



PO 2461-
DTSC lead

LETTER OF TRANSMITTAL

To: Mr. Barney Chan Date: July 10, 2006
Alameda County Health Care Services Project Name: Former Seabreeze Yacht Center
Agency Environmental Health Services Project Number: 133.024
1131 Harbor Bay Parkway, Suite 250 Subject: Annual Groundwater Monitoring
Alameda, California 94501-6577 Report

We are sending you the following:

- Attached
- Separately
- Via: _____
- Returned after loaned to us

- As requested
- For review and comment
- For approval
- For your use

Alameda County
 Environmental Health
 JUL 11 2006

NO.	ORIGINALS	PRINTS	PHOTOCOPIES	DISKS	DESCRIPTION	
					DATES	
1	X				7/10/06	Former Seabreeze Yacht Center Annual Groundwater Monitoring Report

REMARKS:

Please call me at 510-267-4459 with any questions.

COPIES TO:

- Mr. Douglas Herman (Port)
- Ms. Michelle Heffes (Port Legal)
- Mr. Stephen Hill (RWQCB)
- Mr. Earl James (EKI)
- Ms. Lydia Huang

SIGNED:

Melissa L. Pleva

 Melissa L. Pleva

- Original: - Recipient
 Copies To: - Project Manager
 - Originator
 - Files

FUGRO WEST, INC.



**GROUNDWATER MONITORING REPORT
2006 ANNUAL EVENT
FORMER SEABREEZE YACHT CENTER
SLIC NO. 236
OAKLAND, CALIFORNIA**

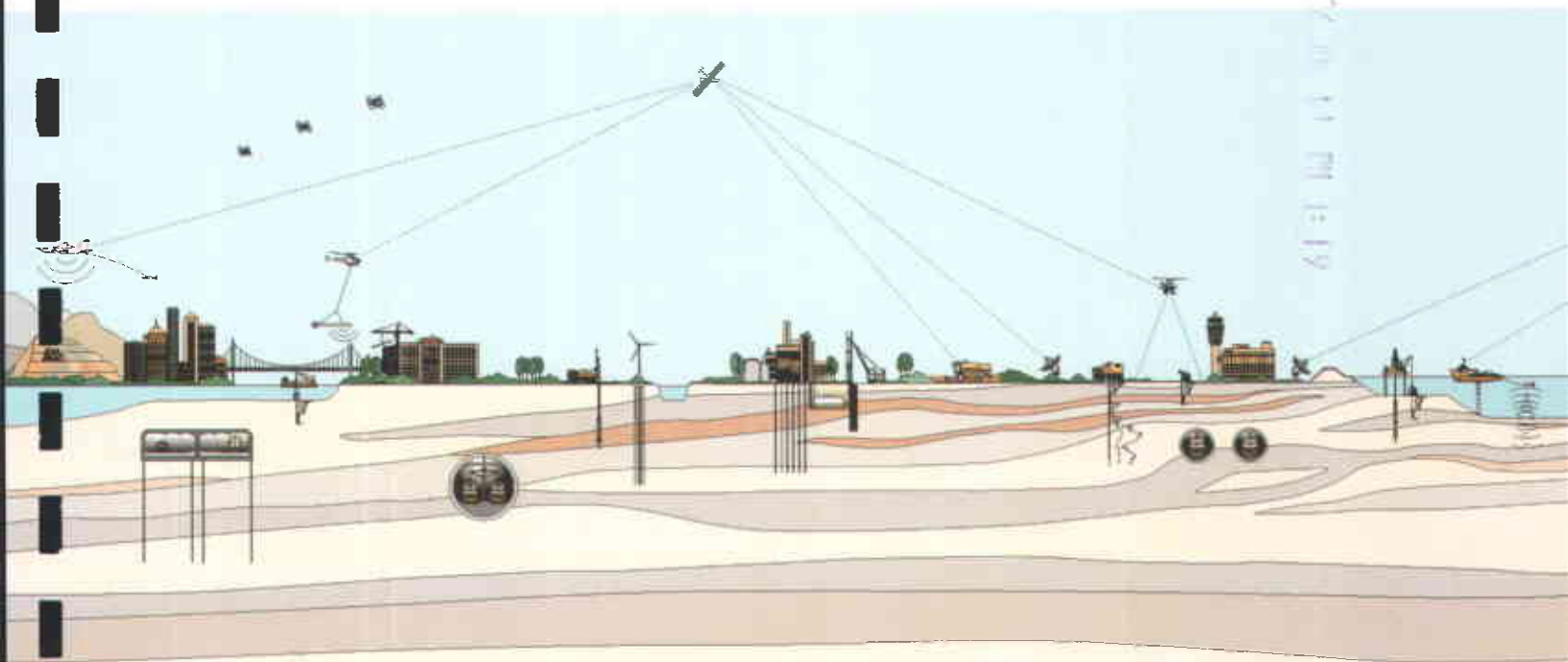
Prepared for:
PORT OF OAKLAND



*Alameda County
JUL 11 2006
Environmental Health*

JULY 2006

Fugro Project No. 133.024





PORT OF OAKLAND

July 6, 2006

Mr. Barney Chan
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502

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

Dear Mr. Chan:

Please find enclosed for your review, the Annual Groundwater Monitoring Report for the former Seabreeze Yacht Center, 280 Sixth Avenue, Oakland. This report documents recent groundwater monitoring results for TPH diesel in the three existing monitoring wells.

If you have any questions concerning the enclosed document, please contact me at 510-627-1184.

Sincerely,

Douglas P. Herman
Associate Port Environmental Scientist

Encl. Annual Groundwater Monitoring Report

Cc w/encl: Stephen Hill, RWQCB
Lydia Huang, Baseline Env.
Earl James, EKI
Michele Heffes, Port Legal (2 copies)

C:\win\mydocs\projects\seabreeze\annual GW monitoring report July 2006



1000 Broadway, Suite 200
Oakland, California 94607
Tel: (510) 268-0461
Fax: (510) 268-0137

July 10, 2006
Project No. 133.024

Environmental Health & Safety Compliance Department
Port of Oakland
530 Water Street, 7th Floor
Oakland, California 94607-2064

Attention: Mr. Doug Herman

Subject: 2006 Annual Groundwater Monitoring Report, Former Seabreeze Yacht Center,
Oakland, California

Dear Mr. Herman:

With this report, Fugro West, Inc., (Fugro) presents the results of the 2006 annual groundwater monitoring event conducted at the former Seabreeze Yacht Center (Site). The location of the Site is shown on Plate 1. Previous investigations indicate that petroleum hydrocarbons have impacted groundwater at the Site. Groundwater monitoring has been performed at the Site since 1995.

