

**OWENS-BROCKWAY**

GLASS CONTAINERS  
a unit of Owens-Illinois

*Rec'd B Chan*  
*4/30/01*  
*# 866*



April 27, 2001

Mr. Barney M. Chan  
Alameda County Health Care Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

Subject: Monitoring Report for MW-20  
Owens-Brockway Glass Plant - Oakland

Dear Mr. Chan:

The attached report includes a second set of data from monitoring well #20. MTBE was analyzed and found to be below the detection level. Use of Soakease pads to remove small amounts of free product from seven specified wells continues.

If you have questions regarding the report or our product recovery efforts, please give me or Steve Springer a call at 510-436-2174 or 510-436-2183 respectively.

Sincerely,

A handwritten signature in cursive script that reads "Robert C. Neal".

Robert C. Neal, P.E.  
Environmental Administrator

cc: Mark Tussing  
Jerry Jamar  
Steve Springer  
Meredith Durant - Kennedy/Jenks

# Kennedy/Jenks Consultants

## Engineers & Scientists

622 Folsom Street  
San Francisco, California 94107  
415-243-2150  
FAX 415-896-0999

24 April 2001

Mr. Robert Neal  
Environmental Manager  
Owens Brockway  
3600 Alameda Avenue  
Oakland, CA 94601

Subject: Groundwater Monitoring Data from Well MW-20  
Owens Brockway, 3600 Alameda Avenue, Oakland, California  
K/J 950007.30

Dear Bob:

In response to your request, Kennedy/Jenks measured the water level elevation and collected a groundwater sample from the recently installed ~~Monitoring Well MW-20~~ at the Owens Brockway facility located at 3600 Alameda Avenue in Oakland. ~~The sampling event was performed on 6 April 2001.~~

The samples were collected using a new disposable bailer. Three well volumes were purged from the well prior to collecting the groundwater sample. Purge water from the sampling event was discharged to the onsite oil/water separator. A copy of the purge and sample form is attached.

The sample was submitted under chain-of-custody to Chromalab in Pleasanton for analysis. The sample was analyzed for purgeable and extractable total petroleum hydrocarbons using EPA Method 8015 and for BTEX and MTBE using EPA Method 8020.

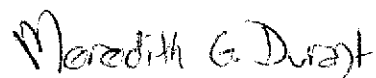
The analytical results are presented in the attached table, which also includes historical results from sampling of the onsite groundwater monitoring wells. MTBE was not detected above the analytical reporting limit of 5.0 µg/l. No analytes were detected in the trip blank or method blank. Copies of the analytical data reports are attached.

Monitoring Well MW-20 was constructed and initially sampled in December 2000. The analytical results from this second sampling event are consistent with those from the initial event.

If you have any questions regarding this sampling event, or the analytical results, please call me at (415) 243-2534.

