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ENVIRONMENTAL
CONSULTANTS

July 27, 2000

Mr. John Ward
Wells Fargo Trust
Asset Management Division
Trust Real Estate Department
P.O. Box 63939
San Francisco, California 94163

#4252

RE: Groundwater Monitoring Report
Blumert Trust, 490 43rd Street, Oakland, California
ACC Project No. 96-6305-001.01

Dear Mr. Ward:

The enclosed report summarizes results of groundwater monitoring at 490 43rd Street, Oakland, California, performed by ACC Environmental Consultants, Inc., (ACC) on July 5, 2000. The next groundwater sampling event is scheduled for January 2001.

On your behalf, ACC is forwarding a copy of this report to the Alameda County Health Care Services Agency, Department of Environmental Health (ACHCSA).

If you have any comments regarding this report, please call me at (510) 638-8400, extension 109.

Sincerely,

David R. DeMent, RG
Environmental Division Manager

/nhd:drd

Enclosures

cc. Mr. Jay Schnack, McShane, Schnack & Cheitlin
Mr. Barney Chan, ACHCSA

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GROUNDWATER MONITORING REPORT

490 43rd Street
Oakland, California

ACC Project No. 96-6305-001.01

Prepared for:

Mr. John Ward
Wells Fargo Trust
525 Market Street, 18th Floor
San Francisco, California

July 27, 2000

Prepared by: _____
Neil H. Doran
Staff Geologist

Reviewed by _____
David R DeMent, RG
Environmental Division Manager

REGISTERED GEOLOGIST
DAVID R. DEMENT
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CALIFORNIA

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GROUNDWATER MONITORING REPORT
490 43rd Street
Oakland, California

1.0 INTRODUCTION

Groundwater monitoring and sampling was conducted by ACC Environmental Consultants, Inc., (ACC) for Wells Fargo Trust on behalf of the Blumert Trust, for the subject property at 490 43rd Street, Oakland, California (Figure 1). The work was conducted at the request of the Alameda County Health Care Services Agency, Department of Environmental Health (ACHCSA) for additional site investigation and characterization of impacted groundwater.

The purpose of the work was to monitor groundwater flow direction and gradient and to evaluate the presence of petroleum hydrocarbons in the local groundwater associated with former gasoline and paint thinner (mineral spirits) underground storage tanks (USTs). The locations of the groundwater monitoring wells and pertinent site features are illustrated on Figure 2.

2.0 BACKGROUND

The site is located at the northeastern corner of Telegraph Avenue and 43rd Street, Oakland, California (Figure 2). The property is relatively flat, at an elevation of approximately 90 feet above mean sea level (MSL). The predominant groundwater flow direction is to the south-southwest.

The facility formerly operated one 1,000-gallon gasoline UST and one 350-gallon mineral spirits UST, which were removed on December 11, 1991. Laboratory analysis of soil samples collected underneath the gasoline UST indicated concentrations of up to 220 parts per million (ppm) total petroleum hydrocarbons as gasoline (TPHg) and minor concentrations of benzene, toluene, ethylbenzene, and total xylenes (BTEX). Laboratory analysis of soil samples collected underneath the mineral spirit UST indicated concentrations up to 25 ppm mineral spirits. Groundwater was observed in the excavation at a depth of approximately 12.5 feet below ground surface (bgs). The tank pit, which formerly contained both USTs, was overexcavated on March 31, 1992, to remove additional impacted soil. Laboratory analysis of soil samples collected from excavation sidewalls indicated concentrations of up to 720 ppm TPHg, 30 ppm BTEX constituents, and 190 ppm mineral spirits.

Three groundwater monitoring wells were installed on April 12, 1993, by Kaprealian Engineering, Inc., (KEI) and have been monitored periodically since that time. Gradient was calculated at approximately 0.01 foot/foot and flow direction was to the south-southwest. Groundwater samples collected from the three monitoring wells indicated elevated TPHg and mineral spirit concentrations.

On June 1, 1994, KEI drilled exploratory soil borings EB1 and EB2. Concentrations of TPHg and mineral spirits ranging from 28 to 180 ppm were detected in soil samples collected from boring EB2 at depths of 10 and 12 feet bgs. Grab groundwater samples collected from borings EB1 and EB2 indicated concentrations of TPHg at 3,400 parts per billion (ppb) and 9,200 ppb, respectively.

and mineral spirits at 7,000 ppb and 3,700 ppb, respectively. Sieve analysis of saturated soil at the site determined that the soil should be classified as silty sand (SM).

To further evaluate the extent of hydrocarbon impact to soil and groundwater, ACC performed an exploratory boring investigation in April 1996. ACC drilled two exploratory soil borings (SB1 and SB2) to characterize soil conditions in the immediate vicinity of the former tank excavation and six additional exploratory borings (B3 through B8) upgradient and downgradient of the former USTs to characterize groundwater in the general vicinity of the former tank excavation. Concentrations of mineral spirits were detected in sample SB1-9.0 at 52 ppm and in sample SB2-9.0 at 78 ppm. Grab groundwater samples were collected from borings B3 through B8 and analyzed for TPHg, BTEX, and mineral spirits. Concentrations of TPHg ranged from nondetectable in groundwater samples collected from borings B3 and B8 to 46,000 ppb in a sample collected from boring B6. Concentrations of mineral spirits ranged from nondetectable in samples collected from borings B3 and B8 to 16,000 ppb in a sample from boring B7. Petroleum hydrocarbon impacts to shallow groundwater were not fully delineated, but concentrations of TPHg and mineral spirits appear to have migrated preferentially along utility trench lines. Field observations indicated that general aquifer quality was poor, and subsurface groundwater migration was believed to be minimal based on soil type, flat hydraulic gradient, and minimal surface water infiltration.

In a letter to Wells Fargo Bank dated October 17, 1996, ACHCSA approved biannual groundwater monitoring, the installation of one additional monitoring well, and evaluation of options to artificially introduce dissolved oxygen (DO) into shallow groundwater to assist natural degradation processes. In July 1999, one additional groundwater monitoring well was installed downgradient of the former USTs and ORC® was introduced through a series of soil borings. Biannual groundwater monitoring and sampling has been conducted at the site since December 1996.

3.0 GROUNDWATER MONITORING AND SAMPLING

ACC monitored and sampled wells MW-1 through MW-4 on July 5, 2000. This sampling event was performed to further characterize groundwater conditions at the site. Work at the site included measuring depth to water, subjectively evaluating groundwater in the wells, measuring groundwater parameters such as pH, temperature, conductivity, and DO, and purging and sampling the wells for laboratory analysis.

3.1 Groundwater Monitoring

Before groundwater sampling, the depth to the surface of the water table was measured from the top of the well casing using a Solinst water level meter. The water level measurements were recorded to the nearest 0.01 foot with respect to MSL. Groundwater monitoring data obtained at the site is included as Appendix 1. Information regarding well elevations and groundwater levels is summarized in Table 1.