BACKGROUND

Four groundwater Monitoring Wells (MW-SB-2 through MW-SB5) were installed in November 1994, at the locations shown on Plate 2. Monitoring Well MW-SB2 was destroyed in December 2002. Quarterly groundwater monitoring of the wells was conducted from 1995 until 1998. Beginning in 1998, the wells were sampled on an annual basis and analyzed for total petroleum hydrocarbons as diesel (TPHd) with silica gel cleanup. From 2000 to 2002, the groundwater samples were also analyzed for methyl tert-butyl ether (MTBE). MTBE was not detected in any of the wells sampled. In January 2003, the Port of Oakland (Port) requested approval from Alameda County Environmental Health (ACEH) to no longer require the analysis of groundwater samples for MTBE. ACEH verbally agreed to remove MTBE from the required analyte-testing list.

MONITORING ACTIVITIES

Fugro conducted the 2006 annual groundwater monitoring event on May 18 and 19, 2006. Initially, the Wells MW-SB3, MW-SB4, and MW-SB5 were all sounded with a dual phase water level indicator to check for the presence of separate phase product. No free product was observed in Wells MW-SB3 and MW-SB4 during this event. A slight sheen was observed on the purge water from Well MW-SB5. The dual phase probe was decontaminated prior to its initial use and following each use to reduce the risk of cross contamination.



The Site is susceptible to tidal fluctuation. As a result, water level readings were taken within the shortest amount of allowable time at low tide. Groundwater level readings were recorded on the depth to groundwater form (Appendix A). Groundwater elevation data including the time measured are presented in Table 1. The times of the high and low tides are also presented at the end of Table 1 and the Oakland Inner Harbor Tide charts for May 18 and 19, 2006, are presented in Appendix A.

The wells were purged following low flow purging requirements, taking care not to cause a significant drawdown while attempting to remove no more than three well volumes of water. Measurements of water quality parameters were recorded on groundwater purge sampling forms (Appendix B) prepared for each well. Purge water was placed into a DOT-approved 55-gallon labeled drum, which was temporarily stored onsite pending removal by a port contractor.

Samples were collected after the well parameters stabilized. A peristaltic pump and dedicated down-hole tubing was used for well sampling. The tubing within the peristaltic pump rotor housing was decontaminated prior to use in each well.

Samples were delivered to Curtis and Tompkins, Ltd., (C&T) analytical laboratory at the end of the sampling day in a secured cooler. Samples were submitted for TPHd analyses by EPA method 8015m, using silica gel cleanup. A trip blank was stored in an ice-filled cooler, ready to accompany the samples collected. The samples collected were listed, along with a laboratory prepared trip blank, on the chain of custody form (Appendix C).

DISCUSSION OF RESULTS

The current and historical chemical results are presented in Table 2. The analytical test reports and chain of custody forms are included in Appendix C. TPHd was detected in the groundwater sample from Well MW-SB3 at a concentration of 0.065 milligrams per liter (mg/l), from Well MW-SB4 at a concentration of 0.088 mg/l, and from Well MW-SB5 at a concentration of 0.120 mg/l. C&T reported that the samples exhibited a chromatographic pattern that does not resemble the laboratory standard for diesel.

QUALITY ASSURANCE

Analytical results were subjected to laboratory quality assurance evaluation, which included the review of holding times, method blanks, laboratory control spikes, and surrogates. All quality control elements were within control limits, and the analytical results are acceptable for project use.

GROUNDWATER FLOW DIRECTION

The groundwater elevation data collected on May 18, 2006, was used to develop groundwater elevation contours (Plate 2). The groundwater flow direction at the time measurements were taken was toward the northeast at a gradient of 0.016 ft/ft.



WASTE DISPOSAL ACTIVITIES

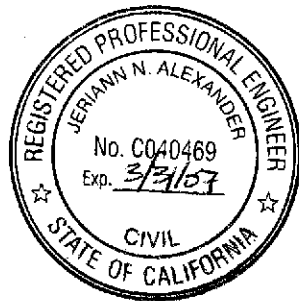
On May 16, 2006, one drum containing purge water from groundwater monitoring activities was removed from the Site. The drum was transported under a Uniform Hazardous Waste Manifest to an appropriate disposal facility. A copy of the manifest is presented in Appendix D.

ONGOING MONITORING

In accordance with the approved program, the next sampling event will be an annual event conducted during the Spring of 2007. If you have any questions, please call either of the undersigned at (510) 268-0461.

Sincerely,
Fugro West, Inc.

Melissa L. Pleva
Staff Engineer & Geologist



Jeriann N. Alexander, P.E., R.E.A.
R.E.A No. 03130 (exp. 7/07)
Civil Engineer 40469 (exp. 3/07)



MLP/JNA:ej

Attachments: Tables: Table 1 - Groundwater Elevation
Table 2 - Analytical Data

Illustrations: Plate 1 - Vicinity Map
Plate 2 - Site Plan with Groundwater Elevations

Appendices: Appendix A - Depth to Groundwater Forms and Tide Charts
Appendix B - Well Sampling Forms
Appendix C - Analytical Test Reports and Chain of Custody Reports
Appendix D - Waste Manifest

Copies Submitted: (7) Addressee and pdf



Table 1
Groundwater Elevation Data
Former Seabreeze Yacht Center
Oakland, California

Well Number	Date	Time	TOC Elevation Feet (MSL)	Groundwater Depth Feet	Groundwater Elevation Feet (MSL)
MW-SB2	4/19/91	11:09	7.18 ¹	5.38	1.80
	7/9/91	11:04		3.70	3.48
	1/10/94	12:31		3.08	4.10
	1/26/94	13:40		1.63	5.55
	11/14/94	7:30		4.80	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
	3/3/95	8:50		2.84	4.34
	6/28/96	7:40		3.76	3.42
	9/16/96	9:01		4.30	2.88
	12/11/96	11:15		2.00	5.18
	3/12/97	9:02		3.48	3.70
	6/18/97	9:10		3.94	3.24
	1/26/98	10:02		1.65	5.53
	1/4/99	8:11		3.3 ³	3.88
	2/1/00	10:20		-	-
	1/17/01	9:20		8.93 ⁴	3.91
1/22/02	9:30			4.67	4.26
Well Destroyed (December 2002)					
MW-SB3	11/14/94	7:25	8.10 ¹	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
	12/6/94	8:37		6.15	1.95
	3/3/95	8:40		6.78	1.32
	6/28/96	7:35		5.46	2.64
	9/16/96	8:55		5.78	2.32
	12/11/96	10:32		5.31	2.79
	3/12/97	9:05		6.03	2.07
	6/18/97	9:12		5.50	2.60
	1/26/98	9:20		5.12	2.98
	1/4/99	8:20		5.97	2.13
	2/1/00	9:50		5.81	2.29
	1/17/01	9:15		6.04	2.06
	1/22/02	9:00		5.33	2.77
	2/3/03	13:12		5.30	2.80
	3/5/04	9:57		4.64	3.46
4/14/05	10:34		6.26	1.84	
5/18/06	10:56		4.96	3.14	