Very truly yours,

KENNEDY/JENKS CONSULTANTS



Meredith G. Durant, P.E.  
Project Manager

Enclosure

**Table 1: Summary of Groundwater Analytical Results**

Well Number	Date Sampled	TPPH <sup>(a)</sup> (µg/l) <sup>(h)</sup>	TEPH <sup>(b)</sup> (mg/l)	O&G <sup>(c)</sup> (mg/l)	B <sup>(d)</sup> (µg/l)	T <sup>(e)</sup> (µg/l)	E <sup>(f)</sup> (µg/l)	X <sup>(g)</sup> (µg/l)
MW-1	9/23/86	<0.01 <sup>(j)</sup>	NA <sup>(j)</sup>	25	<10	<10	NA	<10
	4/9/87	BDL <sup>(k)</sup>	NA	NA	BDL	BDL	NA	BDL
	9/16/87 <sup>(l)</sup>	-	-	-	-	-	-	-
	12/1/87 <sup>(l)</sup>	-	-	-	-	-	-	-
	3/7/88 <sup>(l)</sup>	-	-	-	-	-	-	-
	6/8/88 <sup>(l)</sup>	-	-	-	-	-	-	-
	9/14/88 <sup>(l)</sup>	-	-	-	-	-	-	-
	9/16/97	<50	0.190	<0.300	<0.5	<0.5	<0.5	<0.5
	11/2/98	<50	0.160	NA	<0.5	<0.5	<0.5	<0.5
MW-2	4/9/87 <sup>(m)</sup>	-	-	-	-	-	-	-
	9/16/87 <sup>(m)</sup>	-	-	-	-	-	-	-
	12/1/87 <sup>(m)</sup>	-	-	-	-	-	-	-
	3/7/88 <sup>(l)</sup>	-	-	-	-	-	-	-
	6/8/88 <sup>(l)</sup>	-	-	-	-	-	-	-
	9/14/88 <sup>(l)</sup>	-	-	-	-	-	-	-
	9/16/97 <sup>(m)</sup>	-	-	-	-	-	-	-
	11/2/98 <sup>(m)</sup>	-	-	-	-	-	-	-
MW-3 <sup>(n)</sup>	9/23/86	<10	NA	18	<10	<10	NA	<10
	4/9/87	370	NA	NA	BDL	BDL	NA	BDL
	9/16/87 <sup>(m)</sup>	-	-	-	-	-	-	-
	12/1/87 <sup>(m)</sup>	-	-	-	-	-	-	-
	3/7/88	NA	190	NA	NA	NA	NA	NA
	6/9/88	NA	16	NA	NA	NA	NA	NA
	9/14/88 <sup>(m)</sup>	-	-	-	-	-	-	-
	MW-4	10/3/86	20	NA	7.2	<5	<5	NA
4/9/87		BDL	NA	NA	BDL	BDL	NA	BDL
9/16/87		1.3	0.66	NA	BDL	BDL	NA	BDL
12/1/87		BDL	0.100	NA	BDL	BDL	NA	8.9
3/7/88		BDL	BDL	NA	BDL	BDL	NA	BDL
6/8/88		BDL	BDL	NA	BDL	BDL	NA	BDL
9/14/88		BDL	0.100	NA	BDL	BDL	NA	BDL
MW-5		10/3/86	1,400	NA	24	<5	<5	NA
	4/9/87	54	NA	NA	BDL	BDL	NA	BDL
	9/16/87	NA	96	NA	NA	NA	NA	NA
	12/1/87	NA	2	NA	NA	NA	NA	NA
	3/9/88	NA	BDL	NA	NA	NA	NA	NA
	6/9/88	NA	12	NA	NA	NA	NA	NA
	9/14/88	NA	6.3	NA	NA	NA	NA	NA
	9/16/97	<50	7.5	4.1	<0.5	<0.5	<0.5	<0.5
	11/2/98 <sup>(m)</sup>	-	-	-	-	-	-	-
	12/6/00	1,000	7.7	NA	<0.5	<0.5	<0.5	<0.5

**Table 1: Summary of Groundwater Analytical Results**

Well Number	Date Sampled	TPPH <sup>(a)</sup> (µg/l) <sup>(h)</sup>	TEPH <sup>(b)</sup> (mg/l)	O&G <sup>(c)</sup> (mg/l)	B <sup>(d)</sup> (µg/l)	T <sup>(e)</sup> (µg/l)	E <sup>(f)</sup> (µg/l)	X <sup>(g)</sup> (µg/l)
MW-6	4/9/87 <sup>(m)</sup>	-	-	-	-	-	-	-
	9/16/87	NA	400	NA	NA	NA	NA	NA
	12/1/87	NA	30	NA	NA	NA	NA	NA
	3/9/88	NA	9.8	NA	NA	NA	NA	NA
	6/9/88	NA	63	NA	NA	NA	NA	NA
	9/14/88	NA	140	NA	NA	NA	NA	NA
	9/16/97 <sup>(m)</sup>	-	-	-	-	-	-	-
	11/2/98 <sup>(m)</sup>	-	-	-	-	-	-	-
MW-7	10/3/86	260	NA	8	<5	<5	NA	<5
	4/9/87 <sup>(m)</sup>	-	-	-	-	-	-	-
	9/16/87	NA	790	NA	NA	NA	NA	NA
	12/1/87	NA	5.3	NA	NA	NA	NA	NA
	3/9/88	NA	BDL	NA	NA	NA	NA	NA
	6/9/88	NA	12	NA	NA	NA	NA	NA
	9/14/88	NA	67	NA	NA	NA	NA	NA
	9/16/97	850	26	11	<0.5	<0.5	<0.5	<0.5
	11/2/98 <sup>(m)</sup>	-	-	-	-	-	-	-
	12/6/00	540	2.6	NA	<0.5	<0.5	<0.5	1.9
	10/23/86	1,300	NA	14	<0.2	<0.2	NA	<1
MW-8	4/9/87	73	NA	NA	BDL	BDL	NA	BDL
	9/16/87 <sup>(m)</sup>	-	-	-	-	-	-	-
	12/1/87	NA	0.630	NA	NA	NA	NA	NA
	3/9/88	NA	2.6	NA	NA	NA	NA	NA
	6/9/88	NA	1.7	NA	NA	NA	NA	NA
	9/14/88	NA	0.150	NA	NA	NA	NA	NA
	8/12/97 <sup>(m)</sup>	-	-	-	-	-	-	-
	9/16/97	<50	0.29	<0.300	<0.5	<0.5	<0.5	<0.5
	11/2/98	<50	1.3	NA	<0.5	<0.5	<0.5	<0.5
	12/6/00	<50	0.160	NA	<0.5	<0.5	<0.5	<0.5
	4/9/87 <sup>(m)</sup>	-	-	-	-	-	-	-
	MW-9	9/16/87	NA	1.3	NA	NA	NA	NA
12/1/87		NA	18	NA	NA	NA	NA	NA
3/9/88		NA	47	NA	NA	NA	NA	NA
6/8/88 <sup>(m)</sup>		-	-	-	-	-	-	-
9/14/88 <sup>(m)</sup>		-	-	-	-	-	-	-
9/16/97		6,000	19	9	<13	<13	<13	18
11/2/98 <sup>(m)</sup>		-	-	-	-	-	-	-
12/6/00		790	69	NA	<0.5	<0.5	<0.5	<0.5
10/23/86		380	NA	7.2	<0.2	<0.2	NA	<0.2
4/9/87		300	NA	NA	BDL	BDL	NA	BDL
MW-10	9/16/87	NA	3.8	NA	NA	NA	NA	NA
	12/1/87	NA	0.59	NA	NA	NA	NA	NA
	3/8/88	NA	BDL	NA	NA	NA	NA	NA
	6/8/88	NA	3.8	NA	NA	NA	NA	NA
	9/14/88	NA	0.570	NA	NA	NA	NA	NA

