 12:50	MICROBIOLOGY	144539

Analytes	Result	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	**300**	10	10	---	08/31/2017 10:13

Analyst(s): AB

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-10	1708D30-007E	Water	08/28/2017 12:35	MICROBIOLOGY	144539

Analytes	Result	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	**4100**	100	100	---	08/31/2017 10:15

Analyst(s): AB

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-13	1708D30-008E	Water	08/28/2017 12:50	MICROBIOLOGY	144539

Analytes	Result	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	**810**	10	10	---	08/31/2017 10:17

Analyst(s): AB

(Cont.)

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	SM9215B
Date Prepared:	8/28/17	**Analytical Method:**	SM9215B
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	CFU/ml

Heterotrophic Bacteria

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-15	**1708D30-009E**	**Water**	**08/28/2017 13:35**	**MICROBIOLOGY**	**144539**

Analytes	Result	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	**3600**	100	100	---	08/31/2017 10:19

Analyst(s): AB

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-16	**1708D30-010E**	**Water**	**08/28/2017 12:35**	**MICROBIOLOGY**	**144539**

Analytes	Result	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	**530**	10	10	---	08/31/2017 10:21

Analyst(s): AB

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-17	**1708D30-011E**	**Water**	**08/28/2017 12:20**	**MICROBIOLOGY**	**144541**

Analytes	Result	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	**980**	10	10	---	08/31/2017 10:28

Analyst(s): AB

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-20	**1708D30-012E**	**Water**	**08/28/2017 13:03**	**MICROBIOLOGY**	**144541**

Analytes	Result	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	**280**	10	10	---	08/31/2017 10:30

Analyst(s): AB

(Cont.)

CA ELAP 1644

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	SM9215B
Date Prepared:	8/28/17	**Analytical Method:**	SM9215B
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	CFU/ml

Heterotrophic Bacteria

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-21	**1708D30-013E**	**Water**	**08/28/2017 12:43**	**MICROBIOLOGY**	**144541**

Analytes	Result	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	**1700**	10	10	---	08/31/2017 10:32

Analyst(s): AB

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	SW3510C/3630C
Date Prepared:	8/28/17	**Analytical Method:**	SW8015B
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	µg/L

Total Extractable Petroleum Hydrocarbons w/ Silica Gel Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-2R	1708D30-001A	Water	08/28/2017 12:20	GC11A	144498

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**1900**	250	5	09/05/2017 14:36
TPH-Motor Oil (C18-C36)	**2200**	1200	5	09/05/2017 14:36

Surrogates	REC (%)	Limits	
C26	104	73-125	09/05/2017 14:36

Analyst(s): TK Analytical Comments: e2,e7,b6

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3R	1708D30-002A	Water	08/28/2017 13:15	GC9b	144498

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	50	1	09/02/2017 02:08
TPH-Motor Oil (C18-C36)	ND	250	1	09/02/2017 02:08

Surrogates	REC (%)	Limits	
C9	102	61-139	09/02/2017 02:08

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-5	1708D30-003A	Water	08/28/2017 12:15	GC11A	144498

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**7100**	1000	20	09/05/2017 17:11
TPH-Motor Oil (C18-C36)	**7300**	5000	20	09/05/2017 17:11

Surrogates	REC (%)	Limits	
C26	108	73-125	09/05/2017 17:11

Analyst(s): TK Analytical Comments: e2,e7,b6

(Cont.)

NELAP 4033ORELAP

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	SW3510C/3630C
Date Prepared:	8/28/17	**Analytical Method:**	SW8015B
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	µg/L

Total Extractable Petroleum Hydrocarbons w/ Silica Gel Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-6	**1708D30-004A**	**Water**	**08/28/2017 12:30**	**GC9b**	**144498**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**670**	100	1	09/02/2017 02:47
TPH-Motor Oil (C18-C36)	ND	500	1	09/02/2017 02:47

Surrogates	REC (%)	Limits	
C9	103	61-139	09/02/2017 02:47

Analyst(s): TK Analytical Comments: e2,e4,a4,b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-7	**1708D30-005A**	**Water**	**08/28/2017 12:45**	**GC9b**	**144498**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**720**	50	1	09/02/2017 03:26
TPH-Motor Oil (C18-C36)	**490**	250	1	09/02/2017 03:26

Surrogates	REC (%)	Limits	
C9	103	61-139	09/02/2017 03:26

Analyst(s): TK Analytical Comments: e8,e2,e7

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-8	**1708D30-006A**	**Water**	**08/28/2017 12:50**	**GC9b**	**144498**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**130**	50	1	09/02/2017 04:44
TPH-Motor Oil (C18-C36)	ND	250	1	09/02/2017 04:44

Surrogates	REC (%)	Limits	
C9	103	61-139	09/02/2017 04:44

Analyst(s): TK Analytical Comments: e4

(Cont.)

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	SW3510C/3630C
Date Prepared:	8/28/17	**Analytical Method:**	SW8015B
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	µg/L

Total Extractable Petroleum Hydrocarbons w/ Silica Gel Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-10	**1708D30-007A**	**Water**	**08/28/2017 12:35**	**GC9b**	**144498**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**270**	50	1	09/02/2017 05:22
TPH-Motor Oil (C18-C36)	ND	250	1	09/02/2017 05:22

Surrogates	REC (%)	Limits	
C9	102	61-139	09/02/2017 05:22

Analyst(s): TK Analytical Comments: e4/e11

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-13	**1708D30-008A**	**Water**	**08/28/2017 12:50**	**GC9b**	**144498**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**96**	50	1	09/02/2017 07:57
TPH-Motor Oil (C18-C36)	ND	250	1	09/02/2017 07:57

Surrogates	REC (%)	Limits	
C9	104	61-139	09/02/2017 07:57

Analyst(s): TK Analytical Comments: e2

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-15	**1708D30-009A**	**Water**	**08/28/2017 13:35**	**GC9b**	**144498**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	50	1	09/02/2017 08:36
TPH-Motor Oil (C18-C36)	ND	250	1	09/02/2017 08:36

Surrogates	REC (%)	Limits	
C9	104	61-139	09/02/2017 08:36

Analyst(s): TK

(Cont.)

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	SW3510C/3630C
Date Prepared:	8/28/17	**Analytical Method:**	SW8015B
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	µg/L

Total Extractable Petroleum Hydrocarbons w/ Silica Gel Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-16	**1708D30-010A**	**Water**	**08/28/2017 12:35**	**GC9b**	**144498**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	50	1	09/02/2017 09:15
TPH-Motor Oil (C18-C36)	ND	250	1	09/02/2017 09:15

Surrogates	REC (%)	Limits	
C9	103	61-139	09/02/2017 09:15

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-17	**1708D30-011A**	**Water**	**08/28/2017 12:20**	**GC11A**	**144498**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**2900**	250	5	09/05/2017 16:10
TPH-Motor Oil (C18-C36)	**1500**	1200	5	09/05/2017 16:10

Surrogates	REC (%)	Limits	
C26	103	73-125	09/05/2017 16:10

Analyst(s): TK Analytical Comments: e3,e4,e7,b6

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-20	**1708D30-012A**	**Water**	**08/28/2017 13:03**	**GC11A**	**144498**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	50	1	09/02/2017 01:52
TPH-Motor Oil (C18-C36)	ND	250	1	09/02/2017 01:52

Surrogates	REC (%)	Limits	
C9	96	61-139	09/02/2017 01:52

Analyst(s): TK

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Received:	8/28/17 16:25	**Extraction Method:**	SW3510C/3630C
Date Prepared:	8/28/17	**Analytical Method:**	SW8015B
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Unit:**	µg/L

Total Extractable Petroleum Hydrocarbons w/ Silica Gel Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-21	**1708D30-013A**	**Water**	**08/28/2017 12:43**	**GC11A**	**144538**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**66**	50	1	09/02/2017 03:10
TPH-Motor Oil (C18-C36)	ND	250	1	09/02/2017 03:10

Surrogates	REC (%)	Limits	
C9	84	61-139	09/02/2017 03:10

Analyst(s): TK Analytical Comments: e2

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Quality Control Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Prepared:	8/28/17	**BatchID:**	144654
Date Analyzed:	8/28/17	**Extraction Method:**	E300.1
Instrument:	IC3	**Analytical Method:**	E300.1
Matrix:	Water	**Unit:**	mg/L
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Sample ID:**	MB/LCS/LCSD-144654

QC Summary Report for E300.1

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Nitrate as N	ND	0.10	-	-	-
Nitrate as $NO3^{-}$	ND	0.44	-	-	-
Nitrite as N	ND	0.10	-	-	-
Nitrite as $NO2^{-}$	ND	0.33	-	-	-
Sulfate	ND	0.10	-	-	-
Surrogate Recovery					
Formate	0.1037		0.10	104	85-115

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Nitrate as N	0.944	0.939	1	94	94	85-115	0	15
Nitrate as $NO3^{-}$	4.18	4.16	4.4	95	95	85-115	0	15
Nitrite as N	0.973	0.973	1	97	97	85-115	0	15
Nitrite as $NO2^{-}$	3.20	3.20	3.3	97	97	85-115	0	15
Sulfate	0.979	0.953	1	98	95	85-115	2.69	15
Surrogate Recovery								
Formate	0.104	0.105	0.10	104	105	85-115	0.535	10

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Quality Control Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Prepared:	8/28/17	**BatchID:**	144488
Date Analyzed:	8/29/17	**Extraction Method:**	SW3510C
Instrument:	GC20	**Analytical Method:**	SW8082
Matrix:	Water	**Unit:**	µg/L
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Sample ID:**	MB/LCS/LCSD-144488