Table 1
Groundwater Elevation Data
Former Seabreeze Yacht Center
Oakland, California

Well Number	Date	Time	TOC Elevation Feet (MSL)	Groundwater Depth Feet	Groundwater Elevation Feet (MSL)
MW-SB4	11/28/94	9:02	6.39 ²	1.05	5.34
	3/3/95	8:35		0.90	5.49
	6/28/96	8:28		3.16	3.23
	9/16/96	8:52		2.85	3.54
	12/11/96	9:28		0.65	5.74
	3/12/97	9:07		2.53	3.86
	6/18/97	9:25		3.10	3.29
	1/26/98	10:30		0.88	5.51
	1/4/99	8:26		2.55	3.84
	2/1/00	10:43		0.61	5.78
	1/17/01	9:01		1.70	4.69
	1/22/02	10:00		3.17	3.22
	2/3/03	11:30		3.40	2.99
	3/5/04	9:55		3.90	2.49
	4/14/05	10:35		4.08	2.31
5/18/06	10:58		3.89	2.50	
MW-SB5	11/28/94	8:40	6.30 ²	6.32	-0.02
	3/3/95	9:00		2.54	3.76
	6/28/96	8:45		2.43	3.87
	9/16/96	10:15		2.52	3.78
	12/11/96	14:12		3.09	3.21
	3/12/97	9:11		2.42	3.88
	6/18/97	8:56		2.32	3.98
	1/26/98	14:10		1.42	4.88
	1/5/99	12:20		3.50	2.80
	2/1/00	12:27		3.91	2.39
	1/17/01	7:54		4.21	2.09
	1/22/02	11:05		4.10	2.20
	2/3/03	15:40		4.95	1.35
	3/5/04	15:40		3.68	2.62
	4/14/05	10:40		2.51	3.79
5/18/06	11:01		2.29	4.01	

Table 1
Groundwater Elevation Data
Former Seabreeze Yacht Center
Oakland, California

Notes:

-- = not measured

msl = mean sea level

TOC = top of casing

¹ = Well survey conducted by Bates & Bailey 11/18/94.

² = Well survey conducted by Bates & Bailey 11/28/94.

³ = The steel well head protection and PVC appears damaged; groundwater elevations may be inaccurate.

⁴ = New TOC elevation after well repair in April 2000.

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

11/28/94: High tide 7:46

2/15/95: High tide 5:14 & 18:03; Low tide 23:34

3/3/95: High tide 13:14; Low tide 8:23 & 21:07

6/28/96: High tide 11:41 & 22:32; Low tide

9/16/96: High tide 2:57 & 14:57; Low tide 8:23 & 21:07

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

3/12/97: High tide 2:17 & 15:02; Low tide 8:23

6/18/97: High tide 12:18 & 23:07; Low tide 5:15 & 16:49

1/26/98: High tide 10:10; Low tide 4:00 & 16:57

1/4/99: High tide 2:21 & 13:06; Low tide 7:13

1/5/99: High tide 3:07 & 13:54; Low tide 8:09 & 20:37

2/1/00: High tide 9:01 & 23:19; Low tide 3:03 & 16:08

1/17/01: High tide 6:38 & 19:47; Low tide 13:25

1/22/02: High tide 6:16 & 19:58; Low tide 13:25

2/3/03: High tide 2:05 & 12:59; Low tide 7:07 & 19:35

4/14/05: High tide 3:48 & 19:16; Low Tide 11:10 & 23:19

5/18/06: High tide 3:44 & 18:43; Low Tide 10:56



Table 2
Groundwater Analytical Results
Former Seabreeze Yacht Center
Oakland, California

Sample ID	Date	Metals		Hydrocarbons			
		Lead (mg/L)	Copper (mg/L)	TPHd (mg/L)	Bunker C (mg/L)	TPHmo (mg/L)	MTBE (mg/L)
MW-SB2	4/19/1991	<0.07	0.0481	--	--	--	--
	7/9/1991	<0.06 ⁸	<0.02 ⁹	--	--	--	--
	1/10/1994	<0.10 ⁸	<0.02 ⁹	--	--	--	--
	1/26/1994	0.00489	<0.014 ⁹	--	--	--	--
	3/6/1995	--	--	16.0 ^{4,5}	28.0 ^{4,5}	4.9 ^{4,5}	--
	7/1/1996	<0.003	0.055	<0.05	<0.3	--	--
	9/16/1996	<0.003 ¹¹	<0.005 ¹²	<0.05	<0.5	<0.25	--
	12/11/1996	0.00855 ¹¹	0.00354 ¹²	0.16 ¹⁴	<0.5	<0.25	--
	3/14/1997	0.00314 ¹¹	<0.003 ¹²	0.061	<0.5	<0.25	--
	6/20/1997	--	--	0.15	--	--	--
	1/28/1998	--	--	<0.05 ¹⁶	--	--	--
	1/6/1999	--	--	<0.048	--	--	--
	2/4/2000	--	--	--	--	--	--
	1/19/2001	--	--	<0.05	--	--	<0.005
	1/24/2002	--	--	<0.05	--	--	<0.005
2/4/2003	Well Destroyed - December 2002						
MW-SB2A (MW-SB2 duplicate)	3/6/1995	--	--	18.0 ^{4,5,6}	33.0 ^{4,5,6}	< 25.0 ^{4,5,6}	--
	7/1/1996	<0.003	0.065	0.17 ⁷	< 0.3 ⁵	--	--
	9/16/1996	<0.003 ¹¹	<0.005 ¹²	0.17	< 0.3 ⁵	<0.25	--
MW-SB3	3/6/1995	--	--	2.3 ^{4,5}	5.8 ^{4,5}	1.5 ^{4,5}	--
	7/1/1996	0.0036	<0.01	<0.049	<0.3	--	--
	9/16/1996	<0.003 ¹¹	<0.005 ¹²	<0.05 ⁴	<0.5	0.28 ⁴	--
	12/11/1996	<0.003 ¹¹	<0.003 ¹²	0.19 ¹⁴	<0.5	<0.25	--
	3/14/1997	<0.003 ¹¹	0.00529 ¹²	0.085 ¹⁵	<0.5	<0.25	--
	6/20/1997	--	--	0.015	--	--	--
	1/28/1998	--	--	<0.05 ¹⁶	--	--	--
	1/6/1999	--	--	<0.049 ¹⁷	--	--	--
	2/4/2000	--	--	<0.05	--	--	<0.002
	1/19/2001	--	--	<0.05	--	--	<0.005
	1/24/2002	--	--	<0.05	--	--	<0.005
	2/4/2003	--	--	0.077 ^b	--	--	--
	3/5/2004	--	--	<0.05	--	--	--
4/14/2005	--	--	<0.05	--	--	--	
5/19/2006	--	--	0.065 ⁴	--	--	--	

