



# PORT OF OAKLAND

MAR 22 2002

March 19, 2002

Mr. Barney Chan  
Alameda County Health Care Services Agency  
Department of Environmental Health  
1131 Harbor Bay Parkway  
Alameda, CA 94502

**Subject: Annual Groundwater Monitoring Report, Former Seabreeze Yacht Center, Oakland**

Dear Mr. Chan:

Please find enclosed the annual groundwater monitoring report for the former Seabreeze Yacht Center, 280 Sixth Avenue, Oakland. This report documents the results of sampling monitoring wells MW-SB2, MW-SB3, MW-SB4, and MW-SB5 for total extractable hydrocarbons (TEPH) as diesel with silica gel cleanup, and MTBE.

The results indicate that neither TEPH (0.05mg/l) or MTBE (0.005mg/l) were detected in the four monitoring wells. If you have any questions, please contact me at 510-627-1184.

Sincerely,

Douglas P. Herman  
Associate Port Environmental Scientist

Cc (w/encl.): Betty Graham, RWQCB  
Gretchen Snoey, Lowney Associates

Cc:(w/o encl): Yane Nordhav, Baseline Environmental Consultants

C:\win\mydocs\projects\seebreeze\march 19, 2002 transmittal

# **BASELINE**

## **ENVIRONMENTAL CONSULTING**

5 March 2002  
S9171-C1

MAR 22 2002

Mr. Douglas Herman  
Port of Oakland  
Environmental Health and Safety Compliance Department  
530 Water Street  
Oakland, California 94607

**Subject: Annual Groundwater Monitoring Report, January 2002, Former Seabreeze Yacht Center, Inc. Site, 280 6th Avenue, Oakland, California**

Dear Douglas:

This report documents the groundwater sampling activities performed in January 2002 at the former Seabreeze Yacht Center, Inc. site (Site), located at 280 6<sup>th</sup> Avenue in Oakland, California (Figure 1). The groundwater monitoring was conducted in accordance with the 2 September 1997 letter from the Alameda County Health Care Services Agency, Department of Environmental Health (County) to the Port. The County approved the Port's request to: 1) modify the groundwater monitoring network to include only monitoring wells MW-SB2, MW-SB3, MW-SB4, and MW-SB5 (Figure 2); 2) perform groundwater monitoring on an annual basis; and 3) analyze collected groundwater samples for total extractable petroleum hydrocarbons (TEPH) as diesel, with a silica gel cleanup. The County required the Port to conduct groundwater monitoring during the first quarter of each year for an unspecified period. The Port also decided to analyze collected groundwater samples for methyl tertiary butyl ether (MTBE) beginning in February 2000.

### **FIELD ACTIVITIES, JANUARY 2002**

The presence of free product was checked and water levels were measured in the monitoring wells on 22 January 2002 using a dual-interface probe. Water levels were measured and recorded to the nearest one-hundredth of a foot. The dual-interface probe was decontaminated after each use by washing in an Alconox<sup>®</sup> solution and rinsing with deionized water. No sheen or free product was observed in any of the wells.

Following collection of water level measurements, the monitoring network wells were purged of approximately three well casing volumes. The wells were slowly purged using a peristaltic

Mr. Douglas Herman

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pump with new, disposable polyethylene tubing lowered inside the wells (the portion of tubing attached to the pump consisted of silicone; the remaining sections of the tubing consisted of polyethylene). Electrical conductivity, turbidity, pH, and temperature parameters of the purge water were monitored during purging. Stable parameter readings were obtained from all wells.

The water levels in all the monitoring wells did not recover to 80 percent of their original water levels on the day the wells were purged. Therefore, groundwater samples were collected on 24 January 2002 after sufficient water was available in all the wells. Groundwater samples were collected from the wells using a peristaltic pump with new disposable tubing.

The groundwater samples were submitted under chain-of-custody protocol to McCampbell Analytical, Inc. and were analyzed for TEPH as diesel (EPA Method 8015M) and MTBE (EPA Method 8021B). Prior to the TEPH analysis, the samples were subjected to a silica gel cleanup (EPA Method 3630C). The groundwater sampling forms, documenting sampling activities, are included in Attachment A and the chain-of-custody form is included in Attachment B.

One drum, containing purge and decontamination water, was generated from the January 2002 sampling activities. The drum was labeled and stored on-site for future off-site disposal by the Port.

## **ANALYTICAL RESULTS**

The analytical results are summarized in Table 1 and the laboratory report is presented in Attachment B. TEPH as diesel and MTBE were not identified in any of the samples collected from the monitoring network wells above the laboratory reporting limits.

A quality control review of the laboratory report was conducted by BASELINE; the corresponding quality control checklist is provided in Attachment C. In summary, the samples were analyzed within an appropriate time frame and the laboratory quality control results were reported within laboratory specified recovery limits.

## **GROUNDWATER FLOW DIRECTION**

Recently collected and historic groundwater elevation data are summarized in Table 2. The groundwater elevation data collected on 22 January 2002 (during intermediate tide) were used to develop groundwater elevation contours. The groundwater flow direction is generally toward the east; the groundwater flow direction during the 22 January 2002 sampling event is shown on Figure 2.


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A wetlands enhancement project is planned at the site. As part of the project, monitoring well MW-SB2 will be extended two to three feet vertically to match the proposed grade of the surrounding area.

Should you have any questions, or need further information, please contact us at your convenience.