QC Summary Report for SW8082

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Aroclor1016	ND	0.50	-	-	-
Aroclor1221	ND	0.50	-	-	-
Aroclor1232	ND	0.50	-	-	-
Aroclor1242	ND	0.50	-	-	-
Aroclor1248	ND	0.50	-	-	-
Aroclor1254	ND	0.50	-	-	-
Aroclor1260	ND	0.50	-	-	-
PCBs, total	ND	0.50	-	-	-
Surrogate Recovery					
Decachlorobiphenyl	1.153		1.25	92	70-130

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Aroclor1016	3.47	3.63	3.75	92	97	70-130	4.60	20
Aroclor1260	3.77	3.96	3.75	100	106	70-130	4.90	20
Surrogate Recovery								
Decachlorobiphenyl	1.15	1.19	1.25	92	95	70-130	2.92	20

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Quality Control Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Prepared:	9/1/17	**BatchID:**	144832
Date Analyzed:	9/1/17	**Extraction Method:**	SW5030B
Instrument:	GC18	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Sample ID:**	MB/LCS-144832

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	216	10	200	-	108	47-122
tert-Amyl methyl ether (TAME)	ND	10.7	0.50	10	-	107	62-121
Benzene	ND	10.5	0.50	10	-	105	74-121
Bromobenzene	ND	10.1	0.50	10	-	101	63-127
Bromochloromethane	ND	10.3	0.50	10	-	103	70-126
Bromodichloromethane	ND	10.5	0.50	10	-	105	66-127
Bromoform	ND	10.5	0.50	10	-	105	60-119
Bromomethane	ND	6.01	0.50	10	-	60	32-155
2-Butanone (MEK)	ND	36.4	2.0	40	-	91	51-117
t-Butyl alcohol (TBA)	ND	45.0	2.0	40	-	113	41-122
n-Butyl benzene	ND	11.3	0.50	10	-	113	73-137
sec-Butyl benzene	ND	9.95	0.50	10	-	100	71-137
tert-Butyl benzene	ND	9.32	0.50	10	-	93	61-136
Carbon Disulfide	ND	9.89	0.50	10	-	99	61-139
Carbon Tetrachloride	ND	10.7	0.50	10	-	107	69-137
Chlorobenzene	ND	10.8	0.50	10	-	108	71-122
Chloroethane	ND	8.06	0.50	10	-	81	54-132
Chloroform	ND	10.3	0.50	10	-	103	73-122
Chloromethane	ND	6.62	0.50	10	-	66	48-136
2-Chlorotoluene	ND	9.96	0.50	10	-	100	65-134
4-Chlorotoluene	ND	9.28	0.50	10	-	93	65-130
Dibromochloromethane	ND	10.2	0.50	10	-	102	65-121
1,2-Dibromo-3-chloropropane	ND	4.29	0.20	4	-	107	41-132
1,2-Dibromoethane (EDB)	ND	11.0	0.50	10	-	111	67-125
Dibromomethane	ND	10.4	0.50	10	-	104	68-121
1,2-Dichlorobenzene	ND	8.75	0.50	10	-	87	69-128
1,3-Dichlorobenzene	ND	10.4	0.50	10	-	104	71-131
1,4-Dichlorobenzene	ND	10.4	0.50	10	-	104	70-128
Dichlorodifluoromethane	ND	7.59	0.50	10	-	76	21-158
1,1-Dichloroethane	ND	10.0	0.50	10	-	100	73-123
1,2-Dichloroethane (1,2-DCA)	ND	10.5	0.50	10	-	105	61-127
1,1-Dichloroethene	ND	9.90	0.50	10	-	99	68-130
cis-1,2-Dichloroethene	ND	10.2	0.50	10	-	102	72-123
trans-1,2-Dichloroethene	ND	10.2	0.50	10	-	102	64-138
1,2-Dichloropropane	ND	9.97	0.50	10	-	100	71-121
1,3-Dichloropropane	ND	10.3	0.50	10	-	103	69-120
2,2-Dichloropropane	ND	10.8	0.50	10	-	108	64-142

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Quality Control Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Prepared:	9/1/17	**BatchID:**	144832
Date Analyzed:	9/1/17	**Extraction Method:**	SW5030B
Instrument:	GC18	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Sample ID:**	MB/LCS-144832

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
1,1-Dichloropropene	ND	10.5	0.50	10	-	105	70-130
cis-1,3-Dichloropropene	ND	10.2	0.50	10	-	102	58-136
trans-1,3-Dichloropropene	ND	10.2	0.50	10	-	102	66-119
Diisopropyl ether (DIPE)	ND	10.4	0.50	10	-	104	66-123
Ethylbenzene	ND	11.2	0.50	10	-	112	71-125
Ethyl tert-butyl ether (ETBE)	ND	11.0	0.50	10	-	110	67-122
Freon 113	ND	10.0	0.50	10	-	100	68-132
Hexachlorobutadiene	ND	9.57	0.50	10	-	96	56-155
Hexachloroethane	ND	9.57	0.50	10	-	96	61-129
2-Hexanone	ND	11.1	0.50	10	-	111	51-115
Isopropylbenzene	ND	10.7	0.50	10	-	107	66-134
4-Isopropyl toluene	ND	11.3	0.50	10	-	113	70-136
Methyl-t-butyl ether (MTBE)	ND	10.6	0.50	10	-	106	64-118
Methylene chloride	ND	8.78	0.50	10	-	88	62-121
4-Methyl-2-pentanone (MIBK)	ND	11.0	0.50	10	-	110	51-115
Naphthalene	ND	9.62	0.50	10	-	96	55-137
n-Propyl benzene	ND	10.0	0.50	10	-	100	63-140
Styrene	ND	9.83	0.50	10	-	98	62-133
1,1,1,2-Tetrachloroethane	ND	11.0	0.50	10	-	110	69-128
1,1,2,2-Tetrachloroethane	ND	10.2	0.50	10	-	102	60-118
Tetrachloroethene	ND	11.1	0.50	10	-	111	63-136
Toluene	ND	10.4	0.50	10	-	104	67-124
1,2,3-Trichlorobenzene	ND	9.68	0.50	10	-	97	57-145
1,2,4-Trichlorobenzene	ND	9.68	0.50	10	-	97	60-144
1,1,1-Trichloroethane	ND	10.5	0.50	10	-	105	70-133
1,1,2-Trichloroethane	ND	10.8	0.50	10	-	108	65-125
Trichloroethene	ND	10.2	0.50	10	-	102	67-133
Trichlorofluoromethane	ND	9.83	0.50	10	-	98	59-145
1,2,3-Trichloropropane	ND	10.8	0.50	10	-	108	65-115
1,2,4-Trimethylbenzene	ND	11.2	0.50	10	-	112	67-136
1,3,5-Trimethylbenzene	ND	11.0	0.50	10	-	110	68-135
Vinyl Chloride	ND	7.76	0.50	10	-	78	53-146
Xylenes, Total	ND	31.4	0.50	30	-	105	68-128

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Quality Control Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Prepared:	9/1/17	**BatchID:**	144832
Date Analyzed:	9/1/17	**Extraction Method:**	SW5030B
Instrument:	GC18	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Sample ID:**	MB/LCS-144832

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Surrogate Recovery							
Dibromofluoromethane	28.09	29.5		25	112	118	91-133
Toluene-d8	28.67	29.0		25	115	116	87-127
4-BFB	2.265	2.36		2.5	91	94	66-140

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Quality Control Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Prepared:	8/29/17	**BatchID:**	144569
Date Analyzed:	8/29/17	**Extraction Method:**	SM2320 B-1997
Instrument:	Titrino	**Analytical Method:**	SM2320 B
Matrix:	Water	**Unit:**	mg $CaCO_3$/L
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA		

QC Summary Report for Alkalinity

SampID	Sample Result	Sample DF	Dup / Serial Dilution Result	Dup / Serial Dilution DF	RPD	Acceptance Criteria (%)
1708D30-007D	443	1	412	1	7.15	<20

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Quality Control Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Prepared:	8/31/17	**BatchID:**	144775
Date Analyzed:	8/31/17	**Extraction Method:**	SW5030B
Instrument:	GC3	**Analytical Method:**	SW8021B/8015Bm
Matrix:	Water	**Unit:**	µg/L
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Sample ID:**	MB/LCS-144775 1708C57-017AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
TPH(g) (C6-C12)	ND	50	-	-	-
MTBE	ND	5.0	-	-	-
Benzene	ND	0.50	-	-	-
Toluene	ND	0.50	-	-	-
Ethylbenzene	ND	0.50	-	-	-
Xylenes	ND	1.5	-	-	-
Surrogate Recovery					
aaa-TFT	9.829		10	98	89-116

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH(btex)	56.3	-	60	94	-	78-116	-	-
MTBE	9.76	-	10	98	-	72-122	-	-
Benzene	8.93	-	10	89	-	81-123	-	-
Toluene	9.58	-	10	96	-	83-129	-	-
Ethylbenzene	10.0	-	10	101	-	88-126	-	-
Xylenes	31.7	-	30	106	-	87-131	-	-
Surrogate Recovery								
aaa-TFT	9.57	-	10	96	-	89-116	-	-

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	56.4	56.5	60	ND	94	94	63-133	0	20
MTBE	10.4	10.2	10	ND	104	102	69-122	1.62	20
Benzene	9.15	8.92	10	ND	92	89	84-125	2.53	20
Toluene	9.77	9.41	10	ND	98	94	87-131	3.85	20
Ethylbenzene	10.2	10.1	10	ND	102	101	92-126	1.75	20
Xylenes	31.8	31.5	30	ND	106	105	88-132	0.822	20
Surrogate Recovery									
aaa-TFT	9.58	9.43	10		96	94	90-117	1.61	20

(Cont.)

