



Heilshorn Environmental Engineering

ENVIRONMENTAL
PROTECTION

99 AUG 24 PM 1:44

August 23, 1999

Mr. Amir K. Gholami
Hazardous Materials Specialist
Alameda County
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

SUBJECT: Response to EHS July 27, 1999 Letter
REGARDING: Beck Roofing, 21123 Meekland Avenue, Hayward, Stid 3030

Dear Mr. Gholami:

This letter and the enclosures respond to your letter to Beck Roofing dated July 27, 1999. The five items in your letter are listed below with a response and reference to an enclosure as appropriate.

1. Delineate Plume To Evaluate the Present Status of Soil and Groundwater Conditions.

Beck Roofing will perform a subsurface investigation to evaluate the current status of soil and groundwater conditions. A work plan is enclosed with this letter. Please review the work plan. Beck Roofing will perform the investigation after receipt of your written approval of the work plan. Briefly, Beck Roofing proposes to install four geoprobe boreholes near and around the former tank location. Samples for TPHg, BTEX and MTBE will be collected from soil and groundwater. Soil samples will be collected at 25, 30 and 35 feet below ground surface. Boreholes will be backfilled with neat cement by the end of the day.

2. You May Destroy Monitoring Wells MW-1, MW-2 and MW-4.

Beck Roofing will destroy the wells at the same time as the subsurface investigation. This approach should limit field time to one day.

3. Continue Monitoring MW-3 Until Further Notice.

Beck Roofing monitored well MW-3 in July 1999. The monitoring report is enclosed with this letter. Beck Roofing agrees to continue monitoring the well. However, they request a reduced frequency of monitoring because of the limit to one well, the low level of residual concentration, and the availability of historical data for this well. An annual of semiannual monitoring frequency is requested.

4. Prepare An Additional Table For The RBCA Analysis Including The Lusch Geosciences 1994 Data And All Previous Soil And Groundwater Data.

Attachment 1 includes revised soil data tables, including the Lusch Geosciences 1994 data. These tables compare the data to Tier 1 Risk Based Screening Levels (RBSL). Attachment 2 includes copies of the soil and groundwater data tables from previous submittals (Tables 1-1 through Table 4).