Sincerely,

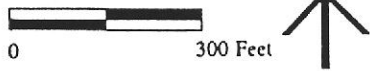
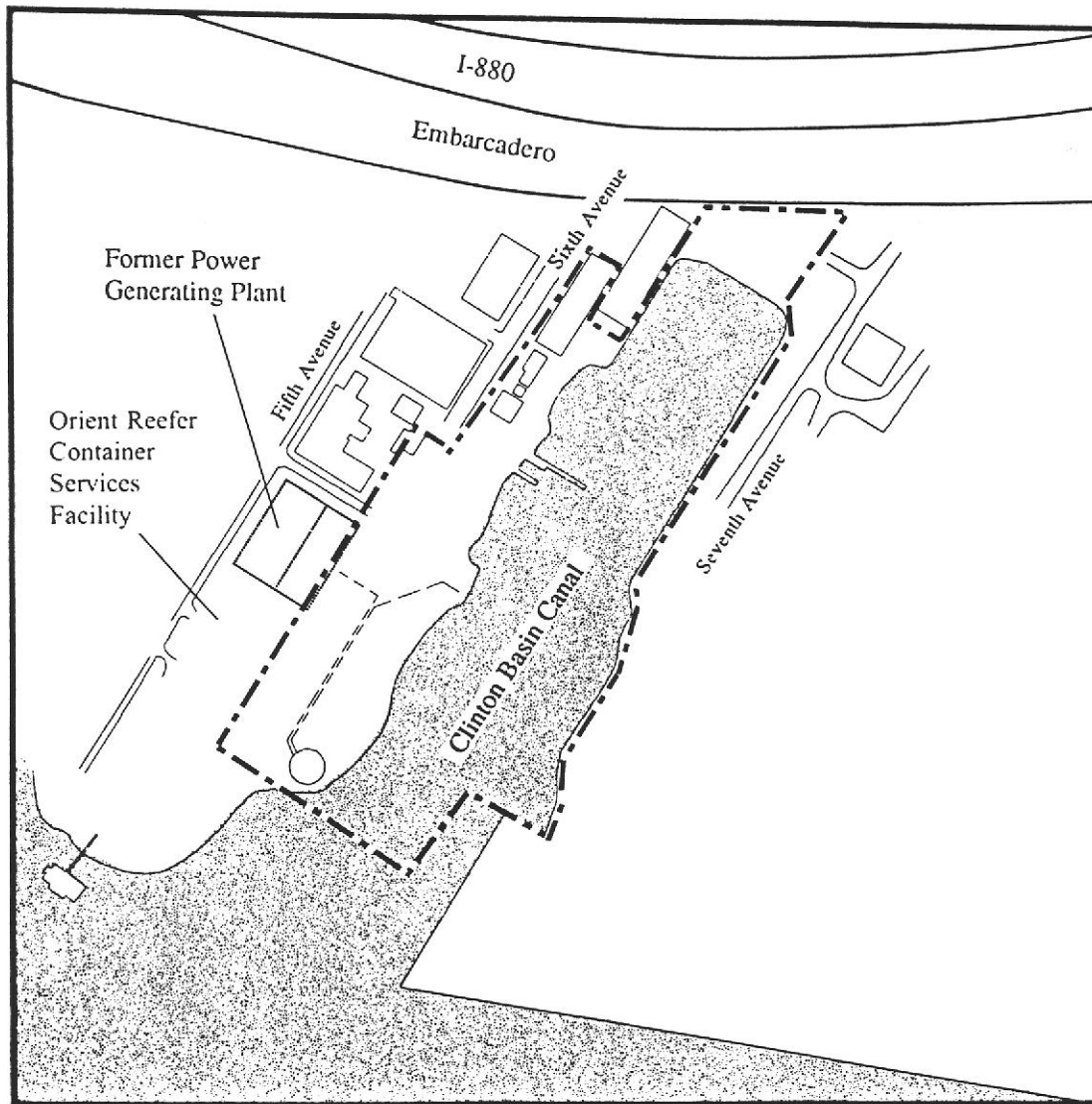


Yane Nordhav  
Principal



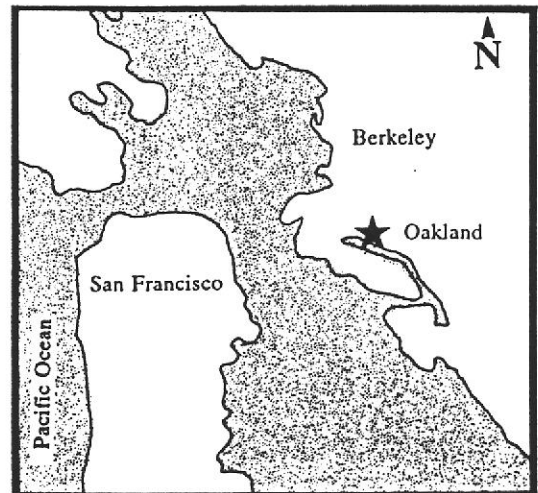
Ragnar K. Stefansson  
Project Engineer

YN:RS:cr  
Attachments



Legend

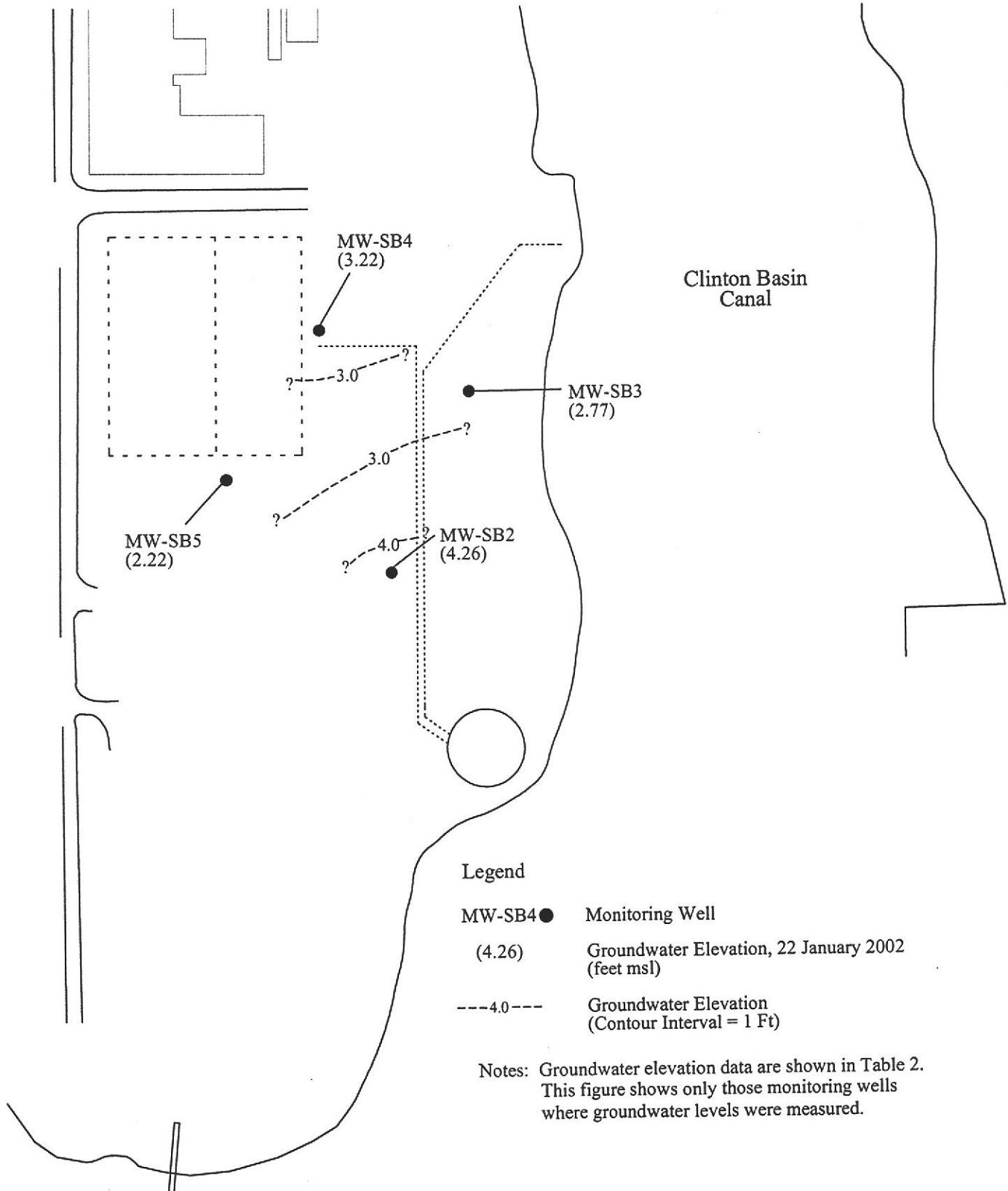
--- Seabreeze Yacht Center



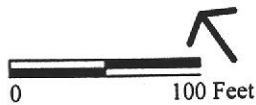
Seabreeze Yacht Center  
Oakland, California