Table 2
Groundwater Analytical Results
Former Seabreeze Yacht Center
Oakland, California

Sample ID	Date	Metals		Hydrocarbons			
		Lead (mg/L)	Copper (mg/L)	TPHd (mg/L)	Bunker C (mg/L)	TPHmo (mg/L)	MTBE (mg/L)
MW-SB3A (MW-SB3 duplicate)	6/20/1997	--	--	0.11	--	--	--
	1/28/1998	--	--	<0.05 ¹⁶	--	--	--
	1/6/1999	--	--	0.13 ^{7,18}	--	--	--
	2/4/2000	--	--	<0.05	--	--	<0.002
MW-SB4	3/3/1995	--	--	1.4 ^{4,5}	3.0 ⁴	0.66 ⁴	--
	7/1/1996	0.014	0.013	<0.049	<0.3	--	--
	9/16/1996	<0.003 ¹¹	<0.005 ¹²	<0.05	<0.5	<0.25	--
	12/11/1996	0.00465 ¹¹	0.00674 ¹²	0.12 ¹⁴	<0.5	<0.25	--
	3/14/1997	0.00519 ¹¹	<0.003 ¹²	<0.05	<0.5	<0.25	--
	6/20/1997	--	--	0.11	--	--	--
	1/28/1998	--	--	<0.05 ¹⁶	--	--	--
	1/6/1999	--	--	<0.049	--	--	--
	2/4/2000	--	--	<0.05	--	--	<0.002
	1/19/2001	--	--	<0.05	--	--	<0.005
	1/24/2002	--	--	<0.05	--	--	<0.005
	2/4/2003	--	--	<0.05	--	--	--
	3/5/2004	--	--	<0.05	--	--	--
	4/14/2005	--	--	<0.05	--	--	--
5/19/2006	--	--	0.088 ⁴	--	--	--	
MW-SB4A (MW-SB4 duplicate)	3/5/2004	--	--	<0.05	--	--	--
MW-SB5	3/6/1995	--	--	15.0 ^{4,5}	34.0 ^{4,5}	8.1 ^{4,5}	--
	7/1/1996	0.0031	0.012	<0.049	<0.3	--	--
	9/16/1996	<0.003 ¹¹	<0.005 ¹²	0.14 ^{4,13}	<0.5	<0.25	--
	12/11/1996	<0.00344 ¹¹	<0.003 ¹²	0.16 ¹⁴	<0.5	<0.25	--
	3/14/1997	<0.003 ¹¹	0.00318 ¹²	0.29	<0.5	<0.25	--
	6/20/1997	--	--	0.27	--	--	--
	1/28/1998	--	--	<0.05 ¹⁶	--	--	--
	1/6/1999	--	--	<0.05	--	--	--
	2/4/2000	--	--	<0.05	--	--	--
	1/19/2001	--	--	<0.05	--	--	<0.002
	1/24/2002	--	--	<0.05	--	--	<0.005
	2/4/2003	--	--	<0.05	--	--	<0.005
	3/23/2004	--	--	0.13	--	--	--
	4/14/2005	--	--	0.099 ⁴	--	--	--
5/19/2006	--	--	0.120 ⁴	--	--	--	
MW-SB5A (MW-SB5 duplicate)	3/6/1995	--	--	15.0 ^{4,5,6}	31.0 ^{4,5,6}	6.9 ^{4,5,6}	--
	12/11/1996	<0.003 ¹¹	<0.003 ¹²	0.081 ¹⁴	<0.5	<0.25	--
	3/14/1997	<0.003 ¹¹	<0.003 ¹²	0.22	<0.5	<0.25	--
	1/24/2002	--	--	<0.05	--	--	<0.005

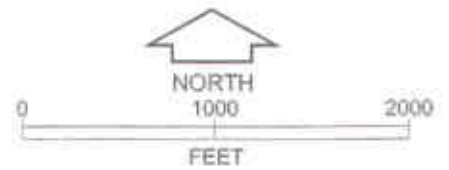
Table 2
Groundwater Analytical Results
Former Seabreeze Yacht Center
Oakland, California

Notes:

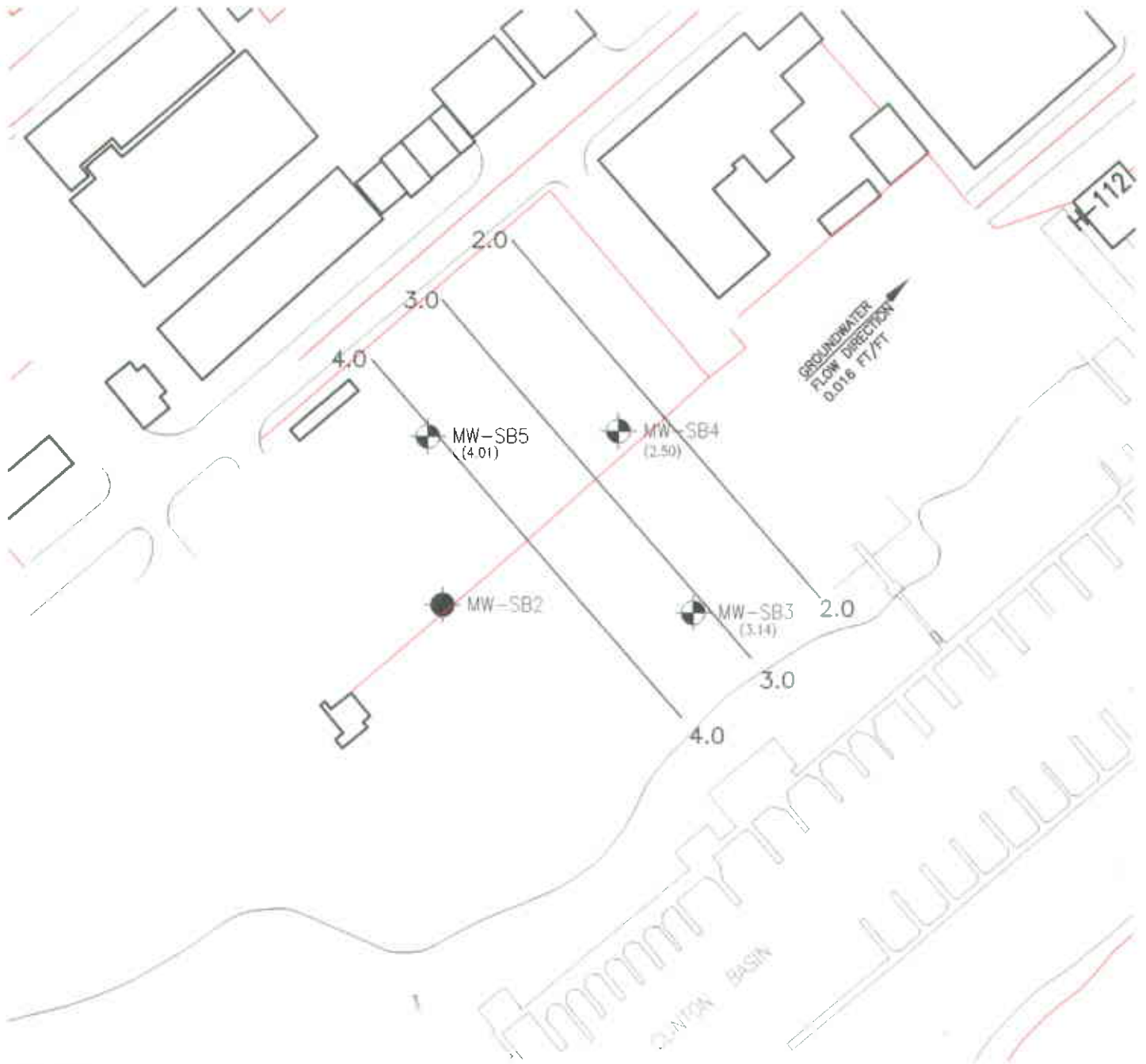
- <0.05 = analyte not identified above the given laboratory reporting limit
- detected concentrations in **bold**
- = not analyzed
- TPH d = Total petroleum hydrocarbons as diesel
- TPH mo = Total petroleum hydrocarbons as motor oil
- mg/L = milligrams per liter
- b = diesel range compounds are significant
- 1 = Analytical Method EPA 6010A, unless otherwise noted
- 2 = Analytical Method California DOHS, LUFT Manual (EPA 8015M) with silica gel cleanup (EPA 3630)
- 3 = Analytical Method EPA 8020 or 8021B.
- 4 = Sample chromatogram does not resemble hydrocarbon standard
- 5 = Samples were not subject to silica gel cleanup prior to analysis
- 6 = Duplicate sample centrifuged prior to TEPH analysis.
- 7 = Sample exhibited fuel pattern that does not resemble standard
- 8 = Analyzed using EPA method 7420
- 9 = Analyzed using EPA method 7210
- 10 = Sample was also analyzed for Hg, Ar, Cd, Cr, Fe, Ni, Ag, and Zn. All metals were below reporting limits except for 0.13 mg/L of iron.
- 11 = Analyzed using EPA method 7421. Sample filtered by laboratory prior to analysis.
- 12 = Analyzed using EPA method 7411. Sample filtered by laboratory prior to analysis.
- 13 = Laboratory indicated that miscellaneous peaks were present in the diesel range
- 14 = Laboratory indicated that the analyte was also detected in the corresponding method blank at a similar concentration, verifying lab contamination
- 15 = The laboratory indicated that the chromatograph pattern of the sample matches a known laboratory contaminant
- 16 = The corresponding method blank contained 0.067 mg/L of hydrocarbon reported as heavier than diesel.
- 17 = The corresponding duplicate sample (MW-SB3A) contain diesel concentrations above the laboratory reporting limit
- 18 = Laboratory indicated that the sample chromatogram contained heavier hydrocarbons than the diesel standard.



SOURCE: This Site Vicinity Map is based on The Thomas Guide Digital Edition 2003. Bay Area Metro, Alameda, Contra Costa, Marin, San Francisco, San Mateo, and Santa Clara Counties.



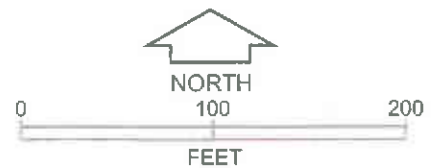
SITE VICINITY MAP
 Former Seabreeze Yacht Center
 Oakland, California



SOURCE: This Site Plan is based on four drawings "148.dwg," "149.dwg," "165.dwg," and "166.dwg" received from Geomatics Group at the Port of Oakland.

LEGEND

- MW-SB5
MONITORING WELL
GROUNDWATER ELEVATION, MAY 18, 2006
(FEET MSL)
- MW-SB2
MONITORING WELL
(ABANDONED DECEMBER 2002)
- 3.0
GROUNDWATER ELEVATION
(CONTOUR INTERVAL = 1FT.)



SITE PLAN
Former Seabreeze Yacht Center
Oakland, California

APPENDIX A
DEPTH TO GROUNDWATER FORMS AND TIDE CHARTS



Depth to Groundwater

Project Name: Former Seabreeze Yacht CenterDate: 5/18/06Personnel: M. PlevaProject No.: 133.024

Well ID	Date	Time	Depth to Water from TOC (feet)*	Total Depth of Casing (feet)	Comments
MWSB3	5/18/06	10:56	4.96	11.05	no product detected
MWSB4	5/18/06	1058	3.89	11.60	no product detected
MWSB5	5/18/06	1101	2.29	14.75	no product detected