NELAP 4033ORELAP

QA/QC Officer

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Quality Control Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Prepared:	9/1/17	**BatchID:**	144835
Date Analyzed:	9/1/17	**Extraction Method:**	SW5030B
Instrument:	GC3	**Analytical Method:**	SW8021B/8015Bm
Matrix:	Water	**Unit:**	µg/L
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Sample ID:**	MB/LCS-144835 1708D60-001AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
TPH(g) (C6-C12)	ND	50	-	-	-
MTBE	ND	5.0	-	-	-
Benzene	ND	0.50	-	-	-
Toluene	ND	0.50	-	-	-
Ethylbenzene	ND	0.50	-	-	-
Xylenes	ND	1.5	-	-	-
Surrogate Recovery					
aaa-TFT	9.648		10	96	89-116

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH(btex)	57.4	-	60	96	-	78-116	-	-
MTBE	10.9	-	10	109	-	72-122	-	-
Benzene	9.15	-	10	92	-	81-123	-	-
Toluene	9.61	-	10	96	-	83-129	-	-
Ethylbenzene	10.4	-	10	104	-	88-126	-	-
Xylenes	32.6	-	30	109	-	87-131	-	-
Surrogate Recovery								
aaa-TFT	9.58	-	10	96	-	89-116	-	-

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	57.4	58.3	60	ND	96	97	63-133	1.64	20
MTBE	10.8	10.9	10	ND	108	109	69-122	0.339	20
Benzene	9.11	9.17	10	ND	91	92	84-125	0.650	20
Toluene	9.72	9.78	10	ND	97	98	87-131	0.584	20
Ethylbenzene	10.2	10.3	10	ND	102	103	92-126	1.05	20
Xylenes	31.8	32.4	30	ND	106	108	88-132	2.00	20
Surrogate Recovery									
aaa-TFT	9.47	9.49	10		95	95	90-117	0	20

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Quality Control Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Prepared:	8/28/17	**BatchID:**	144539
Date Analyzed:	8/31/17	**Extraction Method:**	SM9215B
Instrument:	MICROBIOLOGY	**Analytical Method:**	SM9215B
Matrix:	Water	**Unit:**	CFU/ml
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Sample ID:**	MB-144539

QC Summary Report for Heterotrophic Bacteria

Analyte	MB Result	RL			
Heterotrophic Bacteria	ND	1.0	-	-	-

(Cont.)

CA ELAP 1644

QA/QC Officer

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Quality Control Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Prepared:	8/28/17	**BatchID:**	144541
Date Analyzed:	8/31/17	**Extraction Method:**	SM9215B
Instrument:	MICROBIOLOGY	**Analytical Method:**	SM9215B
Matrix:	Water	**Unit:**	CFU/ml
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Sample ID:**	MB-144541

QC Summary Report for Heterotrophic Bacteria

Analyte	MB Result	RL			
Heterotrophic Bacteria	ND	1.0	-	-	-

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Quality Control Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Prepared:	8/28/17	**BatchID:**	144498
Date Analyzed:	8/28/17 - 8/29/17	**Extraction Method:**	SW3510C/3630C
Instrument:	GC6A	**Analytical Method:**	SW8015B
Matrix:	Water	**Unit:**	µg/L
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Sample ID:**	MB/LCS/LCSD-144498

QC Report for SW8015B w/ Silica Gel Clean-Up

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
TPH-Diesel (C10-C23)	ND	50	-	-	-
TPH-Motor Oil (C18-C36)	ND	250	-	-	-
Surrogate Recovery					
C9	645.9		625	103	79-111

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	1080	1100	1000	108	110	88-134	1.42	30
Surrogate Recovery								
C9	588	599	625	94	96	79-111	1.94	30

(Cont.)

NELAP 4033ORELAP

QA/QC Officer

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Quality Control Report

Client:	CKG Environmental	**WorkOrder:**	1708D30
Date Prepared:	8/28/17	**BatchID:**	144538
Date Analyzed:	8/29/17	**Extraction Method:**	SW3510C/3630C
Instrument:	GC9b	**Analytical Method:**	SW8015B
Matrix:	Water	**Unit:**	µg/L
Project:	170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA	**Sample ID:**	MB/LCS/LCSD-144538

QC Report for SW8015B w/ Silica Gel Clean-Up

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
TPH-Diesel (C10-C23)	ND	50	-	-	-
TPH-Motor Oil (C18-C36)	ND	250	-	-	-
Surrogate Recovery					
C9	628.2		625	101	79-111

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	972	1170	1000	97	117	88-134	18.4	30
Surrogate Recovery								
C9	618	622	625	99	99	79-111	0	30

NELAP 4033ORELAP

QA/QC Officer

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1708D30 **ClientCode: CKGS**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag
☐ Detection Summary ☐ Dry-Weight

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

Email: ckennedy@geologist.com
cc/3rd Party:
PO:
ProjectNo: 170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA

Bill to:
Accounts Payable
CKG Environmental
808 Zinfindel Lane
St. Helena, CA 94574

Requested TAT: 5 days;

Date Received: **08/28/2017**
Date Logged: **08/28/2017**

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
1708D30-001	MW-2R	Water	8/28/2017 12:20	☐	C		B	D	A	E	A					
1708D30-002	MW-3R	Water	8/28/2017 13:15	☐	C	F	B	D	A	E	A					
1708D30-003	MW-5	Water	8/28/2017 12:15	☐	C		B	D	A	E	A					
1708D30-004	MW-6	Water	8/28/2017 12:30	☐	C		B	D	A	E	A					
1708D30-005	MW-7	Water	8/28/2017 12:45	☐	C		B	D	A	E	A					
1708D30-006	MW-8	Water	8/28/2017 12:50	☐	C		B	D	A	E	A					
1708D30-007	MW-10	Water	8/28/2017 12:35	☐	C		B	D	A	E	A					
1708D30-008	MW-13	Water	8/28/2017 12:50	☐	C		B	D	A	E	A					
1708D30-009	MW-15	Water	8/28/2017 13:35	☐	C	F	B	D	A	E	A					
1708D30-010	MW-16	Water	8/28/2017 12:35	☐	C		B	D	A	E	A					
1708D30-011	MW-17	Water	8/28/2017 12:20	☐	C		B	D	A	E	A					
1708D30-012	MW-20	Water	8/28/2017 13:03	☐	C		B	D	A	E	A					
1708D30-013	MW-21	Water	8/28/2017 12:43	☐	C	F	B	D	A	E	A					

Test Legend:

1	300_1_W	2	8082_PCB_Decant	3	8260VOC_W	4	Alk_W
5	G-MBTEX_W	6	HPC-POUR_DWW	7	TPH(DMO)WSG_W	8	
9		10		11		12	

Prepared by: Agustina Venegas

The following SampIDs: 001A, 002A, 003A, 004A, 005A, 006A, 007A, 008A, 009A, 010A, 011A, 012A, 013A contain testgroup Multi RangeWSG_W.

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.

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WORK ORDER SUMMARY

Client Name: CKG ENVIRONMENTAL
Client Contact: Christina Kennedy
Contact's Email: ckennedy@geologist.com

Project: 170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA
Comments:

Work Order: 1708D30
QC Level: LEVEL 2
Date Logged: 8/28/2017

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1708D30-001A	MW-2R	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	☐	8/28/2017 12:20	5 days	Present	☐	
1708D30-001B	MW-2R	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene, Xylenes, Total>	2	VOA w/ HCl	☐	8/28/2017 12:20	5 days	Present	☐	
1708D30-001C	MW-2R	Water	E300.1 (Inorganic Anions) <Nitrate & Nitrite as N, Nitrate as N, Nitrate as $NO3^-$, Nitrite as N, Nitrite as $NO2^-$, Sulfate>	1	125mL HDPE, unprsv.	☐	8/28/2017 12:20	5 days	Present	☐	
1708D30-001D	MW-2R	Water	SM2320B (Alkalinity)	1	500mL HDPE w/ NaOH + ZnAc	☐	8/28/2017 12:20	5 days	Present	☐	
1708D30-001E	MW-2R	Water	Pour Plate - Heterotrophic Bacteria	1	120ML w/ Na2S2O3	☐	8/28/2017 12:20	5 days	Present	☐	
1708D30-002A	MW-3R	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	3	2 VOAs w/HCL + 2-aVOAs (multi-range)	☐	8/28/2017 13:15	5 days	Present	☐	
				1	8OZ GJ	☐			Present	☐	
1708D30-002B	MW-3R	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene, Xylenes, Total>	2	VOA w/ HCl	☐	8/28/2017 13:15	5 days	Present	☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

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WORK ORDER SUMMARY

Client Name: CKG ENVIRONMENTAL
Client Contact: Christina Kennedy
Contact's Email: ckennedy@geologist.com

Project: 170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA
Comments:

Work Order: 1708D30
QC Level: LEVEL 2
Date Logged: 8/28/2017

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1708D30-002C	MW-3R	Water	E300.1 (Inorganic Anions) <Nitrate & Nitrite as N, Nitrate as N, Nitrate as $NO3^{-}$, Nitrite as N, Nitrite as $NO2^{-}$, Sulfate>	1	125mL HDPE, unprsv.	☐	8/28/2017 13:15	5 days	Present	☐	
1708D30-002D	MW-3R	Water	SM2320B (Alkalinity)	1	500mL HDPE w/ NaOH + ZnAc	☐	8/28/2017 13:15	5 days	Present	☐	
1708D30-002E	MW-3R	Water	Pour Plate - Heterotrophic Bacteria	1	120ML w/ Na2S2O3	☐	8/28/2017 13:15	5 days	Present	☐	
1708D30-002F	MW-3R	Water	SW8082 (PCBs Only) (Decanted)	1	aVOA	☐	8/28/2017 13:15	5 days	Present	☐	
1708D30-003A	MW-5	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	☐	8/28/2017 12:15	5 days	Present	☐	
1708D30-003B	MW-5	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene, Xylenes, Total>	2	VOA w/ HCl	☐	8/28/2017 12:15	5 days	Present	☐	
1708D30-003C	MW-5	Water	E300.1 (Inorganic Anions) <Nitrate & Nitrite as N, Nitrate as N, Nitrate as $NO3^{-}$, Nitrite as N, Nitrite as $NO2^{-}$, Sulfate>	1	125mL HDPE, unprsv.	☐	8/28/2017 12:15	5 days	Present	☐	
1708D30-003D	MW-5	Water	SM2320B (Alkalinity)	1	500mL HDPE w/ NaOH + ZnAc	☐	8/28/2017 12:15	5 days	Present	☐	
1708D30-003E	MW-5	Water	Pour Plate - Heterotrophic Bacteria	1	120ML w/ Na2S2O3	☐	8/28/2017 12:15	5 days	Present	☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

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WORK ORDER SUMMARY

Client Name: CKG ENVIRONMENTAL
Client Contact: Christina Kennedy
Contact's Email: ckennedy@geologist.com

Project: 170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA
Comments:

Work Order: 1708D30
QC Level: LEVEL 2
Date Logged: 8/28/2017

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1708D30-004A	MW-6	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	☐	8/28/2017 12:30	5 days	2%+	☐	
1708D30-004B	MW-6	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene, Xylenes, Total>	2	VOA w/ HCl	☐	8/28/2017 12:30	5 days	2%+	☐	
1708D30-004C	MW-6	Water	E300.1 (Inorganic Anions) <Nitrate & Nitrite as N, Nitrate as N, Nitrate as $NO3^-$, Nitrite as N, Nitrite as $NO2^-$, Sulfate>	1	125mL HDPE, unprsv.	☐	8/28/2017 12:30	5 days	2%+	☐	
1708D30-004D	MW-6	Water	SM2320B (Alkalinity)	1	500mL HDPE w/ NaOH + ZnAc	☐	8/28/2017 12:30	5 days	2%+	☐	
1708D30-004E	MW-6	Water	Pour Plate - Heterotrophic Bacteria	1	120ML w/ Na2S2O3	☐	8/28/2017 12:30	5 days	2%+	☐	
1708D30-005A	MW-7	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	☐	8/28/2017 12:45	5 days	Present	☐	
1708D30-005B	MW-7	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene, Xylenes, Total>	2	VOA w/ HCl	☐	8/28/2017 12:45	5 days	Present	☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

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WORK ORDER SUMMARY

Client Name: CKG ENVIRONMENTAL
Client Contact: Christina Kennedy
Contact's Email: ckennedy@geologist.com

Project: 170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA
Comments:

Work Order: 1708D30
QC Level: LEVEL 2
Date Logged: 8/28/2017

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1708D30-005C	MW-7	Water	E300.1 (Inorganic Anions) <Nitrate & Nitrite as N, Nitrate as N, Nitrate as $NO3^{-}$, Nitrite as N, Nitrite as $NO2^{-}$, Sulfate>	1	125mL HDPE, unprsv.	☐	8/28/2017 12:45	5 days	Present	☐	
1708D30-005D	MW-7	Water	SM2320B (Alkalinity)	1	500mL HDPE w/ NaOH + ZnAc	☐	8/28/2017 12:45	5 days	Present	☐	
1708D30-005E	MW-7	Water	Pour Plate - Heterotrophic Bacteria	1	120ML w/ Na2S2O3	☐	8/28/2017 12:45	5 days	Present	☐	
1708D30-006A	MW-8	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	☐	8/28/2017 12:50	5 days	Present	☐	
1708D30-006B	MW-8	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene, Xylenes, Total>	2	VOA w/ HCl	☐	8/28/2017 12:50	5 days	Present	☐	
1708D30-006C	MW-8	Water	E300.1 (Inorganic Anions) <Nitrate & Nitrite as N, Nitrate as N, Nitrate as $NO3^{-}$, Nitrite as N, Nitrite as $NO2^{-}$, Sulfate>	1	125mL HDPE, unprsv.	☐	8/28/2017 12:50	5 days	Present	☐	
1708D30-006D	MW-8	Water	SM2320B (Alkalinity)	1	500mL HDPE w/ NaOH + ZnAc	☐	8/28/2017 12:50	5 days	Present	☐	
1708D30-006E	MW-8	Water	Pour Plate - Heterotrophic Bacteria	1	120ML w/ Na2S2O3	☐	8/28/2017 12:50	5 days	Present	☐	
1708D30-007A	MW-10	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	☐	8/28/2017 12:35	5 days	Present	☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

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WORK ORDER SUMMARY

Client Name: CKG ENVIRONMENTAL
Client Contact: Christina Kennedy
Contact's Email: ckennedy@geologist.com

Project: 170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA
Comments:

Work Order: 1708D30
QC Level: LEVEL 2
Date Logged: 8/28/2017

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1708D30-007B	MW-10	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene, Xylenes, Total>	2	VOA w/ HCl	☐	8/28/2017 12:35	5 days	Present	☐	
1708D30-007C	MW-10	Water	E300.1 (Inorganic Anions) <Nitrate & Nitrite as N, Nitrate as N, Nitrate as $NO3^{-}$, Nitrite as N, Nitrite as $NO2^{-}$, Sulfate>	1	125mL HDPE, unprsv.	☐	8/28/2017 12:35	5 days	Present	☐	
1708D30-007D	MW-10	Water	SM2320B (Alkalinity)	1	500mL HDPE w/ NaOH + ZnAc	☐	8/28/2017 12:35	5 days	Present	☐	
1708D30-007E	MW-10	Water	Pour Plate - Heterotrophic Bacteria	1	120ML w/ Na2S2O3	☐	8/28/2017 12:35	5 days	Present	☐	
1708D30-008A	MW-13	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	☐	8/28/2017 12:50	5 days	Present	☐	
1708D30-008B	MW-13	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene, Xylenes, Total>	2	VOA w/ HCl	☐	8/28/2017 12:50	5 days	Present	☐	
1708D30-008C	MW-13	Water	E300.1 (Inorganic Anions) <Nitrate & Nitrite as N, Nitrate as N, Nitrate as $NO3^{-}$, Nitrite as N, Nitrite as $NO2^{-}$, Sulfate>	1	125mL HDPE, unprsv.	☐	8/28/2017 12:50	5 days	Present	☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

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WORK ORDER SUMMARY

Client Name: CKG ENVIRONMENTAL
Client Contact: Christina Kennedy
Contact's Email: ckennedy@geologist.com

Project: 170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA
Comments:

Work Order: 1708D30
QC Level: LEVEL 2
Date Logged: 8/28/2017

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1708D30-008D	MW-13	Water	SM2320B (Alkalinity)	1	500mL HDPE w/ NaOH + ZnAc	☐	8/28/2017 12:50	5 days	Present	☐	
1708D30-008E	MW-13	Water	Pour Plate - Heterotrophic Bacteria	1	120ML w/ Na2S2O3	☐	8/28/2017 12:50	5 days	Present	☐	
1708D30-009A	MW-15	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	3	2 VOAs w/HCL + 2-aVOAs (multi-range)	☐	8/28/2017 13:35	5 days	Present	☐	
				1	8OZ GJ	☐			Present	☐	
1708D30-009B	MW-15	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene, Xylenes, Total>	2	VOA w/ HCl	☐	8/28/2017 13:35	5 days	Present	☐	
1708D30-009C	MW-15	Water	E300.1 (Inorganic Anions) <Nitrate & Nitrite as N, Nitrate as N, Nitrate as $NO3^{-}$, Nitrite as N, Nitrite as $NO2^{-}$, Sulfate>	1	125mL HDPE, unprsv.	☐	8/28/2017 13:35	5 days	Present	☐	
1708D30-009D	MW-15	Water	SM2320B (Alkalinity)	1	500mL HDPE w/ NaOH + ZnAc	☐	8/28/2017 13:35	5 days	Present	☐	
1708D30-009E	MW-15	Water	Pour Plate - Heterotrophic Bacteria	1	120ML w/ Na2S2O3	☐	8/28/2017 13:35	5 days	Present	☐	
1708D30-009F	MW-15	Water	SW8082 (PCBs Only) (Decanted)	1	aVOA	☐	8/28/2017 13:35	5 days	Present	☐	
1708D30-010A	MW-16	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	☐	8/28/2017 12:35	5 days	Present	☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

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WORK ORDER SUMMARY

Client Name: CKG ENVIRONMENTAL
Client Contact: Christina Kennedy
Contact's Email: ckennedy@geologist.com

Project: 170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA
Comments:

Work Order: 1708D30
QC Level: LEVEL 2
Date Logged: 8/28/2017

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1708D30-010B	MW-16	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene, Xylenes, Total>	2	VOA w/ HCl	☐	8/28/2017 12:35	5 days	Present	☐	
1708D30-010C	MW-16	Water	E300.1 (Inorganic Anions) <Nitrate & Nitrite as N, Nitrate as N, Nitrate as $NO3^{-}$, Nitrite as N, Nitrite as $NO2^{-}$, Sulfate>	1	125mL HDPE, unprsv.	☐	8/28/2017 12:35	5 days	Present	☐	
1708D30-010D	MW-16	Water	SM2320B (Alkalinity)	1	500mL HDPE w/ NaOH + ZnAc	☐	8/28/2017 12:35	5 days	Present	☐	
1708D30-010E	MW-16	Water	Pour Plate - Heterotrophic Bacteria	1	120ML w/ Na2S2O3	☐	8/28/2017 12:35	5 days	Present	☐	
1708D30-011A	MW-17	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	☐	8/28/2017 12:20	5 days	Present	☐	
1708D30-011B	MW-17	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene, Xylenes, Total>	2	VOA w/ HCl	☐	8/28/2017 12:20	5 days	Present	☐	
1708D30-011C	MW-17	Water	E300.1 (Inorganic Anions) <Nitrate & Nitrite as N, Nitrate as N, Nitrate as $NO3^{-}$, Nitrite as N, Nitrite as $NO2^{-}$, Sulfate>	1	125mL HDPE, unprsv.	☐	8/28/2017 12:20	5 days	Present	☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

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WORK ORDER SUMMARY

Client Name: CKG ENVIRONMENTAL
Client Contact: Christina Kennedy
Contact's Email: ckennedy@geologist.com

Project: 170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA
Comments:

Work Order: 1708D30
QC Level: LEVEL 2
Date Logged: 8/28/2017

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1708D30-011D	MW-17	Water	SM2320B (Alkalinity)	1	500mL HDPE w/ NaOH + ZnAc	☐	8/28/2017 12:20	5 days	Present	☐	
1708D30-011E	MW-17	Water	Pour Plate - Heterotrophic Bacteria	1	120ML w/ Na2S2O3	☐	8/28/2017 12:20	5 days	Present	☐	
1708D30-012A	MW-20	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	☐	8/28/2017 13:03	5 days	Present	☐	
1708D30-012B	MW-20	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene, Xylenes, Total>	2	VOA w/ HCl	☐	8/28/2017 13:03	5 days	Present	☐	
1708D30-012C	MW-20	Water	E300.1 (Inorganic Anions) <Nitrate & Nitrite as N, Nitrate as N, Nitrate as $NO3^{-}$, Nitrite as N, Nitrite as $NO2^{-}$, Sulfate>	1	125mL HDPE, unprsv.	☐	8/28/2017 13:03	5 days	Present	☐	
1708D30-012D	MW-20	Water	SM2320B (Alkalinity)	1	500mL HDPE w/ NaOH + ZnAc	☐	8/28/2017 13:03	5 days	Present	☐	
1708D30-012E	MW-20	Water	Pour Plate - Heterotrophic Bacteria	1	120ML w/ Na2S2O3	☐	8/28/2017 13:03	5 days	Present	☐	
1708D30-013A	MW-21	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	3	2 VOAs w/HCL + 2-aVOAs (multi-range)	☐	8/28/2017 12:43	5 days	Present	☐	
				1	8OZ GJ	☐			Present	☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

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WORK ORDER SUMMARY

Client Name: CKG ENVIRONMENTAL
Client Contact: Christina Kennedy
Contact's Email: ckennedy@geologist.com

Project: 170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA
Comments:

Work Order: 1708D30
QC Level: LEVEL 2
Date Logged: 8/28/2017

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1708D30-013B	MW-21	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene, Xylenes, Total>	2	VOA w/ HCl	☐	8/28/2017 12:43	5 days	Present	☐	
1708D30-013C	MW-21	Water	E300.1 (Inorganic Anions) <Nitrate & Nitrite as N, Nitrate as N, Nitrate as $NO3^{-}$, Nitrite as N, Nitrite as $NO2^{-}$, Sulfate>	1	125mL HDPE, unprsv.	☐	8/28/2017 12:43	5 days	Present	☐	
1708D30-013D	MW-21	Water	SM2320B (Alkalinity)	1	500mL HDPE w/ NaOH + ZnAc	☐	8/28/2017 12:43	5 days	Present	☐	
1708D30-013E	MW-21	Water	Pour Plate - Heterotrophic Bacteria	1	120ML w/ Na2S2O3	☐	8/28/2017 12:43	5 days	Present	☐	
1708D30-013F	MW-21	Water	SW8082 (PCBs Only) (Decanted)	1	aVOA	☐	8/28/2017 12:43	5 days	Present	☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

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1708D30

BLAINE
TECH SERVICES, INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF CUSTODY BTS # 170828

CLIENT: CKG Environmental

SITE: Owens Brockway Glass Plant
3600 Alameda Avenue
Oakland, CA

LAB: McCampbell DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND
☐ EPA ☐ LIA ☐ OTHER ☐ RWQCB REGION _____

SPECIAL INSTRUCTIONS
Invoice and Report to : CKG Environmental Attn: Chris Kennedy
808 Zinfandel Lane, St Helena, CA 94574

Dissolved product in samples MW-2 and MW-6
Please provide EDF and PDF of results

CONDUCT ANALYSIS TO DETECT

SAMPLE I.D.	DATE	TIME	MATRIX S= SOIL W=H_2O	CONTAINERS TOTAL		C = COMPOSITE ALL CONTAINERS	TPH-g (8015)	BTEX, MTBE, Naphthalene, 1,2-DCA, EDB (8260B)	TPH-d, TPH-mo w/silica gel clean up (8015)	Nitrate, Nitrite, Sulfate (300.0)	Alkalinity (310.1)	Heterotrophic Plate Count (SM 9215) -SHORT HOLD	PCB's (8082) - Lab Filtered prior to running sample		ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-2R	8-28-17	1220	W	9	MIX		X	X	X	X	X	X						
MW-3R		1315	W	10			X	X	X	X	X	X	X					
MW-5		1215	W	9			X	X	X	X	X	X						
MW-6		1230	W	9			X	X	X	X	X	X						
MW-7		1245	W	9			X	X	X	X	X	X						
MW-8		1250	W	9			X	X	X	X	X	X						
MW-10		1235	W	9			X	X	X	X	X	X						
MW-13		1250	W	9			X	X	X	X	X	X						
MW-15		1335	W	10			X	X	X	X	X	X	X					
MW-16		1235	W	9			X	X	X	X	X	X					0.2	

SAMPLING COMPLETED	DATE	TIME	SAMPLING PERFORMED BY
	8-28-17	1430	Mark McCulloch

RESULTS NEEDED NO LATER THAN: Per Client

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	8-28-17	1430	Dasit	8/28/17	14:20
Dasit	8/28/17	1625	Christina V.	8/28	1625

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

BLAINE
TECH SERVICES, INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF CUSTODY BTS # 170828-MM1

CLIENT: CKG Environmental

SITE: Owens Brockway Glass Plant
3600 Alameda Avenue
Oakland, CA

LAB: McCampbell Page 2 of 2 | DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND
☐ EPA ☐ LIA ☐ OTHER ☐ RWQCB REGION _____

SPECIAL INSTRUCTIONS
Invoice and Report to : CKG Environmental Attn: Chris Kennedy
808 Zinfindel Lane, St Helena, CA 94574

Dissolved product in samples MW-2 and MW-6
Please provide EDF and PDF of results

SAMPLE I.D.	DATE	TIME	MATRIX S= SOIL W=H_2O	CONTAINERS TOTAL		C = COMPOSITE ALL CONTAINERS	CONDUCT ANALYSIS TO DETECT: TPH-g (8015)	BTEX, MTBE, Naphthalene, 1,2-DCA, EDB (8260B)	TPH-d, TPH-mo w/silica gel clean up (8015)	Nitrate, Nitrite, Sulfate (300.0)	Alkalinity (310.1)	Heterotrophic Plate Count (SM 9215) -SHORT HOLD	PCB's (8082) - **Lab Filtered prior to running sample**		ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-17	8-28-17	1220	W	9	MIX		X	X	X	X	X	X						
MW-20	↓	1303	W	9	MIX		X	X	X	X	X	X						
MW-21	↓	1243	W	10	MIX		X	X	X	X	X	X	X					

SAMPLING COMPLETED: DATE 8-28-17 TIME 1430
SAMPLING PERFORMED BY: Mark McCulloch

RESULTS NEEDED NO LATER THAN: Per Client

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	8-28-17	1430	Basit	8/28/17	14:20
Basit	8/28/17	1625		8/28	1625

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

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Sample Receipt Checklist

Client Name:	**CKG Environmental**	Date and Time Received	**8/28/2017 16:25**
Project Name:	**170828; Owens Brockway Glass Plant 3600 Alameda Avenue Oakland, CA**	Date Logged:	**8/28/2017**
		Received by:	Agustina Venegas
WorkOrder №:	**1708D30** Matrix: Water	Logged by:	Agustina Venegas
Carrier:	Basit Sheikh (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	☐		
COC agrees with Quote?	Yes	☐	No	☐	NA	☑

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	☐	NA	☐
Sample/Temp Blank temperature	Temp: 6.2°C				NA	☐
Water - VOA vials have zero headspace / no bubbles?	Yes	☑	No	☐	NA	☐
Sample labels checked for correct preservation?	Yes	☑	No	☐		
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes	☐	No	☐	NA	☑
Samples Received on Ice?	Yes	☑	No	☐		
(Ice Type: WET ICE)						

UCMR Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522?	Yes	☐	No	☐	NA	☑
Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539?	Yes	☐	No	☐	NA	☑

Comments:

APPENDIX C

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
7/3/2017 through 7/7/2017

	Date	7/3/2017		7/4/2017		7/5/2017		7/6/2017		7/7/2017			
	Time	2:15 PM		Holiday		2:15 PM		4:30 PM		3:45 PM			
Group #	Well	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Avg. Flowrate (SCFM)	Avg. Pressure (PSI)
1	1A	4.5	9.0	-	-	4.2	9.0	4.0	9.0	3.3	9.0	4.0	9.0
	3	5.0	12.0	-	-	4.7	12.0	4.5	12.0	4.3	12.0	4.6	12.0
	5	2.1	12.0	-	-	2.0	12.0	1.5	12.0	1.6	12.0	1.8	12.0
	12	6.9	10.0	-	-	6.8	10.0	6.9	10.0	6.6	10.0	6.8	10.0
	13	3.1	9.0	-	-	3.3	9.0	3.1	9.0	3.0	9.0	3.1	9.0
	15	14.5	12.0	-	-	14.2	12.0	14.0	12.0	13.8	12.0	14.1	12.0
	Total	**36.1**	**64.0**	**-**	**-**	**35.2**	**64.0**	**34.0**	**64.0**	**32.6**	**64.0**	**34.5**	**64.0**
2	1B	4.0	7.0	-	-	3.6	7.0	3.5	7.0	4.0	7.0	3.8	7.0
	4	7.5	11.0	-	-	7.3	11.0	7.0	11.0	7.1	11.0	7.2	11.0
	8	1.2	22.0	-	-	1.1	22.0	1.5	22.0	1.2	21.0	1.3	21.8
	10	5.5	11.0	-	-	5.2	11.0	5.0	11.0	7.9	11.0	5.9	11.0
	11	7.0	8.0	-	-	7.1	8.0	7.0	8.0	6.8	8.0	7.0	8.0
	14	7.5	7.0	-	-	7.3	7.0	7.5	7.0	7.2	6.0	7.4	6.8
	16	6.0	12.0	-	-	5.9	12.0	6.0	12.0	5.4	12.0	5.8	12.0
	Total	**38.7**	**78.0**	**-**	**-**	**37.5**	**78.0**	**37.5**	**78.0**	**39.6**	**76.0**	**38.3**	**77.5**
3	2A	3.5	7.0	-	-	3.4	7.0	3.0	7.0	3.0	7.0	3.2	7.0
	2B	7.1	9.0	-	-	7.5	9.0	7.5	9.0	7.3	9.0	7.4	9.0
	6A	7.0	9.0	-	-	6.9	9.0	7.0	9.0	7.0	9.0	7.0	9.0
	6B	1.5	18.0	-	-	1.7	19.0	1.5	19.0	1.8	19.0	1.6	18.8
	7	7.0	9.0	-	-	7.0	9.0	7.0	9.0	6.9	9.0	7.0	9.0
	9	8.3	3.0	-	-	8.0	3.0	8.1	3.0	8.9	4.0	8.3	3.3
	17	12.4	10.0	-	-	12.3	10.0	12.5	10.0	12.4	10.0	12.4	10.0
	Total	**46.8**	**65.0**	**-**	**-**	**46.8**	**66.0**	**46.6**	**66.0**	**47.3**	**67.0**	**46.9**	**66.0**

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
7/10/2017 through 7/14/2017

	Date	7/10/2017		7/11/2017		7/12/2017		7/13/2017		7/14/2017			
	Time	2:15 PM		2:15 PM		2:45 PM		2:45 PM		3:30 PM			
Group #	Well	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Avg. Flowrate (SCFM)	Avg. Pressure (PSI)
1	1A	4.0	9.0	3.9	9.0	3.8	10.0	3.8	10.0	4.0	9.0	3.9	9.4
	3	4.5	11.0	4.7	12.0	4.3	12.0	4.5	12.0	4.5	12.0	4.5	11.8
	5	1.7	12.0	1.8	12.0	1.6	13.0	1.5	13.0	1.6	12.0	1.6	12.4
	12	7.0	10.0	6.9	10.0	6.8	10.0	7.0	10.0	6.8	10.0	6.9	10.0
	13	3.5	9.0	3.7	9.0	4.0	9.0	3.5	9.0	3.5	9.0	3.6	9.0
	15	13.1	12.0	14.2	12.0	13.5	12.0	14.1	12.0	14.0	12.0	13.8	12.0
	Total	**33.8**	**63.0**	**35.2**	**64.0**	**34.0**	**66.0**	**34.4**	**66.0**	**34.4**	**64.0**	**34.4**	**64.6**
2	1B	5.5	7.0	5.4	7.0	5.2	7.0	4.5	7.0	3.2	7.0	4.8	7.0
	4	8.0	11.0	8.1	11.0	7.8	12.0	7.5	12.0	7.6	11.0	7.8	11.4
	8	0.5	23.0	0.7	25.0	0.4	25.0	0.5	25.0	0.5	24.0	0.5	24.4
	10	0.5	25.0	0.3	23.0	2.0	17.0	2.1	17.0	3.2	14.0	1.6	19.2
	11	7.5	9.0	7.7	9.0	7.5	9.0	7.8	9.0	7.2	8.0	7.5	8.8
	14	8.0	7.0	8.0	7.0	7.8	7.0	7.5	7.0	7.6	5.0	7.8	6.6
	16	6.1	14.0	6.6	14.0	5.8	14.0	6.0	14.0	6.1	13.0	6.1	13.8
	Total	**36.1**	**96.0**	**36.8**	**96.0**	**36.5**	**91.0**	**35.9**	**91.0**	**35.4**	**82.0**	**36.1**	**91.2**
3	2A	3.0	7.0	2.8	7.0	2.8	8.0	3.1	8.0	3.0	8.0	2.9	7.6
	2B	7.1	9.0	7.3	9.0	7.7	10.0	7.5	10.0	7.5	10.0	7.4	9.6
	6A	7.0	10.0	7.1	10.0	7.0	10.0	7.0	11.0	6.9	10.0	7.0	10.2
	6B	2.1	20.0	2.2	19.0	2.0	19.0	1.5	20.0	1.9	19.0	1.9	19.4
	7	7.0	9.0	7.0	9.0	7.0	10.0	7.0	10.0	7.0	10.0	7.0	9.6
	9	8.5	4.0	8.9	4.0	8.9	5.0	9.0	5.0	9.0	5.0	8.9	4.6
	17	12.3	10.0	12.1	10.0	12.7	11.0	12.5	11.0	12.5	11.0	12.4	10.6
	Total	**47.0**	**69.0**	**47.4**	**68.0**	**48.1**	**73.0**	**47.6**	**75.0**	**47.8**	**73.0**	**47.6**	**71.6**

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
7/17/2017 through 7/21/2017

	Date	7/17/2017		7/18/2017		7/19/2017		7/20/2017		7/21/2017			
	Time	4:15 PM		5:00 PM		9:30 AM		4:15 PM		10:15 AM			
Group #	Well	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Avg. Flowrate (SCFM)	Avg. Pressure (PSI)
1	1A	3.8	9.0	4.0	9.0	4.4	9.0	4.1	9.0	4.0	9.0	4.1	9.0
	3	4.5	12.0	3.8	12.0	4.3	12.0	3.5	12.0	4.5	11.0	4.1	11.8
	5	1.5	13.0	1.2	13.0	1.7	12.0	1.5	12.0	1.5	12.0	1.5	12.4
	12	6.7	10.0	6.5	10.0	7.0	10.0	7.1	10.0	7.0	9.0	6.9	9.8
	13	3.2	9.0	3.1	9.0	3.5	9.0	3.0	9.0	3.2	9.0	3.2	9.0
	15	13.6	12.0	13.5	12.0	14.1	12.0	14.0	12.0	14.3	12.0	13.9	12.0
	Total	**33.3**	**65.0**	**32.1**	**65.0**	**35.0**	**64.0**	**33.2**	**64.0**	**34.5**	**62.0**	**33.6**	**64.0**
2	1B	3.1	7.0	5.5	6.0	5.4	7.0	5.5	6.0	5.0	6.0	4.9	6.4
	4	7.5	11.0	7.8	11.0	7.5	11.0	7.8	11.0	7.5	11.0	7.6	11.0
	8	0.3	25.0	0.3	25.0	0.5	24.0	0.2	26.0	0.2	26.0	0.3	25.2
	10	3.7	14.0	4.2	15.0	5.8	13.0	5.9	13.0	5.8	13.0	5.1	13.6
	11	7.2	8.0	7.8	9.0	7.5	9.0	7.4	9.0	7.5	8.0	7.5	8.6
	14	7.5	5.0	7.7	7.0	7.6	7.0	7.5	7.0	7.8	6.0	7.6	6.4
	16	6.2	12.0	6.4	12.0	6.0	12.0	6.4	12.0	5.8	12.0	6.2	12.0
	Total	**35.5**	**82.0**	**39.7**	**85.0**	**40.3**	**83.0**	**40.7**	**84.0**	**39.6**	**82.0**	**39.2**	**83.2**
3	2A	3.7	7.0	3.7	7.0	3.9	7.0	4.0	7.0	3.5	7.0	3.8	7.0
	2B	7.0	9.0	7.1	9.0	7.2	9.0	10.3	9.0	7.1	10.0	7.7	9.2
	6A	7.4	9.0	7.3	9.0	7.2	9.0	7.4	10.0	7.2	10.0	7.3	9.4
	6B	2.1	19.0	2.0	19.0	1.8	19.0	1.9	19.0	1.8	19.0	1.9	19.0
	7	7.0	9.0	7.1	9.0	7.0	9.0	7.0	9.0	6.9	9.0	7.0	9.0
	9	8.8	4.0	8.9	4.0	9.0	3.0	10.0	3.0	9.9	3.0	9.3	3.4
	17	12.9	10.0	13.1	10.0	13.0	10.0	13.0	10.0	12.9	10.0	13.0	10.0
	Total	**48.9**	**67.0**	**49.2**	**67.0**	**49.1**	**66.0**	**53.6**	**67.0**	**49.3**	**68.0**	**50.0**	**67.0**