5. Per Cal EPA And RWQCB You Need To Test For Oxygenated Contaminants At Least Once.

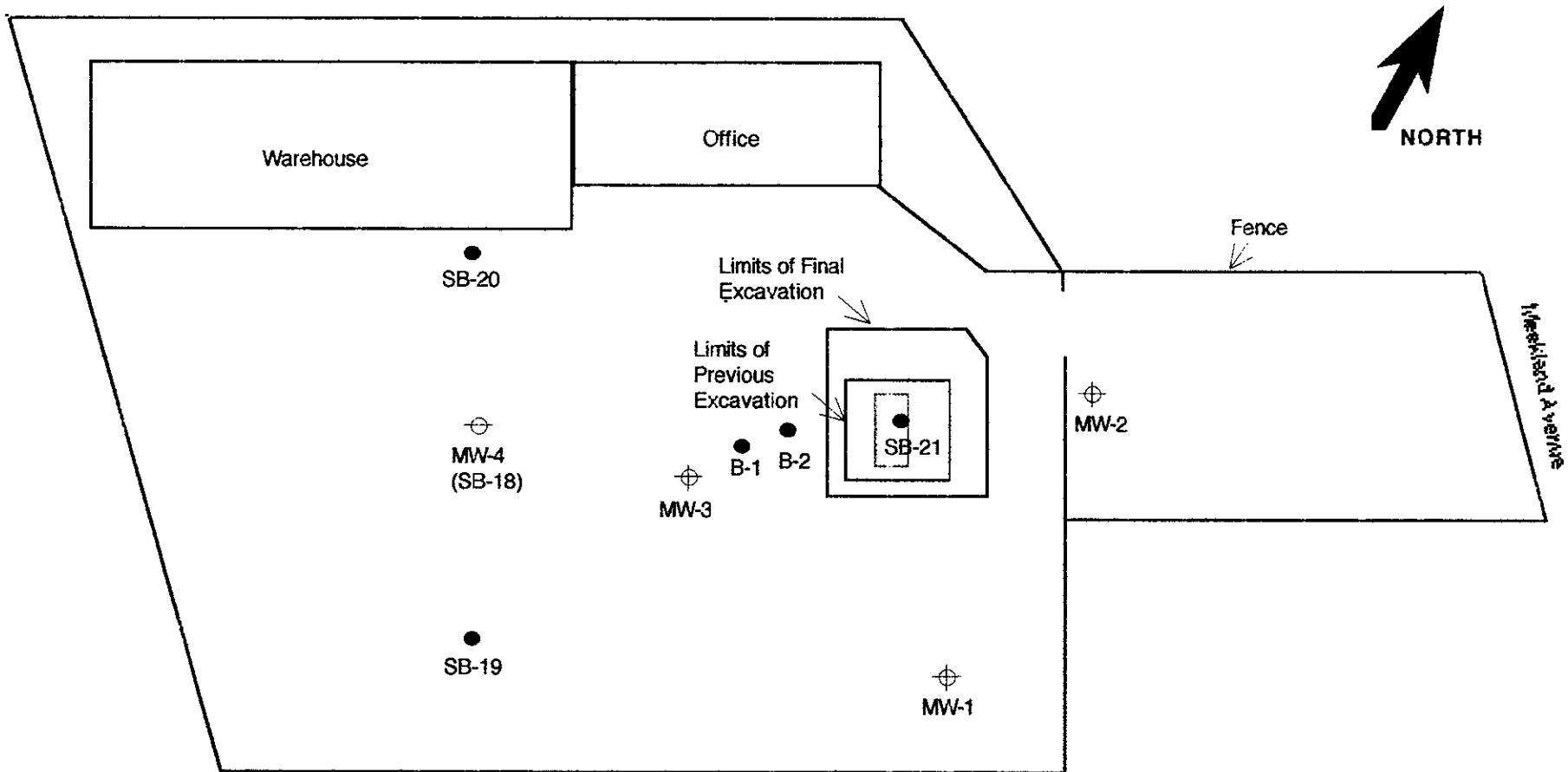
Beck Roofing tested for these contaminants as part of the January 1999 monitoring of the four existing wells. Attachment 3 is a copy of the analytical results from that monitoring event titled Table 5.

Sincerely,



Elyse D. Heilshorn, P.E.
Consulting Engineer


cc: Beck Roofing
with attachments, Work Plan
without monitoring report (previously sent)



LEGEND

- Former Underground Tank Location
- Monitoring Well
- Soil Borings

Beck Roofing, Hayward, CA
FIGURE 2 Site Plan

	<p>HEILSHORN ENVIRONMENTAL ENGINEERING P.O. Box 20546, El Sobrante, CA (510) 222-7968 Fax (510) 222-8573</p>	<p>Rev. 2 Date: 3/16/99</p>
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Source: Adapted from Lush Geosciences, Inc.,
 Quarterly Monitoring Report, Figure 2, March 8, 1997

ATTACHMENT 1
REVISED SOIL DATA TABLES FOR RBCA ANALYSIS

ADDENDUM TABLES COMPARISON OF AVERAGED DATA VALUES TO RBSL

Table 1 GROUNDWATER DATA 11/96-1/99

Well	Avg MTBE µg/L	Avg MTBE Conc. meets Tier 1 RBSL?	Average Benzene, µg/L	Avg Benzene Conc. meets Tier 1 RBSL?
Tier 1 MTBE RBSL 10.5 µg/L				
Tier 1 Benzene RBSL 10.5 µg/L				739
MW-1	ND	Yes	1.05	Yes
MW-2	ND	Yes	3.025	Yes
MW-3	ND	Yes	111.125	Yes
MW-4	ND	Yes	0.65	Yes

Notes:

MTBE RBSL provided by Medula Logan. Value calculated for another Alameda County site.
Benzene RBSL value for commercial setting, groundwater to indoor air pathway.

