



Mr. Mike Rogers G.I. Trucking Company c/o ABF Freight System, Inc. 3801 Old Greenwood Road P.O. Box 10048 Fort Smith, AR 72917-0048 skn 1373

Subject:

Second Semi-Annual Groundwater Monitoring Event of 1998

G.I. Trucking Facility 1750 Adams Avenue San Leandro, California

STID 1373

Dear Mr. Rogers:

This letter report documents free product recovery and the second semi-annual groundwater monitoring event of 1998 at the subject site (Figures 1 and 2).

1.0 Introduction

1.1 Background

For a complete background please refer to previous monitoring reports by Blymyer Engineers, Inc., such as the preceding monitoring report entitled *First Semi-Annual Groundwater Monitoring Event of 1998*, dated May 13, 1998. An abbreviated description of more recent events is covered in this background section.

On June 6, 1996, Blymyer Engineers installed a second free product recovery well, RW-2, in the southwestern corner of the UST complex and encountered a thin layer of relatively fresh free product in both recovery wells, along with a darker product layer. The discovery of an apparent diesel release was subsequently reported to the ACHCSA.

As discussed in the Blymyer Engineers letter entitled *Unauthorized Release*, dated July 16, 1996, the source of the release appears to have been localized in the westernmost fuel pump manway. Specifically, gaskets in the fuel pump appeared to have been the source of the leak. According to site personnel, the fuel pump was repaired and placed back in service. An unknown volume of diesel product was released from this point. Based on an approximate UST basin area of 60 feet by 30 feet, 75% occupied by the existing USTs, an initial 0.25-foot thickness of clear free product, an assumed



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Mr. Mike Rogers, ABF Freight System, Inc.

Mr. Stan Lovell G.I. Trucking Company

Mr. Pat Milla, G.I. Trucking Company

Mr. Mike Bakaldin, San Leandro Fire Department

SIGNED: Mark Detterman

LETTER OF TRANSMITTAL



porosity of 30% for the pea gravel backfill, and a relatively flat gradient, an estimate for the release volume of approximately 250 gallons was calculated. In November 1996, during ongoing product recovery operations, site personnel verbally reported a total inventory loss of approximately 165 gallons. This compares well with the recovery of approximately 178 gallons of free product since that time.

Native soils surrounding the UST basin consist of multiple layers of silty clay, clayey silt, and clayey fine sand. The hydraulic conductivity appears to be relatively low, based upon the trapping of older free product within the UST basin years after the initial release, the low dissolved concentrations of TPH as diesel and BTEX in groundwater downgradient of the UST complex years after the initial release, and the continued mounding of water in the UST basin.

In response to a Tier I risk assessment and request for case closure contained in a previous monitoring report, the ACHCSA issued a letter dated February 3, 1998, requesting additional groundwater sampling. The ACHCSA requested in particular that lacking free product, the recovery wells should be included in the analytical program. The concern was expressed that although no significant contaminant concentrations appear to be escaping the UST basin, the fresher free product in the UST basin may present a localized health risk. Using all water quality data from the recovery and monitoring wells located at the site and in the UST basin, specifically the nondetectable concentrations of BTEX inside and outside the UST basin, a comparison to the Tier I Table, as modified for California MCLs by the San Francisco Bay Regional Water Quality Control Board (RWQCB) from the American Society for Testing and Materials (ASTM) 1739-95 document entitled Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites (RBCA), dated November 1995, indicated that no apparent health risk is present at the site due to the documented releases of diesel hydrocarbons.

Beginning on July 22, 1998, a series of conversations were held between Blymyer Engineers and the ACHCSA regarding the future direction of activities at the site. On August 7, 1998, the ACHCSA issued a letter requesting a more aggressive method of free product recovery from the UST basin and the addition of polynuclear aromatic compounds (PNAs) to the analytical program due to health risks associated with these compounds. These compounds have only recently been requested in analytical programs in the sate of California due to the consideration of risk analysis as a case closure method.

2.0 Data Collection

2.1 Groundwater Sample Collection

Groundwater samples were collected from monitoring wells MW-2 and MW-3 (Figure 2) on August 27, 1998. The groundwater samples were collected by Blaine Tech Services, Inc. (Blaine) in general accordance with the Blymyer Engineers' Standard Operating Procedure No. 3, previously forwarded.



The groundwater depth measurements and details of the monitoring well purging and sampling are presented on the *Groundwater Sampling Report 980827-G-2* generated by Blaine and included as Attachment A. Historic and recent measurements of groundwater depth are presented in Table I. All purge and decontamination water was stored in Department of Transportation-approved, 55-gallon drums for future disposal.

2.2 Groundwater Sample Analytical Methods

Because LEGEND Analytical has ceased operations, the groundwater samples were submitted to McCampbell Analytical Inc., a California-certified laboratory, on a standard 5-day turnaround time for analysis of BTEX by EPA Method 8020, TPH as diesel by modified EPA Method 8015, and PNAs by EPA Method 8270A. Tables II, III, and IV summarize the current and all previous analytical results for groundwater samples collected from the monitoring wells. The laboratory analytical report for the current sampling event is included as Attachment B.