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
7/31/2017 through 8/4/2017

	Date	7/31/2017		8/1/2017		8/2/2017		8/3/2017		8/4/2017			
	Time	9:30 AM		3:30 PM		Timeout Error		Timeout Error		3:30 PM			
Group #	Well	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Avg. Flowrate (SCFM)	Avg. Pressure (PSI)
1	1A	3.8	9.0	4.0	8.0	-	-	-	-	4.7	10.0	4.2	9.0
	3	4.1	12.0	4.0	12.0	-	-	-	-	5.1	12.0	4.4	12.0
	5	1.3	14.0	1.5	14.0	-	-	-	-	1.4	14.0	1.4	14.0
	12	5.9	10.0	5.6	10.0	-	-	-	-	7.2	11.0	6.2	10.3
	13	3.0	10.0	3.0	10.0	-	-	-	-	3.5	9.0	3.2	9.7
	15	13.7	12.0	13.5	12.0	-	-	-	-	14.1	12.0	13.8	12.0
	Total	**31.8**	**67.0**	**31.6**	**66.0**	**0.0**	**0.0**	**0.0**	**0.0**	**36.0**	**68.0**	**19.9**	**40.2**
2	1B	3.9	7.0	3.7	7.0	-	-	-	-	3.4	6.0	3.7	6.7
	4	5.4	11.0	5.5	11.0	-	-	-	-	4.2	10.0	5.0	10.7
	8	11.0	15.0	10.0	14.0	-	-	-	-	12.3	12.0	11.1	13.7
	10	5.4	9.0	5.1	9.0	-	-	-	-	5.4	8.0	5.3	8.7
	11	6.0	8.0	6.3	8.0	-	-	-	-	5.6	8.0	6.0	8.0
	14	6.3	6.0	6.1	6.0	-	-	-	-	5.7	7.0	6.0	6.3
	16	4.4	12.0	4.5	12.0	-	-	-	-	3.4	11.0	4.1	11.7
	Total	**42.4**	**68.0**	**41.2**	**67.0**	**0.0**	**0.0**	**0.0**	**0.0**	**40.0**	**62.0**	**24.7**	**39.4**
3	2A	2.7	7.0	3.0	7.0	-	-	-	-	3.7	7.0	3.1	7.0
	2B	6.3	10.0	6.5	10.0	-	-	-	-	6.1	10.0	6.3	10.0
	6A	7.7	8.0	7.5	8.0	-	-	-	-	7.6	8.0	7.6	8.0
	6B	1.7	19.0	1.5	19.0	-	-	-	-	1.6	19.0	1.6	19.0
	7	6.9	9.0	6.8	9.0	-	-	-	-	6.9	9.0	6.9	9.0
	9	10.0	2.0	10.0	3.0	-	-	-	-	10.0	3.0	10.0	2.7
	17	12.8	10.0	12.5	10.0	-	-	-	-	12.7	10.0	12.7	10.0
	Total	**48.1**	**65.0**	**47.8**	**66.0**	**0.0**	**0.0**	**0.0**	**0.0**	**48.6**	**66.0**	**28.9**	**39.4**

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
8/28/2017 through 9/1/2017

	Date	8/28/2017		8/29/2017		8/30/2017		8/31/2017		9/1/2017			
	Time	Timeout Error		10:15 AM		10:15 AM		6:30 PM		6:30 PM			
Group #	Well	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Avg. Flowrate (SCFM)	Avg. Pressure (PSI)
1	1A	-	-	4.5	9.0	5.1	9.0	3.8	9.0	4.0	9.0	4.4	9.0
	3	-	-	4.1	12.0	4.3	12.0	3.5	11.0	3.5	11.0	3.9	11.5
	5	-	-	2.1	12.0	2.5	11.0	1.5	12.0	1.3	11.0	1.9	11.5
	12	-	-	6.9	10.0	7.0	10.0	6.3	10.0	6.0	10.0	6.6	10.0
	13	-	-	9.5	11.0	9.1	11.0	8.4	10.0	8.5	10.0	8.9	10.5
	15	-	-	14.1	12.0	13.9	12.0	13.1	11.0	14.1	11.0	13.8	11.5
	Total	**0.0**	**0.0**	**41.2**	**66.0**	**41.9**	**65.0**	**36.6**	**63.0**	**37.4**	**62.0**	**31.4**	**51.2**
2	1B	-	-	4.0	7.0	4.1	7.0	3.6	7.0	3.5	7.0	3.8	7.0
	4	-	-	5.6	11.0	5.6	11.0	5.7	11.0	5.8	11.0	5.7	11.0
	8	-	-	9.2	16.0	9.0	17.0	6.1	18.0	6.0	18.0	7.6	17.3
	10	-	-	7.3	7.0	7.5	7.0	7.3	7.0	7.1	7.0	7.3	7.0
	11	-	-	6.2	8.0	6.1	8.0	6.3	8.0	6.5	8.0	6.3	8.0
	14	-	-	6.3	7.0	6.5	7.0	6.4	6.0	6.4	6.0	6.4	6.5
	16	-	-	6.5	14.0	6.3	14.0	6.7	14.0	6.7	14.0	6.6	14.0
	Total	**0.0**	**0.0**	**45.1**	**70.0**	**45.1**	**71.0**	**42.1**	**71.0**	**42.0**	**71.0**	**34.9**	**56.6**
3	2A	-	-	6.4	7.0	6.4	7.0	6.4	7.0	6.5	7.0	6.4	7.0
	2B	-	-	7.8	12.0	7.5	12.0	10.8	11.0	10.5	11.0	9.2	11.5
	6A	-	-	4.6	9.0	4.5	9.0	4.5	9.0	4.8	9.0	4.6	9.0
	6B	-	-	1.6	21.0	1.5	20.0	1.5	20.0	1.3	19.0	1.5	20.0
	7	-	-	7.8	10.0	7.9	10.0	7.4	10.0	7.1	10.0	7.6	10.0
	9	-	-	10.3	5.0	10.3	5.0	10.2	4.0	10.5	5.0	10.3	4.8
	17	-	-	11.7	10.0	11.5	10.0	11.8	10.0	11.5	10.0	11.6	10.0
	Total	**0.0**	**0.0**	**50.2**	**74.0**	**49.6**	**73.0**	**52.6**	**71.0**	**52.2**	**71.0**	**40.9**	**57.8**

Comments: Modem was repaired on 8/29/2017 and wireless connection issues were resolved.

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
9/4/2017 through 9/8/2017

	Date	9/4/2017		9/5/2017		9/6/2017		9/7/2017		9/8/2017			
	Time	Labor Day		10:15 AM		10:15 AM		11:45 AM		12:30 PM			
Group #	Well	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Avg. Flowrate (SCFM)	Avg. Pressure (PSI)
1	1A	-	-	4.5	9.0	4.7	9.0	4.5	9.0	4.7	9.0	4.6	9.0
	3	-	-	4.3	11.0	4.3	11.0	4.1	11.0	4.6	11.0	4.3	11.0
	5	-	-	2.0	12.0	2.2	12.0	2.1	12.0	2.7	12.0	2.3	12.0
	12	-	-	6.5	10.0	6.7	10.0	6.5	10.0	6.8	10.0	6.6	10.0
	13	-	-	9.5	10.0	9.3	10.0	9.5	10.0	9.8	10.0	9.5	10.0
	15	-	-	13.1	11.0	13.3	11.0	13.1	11.0	13.8	12.0	13.3	11.3
	Total	**0.0**	**0.0**	**39.9**	**63.0**	**40.5**	**63.0**	**39.8**	**63.0**	**42.4**	**64.0**	**32.5**	**50.6**
2	1B	-	-	4.3	7.0	4.2	7.0	4.2	7.0	3.6	7.0	4.1	7.0
	4	-	-	6.1	11.0	6.0	11.0	6.1	12.0	5.8	12.0	6.0	11.5
	8	-	-	6.0	18.0	6.1	18.0	5.8	19.0	5.4	18.0	5.8	18.3
	10	-	-	8.1	7.0	7.9	7.0	8.0	7.0	7.8	7.0	8.0	7.0
	11	-	-	6.5	8.0	6.5	8.0	6.7	8.0	6.5	8.0	6.6	8.0
	14	-	-	6.4	6.0	6.5	6.0	6.7	6.0	6.6	6.0	6.6	6.0
	16	-	-	7.1	14.0	7.2	14.0	6.4	14.0	6.5	14.0	6.8	14.0
	Total	**0.0**	**0.0**	**44.5**	**71.0**	**44.4**	**71.0**	**43.9**	**73.0**	**42.2**	**72.0**	**35.0**	**57.4**
3	2A	-	-	6.1	7.0	6.3	7.0	6.5	7.0	6.3	7.0	6.3	7.0
	2B	-	-	7.5	11.0	7.4	11.0	7.7	12.0	7.9	11.0	7.6	11.3
	6A	-	-	4.3	9.0	4.5	9.0	4.9	8.0	4.8	8.0	4.6	8.5
	6B	-	-	1.5	21.0	1.4	21.0	1.4	21.0	1.4	21.0	1.4	21.0
	7	-	-	7.5	9.0	7.6	9.0	7.8	10.0	7.6	10.0	7.6	9.5
	9	-	-	10.1	5.0	10.0	5.0	10.0	5.0	10.3	5.0	10.1	5.0
	17	-	-	12.3	10.0	12.0	10.0	8.5	9.0	12.3	10.0	11.3	9.8
	Total	**0.0**	**0.0**	**49.3**	**72.0**	**49.2**	**72.0**	**46.8**	**72.0**	**50.6**	**72.0**	**39.2**	**57.6**