Table 2 SOIL DATA INCLUDING SB-21 (TANK PIT) DATA

Sample Depth Ft,bgs	Average Benzene Conc. mg/kg	Soil to Outdoor Air Pathway	Avg Conc. meets Outdoor Air RBSL?	Soil to Indoor Air Pathway	Avg Conc. meets Indoor Air RBSL?
Commercial Benzene, mg/kg		4.57		0.169	
20	0.043		Yes		Yes
25	0.66		Yes		No
30	1.94		Yes		No

Table 3 SOIL DATA EXCLUDING SB-21 (TANK PIT) DATA

Sample Depth Ft,bgs	Average Benzene Conc. mg/kg	Soil to Outdoor Air Pathway	Avg Conc. meets Outdoor Air RBSL?	Soil to Indoor Air Pathway	Avg Conc. meets Indoor Air RBSL?
Commercial Benzene, mg/kg		4.57		0.169	
20	0.043		Yes		Yes
25	0.66		Yes		No
30	0.245		Yes		No

TABLE 6 Revised
TIER 1 SUMMARY-ASTM RBSL TO BECK SOIL DATA COMPARISON

*FALSE IS GOOD
PASSING RBSL WITHIN ACCEPTABLE RISK*

Date	Location	Depth Ft,bgs	Benzene mg/kg	Data exceeds outdoor 1E-05 RBSL of 4.57 mg/kg?	Data exceeds indoor 1E-05 RBSL of 0.169 mg/kg?
Tank Removal Pit Sidewall Samples					
May-91	Tank pit fill end	8	6.4	TRUE	TRUE
	Tank pit opposite fill end	7.5	5.8	TRUE	TRUE
Tank Pit Over Excavation Sidewall Samples					
Nov-91	North wall	15	0.008	FALSE	FALSE
	North wall	16	6.3	TRUE	TRUE
	North wall	17	16	TRUE	TRUE
	Floor, center	16	0.83	FALSE	TRUE
	Center Floor	17	30	TRUE	TRUE
	Center floor	18	4	FALSE	TRUE
	South wall	15	0.011	FALSE	FALSE
	South wall	16	1.8	FALSE	TRUE
	South wall	17	0.4	FALSE	TRUE
Soil Boring Samples (L&W, 92)					
Oct-91	MW-2	25	0.1	FALSE	FALSE
		30	0.044	FALSE	FALSE
		35	0.006	FALSE	FALSE
Oct-91	B-1	20	0.25	FALSE	TRUE
		25	0.14	FALSE	FALSE
	B-2	20	0.046	FALSE	FALSE
		25	0.44	FALSE	TRUE
		30	0.27	FALSE	TRUE
	MW-3	20	0.021	FALSE	FALSE
		25	0.048	FALSE	FALSE
		30	0.25	FALSE	TRUE
Soil Boring Samples (Anderson, 94)					
Jul-94	SB21 (within the excavation area)	28.5	2.2	FALSE	TRUE
	SB21 (within the excavation area)	29	11	TRUE	TRUE
	SB21 (within the excavation area)	29.5	13	TRUE	TRUE
Soil Boring Samples (Lusch, 94) (all SW samples at edges of expanded excavation area)					
Nov-94	SW-1	30	0.52	FALSE	TRUE
	SW-2	25	0.43	FALSE	TRUE
	SW-3	25	1.5	FALSE	TRUE
	SW-4	30	0.17	FALSE	TRUE
	SW-5	25	0.14	FALSE	FALSE
	SW-6	31	1.4	FALSE	TRUE
	SW-7	25	5.7	TRUE	TRUE
	SW-8	31	0.26	FALSE	TRUE

NOTE: Samples with benzene concentrations of ND (at or below reporting limit) are not included in this table.