**Table 1: Summary of Groundwater Analytical Results**

Well Number	Date Sampled	TPPH <sup>(a)</sup> (µg/l) <sup>(h)</sup>	TEPH <sup>(b)</sup> (mg/l)	O&G <sup>(c)</sup> (mg/l)	B <sup>(d)</sup> (µg/l)	T <sup>(e)</sup> (µg/l)	E <sup>(f)</sup> (µg/l)	X <sup>(g)</sup> (µg/l)
MW-10	9/16/97	<50	1.3	<0.300	<0.5	<0.5	<0.5	<0.5
Cont'd	11/2/98	<50	1.4	NA	<0.5	<0.5	<0.5	<0.5
	12/6/00	150	0.730	NA	<0.5	<0.5	<0.5	0.70
	12/6/00 (dup)	160	0.810	NA	<0.5	<0.5	<0.5	0.71
MW-11	12/5/86	<8	NA	1.2	<0.4	<0.4	NA	1.4
	4/9/87	BDL	NA	NA	BDL	BDL	NA	BDL
	9/16/87	BDL	NA	NA	BDL	BDL	NA	BDL
	12/1/87	BDL	NA	NA	0.8	BDL	NA	10
	3/7/88	BDL	BDL	NA	BDL	BDL	NA	BDL
	6/8/88	BDL	BDL	NA	BDL	BDL	NA	BDL
	9/14/88	BDL	100	NA	BDL	BDL	NA	BDL
MW-12	12/5/86	100	NA	2.5	0.49	1	NA	1.3
	4/9/87	BDL	NA	NA	BDL	BDL	NA	BDL
	9/16/87	BDL	NA	NA	BDL	BDL	NA	BDL
	12/1/87	BDL	NA	NA	BDL	BDL	NA	13
	3/7/88	BDL	BDL	NA	BDL	BDL	NA	BDL
	6/8/88	BDL	BDL	NA	BDL	BDL	NA	BDL
	9/14/88	BDL	0.120	NA	BDL	BDL	NA	BDL
MW-13	12/24/86	<10	NA	57	<0.2	<0.9	NA	<0.9
	4/9/87	BDL	NA	NA	BDL	BDL	NA	BDL
	9/16/87	BDL	NA	NA	BDL	BDL	NA	BDL
	12/1/87	BDL	NA	NA	1.6	BDL	NA	12
	3/8/88	7.7	BDL	NA	BDL	BDL	NA	BDL
	6/8/88	BDL	BDL	NA	BDL	BDL	NA	BDL
	9/14/88	BDL	0.130	NA	BDL	BDL	NA	BDL
	9/16/97	<50	0.120	<0.300	<0.5	<0.5	<0.5	<0.5
	11/2/98	<50	0.120	NA	<0.5	<0.5	<0.5	<0.5
	12/6/00	<50	0.200	NA	<0.5	<0.5	<0.5	<0.5
MW-14 <sup>(n)</sup>	12/5/86 <sup>(o)</sup>	<8	NA	3.2	<0.4	<0.2	NA	<0.2
	4/9/87	BDL	NA	NA	BDL	BDL	NA	BDL
	9/16/87	1.7	0.056	NA	BDL	BDL	NA	BDL
	12/1/87	BDL	0.066	NA	1.2	4	NA	10
	3/7/88	20	BDL	NA	BDL	BDL	NA	BDL
	6/8/88 <sup>(l)</sup>	--	--	--	--	--	--	--
	9/14/88 <sup>(l)</sup>	--	--	--	--	--	--	--
MW-15	12/24/86	120	NA	1.6	<0.2	<0.9	NA	9.2
	4/9/87	BDL	NA	NA	BDL	BDL	NA	BDL
	9/16/87	8.4	BDL	NA	BDL	BDL	NA	BDL
	12/1/87	BDL	NA	NA	3.3	0.84	NA	14
	3/8/88	90	BDL	NA	0.8	BDL	NA	BDL
	6/9/88	53	BDL	NA	BDL	BDL	NA	BDL
	9/14/88	NA	0.100	NA	NA	NA	NA	NA
	9/16/97	<50	0.890	0.380	<0.5	<0.5	<0.5	<0.5
	11/2/98	<50	0.340	NA	<0.5	<0.5	<0.5	<0.5
	12/6/00	<50	0.400	NA	<0.5	<0.5	<0.5	<0.5