2.3 Free Product Recovery

The existing EZY® passive skimmer, installed in recovery well RW-1, was on a monthly operation and maintenance schedule, overseen by on-site personnel, until August 1994. Until June 1996, the passive skimmer had been maintained quarterly by Blymyer Engineers, either in concurrence with groundwater monitoring in the first and third quarters of the year or independently of groundwater monitoring in the second and fourth quarters of the year. The groundwater depth, the thickness of any pooled product, and the volume of recovered product were measured on each site visit. Since discovery of the fresh product in the UST basin in June 1996, Blymyer Engineers purchased a second skimmer for placement in well RW-2. After difficulties in free product recovery were encountered, a FAP pump was installed in recovery well RW-1, while the newer passive skimmer remained in well RW-2. Upon discovery of the fresh product, Blymyer Engineers made daily or weekly visits to hand bail free product, to empty the skimmers, or to monitor the FAP pump operation. Due to decreased product thickness in well RW-1 in September 1996, difficulties in free product recovery were encountered. Consequently, the FAP pump was removed and reinstalled in well RW-2, and the newer passive skimmer was removed and reinstalled in well RW-1. On November 20, 1996, the FAP pump had reached the limits of operation and was subsequently removed from RW-2. Soak-eze® absorbent socks were installed in well RW-1 and the newer passive skimmer was installed in well RW-2 in order to collect the residual product from each well. Inspection and change out, if required, of these recovery systems was initially conducted approximately every two weeks. Because significant measurable free product has not been encountered in either recovery well since November 1996, nor was there significant product absorbed onto the Soak-eze® absorbent socks, the monitoring of the socks was decreased to monthly beginning in February 1997, and to quarterly in April 1997. Table I presents historic and current groundwater and product depth measurements. Table V contains a summary of the free product volume recovered during past events and the approximate cumulative volume of free product removed to date.



No measurable quantities of free product were again present in the recovery wells this sampling event; however, approximately 20 milliliters of free product was recovered from the passive skimmer positioned in RW-2. Globules of free product were occasionally noted on the surface of the water in well RW-1. The Soak-eze® socks located in well RW-1 were additionally changed during the current monitoring event.

3.0 Discussion of Data

3.1 Groundwater Sample Analytical Results

TPH as diesel was present at decreased concentrations in the groundwater samples collected from monitoring wells MW-2 and MW-3 during this sampling event (Table III). Because the limit of detection obtained by McCampbell Analytical is lower than that obtained by LEGEND Analytical, a detectable concentration of TPH as diesel was present in the groundwater from well MW-2 this sampling period; however, the concentration of TPH as diesel in the groundwater sample from well MW-2 remains below the limits of detection required by the San Francisco Regional Water Quality Control Board for the third consecutive monitoring event since the most recent release. BTEX were again not detected, and have not been detected, in the groundwater samples collected from either monitoring well (Table II), 26 months after discovery of the most recent release. There were additionally no detectable PNA compounds, including the carcinogenic "benzo(a)-" compounds, in the groundwater samples from wells MW-2 and MW-3 (Table IV). Well MW-2 is approximately 2 feet downgradient from the edge of the waste oil UST basin and BTEX and PNAs do not appear to have migrated beyond the UST basin.

3.2 Recovered Free Product Data

In November 1995, approximately 0.25 gallons of free product were recovered from the skimmer, and in February 1996, there was no measurable free product to be recovered. An increasing volume of product was removed beginning in June 1996 (Table V). Until the more recent release, the cumulative volume of free product removed since recovery began had only amounted to approximately 1.18 gallons. To date approximately 178 gallons of free product have been recovered at the site. This compares reasonably well to the inventory loss of approximately 165 gallons reported by site personnel.

No measurable quantities of free product were again present in the recovery wells this sampling event; however, isolated globules of free product were noted on the surface of the water in recovery well RW-1 in the UST basin by Blaine Tech. To document the presence of free product in this recovery well, Blaine Tech reported 0.07 inches of free product on water in well RW-1 in their report. It should be noted that this is less than instrument capabilities (minimum of 0.01 feet of product; equal to 0.12 inches, or 1/8-inch). Additionally approximately 20 milliliters of free product was recovered from the passive skimmer positioned in RW-2, again indicative of isolated globules of free product.



3.3 Groundwater Flow Direction and Gradient

Blymyer Engineers contoured groundwater elevations for the four monitoring wells outside of the UST complex this monitoring event to depict the general groundwater gradient at the site. Based on the depth-to-groundwater measurements in these wells during this monitoring event, the groundwater flow direction in the vicinity of the UST basin was toward the east-southeast at a flat gradient of approximately 0.0046 feet per foot. Over the past 10 years, the gradient has been flat and directed towards the southeast with occasional fluctuations in the gradient and flow direction as is present during this sampling event. A not unexpected higher water level exists within the UST complex and indicates difficulty in the flow of water, and thus hydrocarbons, out of the UST basin. If included in the groundwater contour map, this higher level would indicate a localized high, with somewhat outward radial flow, centered on the southern area of the UST complex.

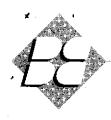
4.0 Argument for Case Closure

4.1 Tier I Risk-Based Analysis

Using data collected at the site, specifically the nondetectable concentrations of BTEX inside and outside the UST basin, and the nondetectable PNAs outside the UST basin, a comparison to the Tier I Table, as modified for California MCLs by the San Francisco Bay Regional Water Quality Control Board (RWQCB) from the American Society for Testing and Materials (ASTM) 1739-95 document entitled *Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites* (RBCA), dated November 1995, indicates that no apparent health risk is present at the site due to the documented releases of diesel hydrocarbons.

4.2 Source Removal

The subject site is an operating trucking facility. The existing USTs will remain in place and in operation and consequently have been upgraded to meet 1998 UST compliance requirements. The cause and source of the most recent release has been repaired and upgraded. Minimal amounts of residual free product are confined to the UST basin and have not supplied dissolved BTEX concentrations to groundwater in monitoring wells as close as 2 feet outside of the UST basin in the 2 years of monitoring since the most recent release was discovered. PNAs were also below the limits of detection in these wells when samples were submitted in August 1998.