TIER 1 RSBL TO BECK DATA COMPARISON

Date	Location	Depth Ft,bgs	Benzene mg/kg	Data exceeds outdoor 1E-05 RBSL of 4.57 mg/kg?	Data exceeds indoor 1E-05 RBSL of 0.169 mg/kg?
Tank	Removal Pit	Sidewall	Samples		
5/20/91	Tank pit fill end	8	6.4	TRUE	TRUE
	Tank pit opposite fill end	7.5	5.8	TRUE	TRUE
Tank Pit	Over Excavation	Sidewall	Samples		TRUE
Nov-91	North wall	15	0.008	FALSE	FALSE
	North wall	16	6.3	TRUE	TRUE
	North wall	17	16	TRUE	TRUE
	Floor, center	16	0.83	FALSE	TRUE
	Center Floor	17	30	TRUE	TRUE
	Center floor	18	4	FALSE	TRUE
	South wall	15	0.011	FALSE	FALSE
	South wall	16	1.8	FALSE	TRUE
	South wall	17	0.4	FALSE	TRUE
	East wall	14	0.005	FALSE	FALSE
	East Wall	16	0.005	FALSE	FALSE
	West Wall	16	0.005	FALSE	FALSE
Soil	Boring Samples	(L&W, 92)			
Oct-91	MW-1	5	0.005	FALSE	FALSE
		10	0.005	FALSE	FALSE
		15	0.005	FALSE	FALSE
		20	0.005	FALSE	FALSE
		25	0.005	FALSE	FALSE
		30	0.005	FALSE	FALSE
		35	0.005	FALSE	FALSE
		40	0.005	FALSE	FALSE
		45	0.005	FALSE	FALSE
Oct-91	MW-2	5	0.005	FALSE	FALSE
		10	0.005	FALSE	FALSE
		15	0.005	FALSE	FALSE
		20	0.005	FALSE	FALSE
		25	0.1	FALSE	FALSE
		30	0.044	FALSE	FALSE
		35	0.006	FALSE	FALSE
Oct-91	B-1	5	0.005	FALSE	FALSE
		10	0.005	FALSE	FALSE
		15	0.005	FALSE	FALSE
		20	0.25	FALSE	TRUE
		25	0.14	FALSE	FALSE
	B-2	5	0.005	FALSE	FALSE
		10	0.005	FALSE	FALSE
		15	0.005	FALSE	FALSE
		20	0.046	FALSE	FALSE
		25	0.44	FALSE	TRUE
		30	0.27	FALSE	TRUE

NOTE: ND values listed as 0.005 mg/kg, the Reporting Limit.

TIER 1 RSBL TO BECK DATA COMPARISON

Date	Location	Depth Ft,bgs	Benzene mg/kg	Data exceeds outdoor 1E-05 RBSL of 4.57 mg/kg?	Data exceeds indoor 1E-05 RBSL of 0.169 mg/kg?
Soil	Boring Samples MW-3	(L&W, 92)			
		5	0.005	FALSE	FALSE
		10	0.005	FALSE	FALSE
		15	0.005	FALSE	FALSE
		20	0.021	FALSE	FALSE
		25	0.048	FALSE	FALSE
		30	0.25	FALSE	TRUE
		35	0.005	FALSE	FALSE
Soil	Boring Samples	Anderson, 94)		FALSE	FALSE
Jul-94	SB18 (MW-4)	25.5-35.5	0.005	FALSE	FALSE
	SB19 (North of MW	25.5-35.5	0.005	FALSE	FALSE
	SB20 (South of MW	25.5-35.5	0.005	FALSE	FALSE
	SB21 (within the excavation area)	28.5	2.2	FALSE	TRUE
	SB21 (within the excavation area)	29	11	TRUE	TRUE
	SB21 (within the excavation area)	29.5	13	TRUE	TRUE
Soil	Boring Samples	Busch, 11/94)			
Nov-94	(all SW samples at edges of expanded excavation area)				
	SW-1	30	0.52	FALSE	TRUE
	SW-2	25	0.43	FALSE	TRUE
	SW-3	25	1.5	FALSE	TRUE
	SW-4	30	0.17	FALSE	TRUE
	SW-5	25	0.14	FALSE	FALSE
	SW-6	31	1.4	FALSE	TRUE
	SW-7	25	5.7	TRUE	TRUE
	SW-8	31	0.26	FALSE	TRUE
	SW-9	25	0.005	FALSE	FALSE
	SW-10	31	0.005	FALSE	FALSE
	SW-11	18	0.005	FALSE	FALSE
	SW-12	18	0.005	FALSE	FALSE
	SW-13	18	0.005	FALSE	FALSE