**Table 1: Summary of Groundwater Analytical Results**

Well Number	Date Sampled	TPPH <sup>(a)</sup> (µg/l) <sup>(h)</sup>	TEPH <sup>(b)</sup> (mg/l)	O&G <sup>(c)</sup> (mg/l)	B <sup>(d)</sup> (µg/l)	T <sup>(e)</sup> (µg/l)	E <sup>(f)</sup> (µg/l)	X <sup>(g)</sup> (µg/l)
MW-16	12/24/86	<10	NA	1.2	<0.2	<0.9	NA	<0.9
	4/9/87	BDL	NA	NA	BDL	BDL	NA	BDL
	9/16/87	BDL	0.064	NA	BDL	BDL	NA	BDL
	12/1/87	120	0.150	NA	1	0.37	NA	9.1
	3/7/88	10	BDL	NA	0.5	BDL	NA	BDL
	6/8/88	BDL	BDL	NA	BDL	BDL	NA	BDL
	9/14/88	BDL	0.190	NA	BDL	BDL	NA	BDL
	9/16/97 <sup>(m)</sup>	-	-	-	-	-	-	-
12/6/00	<50	0.097	NA	<0.5	<0.5	<0.5	<0.5	
MW-17	12/24/86	240	NA	2.4	5	1.2	NA	14
	4/9/87	BDL	NA	NA	BDL	BDL	NA	BDL
	9/16/87	44	0.680	NA	BDL	BDL	NA	0.55
	12/1/87	540	1.3	NA	7.8	2.4	NA	28
	3/8/88	4,300	3.8	NA	83	BDL	NA	46
	6/8/88 <sup>(j)</sup>	-	-	-	-	-	-	-
	9/14/88	54,000	64	NA	BDL	BDL	NA	BDL
	9/16/97	1,900	110	9.6	<0.5	<0.5	<0.5	<0.5
	11/2/98	<50	16	NA	<0.5	<0.5	<0.5	0.6
12/6/00 <sup>(p)</sup>	340	42	NA	<0.5	<0.5	<0.5	<0.5	
MW-18 <sup>(n)</sup>	12/24/86	<20	NA	1.6	<0.3	<0.3	NA	0.99
	4/9/87	BDL	NA	NA	BDL	BDL	NA	BDL
	9/16/87	BDL	0.480	NA	BDL	BDL	NA	BDL
	12/1/87	BDL	0.18	NA	BDL	BDL	NA	6.6
	3/7/88	BDL	BDL	NA	BDL	BDL	NA	BDL
	6/8/88	BDL	BDL	NA	BDL	BDL	NA	BDL
	9/14/88	BDL	0.190	NA	BDL	BDL	NA	BDL
MW-20	12/11/00	<50	0.110	NA	<0.5	<0.5	<0.5	<0.5
		<50	0.097	NA	<0.5	<0.5	<0.5	<0.5