4.3 Stable or Decreasing Analytical Concentrations

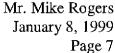
As indicated above, there have been no detectable BTEX concentrations in wells as close as 2 feet outside of the UST basin in the 2 years of monitoring since the most recent release was discovered. BTEX concentrations in the two recovery wells were non-detectable when analyzed in February 1998. PNAs were also below the limits of detection in wells MW-2 and MW-3 when samples were collected in August 1998. TPH as diesel concentrations in well MW-2 have been essentially stable since November 1994. TPH as diesel concentrations in well MW-3 increased shortly after the most recent release (rising from a stable concentration in the range of 1 ppm to 2.4 ppm), but since that time the concentrations have rapidly and consistently decreased by a minimum of 0.5 ppm per semi-annual event (August 1998 concentration was 0.410 ppm).

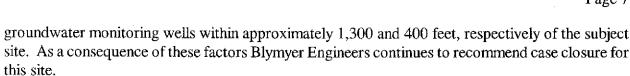
4.4 Vicinity Groundwater Wells

A printout of vicinity groundwater wells, inclusive of groundwater monitoring and water supply wells, was requested from the Alameda County Public Works Agency (ACPWA) on December 29, 1998. Enclosed as Attachment C, the printout indicates that the closest water supply well (reported to be used for irrigation) is on 98th Avenue at an approximate distance of 1,300 feet to the west-northwest in the assumed upgradient direction. The closest documented groundwater monitoring well is on Biggie Street at an approximate distance of 400 feet to the north-northeast. This well may be in a downgradient position depending upon the direction of flow of groundwater once it flows off the subject site. Using the generally accepted dilution-attenuation distance of approximately 250 feet, neither of these sites would be anticipated to be impacted by hydrocarbons, that have been contributed to groundwater from the subject site.

5.0 Summary and Recommendations

Free product recovery operations have essentially reduced the thickness of free product to isolated globules or a sheen in the UST basin, and have essentially removed nearly all available free product. The product line source has been repaired and upgraded to meet 1998 UST upgrade requirements. The detectable concentrations of TPH as diesel remain consistent, or are declining, outside the UST basin. Concentrations of BTEX have continuously remained nondetectable in wells within 2 feet downgradient of the edge of the UST basin approximately 26 months after the most recent release. No detectable concentrations of BTEX were present within the UST basin 21 months after the most recent release. Further, no detectable concentrations of PNAs, including the carcinogenic benzo(a)-compounds, are present as close as 2 feet outside the UST basin 26 months after the most recent release. From the data, no health risk is apparent to site personnel, or for potential downgradient receptors when a comparison is made to the Tier I Look-up Table in the ASTM RBCA document, as modified for California MCLs. The concentrations of TPH as diesel are either consistent or rapidly decreasing in wells within 2 feet of the UST basin. There are no apparent water supply wells or





The San Francisco Bay Regional Water Quality Control Board (RWQCB) no long requires copies of contaminant investigation reports; consequently, Blymyer Engineers recommends the forwarding of copies of this report only to the ACHCSA and the San Leandro Fire Department.

6.0 Limitations

Services performed by Blymyer Engineers have been provided in accordance with generally accepted professional practices for the nature and conditions of the work completed in the same or similar localities, at the time the work was performed. The scope of work for the project was conducted within the limitations prescribed by the client, G.I. Trucking Company. This report is not meant to represent a legal opinion. No other warranty, expressed or implied, is made. This report was prepared for the sole use of the client.

Please call Mark Detterman at (510) 521-3773 with any questions or comments.

Sincerely,

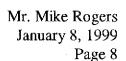
Blymyer Engineers, Inc.

Mark Detterman, C.E.G. 1788

Senior Geologist

Michael S. Lewis

Vice President, Technical Services



Enclosures:

Table I:

Groundwater Depth Measurements

Table II:

Summary of Groundwater Sample Analytical Results; Benzene, Toluene,

Ethylbenzene, and Total Xylenes

Table III:

Summary of Groundwater Sample Analytical Results; TPH as Diesel

Table IV:

Summary of Groundwater Sample Analytical Results; TPH as Gasoline, TPH

as Motor Oil, TRPH, HVOCs, SVOCs, and Metals

Table V:

Free Product Recovery Measurements, Recovery Wells RW-1 and RW-2

Figure 1:

Site Location Map

Figure 2:

Site Plan and Groundwater Elevation Contours, August 27, 1998

Attachment A:

Groundwater Sampling Report 980827-G-2, Blaine Tech Services, Inc., dated

September 11, 1998

Attachment B:

Laboratory Analytical Report, McCampbell Analytical Inc., dated September

4, 1998

Attachment C:

Vicinity Water Wells, December 30, 1998

c:

Ms. Eva Chew, Alameda County Health Care Services Agency

Mr. Mike Bakaldin, San Leandro Fire Department

Mr. Stan Lovell, G.I. Trucking Company

Mr. Pat Mila, G.I. Trucking Company

	Table I, Groundwater Depth Measurements BEI Job No. 88288.001, G.I. Trucking Facility, 1750 Adams Avenue, San Leandro, California											
Date Measured	RW- TOC Elevation	_		W-2 tion 100.24*	TOC Eleva	W-3 tion 100.22 ^a tion 100.18 ^b	TOC Elev	W-4 ation 99.48 ^a ation 99.46 ^{a,d}		IW-5 vation 99.60*	RW Not Sut	
	Depth to Water/Free Product	Water Surface Elevation	Depth to Water	Water Surface Elevation	Depth to Water	Water Surface Elevation	Depth to Water	Water Surface Elevation	Depth to Water	Water Surface Elevation	Depth to Water/Free Product	Water Surface Elevation
November 15, 1988	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	N/A	N/A
February 16, 1989	6.03/5.83	N/A	6.13	94.11	6.00	94.22	5.92	93.56	5.42	94.18	N/A	N/A
May 19, 1989	6.31/6.11	N/A	6.24	94.00	6.20	94.02	5.25	94.23	5.53	94.07	, N/A	N/A
August 22, 1989	6.72/6.54	N/A	6,68	93.56	6.60	93.62	6.76	92.72	5.94	93.66	N/A	N/A
November 21, 1989	6.51	93.49	6.64	93.60	6.55	93.67	5.72	93,76	5.91	93.69	N/A	N/A
February 23, 1990	5.74	94.26	6.04	94.20	5.83	94.39	4.92	94.56	5.69	93.91	N/A	N/A
May 23, 1990	6.34/6.19	N/A	6.40	93.84	6.38	93.84	5.39	94.09	5.92	93.68	N/A	N/A
August 27, 1990	6.27	93.73	6.70	93.54	6.67	93.55	5.66	93.82	6.17	93.43	N/A	N/A
December 3, 1990	6.49	93.51	6.83	93.41	6.75	93.47	5.95	93.53	6.05	93.55	N/A	N/A
March 13, 1991	4.94	95.06	5.64	94.60	5.42	94.80	4.39	95.09	5.01	94.59	N/A	N/A
May 29, 1991	9.46	90.54	6.31	93.93	6.28	93.94	5.27	94.21	5.57	94.03	N/A	N/A
August 28, 1991	6.31/6.22	N/A	6.68	93.56	6.62	93.60	5.70	93.78	5.90	93.7	N/A	N/A
December 9, 1991	6.49/6.29	N/A	6.69	93.55	6,65	93.57	5.78	93.78	5.99	93.61	N/A	N/A
February 18, 1992	4.19/4.09	N/A	4.96	95.28	4.73	95.49	3.60	95.88	4,45	95.15	N/A	N/A
May 15, 1992	5.72/5.55	N/A	6.07	94.17	5.99	94.23	5.03	94.45	5.33	94.27	N/A	N/A
August 13, 1992	6.12/5.93	N/A	6.42	93.82	6.32	93.90	5.40	94.08	5.62	93.98	N/A	N/A
December 3, 1992	5.65/5.55	N/A	6.25	93.99	6.23	93,99	5.14	94.34	5.58	94.02	N/A	N/A
March 25, 1993	4.60	95.40	5.40	94.84	5.27	94.95	4.14	95.34	4.34	95.26	N/A	N/A
May 21, 1993	5.56/5.47	N/A	6.04	94.20	5.97	94.25	4.95	94.53	5.28	94.32	N/A	N/A
August 17, 1993	6.07/5.94	N/A	6.42	93.82	6.59	93.63	5.40	94.08	5.61	93.99	N/A	N/A
December 13, 1993	NM°	NM ^e	6.09	94.15	6.33	93.89	5.08	94.40	5.38	94.22	N/A	N/A
February 24, 1994	4.97	95.63	5.57	94.67	5.76	94.46	4.38	95.10	4.90	94.70	N/A	N/A
May 11, 1994	5.20	94.80	5.94	94.30	5.84	94.34	4.85	94.63	5.23	94.37	N/A	N/A
August 23, 1994	6.06/5.98	N/A	6.44	93.80	6.38	93.80	5.47	94.01	5.70	93.90	N/A	N/A
November 29, 1994	5.98	94.02	5.82	94.42	5.76	94.42	4.76	94.72	5.12	94.48	N/A	N/A
February 15, 1995	4.93	95.07	5.68	95.56	5.60	95.58	NM	. NM	NM	NM	N/A	N/A
May 18, 1995	4.99	95.01	NM	NM	NM	NM	NM	NM	NM	NM	N/A	N/A

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Date Measured	RW-1* TOC Elevation 100.00*			MW-2 TOC Elevation 100.24 ^a		MW-3 TOC Elevation 100.22 ^a TOC Elevation 100.18 ^b		MW-4 TOC Elevation 99.48 ^a TOC Elevation 99.46 ^{a,d}		MW-5 TOC Elevation 99.60°		RW-2 Not Surveyed	
	Depth to Water/Free Product	Water Surface Elevation	Depth to Water	Water Surface Elevation	Depth to Water	Water Surface Elevation	Depth to Water	Water Surface Elevation	Depth to Water	Water Surface Elevation	Depth to Water/Free Product	Water Surface Elevation	
August 16, 1995	6.46	93.54	6.19	94.05	6.11	94.07	5.16	94.32	5.47	94.13	N/A	N/A	
November 16, 1995	5.21	94.79	NM	NM	NM	NM	NM	NM	NM	NM	N/A	N/A	
February 15, 1996	4.68	95.32	5.62	94.62	5.48	94.70	4.40	95.08	4.90	94.70	N/A	N/A	
August 5, 1996	6.05/5.70	N/A	6.22	94.02	6.16	94.02	5.27	94.19	5.50	94.10	6.02/5.71	N/A	
February 6, 1997	4.40	95.60	5.5	94.74	5.36	94.82	4.26	95.2	4.80	94.80	4.41	N/A	
August 22, 1997	4.90	95.1	6.57	93.67	5.85	94.33	5.09	94.37	6.37	93.23	4.88	N/A	
February 12, 1998	3.18	96.82	4.88	95.36	4.81	95.41	3.58	95.88	4.32	95.28	3.21	N/A	
August 27, 1998	5.95	94.05	6.42	93.82	6.25	93.93	5.43	94.03	5.77	93.83	5.92	N/A	