NOTE: ND values listed as 0.005 mg/kg, the Reporting Limit.

ATTACHMENT 2
PREVIOUS SOIL AND GROUNDWATER DATA

TABLE 1-1 GROUNDWATER ANALYTICAL RESULTS for MW-1

Date	TPHg mg/L	MtBE µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L
11/4/91	ND	NA	ND	ND	ND	ND
12/23/91	ND	NA	ND	ND	ND	ND
2/24/92	0.09	NA	0.4	1	ND	ND
6/16/92	ND	NA	0.5	ND	ND	ND
9/9/92	ND	NA	ND	ND	ND	ND
7/16/93	ND	NA	ND	ND	ND	ND
8/4/94	ND	NA	ND	ND	ND	ND
10/25/94	ND	NA	ND	ND	ND	ND
1/20/95	ND	NA	ND	ND	ND	ND
4/11/95	ND	NA	ND	ND	ND	ND
7/13/95	WELL	INACCESSIBLE				
10/10/95	ND	NA	ND	ND	ND	ND
1/11/96	ND	NA	ND	ND	ND	1.2
4/23/96	0.53	NA	ND	0.64	ND	0.82
7/30/96	ND	NA	1.3	2.1	0.64	3.0
11/5/96	0.139	NA	2.2	7.3	2.2	23.1
2/7/97	0.081	NA	2.0	3.9	2.3	9.2
9/19/97	ND	ND	ND	ND	ND	ND
1/29/99	ND	ND	ND	ND	ND	ND
MCL, µg/L	None		1 (TCLP = 500)	150	700	1,750

Notes:

ND = less than laboratory minimum detection limits, 1994-2/97 limits are <0.05 mg/L - TPHg, and <0.3 µg/L - BTEX (<0.5 for xylene on 8/4/94) for tables 2-1 through 2-4.

NA = Not analyzed

mg/L = milligram of compound per liter of liquid matrix (usually water). Roughly equivalent to parts per million.

µg/L = microgram of compound per liter of liquid matrix (usually water). Roughly equivalent to parts per billion.

MCL = Maximum Contaminant Limit for public drinking water supplies, California Code of Regulations (CCR), Title 22 section 64444.

TCLP = Toxicity Characteristic Limit per CCR Title 22 Section 66261.24. TCLP values are used to determine the level of a constituent which renders a waste hazardous under federal and state laws.

TABLE 1-2 GROUNDWATER ANALYTICAL RESULTS for MW-2

Date	TPHg mg/L	MtBE µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L
11/4/91	ND	NA	ND	ND	ND	ND
12/23/91	ND	NA	ND	ND	ND	ND
2/24/92	0.33	NA	110	2	ND	0.9
6/16/92	ND	NA	7.7	ND	ND	ND
9/9/92	ND	NA	2.8	ND	ND	ND
7/16/93	ND	NA	2.0	ND	ND	ND
8/4/94	ND	NA	ND	ND	ND	ND
10/25/94	ND	NA	ND	ND	ND	ND
1/20/95	ND	NA	1.0	ND	ND	ND
4/11/95	ND	NA	1.2	ND	ND	ND
7/13/95	ND	NA	ND	ND	ND	ND
10/10/95	ND	NA	0.69	ND	ND	52
1/11/96	ND	NA	ND	ND	ND	0.67
4/23/96	0.039	NA	0.29	0.68	ND	0.66
7/30/96	ND	NA	3.4	5.6	1.7	9.3
11/5/96	0.292	NA	9.3	29.3	5.7	57
2/7/97	0.092	NA	2.8	5.0	3.7	9.4
9/19/97	ND	ND	ND	ND	ND	ND
1/29/99	ND	ND	ND	ND	ND	ND
MCL, µg/L	None		1 (TCLP = 500)	150	700	1,750