**Table 1: Summary of Groundwater Analytical Results**

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- (a) TPPH = total purgeable petroleum hydrocarbons using EPA Method 8015 modified.
- (b) TEPH = total extractable petroleum hydrocarbons using EPA Method 8015 modified. Value listed for samples collected in December 2000 is value reported by lab as TPH diesel. Sample chromatographic patterns did not match lab standard for diesel.
- (c) O&G = total oil and grease.
- (d) B = benzene using EPA Method 8020
- (e) T = toluene using EPA Method 8020
- (f) E = ethylbenzene using EPA Method 8020
- (g) X = total xylenes using EPA Method 8020
- (h) ( $\mu\text{g/l}$ ) = micrograms per liter; ( $\text{mg/l}$ ) = milligrams per liter
- (i)  $< =$  analyte not present in the sample at or above the indicated detection limit
- (j) NA = not analyzed
- (k) BDL = below detection limit; actual limit not available for compilation of this table.
- (l) Not sampled; well inaccessible.
- (m) Not sampled; separate-phase petroleum product present.
- (n) Well destroyed.
- (o) Other volatile organic compounds were detected in the 12/5/86 sample collected from Well MW-14 using EPA Method 8010 (the sum of 1,1,2,2-tetrachloroethane, 1,1,1,2-tetrachloroethane and perchloroethene was 190  $\mu\text{g/l}$ ).
- (p) Sample collected from MW-17 on 12/6/00 was also analyzed for MtBE. MtBE was not detected, with a detection limit of 25  $\mu\text{g/l}$  (raised due to interference from non-target compounds).
- (q) Sample collected from MW-20 on 4/6/01 was also analyzed for MtBE. MtBE was not detected, with a detection limit of 5  $\mu\text{g/l}$ .

**Analytical Data Report &  
Chain-of-Custody Form**

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**Kennedy/Jenks-San Francisco**  
622 Folsom Street  
San Francisco, CA 94107-1366

Attn.: Ms. Meredith Durant

Project: 950007.30  
Owens Brockway

**RECEIVED**  
APR 23 2001  
KENNEDY/JENKS CONSULTANTS

Dear Meredith,

Attached is our report for your samples received on Friday April 6, 2001  
This report has been reviewed and approved for release. Reproduction of this report  
is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after May 21, 2001  
unless you have requested otherwise. We appreciate the opportunity to be of service to you.  
If you have any questions, please call me at (925) 484-1919. You can also contact me via email.  
My email address is: [gcook@chromalab.com](mailto:gcook@chromalab.com)

Sincerely,



Gary Cook

Gas/BTEX and MTBE

**Kennedy/Jenks-San Francisco**

✉ 622 Folsom Street  
San Francisco, CA 94107-1366

Attn: Meredith Durant

Phone: (415) 243-2534 Fax: (415) 896-0999

Project #: 950007.30

Project: Owens Brockway

**Samples Reported**

Sample ID	Matrix	Date Sampled	Lab #
MW-20	Water	04/06/2001 09:15	1
TRIP BLANK	Water	04/06/2001	2

# STL ChromaLab

Environmental Services (CA 1094)

Submission #: 2001-04-0171

To: Kennedy/Jenks-San Francisco

Test Method: 8020  
8015M

Attn.: Meredith Durant

Prep Method: 5030

## Gas/BTEX and MTBE

Sample ID: <b>MW-20</b>	Lab Sample ID: <b>2001-04-0171-001</b>
Project: 950007.30 Owens Brockway	Received: 04/06/2001 18:38
Sampled: 04/06/2001 09:15	Extracted: 04/10/2001 11:44
Matrix: Water	QC-Batch: 2001/04/10-01.03

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	04/10/2001 11:44	
Benzene	ND	0.50	ug/L	1.00	04/10/2001 11:44	
Toluene	ND	0.50	ug/L	1.00	04/10/2001 11:44	
Ethyl benzene	ND	0.50	ug/L	1.00	04/10/2001 11:44	
Xylene(s)	ND	0.50	ug/L	1.00	04/10/2001 11:44	
MTBE	ND	5.0	ug/L	1.00	04/10/2001 11:44	
<b>Surrogate(s)</b>						
4-Bromofluorobenzene	110.1	50-150	%	1.00	04/10/2001 11:44	
4-Bromofluorobenzene-FID	94.2	50-150	%	1.00	04/10/2001 11:44	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# STL ChromaLab

Environmental Services (CA 1094)

Submission #: 2001-04-0171

To: Kennedy/Jenks-San Francisco

Test Method: 8020  
8015M

Attn.: Meredith Durant

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID: TRIP BLANK	Lab Sample ID: 2001-04-0171-002
Project: 950007.30 Owens Brockway	Received: 04/06/2001 18:38
Sampled: 04/06/2001	Extracted: 04/10/2001 16:00
Matrix: Water	QC-Batch: 2001/04/10-01.03

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	04/10/2001 16:00	
Benzene	ND	0.50	ug/L	1.00	04/10/2001 16:00	
Toluene	ND	0.50	ug/L	1.00	04/10/2001 16:00	
Ethyl benzene	ND	0.50	ug/L	1.00	04/10/2001 16:00	
Xylene(s)	ND	0.50	ug/L	1.00	04/10/2001 16:00	
MTBE	ND	5.0	ug/L	1.00	04/10/2001 16:00	
<b>Surrogate(s)</b>						
Trifluorotoluene	117.1	58-124	%	1.00	04/10/2001 16:00	
4-Bromofluorobenzene-FID	80.8	50-150	%	1.00	04/10/2001 16:00	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