TABLE 1 - GROUNDWATER DEPTH INFORMATION

Well No.	Well Elevation* (above MSL)	Date Measured	Depth to Groundwater	Groundwater Elevation
MW-1	91.02'	04/14/94	11.19	79.83
		05/23/94	10.75	80.27
		06/16/94	11.72	79.30
		04/12/95	9.72	81.31
		05/10/95	10.11	80.91
		06/28/95	10.91	80.11
		12/05/95	12.21	78.81
		05/30/96	10.23	80.79
		09/03/96	12.10	78.92
		12/06/96	9.32	81.70
		06/12/97	11.85	79.17
		12/16/97	8.87	82.15
		06/19/98	10.77	80.25
		12/17/98	10.04	80.98
		06/22/99	11.60	79.42
		12/20/99	11.26	79.76
		03/29/00	10.12	80.90
		07/05/00	11.90	79.12
MW-2	90.55'	04/14/94	10.95	79.60
		05/23/94	10.52	80.03
		06/16/94	11.49	79.06
		04/12/95	9.59	80.96
		05/10/95	10.00	80.55
		06/28/95	10.95	79.60
		12/05/95	12.34	78.21
		05/30/96	10.01	80.54
		09/03/96	11.87	78.68
		12/06/96	9.42	81.13
		06/12/97	11.65	78.90
		12/16/97	8.74	81.81
		06/19/98	10.49	80.06
		12/17/98	9.99	80.56
		06/22/99	11.74	78.81
		12/20/99	11.46	79.09
		03/29/00	10.40	80.15
		07/05/00	12.16	78.39

Notes: *All measurements in feet*

**Well elevation measured to top of casing*

TABLE 1 - CONTINUED

Well No.	Well Elevation* (above MSL)	Date Measured	Depth to Groundwater	Groundwater Elevation
MW-3	90.90'	04/14/94	11.23	79.67
		05/23/94	10.74	80.16
		06/16/94	11.81	79.09
		04/12/95	9.72	81.18
		05/10/95	10.16	80.74
		06/28/95	10.99	79.91
		12/05/95	12.39	78.51
		05/30/96	9.97	80.93
		09/03/96	12.40	78.50
		12/06/96	9.12	81.78
		06/12/97	11.86	79.04
		12/16/97	8.54	82.36
		06/19/98	10.66	80.24
		12/17/98	9.98	80.92
		06/22/99	11.76	79.14
		12/20/99	11.50	79.40
		03/29/00	10.10	80.80
		07/05/00	12.10	78.80
MW-4	90.16'	12/20/99	12.28	77.80
		03/29/00	11.14	79.02
		07/05/00	13.00	77.16

Notes: All measurements in feet

**Well elevation measured to top of casing*

3.2 Groundwater Gradient

The groundwater flow direction as determined from monitoring well data collected on July 5, 2000, is illustrated on Figure 3. Based on groundwater elevation calculations, groundwater flow is toward the south-southwest at an average gradient of 0.036 foot/foot. The groundwater gradient between wells MW-1, MW-2, and MW-3 was 0.031 indicating that gradient is fairly consistent across the entire site extending to well MW-4.

Historical groundwater gradients and flow directions are summarized in Table 2.

TABLE 2 - GROUNDWATER GRADIENT AND FLOW DIRECTION

Date Monitored	Average Gradient (foot/foot)	Direction
04/14/94	0.007	South
05/23/94	0.008	South
06/16/94	0.007	South
04/12/95	0.010	South-southwest
05/10/95	0.011	South-southwest
06/28/95	0.010	South-southwest
12/05/95	0.020	South-southwest
05/30/96	0.014	Southwest
09/03/96	0.012	Southeast
12/06/96	0.036	Southwest
06/12/97	0.012	South-southwest
12/16/97	0.026	Southwest
06/19/98	0.010	Southwest
12/17/98	0.016	Southwest
06/22/99	0.026	Southwest
12/20/99	0.035*	South-southwest*
03/29/00	0.036	Southwest
07/05/00	0.036	South-southwest

*Notes: *Gradient and flow direction calculated using data from wells MW-1, MW-2, and MW-3 only*

3.3 Groundwater Sampling

Prior to groundwater sampling, each well was purged using a disposable polyethylene bailer. ACC measured pH, DO, conductivity, temperature, salinity, and turbidity during well purging. When these parameters stabilized and four well casing volumes of water had been removed from each well, groundwater samples were collected. Following purging, each well was allowed to recharge before sampling.

Each well was sampled using a new, disposable polyethylene bailer attached to new rope. From each monitoring well, laboratory supplied sample vials and bottles were filled to overflowing and sealed so that no air was trapped in the vial or bottle. Once filled, vials were inverted and tapped to test for air bubbles. Sample containers were labeled with self-adhesive, pre-printed tags. All

samples were stored in pre-chilled, insulated containers pending delivery to Chromalab Inc. (Chromalab), a state-certified laboratory, for analysis.

Water purged during the sampling of the monitoring wells is temporarily stored on site in Department of Transportation approved 55-gallon drums pending receipt of laboratory analytical results and proper disposal.

4.0 RESULTS OF GROUNDWATER SAMPLING

Groundwater samples collected from monitoring wells MW-1 through MW-4 were submitted to Chromalab following chain of custody protocol. The samples were analyzed for TPHg, BTEX, and methyl tertiary butyl ether (MTBE) using EPA Methods 8020 and 8015M, and total extractable petroleum hydrocarbons as mineral spirits (TEPH as mineral spirits) using EPA Method 8015M. Copies of the chain of custody record and laboratory analytical reports are included as Appendix 2. Groundwater sample analytical results are summarized in Table 3.