Table I, Groundwater Depth Measurements, continued

Notes:	TOC	=	Top of casing
	a	=	Based on an arbitrary datum
	b	=	Resurveyed elevation, May 11, 1994
	c	=	Not measured due to equipment malfunction
	d	=	TOC mark lost; Resurveyed elevation, August 16, 1996
	N/A	=	Not applicable
	NM	=	Not measured
	*	=	Formerly designated as well MW-1

Benzene, To BEI Job No. 88	Table II, Summary of G lucne, Ethylbenzene, and 288,091, G.I. Trucking F	Total Xylen	es, Modified	EPA Meth	od 8020 (µg/	L) ornia
Date Sampled	RW-1*	MW-2	MW-3	MW-4	MW-5	RW-2
November 15, 1988 to May 21, 1993		N	lot Analyzed	[
August 17, 1993	0.13 feet free product	<0.5	<0.5	<0.5	<0.5	N/A
December 13, 1993	heavy product sheen	<0.5	<0.5	<0.5	<0.5	N/A
February 24, 1994	heavy product sheen	<0.5	<0.5	<0.5	<0.5	N/A
May 11, 1994	heavy product sheen	<0.5	<0.5	<0.5	<0.5	N/A
August 23, 1994	0.08 feet free product	<0.5	0.6ª	<0.5	<0.5	N/A
November 29, 1994	heavy product sheen	<0.5	<0.5	NA.	NA	N/A
February 15, 1995	heavy product sheen	1.2ª	ND	NA	NA	N/A
August 16, 1995	heavy product sheen	<0.5	<0.5	NA	NA	N/A
February 15, 1996	heavy product sheen	< 0.5	<0.5	NA	NA	N/A
August 5, 1996	0.35 feet free product	<0.5	<0.5	NA	NA	NA_
February 6, 1997	light sheen	<0.5	<0.5	NA	NA	NA
August 22, 1997	light sheen	<0.5	<0.5	NA	NA	NA
February 12, 1998	<0.5	<0.5	<0.5	NA	NA	<0.5
August 27, 1998	0.07 inches free product (heavy sheen)	<0.5	<0.5	NA	NA	NA

Notes:

 μ g/L = Micrograms per liter

 $\leq x$ = Detected concentration less than respective detection limit of x.

a = Detected concentration of toluene.

N/A = Not applicable

NA = Not analyzed

ND = None of analytes detected above the detection limit; see individual laboratory report for

respective detection limits.

* = Formerly designated as well MW-1

	Table III, Summary of 6 TPH as Diesel, M (288.001, G.I. Trucking)	odified EP	A Method 80	15 (mg/L)		fornia
Date Sampled	RW-1*	MW-2	MW-3	MW-4	MW-5	RW-2
November 15, 1988	0.22 feet free product	<0.20	<0.20	<0.20	< 0.20	N/A
February 16, 1989	0.20 feet free product	<0.09	<0.09	<0.09	<0.09	N/A
May 19, 1989	0.20 feet free product	<0.08	<0.08	<0.08	<0.08	N/A
August 22, 1989	0.18 feet free product	<0.03	< 0.03	< 0.03	< 0.03	N/A
November 21, 1989	product sheen	<0.03	< 0.03	< 0.03	< 0.03	N/A
February 23, 1990	product sheen	<0.05	0.34	< 0.05	< 0.05	N/A
May 23, 1990	0.15 feet free product	<0.05	0.64	<0.05	<0.05	N/A
August 27, 1990	product sheen	<0.05	0.41	<0.05	<0.05	N/A
December 3, 1990	product sheen	<0.05	<0.05	< 0.05	< 0.05	N/A
March 13, 1991	product sheen	<0.05	1.3	< 0.05	< 0.05	N/A
May 29, 1991	product sheen	<0.05	0.54	<0.05	< 0.05	N/A
August 28, 1991	0.09 feet free product	<0.05	0.24	<0.05	< 0.05	N/A
December 9, 1991	0.20 feet free product	<0.05	0.20	<0.05	<0.05	N/A
February 18, 1992	0.09 feet free product	<0.05	0.89	<0.05	<0.05	N/A
May 15, 1992	0.17 feet free product	<0.05	0.38	< 0.05	<0.05	N/A
August 13, 1992	0.19 feet free product	<0.05	0.20	<0.05	< 0.05	N/A
December 3, 1992	0.10 feet free product	<0.05	<0.05	< 0.05	< 0.05	N/A
March 25, 1993	product sheen	<0.05	1.6	<0.05	< 0.05	N/A
May 21, 1993	0.09 feet free product	<0.05	0.72	< 0.05	<0.05	N/A
August 17, 1993	0.13 feet free product	<0.05	0.48	< 0.05	< 0.05	N/A
December 13, 1993	heavy product sheen	<0.05	0.19	<0.05	< 0.05	N/A
February 24, 1994	heavy product sheen	<0.05	0.38	<0.05	< 0.05	N/A
May 11, 1994	heavy product sheen	< 0.05	0.58	<0.05	< 0.05	N/A
August 23, 1994	0.08 feet free product	<0.05	0.45°	<0.05	<0.05	N/A
November 29, 1994	heavy product sheen	0.09	0.96°	NA	NA	N/A
February 15, 1995	heavy product sheen	0.1*	1.7*	NA	NA	N/A
August 16, 1995 ^b	heavy product sheen	0.063°	1.1°	NA NA	NA	N/A

	Table III, Summary of (TPH as Diesel, M (288.001, G.I. Trucking)	odified EP/	A Method 80	15 (mg/L)		fornia
February 15, 1996	heavy product sheen	0.079	1.3	NA	NA	N/A
August 5, 1996	0.35 feet free product	0.10 ^d	1.0 ^d	NA	NA	NA
February 6, 1997	light sheen	0.14ª	2.4*	NA	NA	NA
August 22, 1997	light sheen	< 0.10	2.0ª	NA	NA	NA
February 12, 1998	89	<0.10	1.5°	NA	NA	100
August 27, 1998	0.07 inches free product (heavy sheen)	0.093	0.410	NA	NA	NA
	Ru-1	mw-2	MW-3	ь- m	MW-S	ک⊶۔ک