Notes:

ND = less than laboratory minimum detection limits, 1994-2/97 limits are <0.05 mg/L - TPHg, and <0.3 µg/L - BTEX (<0.5 for xylene on 8/4/94) for tables 2-1 through 2-4.

NA = Not analyzed

mg/L = milligram of compound per liter of liquid matrix (usually water). Roughly equivalent to parts per million.

µg/L = microgram of compound per liter of liquid matrix (usually water). Roughly equivalent to parts per billion.

MCL = Maximum Contaminant Limit for public drinking water supplies, California Code of Regulations (CCR), Title 22 section 64444.

TCLP = Toxicity Characteristic Limit per CCR Title 22 Section 66261.24. TCLP values are used

to determine the level of a constituent which renders a waste hazardous under federal and state laws.

TABLE 1-3 GROUNDWATER ANALYTICAL RESULTS for MW-3

Date	TPHg mg/L	MtBE µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L
11/4/91	ND	NA	ND	ND	ND	ND
12/23/91	0.15	NA	60	0.5	0.6	9.7
2/24/92	4.36	NA	710	16	69	400
6/16/92	4.9	NA	770	ND	61	240
9/9/92	7.4	NA	1,200	7.7	95	170
7/16/93	7.9	NA	1,500	11	340	840
8/4/94	4.2	NA	450	ND	180	160
10/25/94	ND	NA	ND	ND	ND	ND
1/20/95	4.4	NA	580	2	130	160
4/11/95	1.8	NA	88	1.4	33	27
7/13/95	3.4	NA	500	ND	130	94
10/10/95	4.2	NA	360	2.4	190	96
1/11/96	ND	NA	ND	ND	ND	ND
4/23/96	0.079	NA	1.2	0.33	0.45	0.48
7/30/96	3.8	NA	240	8.2	14	9.1
11/5/96	3.09	NA	242	36	70	116
2/7/97	0.473	NA	36.3	1	10.7	8.9
9/19/97	2.7	ND	160	0.65	93	26
1/29/99	0.230	ND	6.2	ND	7.3	ND
MCL, µg/L	None		1 (TCLP = 500)	150	700	1,750

Notes:

ND = less than laboratory minimum detection limits, 1994-2/97 limits are <0.05 mg/L - TPHg, and <0.3 µg/L - BTEX (<0.5 for xylene on 8/4/94) for tables 2-1 through 2-4.

NA = Not analyzed

mg/L = milligram of compound per liter of liquid matrix (usually water). Roughly equivalent to parts per million.

µg/L = microgram of compound per liter of liquid matrix (usually water). Roughly equivalent to parts per billion.

MCL = Maximum Contaminant Limit for public drinking water supplies, California Code of Regulations (CCR), Title 22 section 64444.

TCLP = Toxicity Characteristic Limit per CCR Title 22 Section 66261.24. TCLP values are used

to determine the level of a constituent which renders a waste hazardous under federal and state laws.