TABLE 3 - GROUNDWATER SAMPLE ANALYTICAL RESULTS

Well / Date	Mineral Spirits (µg/L)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)
MW-1							
04/29/93	600	290	31	1.9	2.7	5.4	--
12/13/93	820	1,700	170	22	19	48	--
03/15/94	1,200	2,100	250	12	27	38	--
06/16/94	430	700	35	6.8	8.7	10	--
09/13/94	73	170	6.6	1.6	2.4	3.3	--
12/08/94	170	420	16	3.0	2.9	2.7	--
03/14/95	65	630	39	ND	7.0	8.6	--
06/28/95	130	720	100	7.8	23	32	--
10/13/95	900	290	8.6	0.55	2.8	1.4	--
12/05/95	70	94	5.6	ND	0.67	0.53	--
05/30/96	<50	1,700[1]	62	<0.5	16	18	<5
09/03/96	<50	570	1.8	0.61	8.5	7.3	<5
12/06/96	<51	2,600	84	2.8	30	23	--
06/12/97	<51	580	9.4	1.3	5.0	4.0	8.1
12/16/97	490[4]	840	12	2.5	8.0	4.4	17
06/19/98	480	130	0.80	<0.50	1.8	0.52	<5.0
12/17/98	300[4]	89	1.9	<0.50	<0.50	0.69	<5.0
06/22/99	<50	220	6.7	<0.50	4.5	<0.50	<5.0
12/20/99	<50	130	1.5	<0.50	0.71	<0.50	<5.0
03/29/00	<50	360	7.0	2.0	4.7	3.5	<5.0
07/05/00	<50	<50	<0.50	<0.50	<0.50	<0.50	<5.0
MW-2							
04/29/93	4,100	11,000	2,400	51	76	160	--
12/13/93	2,600	11,000	1,400	66	150	94	--
06/16/94	11,000	18,000	2,100	ND	200	70	--
09/13/94	5,400	12,000	1,400	50	200	89	--
12/08/94	3,200	11,000	1,700	34	200	86	--
03/14/95	670	14,000	1,500	41	160	66	--
06/28/95	8,700	11,000	1,700	ND	230	78	--
10/13/95	1,500	9,400	1,200	41	200	61	--
12/05/95	24,000	150,000	890	200	720	500	--
05/30/96	<50	10,000[1]	61	5.1	28	11	<5[2]
09/03/96	<50	7,400	960	19	130	37	<100[2]
09/03/96[3]	2,800	7,800	1,400	<0.5	210	91	300
12/06/96	<54	12,000	850	8	140	36	--
06/12/97	<50	5,100	810	25	68	13	<5
12/16/97	3,600[4]	3,000	400	9.2	26	10	44
06/19/98	7,200	5,900	760	15	100	33	<25
12/17/98	3,400[4]	7,300	850	33	200	22	<25
06/22/99	1,200	7,800	660	<10	140	<10	<100
12/20/99	4,600[4]	9,400	650	24	92	21	<100
03/29/00	3,600	11,000	590	130	250	440	<250
07/05/00	6,200	6,500	360	56	130	170	<250

Well / Date	Mineral Spirits (µg/L)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)
MW-3							
04/29/93	5,800	8,500	840	17	40	42	--
12/13/93	3,500	6,200	580	120	65	120	--
06/16/94	4,700	7,700	910	ND	86	50	--
09/13/94	8,700	6,800	430	14	45	37	--
12/08/94	2,100	1,500	820	ND	52	28	--
03/14/95	480	5,600	250	11	25	30	--
06/28/95	2,100	14,000	650	18	70	54	--
10/13/95	430	2,500	270	1.9	15	10	--
12/05/95	5,400	4,200	250	ND	26	ND	--
05/30/96	<50	5,300[1]	65	1.5	9.0	5.1	<5[2]
09/03/96	<50	8,900	460	17	51	77	<25[2]
09/03/96[3]	7,100	4,800	800	14	39	39	120
12/06/96	<100	7,000	740	<5	60	17	--
06/12/97	<50	2,800	460	14	59	28	<50
12/16/97	4,000[4]	4,900	1,700	17	52	20	92
06/19/98	10,000	3,800	470	19	49	21	<25
12/17/98	240[4]	5,000	450	18	100	4.8	<25
06/22/99	790	3,100	190	<1.0	52	<1.0	<10
12/20/99	6,400[4]	4,500	230	12	47	38	<100
03/29/00	2,900	7,900	330	<2.5	58	30	<25
07/05/00	2,300	3,400	190	15	29	12	<25
MW-4							
06/22/99	1,900	3,200	410	<2.5	54	12	90
12/20/99	2,000[4]	2,000	160	7.4	8.0	7.0	25
03/29/00	<50	4,200	600	15	26	24	74
07/05/00	<50	2,900	410	23	19	18	56

Notes: All water results are reported in µg/L, approximately equal to ppb
< = Not detected at laboratory reporting limit indicated
-- = Analysis not performed
[1] Value revised by Chromalab from May 1996, submission 9605835
[2] Confirmed by gas chromatography/mass spectrometry (GC/MS)
[3] Duplicate sample analysis by Sequoia Analytical
[4] Quantitation for this analyte is based on the response factor of diesel. Hydrocarbons reported do not match the pattern of the mineral spirit standard.

5.0 DISCUSSION

Groundwater gradient and flow direction were calculated to be 0.036 foot/foot to the south-southwest in July 2000. These values are consistent with the two previous sampling events. Based on the increase in groundwater gradient during the last three monitoring events, ACC evaluated the effect of including well MW-4. While the overall groundwater gradient averaged 0.036 from December 1999 to July 2000, gradient between wells MW-1, MW-2, and MW-3 averaged 0.032. This indicates that the gradient in the area is indicative of regional conditions. The cause of the increased gradient observed during the last three monitoring events is unknown.

Analytical results from the July 2000 sampling event indicate that concentrations of TPHg, BTEX and mineral spirits decreased to below detectable levels in well MW-1. Concentrations of mineral spirits increased in well MW-2 and decreased in well MW-3, and were not detected above laboratory reporting limits in well downgradient well MW-4. Concentrations of TPHg decreased in wells MW-2, MW-3 and MW-4, with an overall decrease in concentrations of BTEX constituents. The highest reported concentration of TPHg was 6,500 ppb in the sample from MW-2, and the highest concentration of benzene was 410 ppb in the sample from well MW-4. MTBE was reported in well MW-4 only at a concentration of 56 ppb.

During the July 2000 sampling event, at the recommendation of Regenesis (manufacturer of ORC®), ACC utilized a Hach® field test kit to monitor levels of DO in groundwater. Levels of DO do not appear to have increased significantly since introduction of ORC® in July 1999, possibly due to utilization by enhanced microbial populations. While the increase in groundwater gradient has increased groundwater velocity and recharge, and likely resulted in increased "flushing" in the subsurface, the reason why increased DO has not been observed the monitoring wells, especially in downgradient well MW-4, is unknown.

In summary, groundwater gradient has increased and flow direction is unchanged, dissolved concentrations of gasoline constituents have decreased in all four wells and continue to demonstrate a downward trend, and this trend can be expected to continue due to apparent natural attenuation mechanisms.