Notes:	TPH	=	Total Petroleum Hydrocarbons
	mg/L	=	Milligrams per liter
	<x< td=""><td>=</td><td>Detected concentration less than respective detection limit of x.</td></x<>	=	Detected concentration less than respective detection limit of x.
	NA	=	Not analyzed
	N/A	=	Not applicable
	a	=	Laboratory reports that positive result appears to be due to the presence of a heavier hydrocarbon than diesel.
	b	=	Beginning this sampling event results are converted to mg/L, originally reported in µg/L.
	c	=	Laboratory reports that an unidentified hydrocarbon, heavier than the diesel standard, was present between the carbon range of C9 to C24.
	d	=	Laboratory reports a hydrocarbon heavier than the diesel standard was present, and that the method blank contained 0.05 mg/L TPH as diesel.
	e	=	Laboratory reports that the pattern is atypical for diesel analysis.
	*	=	Formerly designated as well MW-1

Table IV. Summary of Groundwater Sample Analytical Results* TPH as Gasoline, TPH as Motor Oil, TRPH, HVOCs, SVOCs, Metals, and PNAs BEI Job No. 88288.001, G.L. Trucking Facility, 1750 Adams Avenue, San Leandro, Californ

		BEI Job No. 88288.001, (3.1. Trucking Facil	ity, 1750 Adam:	s Avenue, San	Leandro, Calif	fornia	
Sample I.D.	Date Sampled	Modified EPA Method 8015 TPH as gasoline (mg/L)	Modified EPA Method 8015 TPH as motor oil* (mg/L)	EPA Method 418.1 TRPH (mg/L)	EPA Method 601 HVOCs (µg/L)	EPA Method 8270 SVOCs (µg/L)	EPA Methods 6010 and 7421 Metals ^b (mg/L)	EPA Method 8270A PNAs (µg/L)
RW-1**	January 15, 1988 to August 23, 1994	NA	NA	NA	NA	NA	NA	NA
	November 29, 1994°	NA	NA	NA NA	NA	NA	NA	NA
	February 15, 1995°	NA	NA	NA	NA	NA	NA	NA
	August 16, 1995°	NA NA	NA	NA	NA	NA	NA	ND
	August 27, 1998	NA	NA	NA	NA	NA	NA	NA
MW-2	January 15, 1988 to August 23, 1994	NA	NA	NA	NA	NA	NA	NA
	November 29, 1994	<0.05	NA	NA	ND	ND	NDª	NA
	February 15, 1995	<0.05	<0.5	<5.0	ND	ND	0.002 Pb•	NA
	August 16, 1995 [†]	NA.	NA	NA	NA	NA	NA	NA
	August 27, 1998	NA	NA	NA	NA	NA	NA	ND
MW-3	January 15, 1988 to August 23, 1994	NA -	NA	NA	NA	NA	NA	NA
	November 29, 1994	<0.05	NA	NA	ND	ND	ND^d	NA
	February 15, 1995	<0.05	<0.5	<5.0	ND	ND	0.004 Pb ^e 0.16 Zn ^e	NA
	August 16, 1995 [†]	NA	NA	NA	NA	NA	NA	NA
	August 27, 1998	NA	NA	NA	ŇA	NA	NA	ND

Table IV, Summary of Groundwater Sample Analytical Results* TPH as Gasoline, TPH as Motor Oil, TRPH, HVOCs, SVOCs, Metals, and PNAs; Continued

NI	otos	
IN	otes	:

ies.		
*	=	Groundwater samples from monitoring wells MW-4 and MW-5 were not collected for analysis
TPH	=	Total Petroleum Hydrocarbons
HVOCs	=	Halogenated Volatile Organic Compounds
SVOCs	=	Semi-volatile Organic Compounds
PNAs	=	Poly-nuclear Aromatic Compounds
mg/L	=	Milligrams per liter
μg/L	=	Micrograms per liter
a	=	TPH as motor oil analysis performed First Quarter 1995 only to provide additional groundwater chemistry data.
b	=	Metals analytical test includes: cadmium (Cd), chromium (Cr), lead (Pb), nickel (Ni), zinc (Zn).
c	=	Not analyzed due to presence of free product or product sheen in monitoring well.
d	=	Groundwater sample filtered and preserved before submittal to laboratory.
e	==	Detected analyte(s) and concentration(s) listed; see individual laboratory report for respective detection limit(s).
f	=	Analysis of groundwater samples for TPH as gasoline, TRPH, HVOCs, SVOCs, and metals was discontinued beginning this monitoring event.
NA	=	Not analyzed
ND	=	None of analytes detected above the detection limit; see individual laboratory report for respective detection limits.
**	=	Formerly designated as well MW-1