TOC = Top of Casing

DAILEY LOW TIDE oakland inner harbor at 10:56 on 5/18/06

* measured with an interface probe

Tides:Oakland Inner Harbor

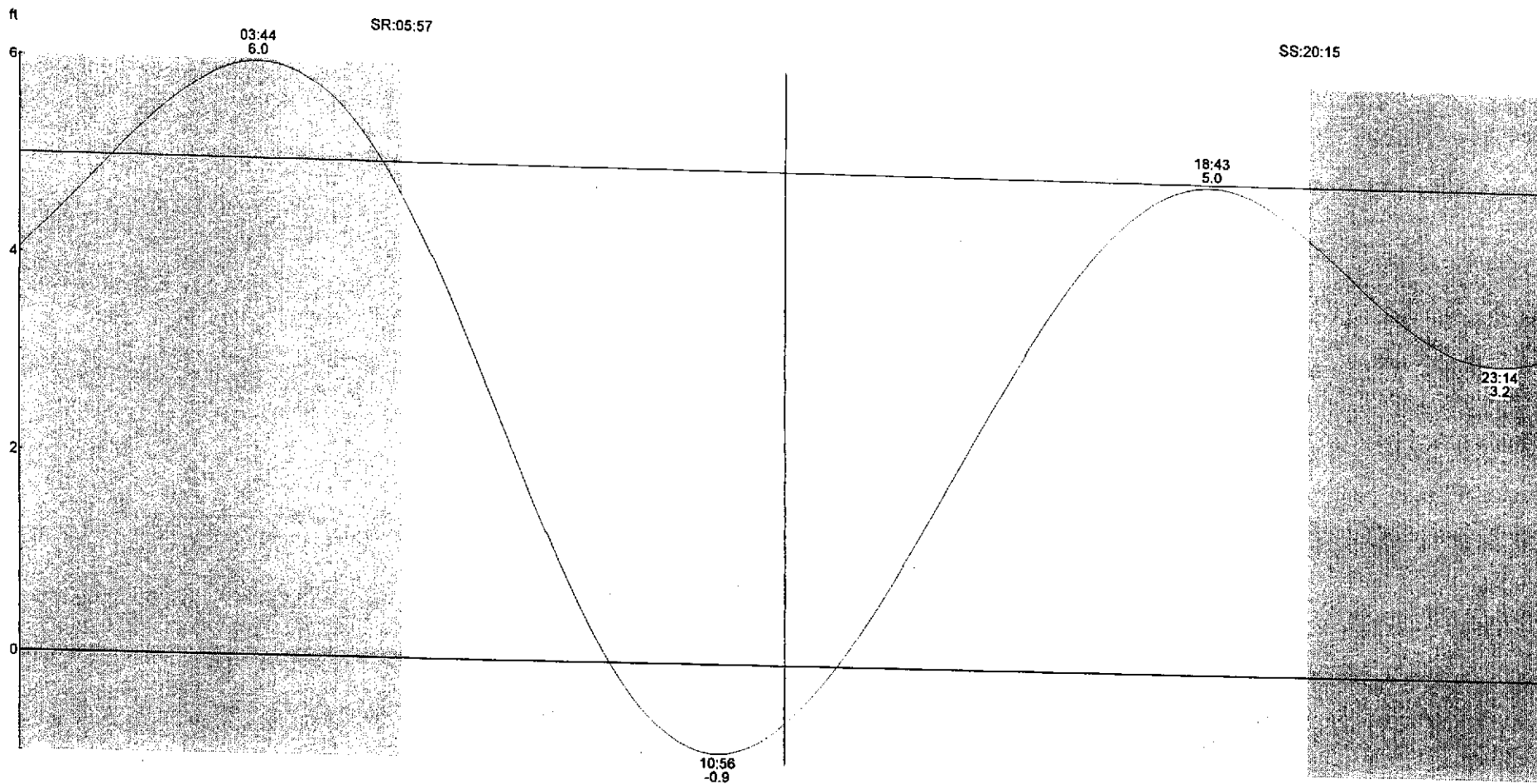
based on San Francisco (Golden Gate), California (NOAA)
37° 47' 42" N 122° 16' 54" W

Thursday, May 18, 2006

Average Tides
Mean Range: 4.7 ft
MHHW: 6.4 ft
Mean Tide: 3.4 ft

Daily Highs & Lows
03:44 6.0 ft High
10:56 -0.9 ft Low
18:43 5.0 ft High
23:14 3.2 ft Low

Moonrise:01:04
Moonset:10:45



(PDT) Tide	00:00	00:30	01:00	01:30	02:00	02:30	03:00	03:30	04:00	04:30	05:00	05:30	06:00	06:30	07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00	14:30	15:00	15:30	16:00	16:30	17:00	17:30	18:00	18:30	19:00	19:30	20:00	20:30	21:00	21:30	22:00	22:30	23:00	23:30	00:00
	4.1 ft	4.4 ft	4.7 ft	5.0 ft	5.4 ft	5.6 ft	5.9 ft	6.0 ft	6.0 ft	5.8 ft	5.6 ft	5.2 ft	4.6 ft	4.0 ft	3.2 ft	2.4 ft	1.6 ft	0.9 ft	0.3 ft	-0.3 ft	-0.6 ft	-0.8 ft	-0.9 ft	-0.8 ft	-0.8 ft	-0.2 ft	0.2 ft	0.7 ft	1.2 ft	1.8 ft	2.3 ft	2.9 ft	3.4 ft	3.9 ft	4.3 ft	4.6 ft	4.9 ft	5.0 ft	4.9 ft	4.8 ft	4.6 ft	4.3 ft	4.0 ft	3.7 ft	3.5 ft	3.3 ft	3.2 ft	3.2 ft	3.3 ft