**MONITORING WELL LOCATIONS AND  
GROUNDWATER CONTOUR, JANUARY 2001**

**Figure 2**



**Seabreeze Yacht Center  
Sixth Avenue  
Oakland, California**



**BASELINE**

TABLE 1  
ANALYTICAL RESULTS  
Seabreeze Yacht Center, Oakland, California  
(mg/L)

Sample ID	Sample Date	Metals <sup>1</sup>		Total Extractable Hydrocarbons <sup>2</sup>			MTBE <sup>3</sup>
		Lead	Copper	Diesel	Bunker C	Motor Oil	
PW-2	02/02/95	<b>0.0043</b>	--	--	--	--	--
	03/06/95	--	--	<b>1.7<sup>4,5</sup></b>	<b>4.4<sup>4,5</sup></b>	<b>1.1<sup>4,5</sup></b>	--
	07/01/96	<0.003	<0.01	<0.049	<0.3	--	--
	09/16/96	<0.003 <sup>11</sup>	<0.005 <sup>12</sup>	<0.05	<0.5	<0.25	--
	12/11/96	<b>0.0101<sup>11</sup></b>	<0.003 <sup>12</sup>	<b>0.11<sup>14</sup></b>	<0.5	<0.25	--
	03/14/97	<b>0.00401<sup>11</sup></b>	<0.003 <sup>12</sup>	<0.05	<0.5	<0.25	--
	06/20/97	--	--	<0.05	--	--	--
MW-SB2	04/19/91	<0.07	<b>0.0481</b>	--	--	--	--
	07/09/91	<0.06 <sup>8</sup>	<0.02 <sup>9</sup>	--	--	--	--
	01/10/94	<0.10 <sup>8</sup>	<0.02 <sup>9</sup>	--	--	--	--
	01/26/94	<b>0.0048<sup>9</sup></b>	<b>0.014<sup>9</sup></b>	--	--	--	--
	03/06/95	--	--	<b>16.0<sup>4,5</sup></b>	<b>28.0<sup>4,5</sup></b>	<b>4.9<sup>4,5</sup></b>	--
	07/01/96	<0.003	<b>0.055</b>	<0.05	<0.3	--	--
	09/16/96 <sup>10</sup>	<0.003 <sup>11</sup>	<0.005 <sup>12</sup>	<0.05	<0.5	<0.25	--
	12/11/96	<b>0.00855<sup>11</sup></b>	<b>0.00354<sup>12</sup></b>	<b>0.16<sup>14</sup></b>	<0.5	<0.25	--
	03/14/97	<b>0.00314<sup>11</sup></b>	<0.003 <sup>12</sup>	<b>0.061</b>	<0.5	<0.25	--
	06/20/97	--	--	<b>0.15</b>	--	--	--
	01/28/98	--	--	<0.05 <sup>16</sup>	--	--	--
	01/06/99	--	--	<0.048	--	--	--
	02/04/00 <sup>19</sup>	--	--	--	--	--	--
	01/19/01	--	--	<0.05	--	--	<0.005
01/24/02	--	--	<0.05	--	--	<0.005	
MW-SB2A	03/06/95	--	--	<b>18.0<sup>4,5,6</sup></b>	<b>33.0<sup>4,5,6</sup></b>	<25.0 <sup>4,5,6</sup>	--
	07/01/96	<0.003	<b>0.065</b>	<b>0.17<sup>7</sup></b>	<0.3 <sup>5</sup>	--	--
	09/16/96	<0.003 <sup>11</sup>	<0.005 <sup>12</sup>	<b>0.17</b>	<0.5 <sup>5</sup>	<0.25	--
MW-SB3	03/06/95	--	--	<b>2.3<sup>4,5</sup></b>	<b>5.8<sup>4,5</sup></b>	<b>1.5<sup>4,5</sup></b>	--
	07/01/96	<b>0.0036</b>	<0.01	<0.049	<0.3	--	--
	09/16/96	<0.003 <sup>11</sup>	<0.005 <sup>12</sup>	<0.05 <sup>4</sup>	<0.5	<b>0.28<sup>4</sup></b>	--
	12/11/96	<0.003 <sup>11</sup>	<0.003 <sup>12</sup>	<b>0.19<sup>14</sup></b>	<0.5	<0.25	--
	03/14/97	<0.003 <sup>11</sup>	<b>0.00529<sup>12</sup></b>	<b>0.085<sup>15</sup></b>	<0.5	<0.25	--
	06/20/97	--	--	<b>0.15</b>	--	--	--
	01/28/98	--	--	<0.05 <sup>16</sup>	--	--	--
	01/06/99	--	--	<0.049 <sup>17</sup>	--	--	--
	02/04/00	--	--	<0.05	--	--	<0.002
	01/19/01	--	--	<0.05	--	--	<0.005
	01/24/02	--	--	<0.05	--	--	<0.005

(continued)

Table 1 *continued*

Sample ID	Sample Date	Metals <sup>1</sup>		Total Extractable Hydrocarbons <sup>2</sup>			MTBE <sup>3</sup>
		Lead	Copper	Diesel	Bunker C	Motor Oil	
MW-SB3A	06/20/97	--	--	<b>0.11</b>	--	--	--
	01/28/98	--	--	<0.05 <sup>16</sup>	--	--	--
	01/06/99	--	--	<b>0.13</b> <sup>7,18</sup>	--	--	--
	02/04/00	--	--	<0.05	--	--	<0.002
MW-SB4	03/03/95	--	--	<b>1.4</b> <sup>4,5</sup>	<b>3.0</b> <sup>4</sup>	<b>0.66</b> <sup>4</sup>	--
	07/01/96	<b>0.014</b>	<b>0.013</b>	<0.049	<0.3	--	--
	09/16/96	<0.003 <sup>11</sup>	<0.005 <sup>12</sup>	<0.05	<0.5	<0.25	--
	12/11/96	<b>0.00465</b> <sup>11</sup>	<b>0.00674</b> <sup>12</sup>	<b>0.12</b> <sup>14</sup>	<0.5	<0.25	--
	03/14/97	<b>0.00519</b> <sup>11</sup>	<0.003 <sup>12</sup>	<0.05	<0.5	<0.25	--
	06/20/97	--	--	<b>0.11</b>	--	--	--
	01/28/98	--	--	<0.05 <sup>16</sup>	--	--	--
	01/06/99	--	--	<0.049	--	--	--
	02/04/00	--	--	<0.05	--	--	<0.002
	01/19/01	--	--	<0.05	--	--	<0.005
	01/24/02	--	--	<0.05	--	--	<0.005
MW-SB5	03/06/95	--	--	<b>15.0</b> <sup>4,5</sup>	<b>34.0</b> <sup>4,5</sup>	<b>8.1</b> <sup>4,5</sup>	--
	07/01/96	<b>0.0031</b>	<b>0.012</b>	<0.049	<0.3	--	--
	09/16/96	<0.003 <sup>11</sup>	<0.005 <sup>12</sup>	<b>0.14</b> <sup>4,13</sup>	<0.5	<0.25	--
	12/11/96	<b>0.00344</b> <sup>11</sup>	<0.003 <sup>12</sup>	<b>0.16</b> <sup>14</sup>	<0.5	<0.25	--
	03/14/97	<0.003 <sup>11</sup>	<b>0.00318</b> <sup>12</sup>	<b>0.29</b>	<0.5	<0.25	--
	06/20/97	--	--	<b>0.27</b>	--	--	--
	01/28/98	--	--	<0.05 <sup>16</sup>	--	--	--
	01/06/99	--	--	<0.05	--	--	--
	02/04/00	--	--	<0.05	--	--	<0.002
	01/19/01	--	--	<0.05	--	--	<0.005
01/24/02	--	--	<0.05	--	--	<0.005	
MW-SB5A	03/06/95	--	--	<b>15.0</b> <sup>4,5,6</sup>	<b>31.0</b> <sup>4,5,6</sup>	<b>6.9</b> <sup>4,5,6</sup>	--
	12/11/96	<0.003 <sup>11</sup>	<0.003 <sup>12</sup>	<b>0.081</b> <sup>14</sup>	<0.5	<0.25	--
	03/14/97	<0.003 <sup>11</sup>	<0.003 <sup>12</sup>	<b>0.22</b>	<0.5	<0.25	--
	01/24/02	--	--	<0.05	--	--	<0.005