To: Kennedy/Jenks-San Francisco

Test Method: 8015M

Attn.: Meredith Durant

8020

Prep Method: 5030

**Batch QC Report**  
Gas/BTEX and MTBE

<b>Method Blank</b>	<b>Water</b>	<b>QC Batch # 2001/04/10-01.03</b>
MB: 2001/04/10-01.03-008		Date Extracted: 04/10/2001 11:05

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Gasoline	ND	50	ug/L	04/10/2001 11:05	
Benzene	ND	0.5	ug/L	04/10/2001 11:05	
Toluene	ND	0.5	ug/L	04/10/2001 11:05	
Ethyl benzene	ND	0.5	ug/L	04/10/2001 11:05	
Xylene(s)	ND	0.5	ug/L	04/10/2001 11:05	
MTBE	ND	5.0	ug/L	04/10/2001 11:05	
<b>Surrogate(s)</b>					
Trifluorotoluene	123.6	58-124	%	04/10/2001 11:05	
4-Bromofluorobenzene-FID	94.8	50-150	%	04/10/2001 11:05	

To: **Kennedy/Jenks-San Francisco**  
Attn: Meredith Durant

Test Method: 8020  
Prep Method: 5030

**Batch QC Report**

Gas/BTEX and MTBE

<b>Laboratory Control Spike (LCS/LCSD)</b>	<b>Water</b>	<b>QC Batch # 2001/04/10-01.03</b>
LCS: 2001/04/10-01.03-004	Extracted: 04/10/2001 09:02	Analyzed 04/10/2001 09:02
LCSD: 2001/04/10-01.03-005	Extracted: 04/10/2001 09:33	Analyzed 04/10/2001 09:33

Compound	Conc. [ ug/L ]		Exp.Conc. [ ug/L ]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Benzene	93.9	96.6	100.0	100.0	93.9	96.6	2.8	77-123	20		
Toluene	92.6	95.6	100.0	100.0	92.6	95.6	3.2	78-122	20		
Ethyl benzene	92.8	96.3	100.0	100.0	92.8	96.3	3.7	70-130	20		
Xylene(s)	276	290	300	300	92.0	96.7	5.0	75-125	20		
<b>Surrogate(s)</b>											
Trifluorotoluene	464	481	500	500	92.8	96.2		58-124			

To: Kennedy/Jenks-San Francisco

Test Method: 8015M  
8020

Attn: Meredith Durant

Prep Method: 5030

### Batch QC Report

Gas/BTEX and MTBE

Laboratory Control Spike (LCS/LCSD)	Water	QC Batch # 2001/04/10-01.03
LCS: 2001/04/10-01.03-006	Extracted: 04/10/2001 10:04	Analyzed 04/10/2001 10:04
LCSD: 2001/04/10-01.03-007	Extracted: 04/10/2001 10:34	Analyzed 04/10/2001 10:34

Compound	Conc. [ ug/L ]		Exp. Conc. [ ug/L ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Gasoline	496	522	500	500	99.2	104.4	5.1	75-125	20		
<b>Surrogate(s)</b>											
4-Bromofluorobenzene-FI	446	453	500	500	89.2	90.6		50-150			

Total Extractable Petroleum Hydrocarbons (TEPH)

<b>Kennedy/Jenks-San Francisco</b>	✉ 622 Folsom Street San Francisco, CA 94107-1366
Attn: Meredith Durant	Phone: (415) 243-2534 Fax: (415) 896-0999
Project #: 950007.30	Project: Owens Brockway

**Samples Reported**

Sample ID	Matrix	Date Sampled	Lab #
MW-20	Water	04/06/2001 09:15	1



To: **Kennedy/Jenks-San Francisco**

Test Method: 8015M

Attn.: Meredith Durant

Prep Method: 3510/8015M

Total Extractable Petroleum Hydrocarbons (TEPH)

Sample ID: <b>MW-20</b>	Lab Sample ID: <b>2001-04-0171-001</b>
Project: 950007.30 Owens Brockway	Received: 04/06/2001 18:38
Sampled: 04/06/2001 09:15	Extracted: 04/10/2001 08:41
Matrix: Water	QC-Batch: 2001/04/10-01.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	57	50	ug/L	1.00	04/10/2001 19:30	ldr
Motor Oil	ND	500	ug/L	1.00	04/10/2001 19:30	
<b>Surrogate(s)</b> o-Terphenyl	92.5	60-130	%	1.00	04/10/2001 19:30	