Tides:Oakland Inner Harbor

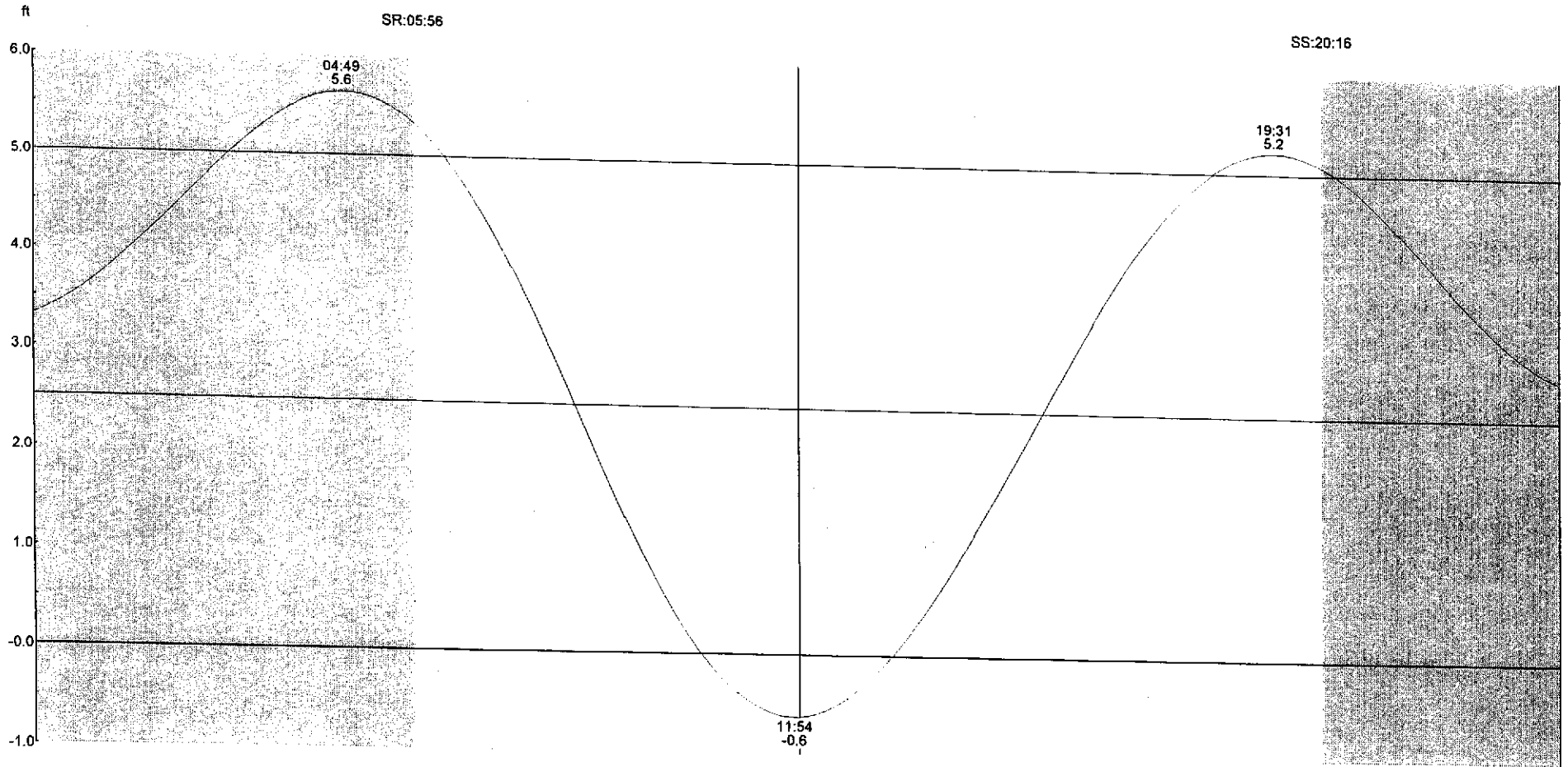
based on San Francisco (Golden Gate), California (NOAA)
37° 47' 42" N 122° 16' 54" W

Average Tides
 Mean Range: 4.7 ft
 MHHW: 6.4 ft
 Mean Tide: 3.4 ft

Friday, May 19, 2006

Daily Highs & Lows
 04:49 5.6 ft High
 11:54 -0.6 ft Low
 19:31 5.2 ft High

Moonrise:01:42
 Moonset:11:59



(PDT) Tide	00:00	00:30	01:00	01:30	02:00	02:30	03:00	03:30	04:00	04:30	05:00	05:30	06:00	06:30	07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00	14:30	15:00	15:30	16:00	16:30	17:00	17:30	18:00	18:30	19:00	19:30	20:00	20:30	21:00	21:30	22:00	22:30	23:00	23:30	00:00
	3.3 ft	3.5 ft	3.7 ft	4.0 ft	4.3 ft	4.6 ft	5.0 ft	5.3 ft	5.5 ft	5.6 ft	5.6 ft	5.5 ft	5.3 ft	4.9 ft	4.4 ft	3.8 ft	3.2 ft	2.4 ft	1.7 ft	1.0 ft	0.4 ft	0.0 ft	-0.4 ft	-0.6 ft	-0.5 ft	-0.3 ft	0.0 ft	0.5 ft	1.0 ft	1.5 ft	2.1 ft	2.7 ft	3.2 ft	3.8 ft	4.3 ft	4.7 ft	5.0 ft	5.2 ft	5.2 ft	5.0 ft	4.7 ft	4.4 ft	4.0 ft	3.7 ft	3.3 ft	3.1 ft	2.9 ft		

**APPENDIX B
WELL SAMPLING FORMS**



Groundwater Purge Sampling Form

Project Name: Former Seabreeze Yacht Center Date: 5/19/06
 Personnel: M. Pleva Project No. 133.024 Well ID: MWSB3

Total Depth of Casing (BTOC): 11.05 feet Calculated Purge Volume: 0.90 (1 vol.)
 Depth to Groundwater (BTOC): 5.56 feet (feet of water * casing dia² * .0408 * # of Volumes)
 Feet of Water in Well: 5.49 feet Free Product: none

Purge Method: <u>peristaltic pump</u>	Instrument Conductivity pH Turbidity Temperature	Field measure	Standard measure
Purge Depth (feet): <u>7.5' logs</u>			
Start Time: <u>0942</u> End Time: <u>1002</u>		Supplier Calibrated	
Total Gallons purged: <u>2.65</u>			

SAMPLES	Field ID	Time Collected	Containers & Preservative
COMMENTS:	<u>mwsb3</u>	<u>1010</u>	<u>1 Amber / none</u>

Time	0947	0952	0957	1002				
Volumes purged (gallons)		(1.30)		(2.65)				
Temperature (°C)	18.11	18.52	17.96	17.64				
pH	7.21	7.09	7.05	7.03				
Conductivity (uS/cm)	3915	2951	286	2631				
Turbidity (NTU) / color	6.55	3.40	1.32	0.98				
Dissolved oxygen (mg/L)	3.13	4.07	3.91	3.22				
Odor	Sulfur	Sulfur	Sulfur	Sulfur				
Depth to Water during purge (feet)	5.88	6.25	6.57	6.85				
Purge Rate (Liters/minute)	0.5	0.5	0.5	0.5				



Groundwater Purge Sampling Form

Project Name: Former Seabreeze Yacht Center Date: 5/19/06
 Personnel: M. Pleva Project No. 133.024 Well ID: mws85

Total Depth of Casing (BTOC): 14.75 feet Calculated Purge Volume: 1.93 (1 vol.)
 Depth to Groundwater (BTOC): 2.90 feet (feet of water * casing dia² * .0408 * # of Volumes)
 Feet of Water in Well: 11.85 feet Free Product: None

Purge Method: <u>peristaltic pump</u>	Instrument	Field measure	Standard measure
Purge Depth (feet): <u>5.0' bgs</u>	Conductivity		
Start Time: <u>1130</u> End Time: <u>1205</u>	pH		
Total Gallons purged: <u>(4.0)</u>	Turbidity	Supplier Calibrated	
	Temperature		

SAMPLES	Field ID	Time Collected	Containers & Preservative
COMMENTS:	<u>mws85</u>	<u>1215</u>	<u>2 Ambers / none</u>