**Notes:** <x.x = analyte not identified above laboratory reporting limit of x.x.

x.x = concentrations reported at or above laboratory reporting limit.

-- = no analysis performed.

MW-SB2A = duplicate sample collected from well MW-SB2.

MW-SB3A = duplicate sample collected from well MW-SB3.

MW-SB5A = duplicate sample collected from well MW-SB5.

Refer to Figure 2 for well locations (note that the location of well PW-2 is not shown on Figure 2 as groundwater samples were not collected from this well in 2001).

Laboratory reports for the January 2002 sampling event are included in Attachment B.

<sup>1</sup> Analytical Method EPA 6010A, unless otherwise noted.

<sup>2</sup> Analytical Method California DOHS, LUFT Manual (EPA 8015M). Samples were subjected to silica gel cleanup (EPA Method 3630) prior to analysis, unless otherwise noted.



Table 1 *continued*

- <sup>3</sup> Analytical Method EPA 8020 or 8021B.
- <sup>4</sup> Sample chromatogram does not resemble hydrocarbon standard.
- <sup>5</sup> Samples were not subjected to silica gel cleanup prior to analysis.
- <sup>6</sup> Duplicate sample centrifuged prior to TEPH analyses.
- <sup>7</sup> Sample exhibited fuel pattern which did not resemble standard.
- <sup>8</sup> Analyzed using EPA Method 7420.
- <sup>9</sup> Analyzed using EPA Method 7210.
- <sup>10</sup> Sample also analyzed for mercury, arsenic, cadmium, chromium, iron, nickel, silver, and zinc. All metals were reported below the corresponding laboratory reporting limits except for iron, which was identified at 0.13 mg/L.
- <sup>11</sup> Analyzed using EPA method 7421. Sample filtered by the laboratory prior to analysis.
- <sup>12</sup> Analyzed using EPA Method 7211. Sample filtered by the laboratory prior to analysis.
- <sup>13</sup> Laboratory indicated that miscellaneous peaks were present in the diesel range.
- <sup>14</sup> The laboratory indicated that the analyte was also found in the corresponding method blank at a concentration of 0.063 mg/L as well as in the sample, verifying laboratory contamination. The sample chromatographic pattern matched that of the laboratory contaminant reported in the method blank. Therefore, the reported concentration is a false positive concentration.
- <sup>15</sup> The laboratory indicated that the chromatographic pattern of the sample matches a known laboratory contaminant. Based on telephone correspondence with Mr. Ron Chu of PACE, the laboratory contaminant may be due to contamination of the silica gel used to clean up the sample prior to analysis.
- <sup>16</sup> The corresponding method blank sample (laboratory sample) contained 0.067 mg/L of a hydrocarbon reported to be heavier than diesel. The laboratory indicated that the method blank sample result should not affect the data quality since the collected samples did not contain diesel above the laboratory reporting limit.
- <sup>17</sup> The corresponding duplicate sample, MW-SB3A, was reported to contain diesel above the laboratory reporting limit.
- <sup>18</sup> The laboratory indicated that the sample chromatogram contained heavier hydrocarbons than the diesel standard.
- <sup>19</sup> Well could not be located at time of sampling.

TABLE 2  
GROUNDWATER ELEVATION DATA  
Seabreeze Yacht Center, Oakland, California

Well	Date	Time	Surface Elevation (msl)	TOC Elevation (msl)	Depth to Groundwater (feet)	Groundwater Elevation (msl)
PW-2 <sup>1</sup>	02/15/95 <sup>2</sup>	--	5.56	6.57	4.60	1.97
	03/03/95	9:10			3.90	2.67
	06/28/96	7:37			3.83	2.74
	09/16/96	8:54			4.19	2.38
	12/11/96	10:10			3.64	2.93
	03/12/97	9:00			4.08	2.49
	06/18/97	9:08			3.45	3.12
	01/26/98	10:43			4.0	2.57
MW-SB2 <sup>3</sup>	04/19/91	11:09	6.2	7.18	5.38	1.8
	07/09/91	11:04			3.7	3.48
	01/10/94	12:31			3.08	4.1
	01/26/94	13:40			1.63	5.5
	11/14/94	7:30			4.8	2.38
	11/14/94	11:05			4.76	2.42
	11/14/94	14:14			4.73	2.45
	11/28/94	9:00			2.85	4.33
	03/03/95	8:50			2.84	4.34
	06/28/96	7:40			3.76	3.42
	09/16/96	9:01			4.30	2.88
	12/11/96	11:15			2.00	5.18
	03/12/97	9:02			3.48	3.70
	06/18/97	9:10			3.94	3.24
	01/26/98	10:02			1.65	5.53
	01/04/99	8:11			3.30	3.88 <sup>5</sup>
	02/01/00	10:20			-- <sup>6</sup>	-- <sup>6</sup>
	01/17/01	9:20			8.93 <sup>7</sup>	3.91
01/22/02	9:30		4.67	4.26		
MW-SB3 <sup>3</sup>	11/14/94	7:25	6.0	8.10	8.23	-0.13
	11/14/94	11:00			8.14	-0.04
	11/14/94	14:12			8.07	0.03
	11/28/94	8:53			6.32	1.78
	12/06/94	8:37			6.15	1.95
	03/03/95	8:40			6.78	1.32
	06/28/96	7:35			5.46	2.64
	09/16/96	8:55			5.78	2.32
	12/11/96	10:32			5.31	2.79
	03/12/97	9:05			6.03	2.07
	06/18/97	9:12			5.50	2.60
	01/26/98	9:20			5.12	2.98
	01/04/99	8:20			5.97	2.13
	02/01/00	9:50			5.81	2.29
	01/17/01	9:15			6.04	2.06
	01/22/02	9:00				5.33