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
9/11/2017 through 9/15/2017

	Date	9/11/2017		9/12/2017		9/13/2017		9/14/2017		9/15/2017			
	Time	10:15 AM		10:15 AM		11:45 AM		Out of Office		Out of Office			
Group #	Well	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Avg. Flowrate (SCFM)	Avg. Pressure (PSI)
1	1A	4.3	9.0	4.1	9.0	4.0	9.0	-	-	-	-	4.1	9.0
	3	4.2	11.0	4.5	11.0	4.3	11.0	-	-	-	-	4.3	11.0
	5	2.1	12.0	2.0	12.0	2.3	12.0	-	-	-	-	2.1	12.0
	12	6.5	10.0	6.3	10.0	6.5	10.0	-	-	-	-	6.4	10.0
	13	8.3	10.0	8.1	10.0	8.5	11.0	-	-	-	-	8.3	10.3
	15	13.1	11.0	13.5	11.0	13.4	11.0	-	-	-	-	13.3	11.0
	Total	**38.5**	**63.0**	**38.5**	**63.0**	**39.0**	**64.0**	**0.0**	**0.0**	**0.0**	**0.0**	**23.2**	**38.0**
2	1B	4.0	8.0	4.0	7.0	4.1	7.0	-	-	-	-	4.0	7.3
	4	6.0	10.0	6.5	12.0	6.1	12.0	-	-	-	-	6.2	11.3
	8	4.5	21.0	4.1	18.0	4.4	20.0	-	-	-	-	4.3	19.7
	10	8.0	7.0	8.0	7.0	8.1	7.0	-	-	-	-	8.0	7.0
	11	6.9	8.0	7.0	8.0	6.9	8.0	-	-	-	-	6.9	8.0
	14	6.8	6.0	6.8	6.0	6.8	6.0	-	-	-	-	6.8	6.0
	16	7.0	14.0	7.1	14.0	7.0	14.0	-	-	-	-	7.0	14.0
	Total	**43.2**	**74.0**	**43.5**	**72.0**	**43.4**	**74.0**	**0.0**	**0.0**	**0.0**	**0.0**	**26.0**	**44.0**
3	2A	6.0	7.0	6.2	7.0	6.2	7.0	-	-	-	-	6.1	7.0
	2B	9.1	12.0	8.5	12.0	8.8	12.0	-	-	-	-	8.8	12.0
	6A	5.0	8.0	5.0	8.0	4.9	8.0	-	-	-	-	5.0	8.0
	6B	1.3	20.0	1.5	19.0	1.4	21.0	-	-	-	-	1.4	20.0
	7	7.5	10.0	7.5	10.0	7.6	10.0	-	-	-	-	7.5	10.0
	9	8.7	6.0	9.8	6.0	9.9	5.0	-	-	-	-	9.5	5.7
	17	11.1	10.0	11.1	10.0	11.0	10.0	-	-	-	-	11.1	10.0
	Total	**48.7**	**73.0**	**49.6**	**72.0**	**49.8**	**73.0**	**0.0**	**0.0**	**0.0**	**0.0**	**29.6**	**43.6**

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
9/18/2017 through 9/22/2017

	Date	9/18/2017		9/19/2017		9/20/2017		9/21/2017		9/22/2017			
	Time	10:15 AM		Out of Office		Out of Office		Out of Office		10:15 AM			
Group #	Well	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Avg. Flowrate (SCFM)	Avg. Pressure (PSI)
1	1A	4.0	9.0	-	-	-	-	-	-	4.1	9.0	4.1	9.0
	3	4.5	11.0	-	-	-	-	-	-	4.3	11.0	4.4	11.0
	5	2.0	12.0	-	-	-	-	-	-	2.1	11.0	2.1	11.5
	12	6.1	10.0	-	-	-	-	-	-	6.0	11.0	6.1	10.5
	13	8.1	10.0	-	-	-	-	-	-	8.0	10.0	8.1	10.0
	15	13.4	11.0	-	-	-	-	-	-	13.1	11.0	13.3	11.0
	Total	**38.1**	**63.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**37.6**	**63.0**	**15.1**	**25.2**
2	1B	4.0	7.0	-	-	-	-	-	-	4.0	7.0	4.0	7.0
	4	6.1	11.0	-	-	-	-	-	-	6.0	11.0	6.1	11.0
	8	4.5	19.0	-	-	-	-	-	-	4.5	20.0	4.5	19.5
	10	8.1	7.0	-	-	-	-	-	-	8.1	7.0	8.1	7.0
	11	7.0	8.0	-	-	-	-	-	-	7.0	8.0	7.0	8.0
	14	6.8	6.0	-	-	-	-	-	-	6.5	6.0	6.7	6.0
	16	7.0	14.0	-	-	-	-	-	-	7.1	14.0	7.1	14.0
	Total	**43.5**	**72.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**43.2**	**73.0**	**17.3**	**29.0**
3	2A	6.1	7.0	-	-	-	-	-	-	6.0	7.0	6.1	7.0
	2B	8.9	12.0	-	-	-	-	-	-	8.5	11.0	8.7	11.5
	6A	5.0	8.0	-	-	-	-	-	-	5.1	8.0	5.1	8.0
	6B	1.1	20.0	-	-	-	-	-	-	1.4	20.0	1.3	20.0
	7	7.8	10.0	-	-	-	-	-	-	8.1	10.0	8.0	10.0
	9	9.3	5.0	-	-	-	-	-	-	9.1	5.0	9.2	5.0
	17	11.0	10.0	-	-	-	-	-	-	11.1	10.0	11.1	10.0
	Total	**49.2**	**72.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**49.3**	**71.0**	**19.7**	**28.6**

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
9/25/2017 through 9/29/2017

	Date	9/25/2017		9/26/2017		9/27/2017		9/28/2017		9/29/2017			
	Time	9:30 AM		2:45 PM		9:30 AM		10:30 AM		8:45 AM			
Group #	Well	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Avg. Flowrate (SCFM)	Avg. Pressure (PSI)
1	1A	4.0	9.0	4.1	9.0	3.5	9.0	3.5	9.0	4.4	9.0	3.9	9.0
	3	4.5	11.0	5.0	11.0	4.9	11.0	4.5	11.0	4.6	11.0	4.7	11.0
	5	2.5	12.0	2.7	12.0	2.1	12.0	2.2	12.0	2.5	12.0	2.4	12.0
	12	6.4	10.0	6.5	10.0	6.5	11.0	6.3	10.0	6.4	10.0	6.4	10.2
	13	9.1	10.0	9.5	10.0	9.5	10.0	8.9	10.0	9.3	10.0	9.3	10.0
	15	13.5	12.0	13.7	12.0	13.7	12.0	13.4	11.0	13.5	11.0	13.6	11.6
	Total	**40.0**	**64.0**	**41.5**	**64.0**	**40.2**	**65.0**	**38.8**	**63.0**	**40.7**	**63.0**	**40.2**	**63.8**
2	1B	4.7	7.0	4.6	7.0	4.8	7.0	4.3	7.0	5.0	7.0	4.7	7.0
	4	5.1	12.0	5.2	12.0	4.4	12.0	6.2	11.0	6.1	12.0	5.4	11.8
	8	0.7	21.0	0.9	22.0	0.8	22.0	0.6	22.0	0.5	24.0	0.7	22.2
	10	8.0	8.0	8.0	8.0	8.0	8.0	8.2	7.0	8.3	6.0	8.1	7.4
	11	7.0	8.0	7.1	8.0	7.3	8.0	7.1	8.0	7.4	8.0	7.2	8.0
	14	6.9	5.0	7.0	5.0	7.1	6.0	6.9	6.0	7.1	6.0	7.0	5.6
	16	8.5	14.0	8.7	14.0	8.8	14.0	8.7	14.0	9.0	14.0	8.7	14.0
	Total	**40.9**	**75.0**	**41.5**	**76.0**	**41.2**	**77.0**	**42.0**	**75.0**	**43.4**	**77.0**	**41.8**	**76.0**
3	2A	5.5	7.0	5.2	7.0	5.5	7.0	5.5	7.0	6.1	7.0	5.6	7.0
	2B	8.5	11.0	8.7	11.0	8.6	11.0	8.3	11.0	9.0	11.0	8.6	11.0
	6A	5.2	7.0	5.3	7.0	4.7	7.0	4.8	7.0	4.8	8.0	5.0	7.2
	6B	1.2	20.0	1.2	21.0	1.4	20.0	1.3	20.0	1.5	21.0	1.3	20.4
	7	6.5	9.0	6.7	9.0	6.9	9.0	6.8	9.0	7.0	9.0	6.8	9.0
	9	8.7	5.0	8.6	7.0	9.1	5.0	8.8	5.0	8.7	6.0	8.8	5.6
	17	11.2	9.0	11.3	10.0	11.2	9.0	12.0	10.0	12.4	10.0	11.6	9.6
	Total	**46.8**	**68.0**	**47.0**	**72.0**	**47.4**	**68.0**	**47.5**	**69.0**	**49.5**	**72.0**	**47.6**	**69.8**