6.0 CONCLUSIONS

Based on historical data and analytical results of this sampling and monitoring event, ACC concludes the following:

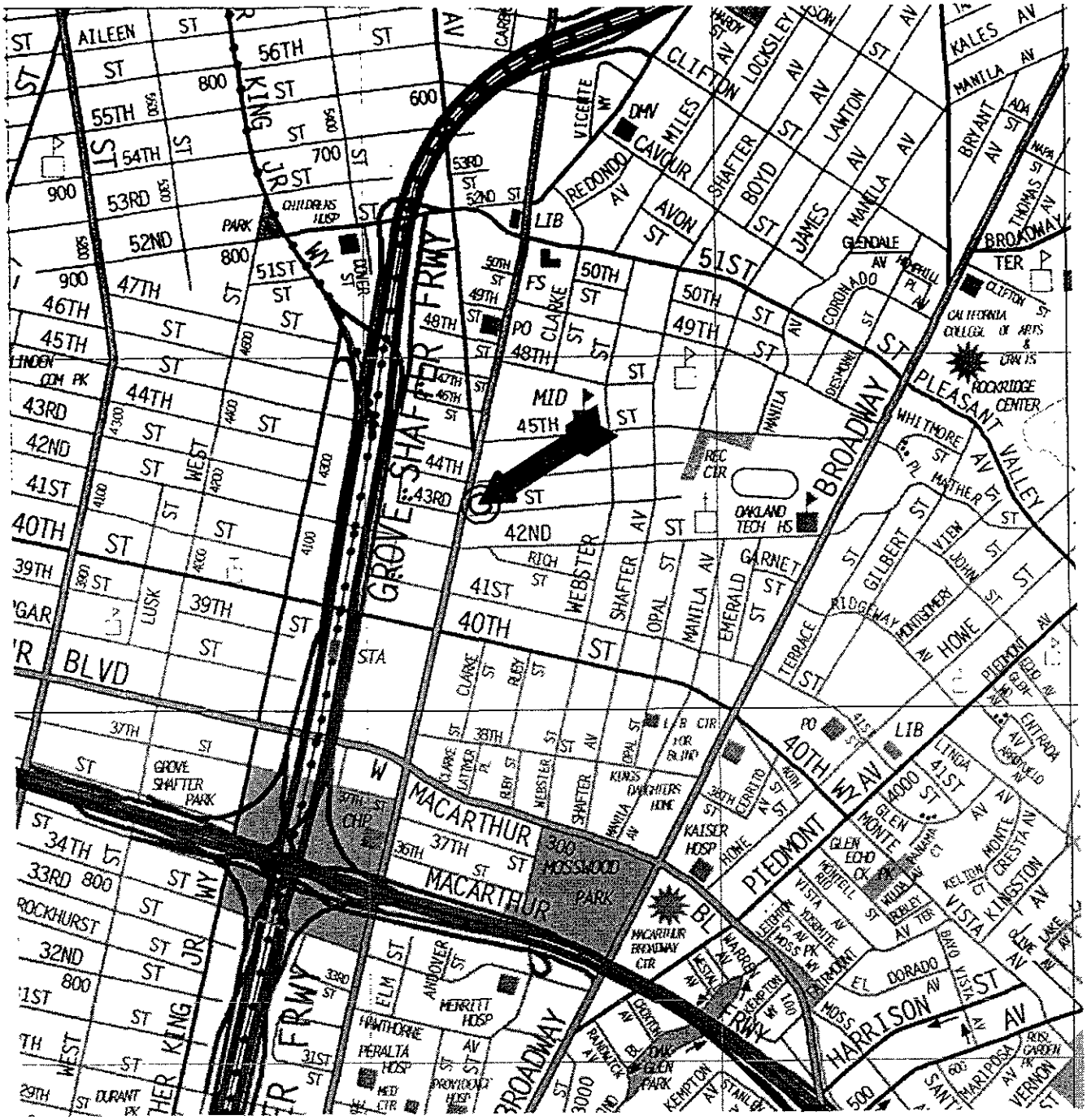
- Groundwater flow direction and gradient are consistent with two previous sampling events, however, gradient has approximately doubled from values obtained during previous monitoring;

- Dissolved TPHg, BTEX, and mineral spirits continue to be detected in groundwater in the immediate vicinity of wells MW-2 through MW-4 and concentrations continue to demonstrate a decreasing trend; and

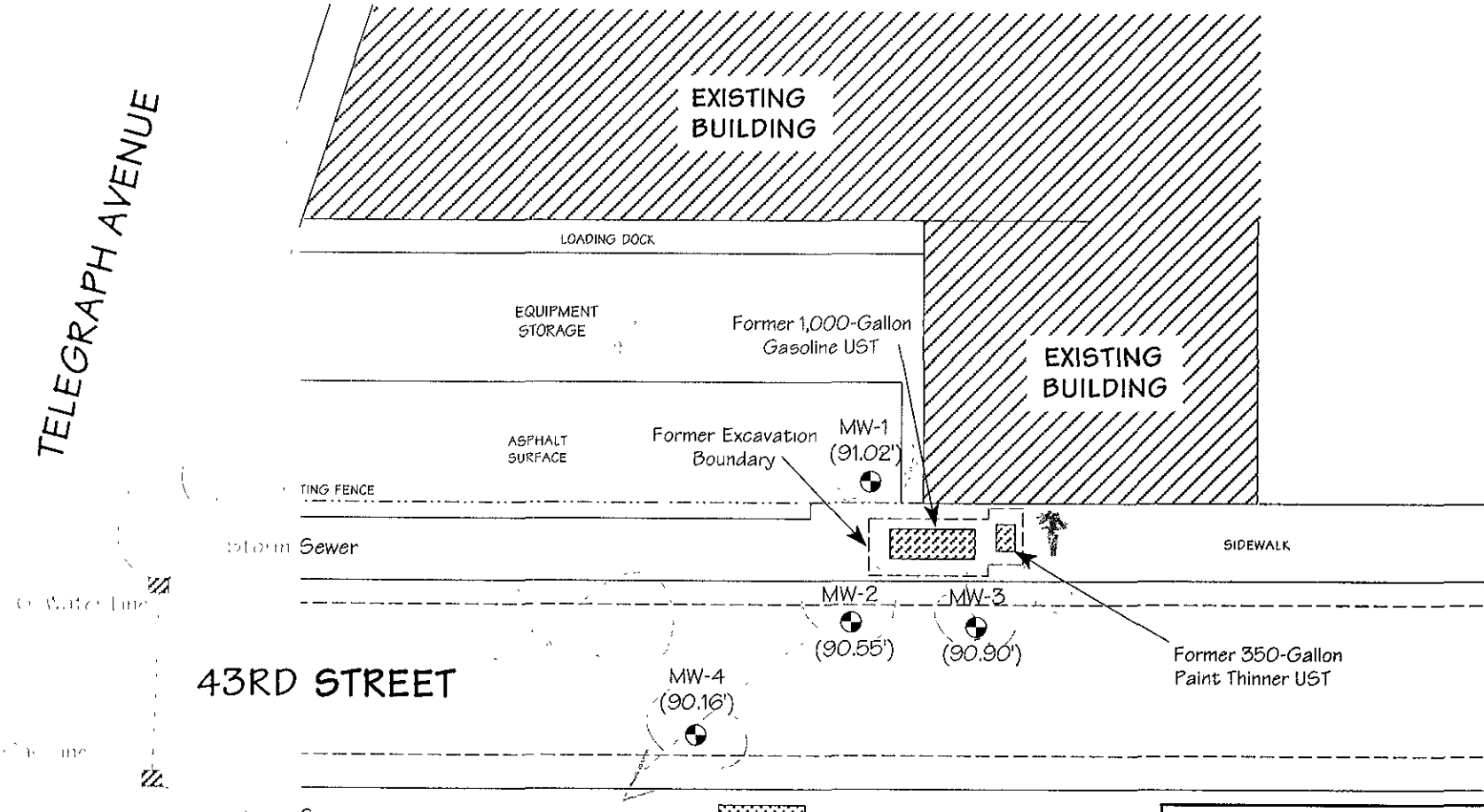
- DO concentrations are consistent with measurements obtained prior to ORC introduction and appear to be indicative of enhanced natural degradation processes.