TABLE 1-4 GROUNDWATER ANALYTICAL RESULTS for MW-4

Date	TPHg mg/L	MtBE µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L
8/4/94	ND	NA	ND	ND	ND	ND
10/25/94	ND	NA	ND	ND	ND	ND
1/20/95	ND	NA	ND	ND	ND	ND
4/11/95	ND	NA	ND	ND	ND	ND
7/13/95	ND	NA	ND	ND	ND	ND
10/10/95	ND	NA	ND	ND	ND	ND
1/11/96	ND	NA	2.1	4	ND	0.79
4/23/96	0.043	NA	0.42	1.1	0.39	0.79
7/30/96	ND	NA	0.97	1.7	0.67	3
11/5/96	0.0901	NA	1.3	2.7	1.8	7.5
2/7/97	0.072	NA	1.3	2.7	1.8	7.5
9/19/97	ND	ND	ND	ND	ND	ND
1/29/99	ND	ND	ND	ND	ND	ND
MCL, µg/L	None		1 (TCLP = 500)	150	700	1,750

Notes:

ND = less than laboratory minimum detection limits, 1994-2/97 limits are <0.05 mg/L - TPHg, and <0.3 µg/L - BTEX (<0.5 for xylene on 8/4/94) for tables 2-1 through 2-4.

NA = Not analyzed

mg/L = milligram of compound per liter of liquid matrix (usually water). Roughly equivalent to parts per million.

µg/L = microgram of compound per liter of liquid matrix (usually water). Roughly equivalent to parts per billion.

MCL = Maximum Contaminant Limit for public drinking water supplies, California Code of Regulations (CCR), Title 22 section 64444.

TCLP = Toxicity Characteristic Limit per CCR Title 22 Section 66261.24. TCLP values are used

to determine the level of a constituent which renders a waste hazardous under federal and state laws.

TABLE 2 SUMMARY OF SOIL DATA – TANK REMOVAL AND OVER EXCAVATION PIT

Date	Location	Depth Ft,bgs	TPHg mg/kg	Benzene µg/kg	Toluene µg/kg	Ethyl- benzene µg/kg	Xylenes µg/kg	Lead mg/kg
Tank	Removal	Pit	Sidewall	Samples	(Blaine per	L&W 92)		(Organic)
5/20/91	Tank pit fill end	8	1,300	6400	7700	0800	230000	0.22
	Tank pit opposite fill end	7.5	1800	5800	75000	33000	210000	0.66
Tank Pit	Over Excavation	Sidewal l	Samples	(L&W, 92)				(Total)
11/91	North wall	15	1.5	8	50	16	210	
	North wall	16	4200	6300	240000	1000000	550000	11
	North wall	17	2740	16000	240000	120000	650000	ND
	Floor, center	16	780	830	1500	6300	48000	NT
	Center Floor	17	5760	30000	450000	230000	1270000	7.25
	Center floor	18	6800	4000	440000	140000	770000	12.2
	South wall	15	ND	11	71	15	87	8.3
	South wall	16	3200	1800	100000	60000	350000	8.4
	South wall	17	720	400	13000	8400	90000	9.35
	East wall	14	170	ND	2700	1500	10000	NT
	East Wall	16	1.2	ND	40	8	48	ND
	West Wall	16	1.0	ND	9	ND	29	4.0

Notes:

BTEX units µg/kg (original analyses in mg/kg)

TPHg and lead units, mg/kg

ND Not detected above method detection limit

NT Not tested

TABLE 3 SUMMARY OF SOIL DATA – SOIL AND MONITORING WELL BORINGS

Date	Location	Depth Ft,bgs	TPHg	Benzene	Toluene	Ethyl- benzene	Xylenes	Lead
Soil	Boring Samples	(L&W, 92)						Total
10/91	MW-1	5	ND	ND	16	ND	14	ND
		10	ND	ND	10	ND	7	ND
		15	ND	ND	13	ND	7	ND
		20	ND	ND	10	ND	6	ND
		25	ND	ND	24	ND	7	ND
		30	ND	ND	11	ND	6	5.00
		35	ND	ND	10	ND	6	5.50
		40	ND	ND	16	ND	6	ND
		45	ND	ND	15	ND	6	4.3
10/91	MW-2	5	ND	ND	ND	ND	ND	ND
		10	ND	ND	ND	ND	ND	ND
		15	ND	ND	ND	ND	ND	ND
		20	ND	ND	ND	ND	ND	5.90
		25	1.4	100	85	14	90	ND
		30	ND	44	8	ND	ND	ND
		35	ND	6	ND	ND	ND	4.20
10/91	B-1	5	ND	ND	17	ND	ND	ND
		10	ND	ND	11	ND	ND	ND
		15	ND	ND	12	ND	ND	ND
		20	5.7	250	600	100	570	5.82
		25	8.8	140	600	126	760	4.20
	B-2	5	ND	ND	18	ND	ND	ND
		10	ND	ND	13	ND	6	4.00
		15	ND	ND	6	ND	ND	ND
		20	ND	46	11	14	40	ND
		25	35	440	1200	320	1800	ND
		30	36	270	87	37	2.1	ND