Table 2 continued

Well	Date	Time	Surface Elevation (msl)	TOC Elevation (msl)	Depth to Groundwater (feet)	Groundwater Elevation (msl)
MW-SB4 <sup>4</sup>	11/28/94	9:02	6.6	6.39	1.05	5.34
	03/03/95	8:35			0.90	5.49
	06/28/96	8:28			3.16	3.23
	09/16/96	8:52			2.85	3.54
	12/11/96	9:28			0.65	5.74
	03/12/97	9:07			2.53	3.86
	06/18/97	9:25			3.10	3.29
	01/26/98	10:30			0.88	5.51
	01/04/99	8:26			2.55	3.84
	02/01/00	10:43			0.61	5.78
	01/17/01	9:01			1.70	4.69
	01/22/02	10:00			3.17	3.22
MW-SB5 <sup>4</sup>	11/28/94	8:40	6.9	6.30	6.32	-0.02
	03/03/95	9:00			2.54	3.76
	06/28/96	8:45			2.43	3.87
	09/16/96	10:15			2.52	3.78
	12/11/96	14:12			3.09	3.21
	03/12/97	9:11			2.42	3.88
	06/18/97	8:56			2.32	3.98
	01/26/98	14:10			1.42	4.88
	01/05/99	12:20			3.50	2.80
	02/01/00	12:27			3.91	2.39
	01/17/01	7:54			4.21	2.09
	01/22/02	11:05			4.10	2.20

## Notes:

11/14/94: High tide 9:21; Low tide 15:50.

11/28/94: High tide 7:46.

02/15/95: High tide 5:14 and 18:03; Low tide 23:34.

03/03/95: High tide 13:14; Low tide 7:03.

06/28/96: High tide 11:41 and 22:32; Low tide 4:35 and 16:09.

09/16/96: High tide 2:57 and 14:57; Low tide 8:23 and 21:07.

12/11/96: High tide 1:02 and 11:47; Low tide 5:35 and 18:30.

03/12/97: High tide 2:17 and 15:02; Low tide 8:23 and 20:29.

06/18/97: High tide 12:18 and 23:07; Low tide 5:15 and 16:49.

01/26/98: High tide 10:10; Low tide 4:00 and 16:57.

01/04/99: High tide 2:21 and 13:06; Low tide 7:13 and 19:53.

01/05/99: High tide 3:07 and 13:54; Low tide 8:09 and 20:37.

02/01/00: High tide 9:01 and 23:19; Low tide 3:03 and 16:08.

01/17/01: High tide 6:38 and 19:47; Low tide 13:25.

01/22/02: High tide 6:16 and 19:58; Low tide 13:25.

- = No data.

msl = Feet above mean sea level.

TOC = Top of casing.

Refer to Figure 2 for well locations (note that the location of Well PW-2 is not shown on Figure 2 as groundwater levels were not collected from this well in 2001).

<sup>1</sup> Well survey conducted by Bates & Bailey 2/8/95.<sup>2</sup> Groundwater elevation measured by SOMA; all other elevations measured by BASELINE.<sup>3</sup> Well survey conducted by Bates & Bailey 11/18/94.

Table 2 *continued*

<sup>4</sup> Well survey conducted by Bates & Bailey 11/28/94.

<sup>5</sup> During groundwater sampling activities on 1/4/99, the aboveground well head protection steel outer casing and inner polyvinyl chloride casing of this monitoring well appeared to have been damaged (outer and inner casings were in a slightly slanted position); therefore, groundwater elevation measurements may be skewed.

<sup>6</sup> During groundwater sampling activities on 1 February 2000, monitoring well MW-SB2 was not found.

<sup>7</sup> New top of casing elevation establishing in April 2000 after the well was repaired; the well survey is included in Attachment A of the January 2001 annual groundwater monitoring report.

**ATTACHMENT A**  
**GROUNDWATER SAMPLING FORMS**

# GROUNDWATER SAMPLING

Project no.:	S9171-C1	Well no.:	MW-SB2	Date:	1/22/02
Project name:	Seabreeze Yacht Center	Depth of well from TOC (feet):	11.50 (measured)		
Location:	280 6 <sup>th</sup> Avenue Oakland, CA	Well diameter (inch):	2		
Recorded by:	WKS	Screened interval from TOC (feet):	4.80-12.80*		
Weather:	Sunny	TOC elevation (feet):	8.93*		
Precip in past 5 days (inch):	0.21 (1/22/02)	Water level from TOC (feet):	4.67	Time:	9:30(1/22/02)
		Product level from TOC (feet):	None	Time:	9:30(1/22/02)
		Water level measurement device:	Dual interface probe		

## CALCULATION OF WELL VOLUME:

[ 11.50 ft) -	(4.67 ft)] x	(0.083 ft) <sup>2</sup> x	3.14 x 7.48 =	<u>1.11</u>	gallons in one well volume
well depth	water level	well radius		<u>3.34</u>	gallons in 3 well volumes
				<u>3.5</u>	total gallons removed

## CALIBRATION

	Time	Temp (° C)	pH	EC (µmho/cm)	NTU
Calibration Standard:	--	--	7.00/10.01	1,000	0/5
Before Purging:	8:30	10.2	7.00/10.01	1,000	0/103.7
After Purging:	11:45	12.1	7.00/10.01	1,000	0/5.100

## FIELD MEASUREMENTS:

Time	Temp (° C)	pH	EC (µmho/cm)	Cumulative Gallons Removed	Appearance	NTU
9:50	14.3	6.95	7,600	1	Clear	20.5
9:58	14.5	6.74	8,420	2	Clear	8.14
10:04	16.1	6.62	15,330	3	Clear	8
				3.5	Pumped dry	

\* Casing repaired and resurveyed in March 2000.

DO calibration:		DO results after purge (mg/L):	
Water level after purging prior to sampling (feet):	8.16	Time:	8:36 (1/24/02)
Appearance of sample:	Clear	Time:	8:36 (1/24/02)
Duplicate/blank number:	None	Time:	--
Purge method:	Peristaltic pump		
Sampling equipment:	Peristaltic pump	VOC attachment:	None required
Sample containers:	Two 1-liter amber glass, 2-VOAs		
Sample analyses:	TEPH as diesel with silica gel cleanup, MTBE	Laboratory:	Chromalab
Decontamination method:	TSP and water, DI water rinse	Rinsate disposal:	On-site drum

S9171-C1gwJan02.wpd-2/25/02

# GROUNDWATER SAMPLING

Project no.:	S9171-C1	Well no.:	MW-SB3	Date:	1/22/02
Project name:	Seabreeze Yacht Center	Depth of well from TOC (feet):	11.06		
Location:	280 6 <sup>th</sup> Avenue Oakland, CA	Well diameter (inch):	2		
Recorded by:	WKS	Screened interval from TOC (feet):	4.86-11.06		
Weather:	Sunny	TOC elevation (feet):	8.10		
Precip in past 5 days (inch):	0.21 (1/22/02)	Water level from TOC (feet):	5.33	Time:	9:00 (1/22/02)
		Product level from TOC (feet):	None	Time:	9:00 (1/22/02)
		Water level measurement device:	Dual interface probe		

## CALCULATION OF WELL VOLUME:

$$\begin{array}{rcl}
 [(11.06 \text{ ft}) - (5.33 \text{ ft})] \times (0.083 \text{ ft})^2 \times 3.14 \times 7.48 = & 0.934 & \text{gallon in one well volume} \\
 \text{well depth} \quad \text{water level} \quad \text{well radius} & 2.8 & \text{gallons in 3 well volumes} \\
 & 4 & \text{total gallons removed}
 \end{array}$$

## CALIBRATION

	Time	Temp (° C)	pH	EC (µmho/cm)	NTU
Calibration Standard:	--	--	7.00/10.01	1,000	0/5
Before Purging:	8:30	10.2	7.00/10.01	1,000	0/103.7
After Purging:	11:45	12.1	7.00/10.01	1,000	0/100

## FIELD MEASUREMENTS:

Time	Temp (° C)	pH	EC (µmho/cm)	Cumulative Gallons Removed	Appearance	NTU
9:10	14.4	6.65	30,650	3		8.26
				4	Pumped dry	

Note: Recharge rate too slow to allow 80% recharge in all wells on 1/22/02. Samples collected 1/24/02 after all wells had recharged to at least 80%.