Time	1135	1140	1145	1150	1155	1200	1205	
Volumes purged (gallons)			(1.85)				(4.0)	
Temperature (°C)	18.48	18.67	18.07	18.43	19.05	20.23	19.83	
pH	6.90	7.02	7.08	7.06	7.05	7.02	7.00	
Conductivity (uS/cm)	24821	23373	21213	19783	19209	19736	19845	
Turbidity (NTU) / color	16.9	53.1	35.2	26.7	20.8	14.79	13.69	
Dissolved oxygen (mg/L)	2.79	2.12	3.06	3.16	2.59	3.15	3.94	
Odor	none	none	none	none	none	none	none	
Depth to Water during purge (feet)	3.34	3.65	3.97	4.15	4.21	4.24	4.28	
Purge Rate (Liters/minute)	0.5	0.5	0.4	0.4	0.4	0.4	0.4	

**APPENDIX C
ANALYTICAL TEST REPORTS AND
CHAIN OF CUSTODY RECORDS**

Total Extractable Hydrocarbons

Lab #:	186939	Location:	Seabreeze Yacht Center
Client:	Fugro West, Inc.	Prep:	EPA 3520C
Project#:	133.024	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	05/19/06
Units:	ug/L	Received:	05/19/06
Diln Fac:	1.000	Prepared:	05/30/06
Batch#:	113935		

Field ID:	MWSB-3	Analyzed:	06/01/06
Type:	SAMPLE	Cleanup Method:	EPA 3630C
Lab ID:	186939-001		

Analyte	Result	RL
Diesel C10-C24	65 Y	50

Surrogate	%REC	Limits
Hexacosane	96	65-130

Field ID:	MWSB-4	Analyzed:	06/01/06
Type:	SAMPLE	Cleanup Method:	EPA 3630C
Lab ID:	186939-002		

Analyte	Result	RL
Diesel C10-C24	88 Y	50

Surrogate	%REC	Limits
Hexacosane	83	65-130

Field ID:	MWSB-5	Analyzed:	06/01/06
Type:	SAMPLE	Cleanup Method:	EPA 3630C
Lab ID:	186939-003		

Analyte	Result	RL
Diesel C10-C24	120 Y	50

Surrogate	%REC	Limits
Hexacosane	97	65-130

Type:	BLANK	Analyzed:	05/31/06
Lab ID:	QC342014	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	50

Surrogate	%REC	Limits
Hexacosane	95	65-130

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	186939	Location:	Seabreeze Yacht Center
Client:	Fugro West, Inc.	Prep:	EPA 3520C
Project#:	133.024	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	113935
Units:	ug/L	Prepared:	05/30/06
Diln Fac:	1.000	Analyzed:	05/31/06

Type: BS
Lab ID: QC342015

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,607	104	61-133

Surrogate	%REC	Limits
Hexacosane	103	65-130

Type: BSD
Lab ID: QC342016

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,246	90	61-133	15	31

Surrogate	%REC	Limits
Hexacosane	89	65-130

PROJECT NAME: Seabreeze Yacht Center

PROJECT NO.: 133.024

LAB: C&T

PROJECT CONTACT: Melissa L. Pleva

TURNAROUND:

SAMPLED BY: Melissa L. Pleva

REQUESTED BY: Melissa L. Pleva

ANALYSIS REQUESTED

TEH Diesel with silica gel (8015m)

LABORATORY I.D. NUMBER	FIELD SAMPLE I.D.	MATRIX			CONTAINERS				PRESERVATIVE					SAMPLING DATE				NOTES	
		WATER	SOIL	AIR	VOA	LITER	PINT	TUBE	HCL	H ₂ SO ₄	HNO ₃	ICE	OTHER	NONE	MONTH	DAY	YEAR		TIME
1	MWSB-3	X				2	2	11				X			05	19	06	1010	X
2	MWSB-4	X				2						X			05	19	06	1110	X
3	MWSB-5	X				2						X			05	19	06	1215	X
N/A	Trip Blank	X				1						X			05	19	06		


CHAIN OF CUSTODY RECORD

COMMENTS & NOTES:

RELINQUISHED BY: (Signature) <i>Melissa L. Pleva</i>	DATE/TIME 05/19/06 11:31	RECEIVED BY: (Signature) <i>Samuel...</i>	DATE/TIME 5/19/06 1:15
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REC'D intact; on ice
Temp = 11.1 C

FUGRO WEST, INC.
1000 Broadway, Suite 200
Oakland, California 94607
Tel: 510.268.0461 Fax: 510.268.0137



g:\server\migration\data\template\chain_of_custody

Excel

No trip & received (PP)

**APPENDIX D
WASTE MANIFEST**

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter).

NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. CA0982401127	Manifest Document No. 52310	2. Page 1 of
3. Generator's Name and Mailing Address PORT OF OAKLAND 530 WATER ST OAKLAND, CA 94607 Phone: (415) 762-1139		SITE: PORT OF OAKLAND 45th Ave (SEWER TREAT SITE) OAKLAND, CA 94607 Name: STEEL PLANT		
5. Transporter 1 Company Name DILLARD ENV SWCS	8. US EPA ID Number CA0992529433	A. State Transporter's ID		
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter 1 Phone 925-634-6850		
9. Designated Facility Name and Site Address RONIC ENVIRONMENTAL TECHNOLOGIES 2081 BAY RD EAST OAKLAND CA 94608		C. State Transporter's ID		
10. US EPA ID Number CA0009452657		D. Transporter 2 Phone		
		E. State Facility's ID		
		F. Facility's Phone 650-324-1638		
11. WASTE DESCRIPTION		12. Containers No. Type	13. Total Quantity	14. Unit Wt/Vol
a. NON-HAZARDOUS WASTE (PURE WATER) (SP: 366989)		01 DM	15	6
b.				
c.				
d.				
G. Additional Descriptions for materials Listed Above 11a 366989 (1 x 57DM)		H. Handling Codes for Wastes Listed Above		
I. Special Handling Instructions and Additional Information EMERGENCY CONTACT (925) 634-6850 DILLARD TSD # 430-707 WIS # 201966 TSD # 06-ERT-02				
15. GENERATOR'S CERTIFICATION I hereby certify that the contents of this manifest are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.				
Printed/Typed Name CAROL WATKINS		Signature 	Date Month Day Year 05 12 06	
17. Transporter 1 Acknowledgment of Receipt of Materials Printed/Typed Name ROOVED		Signature 	Date Month Day Year 05 12 06	
18. Transporter 2 Acknowledgment of Receipt of Materials Printed/Typed Name		Signature	Date Month Day Year	
19. Discrepancy Indication Space				
20. Facility/Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in Item 18.				
Printed/Typed Name		Signature	Date Month Day Year	

GENERATOR'S FACILITY