TABLE 3 SUMMARY OF SOIL DATA – SOIL AND MONITORING WELL BORINGS (continued)

Date	Location	Depth Ft,bgs	TPHg	Benzene	Toluene	Ethyl- benzene	Xylenes	Lead
Soil	Boring Samples	(L&W,	92)					Total
	MW-3	5	1	ND	18	ND	ND	ND
		10	ND	ND	ND	ND	ND	3.60
		15	ND	ND	28	ND	ND	3.60
		20	2.9	21	17	6	25	5.80
		25	6.2	48	22	12	56	ND
		30	9.8	250	15	48	260	3.90
		35	ND	ND	14	ND	ND	3.75
Soil	Boring Samples	(Anderson	94)					
7/94	SB18 (MW-4)	25.5-35.5	ND	ND	ND	ND	ND	NA
	SB19 North of MW4	25.5-35.5	ND	ND	ND	ND	ND	NA
	SB20 South of MW-4	25.5-35.5	ND	ND	ND	ND	ND	NA
	SB21 (within the excavation area)	28.5	180	2200	8700	4800	22000	NA
	SB21 (within the excavation area)	29.0	430	11000	42000	14000	69000	NA
	SB21 (within the excavation area)	29.5	550	13000	64000	25000	120000	NA

Notes:

BTEX units $\mu\text{g}/\text{kg}$ (original analyses in mg/kg)

TPHg and lead units, mg/kg

ND Not detected above method detection limit

NA Not analyzed

TABLE 4 SUMMARY OF JANUARY 1999 FIELD DATA

Well	Well Depth feet, bgs	Initial Depth to Water ft bgs	Volume of Water Purged Gal.	Average Temperature °F	Average Conductivity μ mhos	Average pH*
MW-1	37.0	24.2	7	51	850	7.9
MW-2	37.0	24.3	8	53	840	8.0
MW-3	34.6	24.2	5.5	58	867	9.0
MW-4	39.1	23.8	9	60	888	10.1

- pH meter was difficult to calibrate. Values should be viewed as relative, not absolute.

ATTACHMENT 3
GROUNDWATER DATA INCLUDING OXYGENATE ANALYSES

TABLE 5 JANUARY 1999 GROUNDWATER ANALYTICAL REPORTS

Constituent Analyzed	MW-1	MW-2	MW-3	MW-4	Reporting Limit, $\mu\text{g/L}$
TPHg	ND	ND	230	ND	50
Benzene	ND	ND	6.2	ND	0.5
Toluene	ND	ND	ND	ND	0.5
Ethylbenzene	ND	ND	7.3	ND	0.5
Xylenes	ND	ND	ND	ND	0.5
Di-isopropyl Ether (DIPE)	ND	ND	ND	ND	1.0
Ethyl tert-Butyl Ether (ETBE)	ND	ND	ND	ND	1.0
Methyl tert-Butyl Ether (MTBE)	ND	ND	3.3	ND	1.0
tert-Amy Methyl Ether (TAME)	ND	ND	ND	ND	1.0
tert Butanol	ND	ND	ND	ND	5.0
Ethylene Dibromide (EDB)	ND	ND	ND	ND	1.0
1,2-Dichloroethane (1,2-DCA) also called Ethylene Dichloride (EDC)	ND	ND	11	ND	1.0

Units: $\mu\text{g/L}$