DO calibration:	_____	DO results after purge (mg/L):	_____
Water level after purging prior to sampling (feet):	7.65	Time:	8:20 (1/24/02)
Appearance of sample:	Clear	Time:	8:20 (1/24/02)
Duplicate/blank number:	None	Time:	--
Purge method:	Peristaltic pump		
Sampling equipment:	Peristaltic pump	VOC attachment:	None required
Sample containers:	Two 1-liter amber glass, 2-VOAs		
Sample analyses:	TEPH as diesel with silica gel cleanup, MTBE	Laboratory:	Chromalab
Decontamination method:	TSP and water, DI water rinse	Rinsate disposal:	On-site drum

S9171-C1gwJan02.wpd-2/25/02

# GROUNDWATER SAMPLING

Project no.:	S9171-C1	Well no.:	MW-SB4	Date:	1/22/02
Project name:	Seabreeze Yacht Center	Depth of well from TOC (feet):	14.75		
Location:	280 6 <sup>th</sup> Avenue Oakland, CA	Well diameter (inch):	2		
Recorded by:	WKS	Screened interval from TOC (feet):	2.55-14.75		
Weather:	Sunny	TOC elevation (feet):	6.39		
Precip in past 5 days (inch):	0.21 (1/22/02)	Water level from TOC (feet):	3.17	Time:	10:00 (1/22/02)
		Product level from TOC (feet):	None	Time:	10:00 (1/22/02)
		Water level measurement device:	Dual interface probe		

## CALCULATION OF WELL VOLUME:

$$[(14.75 \text{ ft}) - (3.17 \text{ ft})] \times (0.083 \text{ ft})^2 \times 3.14 \times 7.48 = \underline{1.89} \text{ gallons in one well volume}$$

$$\text{well depth} \quad \text{water level} \quad \text{well radius}$$

$$\underline{5.66} \text{ gallons in 3 well volumes}$$

$$\underline{4.5} \text{ total gallons removed}$$

## CALIBRATION

	Time	Temp (° C)	pH	EC (µmho/cm)	NTU
Calibration Standard:	--	--	7.00/10.01	1,000	0/5
Before Purging:	8:30	10.2	7.00/10.01	1,000	0/103.7
After Purging:	11:45	12.1	7.00/10.01	1,000	0/100

## FIELD MEASUREMENTS:

Time	Temp (° C)	pH	EC (µmho/cm)	Cumulative Gallons Removed	Appearance	NTU
10:16	12.8	7.0	4,481	1	Clear	7.29
10:20	14.9	6.89	12,580	2	Clear	11.3
10:25	16.3	6.87	15,500	3	Clear	9.49
10:30	16.8	6.89	18,050	4	Clear	4.45
				4.5	Pumped dry	

DO calibration:		DO results after purge (mg/L):	
Water level after purging prior to sampling (feet):	3.25	Time:	8:50 (1/24/02)
Appearance of sample:	Clear	Time:	8:50 (1/24/02)
Duplicate/blank number:	None	Time:	--
Purge method:	Peristaltic pump		
Sampling equipment:	Peristaltic pump	VOC attachment:	None required
Sample containers:	Two 1-liter amber glass, 2-VOAs		
Sample analyses:	TEPH as diesel with silica gel cleanup, MTBE	Laboratory:	Chromalab
Decontamination method:	TSP and water, DI water rinse	Rinsate disposal:	On-site drum

S9171-C1gwJan02.wpd-2/25/02



# GROUNDWATER SAMPLING

Project no.:	S9171-C1	Well no.:	MW-SB5	Date:	1/22/02
Project name:	Seabreeze Yacht Center	Depth of well from TOC (feet):	14.75		
Location:	280 6 <sup>th</sup> Avenue Oakland, CA	Well diameter (inch):	2		
		Screened interval from TOC (feet):	2.55-14.75		
Recorded by:	WKS	TOC elevation (feet):	6.30		
Weather:	Sunny	Water level from TOC (feet):	4.10	Time:	11:05 (1/22/02)
Precip in past 5 days (inch):	0.21 (1/22/02)	Product level from TOC (feet):	None	Time:	11:05 (1/22/02)
		Water level measurement device:	Dual interface probe		

## CALCULATION OF WELL VOLUME:

$$\begin{array}{rcl}
 [(14.75 \text{ ft}) - (4.10 \text{ ft})] \times (0.083 \text{ ft})^2 \times 3.14 \times 7.48 = & 1.74 & \text{gallons in one well volume} \\
 \text{well depth} \quad \text{water level} \quad \text{well radius} & 5.2 & \text{gallons in 3 well volumes} \\
 & 4.5 & \text{total gallons removed}
 \end{array}$$

## CALIBRATION

	Time	Temp (° C)	pH	EC (µmho/cm)	NTU
Calibration Standard:	--	--	7.00/10.01	1,000	0/5
Before Purging:	8:30	10.2	7.00/10.01	1,000	0/103.7
After Purging:	11:45	12.1	7.00/10.01	1,000	0/100

## FIELD MEASUREMENTS:

Time	Temp (° C)	pH	EC (µmho/cm)	Cumulative Gallons Removed	Appearance	NTU
11:15	16.3	6.77	32,910	1	Light amber color	7.19
11:26	16.7	6.77	32,670	2	Light amber color	4.50
11:30	18.0	6.92	33,650	3	Light amber color	3.91
11:35	18.1	6.84	34,950	4	Light amber color	4.99
				4.5	Pumped dry	

Note: Recharge rate too slow to allow 80% recharge in all wells on 1/17/01. Samples collected 1/19/01 after all wells had recharged to at least 80%.