7.0 RECOMMENDATIONS

Based on the analytical results and conclusions presented above, ACC recommends meeting with the ACHCSA to discuss these findings and determine the appropriate steps remaining to justify regulatory case closure and future groundwater monitoring requirements.



Title: **Location Map** **490 43rd Street** **Oakland, California**	
Figure Number 1	Scale 1" = 1/4 Mile
Project Number 6305-01.01	Drawn By NHD
A•C•C ENVIRONMENTAL CONSULTANTS [illegible]	Date 04/07/00 N W E S



Legend

MW Existing Groundwater Monitoring Well (Groundwater Elevation, in Feet Above MSL)

Former Underground Storage Tank

Scale In Feet

0 15 30 45

Title: **Site Plan**
490 43rd Street
Oakland, California

Figure Number: 2	Scale: 1" = 30'
Project Number: 6305-01.01	Drawn By: NHD
	Date: 04/14/00

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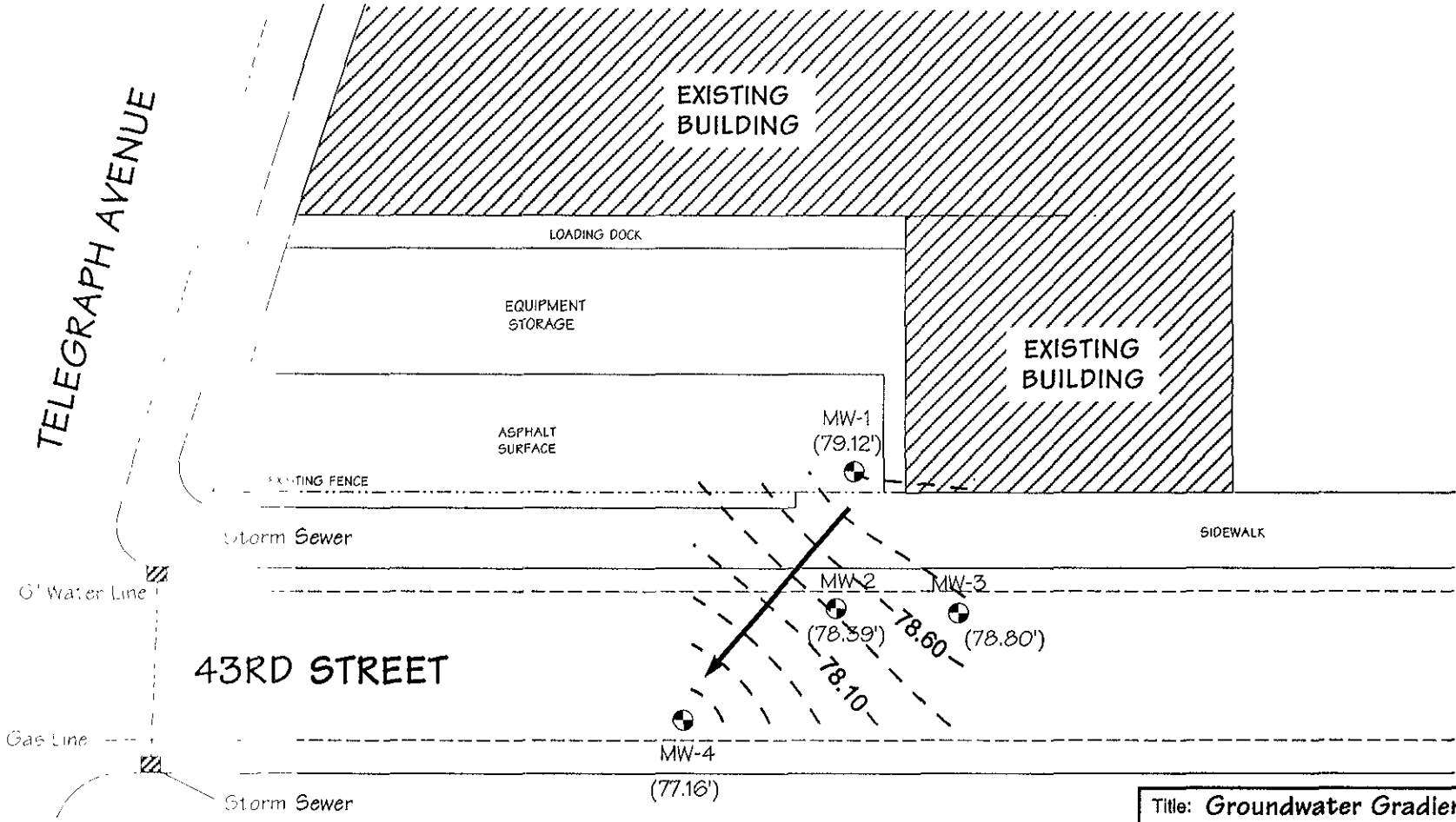
7977 Capwell Drive, Suite 100
Oakland, California 94621
(510) 638-8400 Fax: (510) 638-8404

N W E S



Legend

MW-2 ⊕ Existing Groundwater Monitoring Well (Groundwater Elevation in Feet Above Mean Sea Level On July 5, 2000)

Calculated Groundwater Flow Direction

Groundwater Elevation Contour (Contour Interval = 0.25')

Scale In Feet

0 15 30 45

Groundwater Elevation Data Collected on July 5, 2000

Title: **Groundwater Gradient Map**
490 43rd Street
Oakland, California

Figure Number: 3	Scale: 1" = 30'
Project Number: 6305-01.01	Drawn By: NHD
	Date: 7/25/00

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Oakland, California 94621
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N W E S

A·C·C ENVIRONMENTAL CONSULTANTS

ACC MONITORING WELL WORKSHEET

JOB NAME: Blumert Trust	PURGE METHOD: Manual Bailing
SITE ADDRESS: 490 43rd Street, Oakland	SAMPLED BY: Neil Doran
JOB #: 6305-001.01	LABORATORY: Chromalab
DATE: 7/5/00	ANALYSIS: 8 / Btex / mtbe, TEPH - Min. Spirits
Onsite Drum Inventory SOIL:	MONITORING ☒ DEVELOPING ☐
EMPTY: WATER: 1 - full, 1 - 30%	SAMPLING ☒