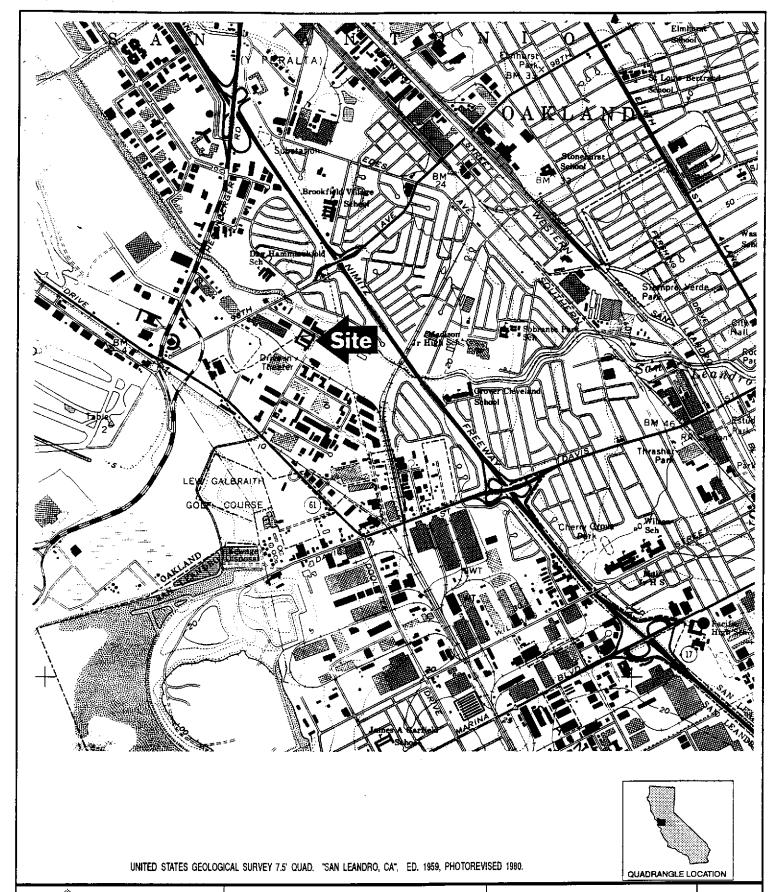
	rements, Recovery Wells RW-1 and RW-2 y, 1750 Adams Avenne, San Leandro, California
Date Recovered	Volume Recovered (gallons)
November 1988 to October 1993	No recovery performed
November 1993	0.125
December 1993	0.25
January 1994	0.05
February 1994	<0.05
March 1994	<0.05
April 1994	<0.05
May 1994	<0.05
June 1994	<0.025
July 1994	<0.025
August 1994°	0.1
November 1994	0.1
February 1995	< 0.025
May 1995	<0.025
August 1995	No measurable product to recover
November 1995	0.25
February 1996	No measurable product to recover
June 1996	1.1
July 1996 ^b	3.75
August 1996	121
September 1996	30
October 1996	23
November 1996	Soak-eze® installed/trace in passive skimmer
December 1996	Soak-eze® installed/trace in passive skimmer
January 1997	Soak-eze® installed/0.1 gallon in passive skimmer
February 1 to 6, 1997	Soak-eze® installed/trace in passive skimmer
February 7 to August 22, 1997	Soak-eze* installed/100 ml in passive skimmer
August 22, 1997 to February 12, 1998	Soak-eze® installed/0 ml in passive skimmer
February 13, 1998 to August 27, 1998	Soak-eze® replaced/20 ml in passive skimmer
Cumulative Volume Recovered (approximate)	178

Notes:

Frequency of recovery activities decreased from monthly to quarterly after this recovery event. Frequency of recovery activities increased after this recovery event. a

ь =

ml = milliliters





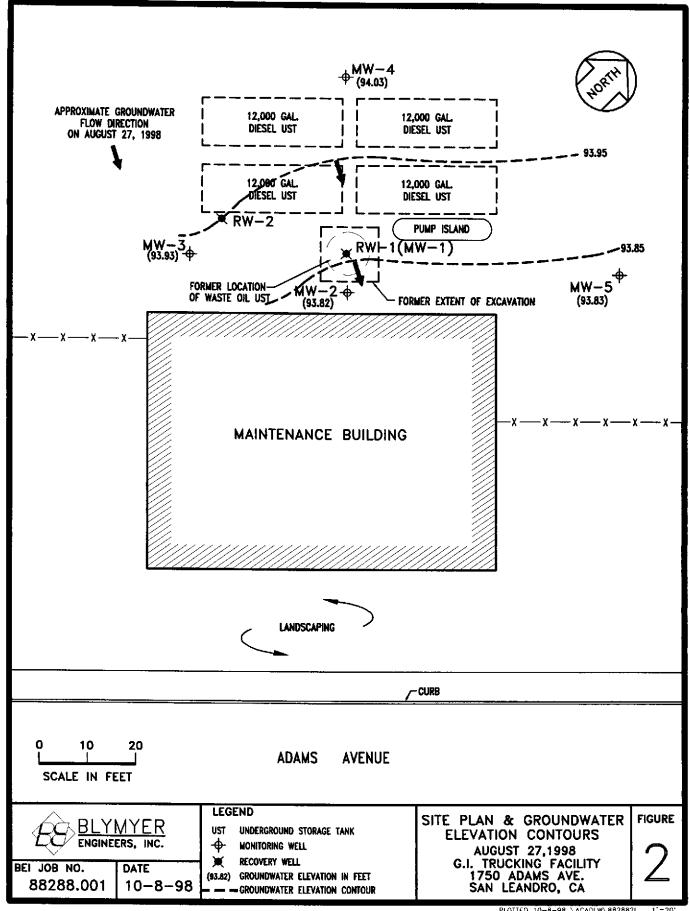
BEI JOB NO. 88288 DATE 9/19/95

0 1000 2000 SCALE IN FEET



SITE LOCATION MAP

G.I. TRUCKING FACILITY 1750 ADAMS AVE. SAN LEANDRO, CA FIGURE



Attachment A

 $Groundwater\ Sampling\ Report\ 980827\text{-}G\text{-}2$

Blaine Tech Services, Inc.

dated September 11, 1998



1680 ROGERS AVENUE SAN JOSE, CALIFORNIA 95112 (408) 573-7771 FAX (408) 573-0555 PHONE

September 11, 1998

Blymyer Engineers, Inc. 1829 Clement Ave. Alameda, CA 94501-1395

ATTN: Mark Detterman



Site: G.I. Trucking Facility 1750 Adams Ave. San Leandro, California

Date: August 27, 1998

GROUNDWATER SAMPLING REPORT 980827-G-2

Blaine Tech Services, Inc. performs specialized environmental sampling and documentation as an independent third party. In order to avoid compromising the objectivity necessary for the proper and disinterested performance of this work, Blaine Tech Services, Inc. does not participate in the interpretation of analytical results, or become involved with the marketing or installation of remedial systems.