To: **Kennedy/Jenks-San Francisco**  
Attn.: Meredith Durant

Test Method: 8015M  
Prep Method: 3510/8015M

### Batch QC Report

Total Extractable Petroleum Hydrocarbons (TEPH)

<b>Method Blank</b>	<b>Water</b>	<b>QC Batch # 2001/04/10-01.10</b>
MB: 2001/04/10-01.10-001		Date Extracted: 04/10/2001 08:41

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Diesel	ND	50	ug/L	04/10/2001 16:29	
Motor Oil	ND	500	ug/L	04/10/2001 16:29	
<b>Surrogate(s)</b> o-Terphenyl	91.5	60-130	%	04/10/2001 16:29	

To: **Kennedy/Jenks-San Francisco**

Test Method: 8015M

Attn: Meredith Durant

Prep Method: 3510/8015M

### Batch QC Report

Total Extractable Petroleum Hydrocarbons (TEPH)

Laboratory Control Spike (LCS/LCSD)		Water		QC Batch # 2001/04/10-01.10	
LCS:	2001/04/10-01.10-002	Extracted:	04/10/2001 08:41	Analyzed	04/10/2001 15:10
LCSD:	2001/04/10-01.10-003	Extracted:	04/10/2001 08:41	Analyzed	04/10/2001 15:49

Compound	Conc. [ ug/L ]		Exp. Conc. [ ug/L ]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Diesel	1120	1100	1250	1250	89.6	88.0	1.8	60-130	25		
<b>Surrogate(s)</b>											
o-Terphenyl	19.1	18.0	20.0	20.0	95.5	90.0		60-130			

To: **Kennedy/Jenks-San Francisco**  
Attn: Meredith Durant

Test Method: 8015M  
Prep Method: 3510/8015M

**Legend & Notes**

Total Extractable Petroleum Hydrocarbons (TEPH)

**Analyte Flags**

ldr

Hydrocarbon reported is in the late Diesel range, and does not match our Diesel standard

Sample Chain-Of-Custody Analysis Request

- 200 New Stine Road, #115, Bakersfield, CA 93309
- 530 South 336th Street, Federal Way, WA 98003
- 2151 Michelson Drive, #100, Irvine, CA 92612-1311
- 2191 East Bayshore Rd., #200, Palo Alto, CA 94303
- 2828 SW Naito Parkway, #350, Portland, OR 97201

- 5190 Neil Road, #300, Reno, NV 89502
- 3336 Bradshaw Road, #140, Sacramento, CA 95827
- 822 Folsom St., San Francisco, CA 94107
- 1000 Hill Road, #200, Ventura, CA 93003

POSSIBLE HAZARDS: Analytes

Date 4/6/01  
 Source of Samples Owens Brockway  
 Sampler Name M. McLeod / J. Farrell  
 Phone 415 243 2508  
 Project No. 950007.30

Report To Meredith Durant  
 Company Kennedy/Jenks Consultants  
 Address 622 Folsom Street  
San Francisco CA 94107  
 Phone 415 243 2534

(5) ANALYSES REQUESTED		
EPA 8020 (Pb, Cd, Cu, Ni, Zn)	EPA 8015 (TPH)	EPA 8015 (TPH)

Lab Destination Chroma Lab  
 Address 1220 Quassy Ln  
Pleasanton CA  
 Phone 925-484-1919  
 Carrier/Way Bill No. n/a

(1) Lab ID No.	(1) Client ID No.	COLLECTION		(2) Type	Depth	(3) Comp.	(4) Pres.	Turn-around	(5) ANALYSES REQUESTED			Comments/Conditions (Container type, container number, etc.)
		Date	Time						EPA 8020 (Pb, Cd, Cu, Ni, Zn)	EPA 8015 (TPH)	EPA 8015 (TPH)	
	MW-20	4/6	0915	W	n/a	No	HCL	Standard	X	X	X	
	Trip Blank	4/6		W			HCL	Standard	X	X		Scout

- (1) Write only one sample number in each space.
- (2) Specify type of sample(s): Water (W), Solid (S), or indicate type.
- (3) Mark each sample which should be composited in Laboratory as follows: Place an "A" in box for each sample that should be composited into one sample; use sequential letter for additional groups.
- (4) Preservation of sample.
- (5) Write each analyses requested across top. Place an "X" in appropriate column to indicate type of analysis needed for each sample.