WELL: MW-1

DEPTH OF BORING: 22.40'
DEPTH TO WATER: 11.90'
WATER COLUMN: 10.50'
WELL DIAMETER: 2"
WELL VOLUME: 1.8 gal
COMMENTS:

PURGE VOL. (Gal)	pH	Temp.(C)	Cond.	Sal.	Turb.	D.O.
1.8	5.85	19.7	0.390	0.01	130	2.09
3.6	5.99	19.4	0.322	0.01	370	2.03
5.4	6.08	19.0	0.318	0.01	327	2.02
7.2	6.10	19.0	0.319	0.01	730	2.13
						5.0*

OBSERVATIONS: ☐ Froth ☐ Sheen ☐ Odor Type_____ ☐ Free Product Amount_____ Type_____ ☐ Other
*Hach method

WELL: MW-2

DEPTH OF BORING: 21.16'
DEPTH TO WATER: 12.16'
WATER COLUMN: 9.00'
WELL DIAMETER: 2"
WELL VOLUME: 1.5 gal
COMMENTS:

PURGE VOL. (Gal)	pH	Temp.(C)	Cond.	Sal.	Turb.	D.O.
1.5	6.53	19.9	0.475	0.01	101	2.70
3.0	6.57	19.7	0.488	0.02	171	1.50
4.5	6.69	19.6	0.471	0.01	520	1.05
6.0	6.71	19.4	0.470	0.01	885	0.80
						1.47*

OBSERVATIONS: ☐ Froth ☒ Sheen ☒ Odor Type gas(?) ☐ Free Product Amount_____ Type_____ ☐ Other
*Hach method

WELL: MW-3

DEPTH OF BORING: 21.56'
DEPTH TO WATER: 12.10'
WATER COLUMN: 9.46'
WELL DIAMETER: 2"
WELL VOLUME: 1.5 gal
COMMENTS

PURGE VOL. (Gal)	pH	Temp.(C)	Cond.	Sal.	Turb.	D.O.
1.5	6.63	19.9	0.594	0.02	075	1.10
3.0	6.54	19.7	0.586	0.02	175	0.83
4.5	6.61	19.6	0.568	0.02	225	1.75
6.0	6.58	19.6	0.556	0.02	450	2.45
						10*

OBSERVATIONS: ☐ Froth ☐ Sheen ☐ Odor Type_____ ☐ Free Product Amount_____ Type_____ ☐ Other
* Hach method

A·C·C ENVIRONMENTAL CONSULTANTS

ACC MONITORING WELL WORKSHEET

JOB NAME: Blumert Trust	PURGE METHOD: Manual Bailing
SITE ADDRESS: 490 43rd Street, Oakland	SAMPLED BY: Neil Doran
JOB #: 6305-001.01	LABORATORY: Chromalab
DATE: 7/5/00	ANALYSIS: g/btex/mtbe, TEPH
Onsite Drum Inventory SOIL:	MONITORING ☒ DEVELOPING ☐
EMPTY: WATER: 1-Full, 1-30%	SAMPLING ☒

WELL: MW-4

DEPTH OF BORING: 19.98'

DEPTH TO WATER: 13.00'

WATER COLUMN: 6.98'

WELL DIAMETER: 2"

WELL VOLUME: 1.1 gal

COMMENTS:

PURGE VOL (Gal)	pH	Temp.(C)	Cond.	Sal.	Turb.	D.O.
1.1						3.0*
2.2	6.97	19.7	0.624	0.02	585	1.70
3.3						1.0*
4.4	6.75	19.5	0.634	0.02	960	0.80

PURGE WATER READINGS

OBSERVATIONS: ☐ Froth ☐ Sheen ☐ Odor Type_____ ☐ Free Product Amount_____ Type_____ ☐ Other

* Hach method

WELL:

DEPTH OF BORING:

DEPTH TO WATER:

WATER COLUMN:

WELL DIAMETER:

WELL VOLUME:

COMMENTS:

(Gal)	pH	Temp.(C)	Cond.	Sal.	Turb.	D.O.

OBSERVATIONS: ☐ Froth ☐ Sheen ☐ Odor Type_____ ☐ Free Product Amount_____ Type_____ ☐ Other

WELL:

DEPTH OF BORING:

DEPTH TO WATER

WATER COLUMN

WELL DIAMETER

WELL VOLUME

COMMENTS

(Gal)	pH	Temp.(C)	Cond.	Sal.	Turb.	D.O.

OBSERVATIONS: ☐ Froth ☐ Sheen ☐ Odor Type_____ ☐ Free Product Amount_____ Type_____ ☐ Other

ACC Environmental Consultants
7977 Capwell Drive, Suite 100
Oakland, CA 94621

Attn.: Mr. Neil Doran

Project: 6305-001.01
490 43rd Street

Dear Doran,

Attached is our report for your samples received on Monday July 10, 2000
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 August 9, 2000 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: vvancil@chromalab.com

Sincerely,

Vincent Vancil

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-07-0088

Gas/BTEX and MTBE

ACC Environmental Consultants

7977 Capwell Drive, Suite 100
Oakland, CA 94621

Attn: Neil Doran

Phone: (510) 638-8400 Fax: (510) 638-8404

Project #: 6305-001.01

Project: 490 43rd Street

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-1	Water	07/05/2000 14:40	1
MW-2	Water	07/05/2000 15:20	2
MW-3	Water	07/05/2000 16:15	3
MW-4	Water	07/05/2000 17:00	4

To: **ACC Environmental Consultants**

Attn.: Neil Doran

Test Method: 8020
8015M

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID:	**MW-1**	Lab Sample ID:	**2000-07-0088-001**
Project:	6305-001.01 490 43rd Street	Received:	07/10/2000 13:40
		Extracted:	07/10/2000 23:54
Sampled:	07/05/2000 14:40	QC-Batch:	2000/07/10-01.01
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	07/10/2000 23:54	
Benzene	ND	0.50	ug/L	1.00	07/10/2000 23:54	
Toluene	ND	0.50	ug/L	1.00	07/10/2000 23:54	
Ethyl benzene	ND	0.50	ug/L	1.00	07/10/2000 23:54	
Xylene(s)	ND	0.50	ug/L	1.00	07/10/2000 23:54	
MTBE	ND	5.0	ug/L	1.00	07/10/2000 23:54	
Surrogate(s)						
Trifluorotoluene	87.4	58-124	%	1.00	07/10/2000 23:54	
4-Bromofluorobenzene-FID	80.5	50-150	%	1.00	07/10/2000 23:54	