DO calibration:	_____	DO results after purge (mg/L):	_____
Water level after purging prior to sampling (feet):	9.55	Time:	14:50 (1/24/02)
Appearance of sample:	Light amber color	Time:	14:50 (1/24/02)
Duplicate/blank number:	MW-SB5	Time:	15:15 (1/24/02)
Purge method:	Peristaltic pump		
Sampling equipment:	Peristaltic pump	VOC attachment:	None required
Sample containers:	Two 1-liter amber glass, 2-VOAs		
Sample analyses:	TEPH as diesel with silica gel cleanup, MTBE	Laboratory:	Chromalab
Decontamination method:	TSP and water, DI water rinse	Rinsate disposal:	On-site drum

S9171-C1gwJan02.wpd-2/25/02

**ATTACHMENT B**

**LABORATORY REPORT AND  
CHAIN-OF-CUSTODY FORM**



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560  
Telephone : 925-798-1620 Fax : 925-798-1622  
<http://www.mccampbell.com> E-mail: [main@mccampbell.com](mailto:main@mccampbell.com)

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Baseline 5900 Hollis Street, Suite D Emeryville, CA 94608	Client Project ID: #59171-C1; Seabreeze Yacht Center	Date Sampled: 01/24/02
		Date Received: 01/25/02
	Client Contact: Bill Scoti	Date Extracted: 01/25/02
	Client P.O:	Date Analyzed: 01/25/02

02/01/02

Dear Bill:

Enclosed are:

- 1). the results of 5 samples from your : #59171-C1; Seabreeze Yacht Center project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Edward Hamilton, Lab Director



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Baseline 5900 Hollis Street, Suite D Emeryville, CA 94608	Client Project ID: #59171-C1; Seabreeze Yacht Center	Date Sampled: 01/24/02
	Client Contact: Bill Scoti	Date Received: 01/25/02
	Client P.O:	Date Extracted: 01/25/02
		Date Analyzed: 01/25/02

**Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel With Silica Gel Clean Up\***

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(d)*	% Recovery Surrogate
89000	MW-SB2	W	ND	94
89001	MW-SB3	W	ND	93
89002	MW-SB4	W	ND	91
89003	MW-SB5	W	ND	91
89004	MW-SB5A	W	ND	91
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	W		50 ug/L	
	S		1.0 mg/kg	

\* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in ug/L.

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

\*The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.



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Baseline 5900 Hollis Street, Suite D Emeryville, CA 94608	Client Project ID: #59171-C1; Seabreeze Yacht Center	Date Sampled: 01/24/02
	Client Contact: Bill Scoti	Date Received: 01/25/02
	Client P.O:	Date Extracted: 01/28-01/30/02
		Date Analyzed: 01/28-01/30/02

**Methyl tert-Butyl Ether \***

EPA method 8021 modified

Lab ID	Client ID	Matrix	MTBE*	% Recovery Surrogate
89000	MW-SB2	W	ND	102
89001	MW-SB3	W	ND	98
89002	MW-SB4	W	ND	105
89003	MW-SB5	W	ND	102
89004	MW-SB5A	W	ND	104
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	W	5.0 ug/L		
	S	0.05 ug/kg		

\* water samples are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe and all TCLP / STLC / SPLP extracts in ug/L

h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) sample diluted due to high organic content.



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# QC REPORT

## EPA 8015m + 8020

Date: 01/25/02

Extraction: EPA 5030

Matrix: Water

Compound	Concentration: ug/L			%Recovery		RPD	
	Sample	MS	MSD	Amount Spiked	MS		MSD
<u>SampleID:</u> 12402		<u>Instrument:</u> GC-11 A					
Surrogate1	ND	108.0	99.0	100.00	108	99	8.7
TPH (diesel)	ND	8300.0	8675.0	7500.00	111	116	4.4

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation



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## QC REPORT

### VOCs (EPA 8240/8260)

Date: 01/28/02

Extraction: EPA 5030

Matrix: Water

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	

SampleID: 12802

Instrument: GC-10

Surrogate	ND	111.0	112.0	100.00	111	112	0.9
Methyl tert-Butyl Ether	ND	10.7	11.1	10.00	107	111	3.7

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{AmountSpiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation

20790 234

**BASELINE**

5900 Hollis Street, Suite D  
Emeryville, CA 94608  
Tel: (510) 420-8686 Fax: (510) 420-1707

**CHAIN OF CUSTODY RECORD**

Turn-around Time  
Lab  
BASELINE Contact Person

STANDARD  
McCAMPBELL  
BILL SCOTT

Project No.		Project Name and Location:																				Remarks/ Composite			
59171-C1		SEABREEZE YACHT CENTER																							
Samplers: (Signature)				Containers																					
Sample ID No. Station	Date:	Time:	Media	No.	Type	None	HCl	NO <sub>2</sub>	SO <sub>4</sub>	Other:	TEH AS DIESEL W/SILICA 602 CLEANUP					MTBE 8021*									
MW-SB2	1/24/02	8:36	W	1	AMBER	X					X														89000
MW-SB2		8:36	W	3	VOA	X																			89001
MW-SB3		8:20	W	1	AMBER	X					X														89002
MW-SB3		8:20	W	3	VOA		X																		89002
MW-SB4		8:50	W	1	AMBER	X					X														89003
MW-SB4		8:50	W	3	VOA	X																			89003
MW-SB5		14:50	W	1	AMBER	X					X														89004
MW-SB5	1/24/02	14:50	W	3	VOA	X																			89004
MW-SB5A	1/24/02	15:15	W	1	AMBER	X					X														
MW-SB5A	1/24/02	15:15	W	3	VOA	X																			
											GOOD CONDITION		PRESERVATION APPROPRIATE		VOAS		O&G		METALS		OTHER				
											HEAD SPACE ABSENT		CONTAINERS												
Relinquished by: (Signature)				Date/Time				Received by: (Signature)				Date/Time				Conditions of Samples Upon Arrival at Laboratory:									
[Signature]				01/25 11:05				[Signature]				01/25 11:05													
Relinquished by: (Signature)				Date/Time				Received by: (Signature)				Date/Time				Remarks:									
[Signature]				01/25 15:55				[Signature]				01/25 15:55				* CONFIRM HITS W/8260									
Relinquished by: (Signature)				Date/Time				Received by: (Signature)				Date/Time													

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**ATTACHMENT C**

**QUALITY CONTROL CHECKLIST**

Quality Control Checklist  
for Review of Laboratory Report

Job No.: 59171-C1  
 Laboratory: MCCAMPBELL  
 Report Date: 2/01/02

Site: SEABREEZE  
 Laboratory Report No: \_\_\_\_\_  
 BASELINE Review By: RKS

	Yes	No	NA
<b>GENERAL QUESTIONS</b> (Describe "no" responses below in "comments" section. Contact the laboratory, as required, for further explanation or action on "no" responses; document discussion in comments section.)			
1a. Does the report include a case narrative? (A case narrative <i>MUST</i> be prepared by the lab for all analytical work requested by BASELINE)	✓		X
1b. Is the number of pages for the lab report as indicated on the case narrative/lab transmittal consistent with the number of pages that are included in report?		✓	X
1c. Does the case narrative indicate which samples were analyzed by a subcontractor and the subcontractor's name?			✓
1d. Does the case narrative summarize subsequent requests not shown on the chain-of-custody (e.g., additional analyses requested, release of "hold" samples)?			✓
1e. Does the case narrative explain why requested analyses could not be performed by laboratory (e.g., insufficient sample)?			✓
1f. Does the case narrative explain all problems with the QA/QC data as identified in the checklist (as applicable)?	✓		
2a. Is the laboratory report format consistent and legible throughout the report?	✓		X
2b. Are the sample and reported dates shown in the laboratory report correct?	✓		X
3a. Does the lab report include the original chain-of-custody form?		✓	X
3b. Were all samples appropriately analyzed as requested on the chain-of-custody form?	✓		X
4. Was the lab report signed and dated as being reviewed by the laboratory director, QA manager, or other appropriate personnel? (Some lab reports have signature spaces for each page). (This requirement also applies to any analyses subcontracted out by the laboratory)	✓		X
5a. Are preparation methods, cleanup methods (if applicable), and laboratory methods indicated for all analyses?	✓		X
5b. If additional analytes were requested as part of the reporting of the data for an analytical method, were these included in the lab report?			✓
6. Are the units in the lab report provided for each analysis consistent throughout the report?	✓		X
7. Are the detection limits (DL) appropriate based on the intended use of the data? (e.g., DL below applicable MCLs for water quality issues?)	✓		X
8a. Are detection limits appropriate based on the analysis performed? (i.e., not elevated due to dilution effects)	✓		X
8b. If no, is an explanation provided by the laboratory?			✓