4.1°C

SAMPLE RELINQUISHED BY:

SAMPLE RECEIVED BY:

Print Name	Signature	Company	Date	Time	Print Name	Signature	Company	Date	Time
Mike McLeod	<i>[Signature]</i>	K/J	4/6	1330	Mike McLeod	<i>[Signature]</i>	STL-CL	4/6/01	1838
<i>[Signature]</i>	<i>[Signature]</i>	STL-CL	4/6/01	1838	D. Harrington	<i>[Signature]</i>	STL-CL	4/6/01	1838

**Groundwater Purge and Sample Form**

Date: 4/6/01

**Kennedy/Jenks Consultants**

PROJECT NAME: Owens Brocke Way  
 PROJECT NUMBER: 950007.30

WELL NUMBER: MW-20  
 PERSONNEL: Fennell / Melend

STATIC WATER LEVEL (FT): 8.82

MEASURING POINT DESCRIPTION: To C

WATER LEVEL MEASUREMENT METHOD: Solinst

PURGE METHOD: Disposable Bailer

TIME START PURGE: 0850

PURGE DEPTH (FT) 22

TIME END PURGE: 0902

TIME SAMPLED: 0915

COMMENTS: M. Melend calibrated pH Meter, read 7.05 and 10.09 on soln

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	DEPTH TO WATER (FT)	WATER COLUMN (FT)	x	MULTIPLIER FOR CASING DIAMETER (IN)			CASING VOLUME (GAL)
					2	4	6	
	<u>22</u>	<u>8.82</u>	<u>13.2</u>		0.16	0.64	1.44	<u>2142 = 6</u>

TIME	0850	0852	0855	0902			
VOLUME PURGED (GAL)	<u>10.5</u>	<u>2</u>	<u>4</u>	<u>6</u>			
PURGE RATE (GPM)							
TEMPERATURE (°C) OF	<u>58.5</u>	<u>59.9</u>	<u>59.7</u>	<u>58.5</u>			
pH	<u>8.11</u>	<u>7.77</u>	<u>7.50</u>	<u>7.58</u>			
SPECIFIC CONDUCTIVITY (micromhos) (uncorrected) cm	<u>1,230</u>	<u>1,220</u>	<u>1,200</u>	<u>1,180</u>			
DISSOLVED OXYGEN (mg/L)	<u>NM</u>	<u>→</u>	<u>→</u>	<u>→</u>			
eH(MV)Pt-AgCl ref.	<u>NM</u>	<u>→</u>	<u>→</u>	<u>→</u>			
TURBIDITY/COLOR	<u>Sl. cloudy</u>	<u>→</u>	<u>→</u>	<u>→</u>			
ODOR	<u>No</u>	<u>→</u>	<u>→</u>	<u>→</u>			
DEPTH OF PURGE INTAKE (FT)	<u>22</u>	<u>→</u>	<u>→</u>	<u>→</u>			
DEPTH TO WATER DURING PURGE (FT)	<u>NM</u>	<u>→</u>	<u>→</u>	<u>→</u>			
NUMBER OF CASING VOLUMES REMOVED		<u>1</u>	<u>2</u>	<u>3</u>			
DEWATERED?	<u>No</u>	<u>→</u>	<u>→</u>	<u>→</u>			

**Groundwater Purge and Sample Form**

Date: 4/6/01 Kennedy/Jenks Consultants

PROJECT NAME: O/B WELL NUMBER: MW-20  
 PROJECT NUMBER: 450007.00 PERSONNEL: mm/JF

SAMPLE DATA:  
 TIME SAMPLED: 0915 COMMENTS: \_\_\_\_\_  
 DEPTH SAMPLED (FT): 22  
 SAMPLING EQUIPMENT: Disp. Bail

SAMPLE NO.	NO. OF CONTAINERS	CON-TAINER TYPE	PRESER-VATIVE	FIELD FILTRA-TION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUS-TODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
MW-20	4	40-ml	HCl	NO	160	sl.	br	Y	8020, 8015	
MW-20	2	1-2	NO	"	22	"	"	Y	8015	

PURGE WATER DISPOSAL NOTES:  
 TOTAL DISCHARGE (GAL): 6 COMMENTS: \_\_\_\_\_  
 DISPOSAL METHOD: off site - drain  
 DRUM DESIGNATION(S)/VOLUME PER (GAL): \_\_\_\_\_

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):  
 WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?  YES NO  
 INSIDE OF WELL HEAD AND OUTER CASING DRY?  YES NO  
 WELL CASING OK?  YES NO  
 COMMENTS: NO

GENERAL:  
 WEATHER CONDITIONS: Rain  
 TEMPERATURE (SPECIFY °C OR °F): ~60  
 PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? No

cc: Project Manager: \_\_\_\_\_  
 Job File: \_\_\_\_\_  
 Other: \_\_\_\_\_