To: **ACC Environmental Consultants**

Attn.: Neil Doran

Test Method: 8020
8015M

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID:	**MW-2**	Lab Sample ID:	**2000-07-0088-002**
Project:	6305-001.01 490 43rd Street	Received:	07/10/2000 13:40
		Extracted:	07/11/2000 00:28
Sampled:	07/05/2000 15:20	QC-Batch:	2000/07/10-01.01
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	6500	2500	ug/L	50.00	07/11/2000 00:28	
Benzene	360	25	ug/L	50.00	07/11/2000 00:28	
Toluene	56	25	ug/L	50.00	07/11/2000 00:28	
Ethyl benzene	130	25	ug/L	50.00	07/11/2000 00:28	
Xylene(s)	170	25	ug/L	50.00	07/11/2000 00:28	
MTBE	ND	250	ug/L	50.00	07/11/2000 00:28	
Surrogate(s)						
Trifluorotoluene	90.6	58-124	%	1.00	07/11/2000 00:28	
4-Bromofluorobenzene-FID	80.9	50-150	%	1.00	07/11/2000 00:28	

To: **ACC Environmental Consultants**

Attn.: Neil Doran

Test Method: 8020
8015M

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID:	**MW-3**	Lab Sample ID:	**2000-07-0088-003**
Project:	6305-001.01 490 43rd Street	Received:	07/10/2000 13:40
		Extracted:	07/11/2000 01:03
Sampled:	07/05/2000 16:15	QC-Batch:	2000/07/10-01.01
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	3400	250	ug/L	5.00	07/11/2000 01:03	
Benzene	190	2.5	ug/L	5.00	07/11/2000 01:03	
Toluene	15	2.5	ug/L	5.00	07/11/2000 01:03	
Ethyl benzene	29	2.5	ug/L	5.00	07/11/2000 01:03	
Xylene(s)	12	2.5	ug/L	5.00	07/11/2000 01:03	
MTBE	ND	25	ug/L	5.00	07/11/2000 01:03	
Surrogate(s)						
Trifluorotoluene	116.8	58-124	%	1.00	07/11/2000 01:03	
4-Bromofluorobenzene-FID	92.9	50-150	%	1.00	07/11/2000 01:03	

To: **ACC Environmental Consultants**

Attn.: Neil Doran

Test Method: 8020
8015M

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID:	**MW-4**	Lab Sample ID:	**2000-07-0088-004**
Project:	6305-001.01 490 43rd Street	Received:	07/10/2000 13:40
		Extracted:	07/11/2000 01:38
Sampled:	07/05/2000 17:00	QC-Batch:	2000/07/10-01.01
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	2900	250	ug/L	5.00	07/11/2000 01:38	
Benzene	410	2.5	ug/L	5.00	07/11/2000 01:38	
Toluene	23	2.5	ug/L	5.00	07/11/2000 01:38	
Ethyl benzene	19	2.5	ug/L	5.00	07/11/2000 01:38	
Xylene(s)	18	2.5	ug/L	5.00	07/11/2000 01:38	
MTBE	56	25	ug/L	5.00	07/11/2000 01:38	
Surrogate(s)						
Trifluorotoluene	108.0	58-124	%	1.00	07/11/2000 01:38	
4-Bromofluorobenzene-FID	85.2	50-150	%	1.00	07/11/2000 01:38	

To: **ACC Environmental Consultants**

Attn.: Neil Doran

Test Method: 8020
8015M

Prep Method: 5030

Batch QC Report
Gas/BTEX and MTBE

Method Blank | **Water** | **QC Batch # 2000/07/10-01.01**

MB: 2000/07/10-01.01-001

Date Extracted: 07/10/2000 08:59

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Gasoline	ND	50	ug/L	07/10/2000 08:59	
Benzene	ND	0.5	ug/L	07/10/2000 08:59	
Toluene	ND	0.5	ug/L	07/10/2000 08:59	
Ethyl benzene	ND	0.5	ug/L	07/10/2000 08:59	
Xylene(s)	ND	0.5	ug/L	07/10/2000 08:59	
MTBE	ND	5.0	ug/L	07/10/2000 08:59	
Surrogate(s)					
Trifluorotoluene	91.4	58-124	%	07/10/2000 08:59	
4-Bromofluorobenzene-FID	83.8	50-150	%	07/10/2000 08:59	

To: **ACC Environmental Consultants**

Attn: Neil Doran

Test Method: 8020
8015M

Prep Method: 5030

Batch QC Report

Gas/BTEX and MTBE

Laboratory Control Spike (LCS/LCSD) **Water** **QC Batch # 2000/07/10-01.01**

LCS: 2000/07/10-01.01-002 Extracted: 07/10/2000 06:14 Analyzed 07/10/2000 06:14

LCSD: 2000/07/10-01.01-003 Extracted: 07/10/2000 06:49 Analyzed 07/10/2000 06:49

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Gasoline	482	450	500	500	96.4	90.0	6.9	75-125	20		
Benzene	92.6	90.5	100.0	100.0	92.6	90.5	2.3	77-123	20		
Toluene	87.3	85.3	100.0	100.0	87.3	85.3	2.3	78-122	20		
Ethyl benzene	89.3	87.6	100.0	100.0	89.3	87.6	1.9	70-130	20		
Xylene(s)	267	261	300	300	89.0	87.0	2.3	75-125	20		
Surrogate(s)											
Trifluorotoluene	407	400	500	500	81.4	80.0		58-124			
4-Bromofluorobenzene-FI	405	390	500	500	81.0	78.0		50-150			

Total Extractable Petroleum Hydrocarbons (TEPH)

ACC Environmental Consultants
7977 Capwell Drive, Suite 100
Oakland, CA 94621
Attn: Neil Doran
Phone: (510) 638-8400 Fax: (510) 638-8404

Project #: 6305-001.01 Project: 490 43rd Street

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-1	Water	07/05/2000 14:40	1
MW-2	Water	07/05/2000 15:20	2
MW-3	Water	07/05/2000 16:15	3
MW-4	Water	07/05/2000 17:00	4

To: **ACC Environmental Consultants**
Attn.: Neil Doran

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

Total Extractable Petroleum Hydrocarbons (TEPH)

Sample ID:	**MW-1**	Lab Sample ID:	**2000-07-0088-001**
Project:	6305-001.01 490 43rd Street	Received:	07/10/2000 13:40
		Extracted:	07/10/2000 12:58
Sampled:	07/05/2000 14:40	QC-Batch:	2000/07/10-04.10
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	ND	50	ug/L	1.00	07/11/2000 21:38	
Mineral spirits	ND	50	ug/L	1.00	07/11/2000 21:38	
Surrogate(s)						
o-Terphenyl	90.6	60-130	%	1.00	07/11/2000 21:38	

To: **ACC Environmental Consultants**
Attn.: Neil Doran

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

Total Extractable Petroleum Hydrocarbons (TEPH)