SEE COMMENT

COMMENT 2

Laboratory Quality Control Checklist

Page 2

	Yes	No	NA
9a. Were the samples analyzed within the appropriate holding time? (generally 2 weeks for volatiles, and up to 6 months for total metals)	✓		⊗
9b. If no, was it flagged in the report?			✓
10. If samples were composited prior to analysis, does the lab report indicate which samples were composited for each analysis?			✓
11a. Do the chromatograms confirm quantitative laboratory results? (petroleum hydrocarbons)			✓
11b. Is a standard chromatogram(s) included in the laboratory report?			✓
11c. Do the chromatograms confirm laboratory notes, if present (e.g., sample exhibits lighter hydrocarbon than standard)			✓
12. Are the results consistent with previous analytical results from the site? ( <i>If no, contact the lab and request review/reanalysis of data, as appropriate</i> )	✓		
13a. REVISED LAB REPORTS ONLY. Is the revised lab report or revised pages to a lab report signed and dated as being reviewed by the laboratory director, QA manager, or other appropriate personnel?			✓
13b. REVISED LAB REPORTS ONLY. Does the case narrative indicate the date of revision and provide an explanation for the revision?			✓
13c. REVISED LAB REPORTS ONLY. Does the revised lab report adequately address the problem(s) which triggered the need for a revision?			✓
13d. REVISED LAB REPORTS ONLY. Are the data included in the revised report the same as data reported in the original report, except where the report was revised to correct incorrectly reported data?			✓
<b>QA/QC Questions</b>			
Field/Laboratory Quality Control - Groundwater Analyses			
14. Are field blanks reported as "ND"? (groundwater samples) <i>A field blank is a sample of DI water which is prepared in the field using the same collection and handling procedures as the other samples collected, and used to demonstrate that the sampling procedure has not contaminated the sample.</i>			✓
15. Are trip blanks reported as "ND"? (groundwater samples/volatile analyses) <i>A trip blank is a sample of contaminant-free matrix placed in an appropriate container by the lab and transported with the field samples collected. Provides information regarding positive interference introduced during sample transport, storage, preservation, and analysis. The sample is NOT opened in the field.</i>			✓
16. Are duplicate sample results consistent with the original sample? (groundwater samples) <i>Field duplicates consist of two independent samples collected at the same sampling location during a single sampling event. Used to evaluate precision of the analytical data and sampling technique. (Differences between the duplicate and sample results may also be attributed to environmental variability).</i>	✓		

Laboratory Quality Control Checklist

	Yes	No	NA
<p><b>Batch Quality Control</b>                      (Samples are batched together by matrix [soil, water] and analyses requested. A batch generally consists of 20 or fewer samples of the same matrix type, and is prepared using the same reagents, standards, procedures, and time frame as the samples. QC samples are run with each batch to assess performance of the entire measurement process.)</p>			
17. Do the sample batch numbers and corresponding laboratory QA/QC batch numbers match?		✓	
18a. Are method blanks (MB) for the analytical method(s) below the laboratory reporting limits? <i>Used to assess lab contamination and prevent false positive results. MBs should be "ND."</i>	✓		
18b. If no, is an explanation provided in the case narrative to validate the data?			✓
18c. Are analytes which may be considered laboratory contaminants reported below the laboratory reporting limit? <i>Common lab contaminants include acetone, methylene chloride, diethylhexyl phthalate, and di-n-octyl phthalate.</i>			✓
18d. If no, was the laboratory contacted to determine whether reported analyte could be a potential laboratory contaminant and was an explanation included in the case narrative?			✓
19. Are laboratory control samples (LCS) and LCS duplicate (LCSD) [a.k.a., Blank Spike (BS) and BS duplicates (BSD)] within laboratory reporting limits? Limits should be provided on the report. <i>LCS is a reagent blank spike with a representative selection of target analyte(s) and prepared in the same manner as the samples analyzed. The LCS should be spiked with the same analytes as the matrix spike (below). The LCS is free from interferences from the sample matrix and demonstrates the ability of the lab instruments to recover the target analytes. Accuracy (recovery information) is generally reported as % spike recovery; precision (reproducibility of results) between the LCS and LCSD is generally reported as the relative percent difference (RPD). LCS/LCSD can be run in addition to or in lieu of, matrix QC data.</i>	✓		
20a. Are the Matrix QC data (i.e., MS/MSD) within laboratory limits? Limits should be provided on the lab report. <i>The lab selects a sample from the batch and analyzes a spike and a spike duplicate of that sample. Matrix QC data is used to obtain precision and accuracy information and is reported in the same manner as LCS/LCSD. If the MS/MSD fails, the results may still be considered valid if the MB and either the LCS/LCSD or BS/BSD is within the lab's limits (failure is probably due to matrix interference).</i>			✓
20b. If no, is the MB and either LCS/LCSD or BS/BSD within lab limits to validate the data?			✓

COMMENT 3

COMMENT 4

Laboratory Quality Control Checklist

Page 4

	Yes	No	NA
<b>Sample Quality Control</b>			
21a. Are the surrogate spikes reported within the lab's acceptable recovery limits? A surrogate is a non-target analyte, which is similar in chemical structure to the analyte(s) being analyzed for, and which is not commonly found in environmental samples. A known concentration of the surrogate is spike into the sample or QA "sample" prior to extraction or sample preparation. Results are usually reported as % recovery of the spike. Failure to meet lab's limits for primary and secondary surrogates results in rebatching and reanalysis of the sample; failure of only the primary or the secondary surrogate may be acceptable under certain circumstances. Failure generally is due to coelution with the sample matrix.	✓		
21b. If no, is an explanation given in the case narrative to validate the data?			✓

Comments:

- 1) PAGES ARE NOT NUMBERED; ALL PAGES APPEAR TO BE INCLUDED
- 2) McCAMPBELL DOES NOT RETURN ORIGINAL COCS; COPY APPEARS OK
- 3) BATCH NO. NOT PROVIDED; VERBAL CONFIRMATION RECEIVED VIA PHONE THAT QC DATA WAS FROM SAME BATCH
- 4) METHOD BLANKS ARE NOT REPORTED BY McCAMPBELL; METHOD BLANKS WERE NOT DETECTED AS PER ANGELA OF McCAMPBELL ANALYTICAL.