Sample ID:	**MW-2**	Lab Sample ID:	**2000-07-0088-002**
Project:	6305-001.01 490 43rd Street	Received:	07/10/2000 13:40
		Extracted:	07/10/2000 12:58
Sampled:	07/05/2000 15:20	QC-Batch:	2000/07/10-04.10
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	ND	500	ug/L	10.00	07/12/2000 18:16	
Mineral spirits	6200	500	ug/L	10.00	07/12/2000 18:16	
Surrogate(s)						
o-Terphenyl	91.8	60-130	%	10.00	07/12/2000 18:16	

To: **ACC Environmental Consultants**
Attn.: Neil Doran

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

Total Extractable Petroleum Hydrocarbons (TEPH)

Sample ID:	**MW-3**	Lab Sample ID:	**2000-07-0088-003**
Project:	6305-001.01 490 43rd Street	Received:	07/10/2000 13:40
		Extracted:	07/10/2000 12:58
Sampled:	07/05/2000 16:15	QC-Batch:	2000/07/10-04.10
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	ND	250	ug/L	5.00	07/12/2000 16:56	
Mineral spirits	2300	250	ug/L	5.00	07/12/2000 16:56	
Surrogate(s)						
o-Terphenyl	87.2	60-130	%	5.00	07/12/2000 16:56	

To: **ACC Environmental Consultants**
Attn.: Neil Doran

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

Total Extractable Petroleum Hydrocarbons (TEPH)

Sample ID:	**MW-4**	Lab Sample ID:	**2000-07-0088-004**
Project:	6305-001.01 490 43rd Street	Received:	07/10/2000 13:40
		Extracted:	07/10/2000 12:58
Sampled:	07/05/2000 17:00	QC-Batch:	2000/07/10-04.10
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	650	50	ug/L	1.00	07/11/2000 23:35	edr
Mineral spirits	ND	50	ug/L	1.00	07/11/2000 23:35	
Surrogate(s)						
o-Terphenyl	89.2	60-130	%	1.00	07/11/2000 23:35	

To: **ACC Environmental Consultants**
Attn.: Neil Doran

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

Batch QC Report
Total Extractable Petroleum Hydrocarbons (TEPH)

Method Blank | **Water** | **QC Batch # 2000/07/10-04.10**

MB: 2000/07/10-04.10-001 | Date Extracted: 07/10/2000 12:58

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Diesel	ND	50	ug/L	07/11/2000 14:45	
Mineral spirits	ND	50	ug/L	07/11/2000 14:45	
Surrogate(s)					
o-Terphenyl	91.5	60-130	%	07/11/2000 14:45	

To: **ACC Environmental Consultants**
Attn: Neil Doran

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

Batch QC Report

Total Extractable Petroleum Hydrocarbons (TEPH)

Laboratory Control Spike (LCS/LCSD) **Water** **QC Batch # 2000/07/10-04.10**

LCS: 2000/07/10-04.10-002 Extracted: 07/10/2000 12:58 Analyzed 07/11/2000 14:45
LCSD: 2000/07/10-04.10-003 Extracted: 07/10/2000 12:58 Analyzed 07/11/2000 15:20

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Diesel	1080	1080	1250	1250	86.4	86.4	0.0	60-130	25		
Surrogate(s)											
o-Terphenyl	20.8	21.3	20.0	20.0	104.0	106.5		60-130			

To: **ACC Environmental Consultants**
Attn:Neil Doran

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

Legend & Notes

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte Flags

edr

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

CHROMALAB, INC.

Environmental Services (SDB) (DOHS 1094)

1220 Quarry Lane • Pleasanton, California 94566-4756
(925) 484-1919 • Fax (925) 484-1096

2000-07-0088

Reference #: 5320 3

Chain of Custody

DATE 7/10/00 PAGE 1 OF 1

PROJ MGR Neil Doran
COMPANY ACC Environmental
ADDRESS 7977 Capwell Drive
Oakland CA 94621

SAMPLERS (SIGNATURE) Neil H Doran
(PHONE NO.) 510-638-8400
(FAX NO.) -8404

SAMPLE ID.	DATE	TIME	MATRIX	PRESERV.	TPH-(EPA 8015,8020) & Gas w/ BTEX & MTBE	PURGEABLE AROMATICS BTEX (EPA 8020)	TPH-Diesel (EPA 8015M)	TEPH (EPA 8015M) ☐ Diesel ☐ M.O. ☐ Other	PURGEABLE HALOCARBONS (HVOCs) (EPA 8010)	VOLATILE ORGANICS (VOCs) (EPA 8260)	SEMIVOLATILES (EPA 8270)	TOTAL OIL AND GREASE (SM 5520 B+F, E+F)	TEPH-Mineral Spirits	☐ PESTICIDES (EPA 8080) ☐ PCB'S (EPA 8080)	PNA's by ☐ 8270 ☐ 8310	☐ Spec. Cond. ☐ TSS ☐ TDS	LUFT METALS: Cd, Cr, Pb, Ni, Zn	CAM 17 METALS (EPA 6010/7470/7471)	TOTAL LEAD	☐ W.E.T. (STLC) ☐ TCLP	☐ Hexavalent Chromium ☐ pH (24 hr hold time for H20)				NUMBER OF CONTAINERS
MW-1	7/5/00	1440	H2O	HCl	X								X												4
MW-2	7/5/00	1520	H2O	HCl	X								X												4
MW-3	7/5/00	1615	H2O	HCl	X								X												4
MW-4	7/5/00	1700	H2O	HCl	X								X												4

PROJECT INFORMATION

PROJECT NAME 490 43rd Street
PROJECT NUMBER 6305-000.01
P O #

SAMPLE RECEIPT

TOTAL NO. OF CONTAINERS	
HEAD SPACE	
TEMPERATURE	
CONFORMS TO RECORD	

TAT	STANDARD 5 DAY			24	48	72	OTHER

SPECIAL INSTRUCTIONS/COMMENTS

Report: ☐ Routine ☐ Level 2 ☐ Level 3 ☐ Level 4 ☐ Electronic Report

Note: TPHg & mineral spirits present; please take appropriate measures

RELINQUISHED BY 1
Neil H Doran (SIGNATURE) (TIME)
Neil H Doran 7/10/00 (PRINTED NAME) (DATE)
ACC (COMPANY)

RECEIVED BY
(SIGNATURE) (TIME)
B Morrow 7/10/00 (PRINTED NAME) (DATE)
(COMPANY)

RELINQUISHED BY 2.
(SIGNATURE) (TIME)
(PRINTED NAME) (DATE)
(COMPANY)

RECEIVED BY 2
(SIGNATURE) (TIME)
(PRINTED NAME) (DATE)
(COMPANY)

RELINQUISHED BY 3
(SIGNATURE) 1330 (TIME)
B Morrow 7/10/00 (PRINTED NAME) (DATE)
(COMPANY)

RECEIVED BY (LABORATORY) 3
(SIGNATURE) 1340 (TIME)
Chris Rowley 07/10/00 (PRINTED NAME) (DATE)
Chromalab (LAB)