This report deals with the groundwater well sampling performed by our firm in response to your request. Data collected in the course of our work at the site are presented in the TABLE OF WELL MONITORING DATA. This information was collected during our inspection, well evacuation and sample collection. Measurements include the total depth of the well and the depth to water. Water surfaces were further inspected for the presence of immiscibles. A series of electrical conductivity, pH, and temperature readings were obtained during well evacuation and at the time of sample collection.

STANDARD PRACTICES

Evacuation and Sampling Equipment

As shown in the TABLE OF WELL MONITORING DATA, the wells at this site were evacuated according to a protocol requirement for the removal of a minimum of three case volumes of water, before sampling. The wells were evacuated using bailers and electric submersible pumps.

Samples were collected using bailers.

Bailers: A bailer, in its simplest form, is a hollow tube which has been fitted with a check valve at the lower end. The device can be lowered into a well by means of a cord. When the bailer enters the water, the check valve opens and liquid flows into the interior of the bailer. The bottom check valve prevents water from escaping when the bailer is drawn up and out of the well.

Two types of bailers are used in groundwater wells at sites where fuel hydrocarbons and/or solvents are of concern. The first type of bailer is made of a clear material such as acrylic plastic and is used to obtain a sample of the surface and the near-surface liquids, in order to detect the presence of visible or measurable fuel hydrocarbon floating on the surface. The second type of bailer is made of polyethylene, Teflon, or stainless steel, and is used as an evacuation and/or sampling device. Disposable bailers are made of polyethylene plastic, decontaminated by the manufacturer, individually packaged for one-time only use, and are inexpensive. Teflon and stainless steel bailers are relatively easy to clean and are considered reusable with proper decontamination.

Because bailers are manually operated, variations in operator technique may have a greater influence on performance than would be found when using more automated sampling equipment. Also, in cases where fuel hydrocarbons are involved the bailer may include near-surface contaminants that are not representative of water located deeper in the well.

Electric Submersible Pumps: Electric submersible pumps are appropriate for the high volume evacuation of wells of any depth provided the well diameter is large enough to admit the pump. Four inch and three inch diameter wells will readily accept electric submersible pumps, while two inch wells do not. In operation, the pump is lowered into the well with a pipe train above it. A checkvalve immediately above the pump and below the first section of pipe prevents water that has entered the pipe from flowing back into the well. Electricity is provided to the pump via an electrical cable and the action of the pump is to push water up out of the well.

Electric submersible pumps are often used as well evacuation devices, which are then supplanted with a more specialized sample collection device (such as a bailer) at the time of sampling. An

alternative is to use the pump for both evacuation and sampling. When a bailer is used to collect the sample, interpretation of results by the consultant should allow for variations attributable to near surface contamination entering the bailer. When the electric submersible is, itself, used for sample collection it should be operated with the output restricted to a point where the loss of volatiles becomes indistinguishable from the level obtained with true sampling pumps. It should be noted that when the pump is used for both evacuation and sample collection that it is possible to perform these operations as an uninterrupted continuum. This contrasts with the variations in elapsed time between evacuation and sample collection that occur when field personnel cease one mode of operation and must bring other apparatus into use.

Decontamination

All apparatus is brought to the site in clean and serviceable condition. The equipment is decontaminated after each use and before leaving the site.

Effluent Materials

The evacuation process creates a volume of effluent water which must be contained. Blaine Tech Services, Inc. will place this water in appropriate containers of the client's choice or bring new 55 gallon DOT 17 E drums to the site, which are appropriate for the containment of the effluent materials. The determination of how to properly dispose of the effluent water must usually await the results of laboratory analyses of the sample collected from the groundwater well. If that sample does not establish whether or not the effluent water is contaminated, or if effluent from more than one source has been combined in the same container, it may be necessary to conduct additional analyses on the effluent material.

Sampling Methodology

Samples were obtained by standardized sampling procedures that follow an evacuation and sample collection protocol. The sampling methodology conforms to both State and Regional Water Quality Control Board standards and specifically adheres to EPA requirements for apparatus, sample containers and sample handling as specified in publication SW 846 and T.E.G.D. which is published separately.

Sample Containers

Sample containers are supplied by the laboratory performing the analyses.

Sample Handling Procedures

Following collection, samples are promptly placed in an ice chest containing deionized ice or an inert ice substitute such as Blue Ice or Super Ice. The samples are maintained in either an ice chest or a refrigerator until delivered into the custody of the laboratory.

Sample Designations

All sample containers are identified with both a sampling event number and a discrete sample identification number. Please note that the sampling event number is the number that appears on our chain of custody. It is roughly equivalent to a job number, but applies only to work done on a particular day of the year rather than spanning several days, as jobs and projects often do.

Chain of Custody

Samples are continuously maintained in an appropriate cooled container while in our custody and until delivered to the laboratory under our standard chain of custody. If the samples are taken charge of by a different party (such as another person from our office, a courier, etc.) prior to being delivered to the laboratory, appropriate release and acceptance records are made on the chain of custody (time, date and signature of person accepting custody of the samples).

Hazardous Materials Testing Laboratory

The samples obtained at this site were delivered to McCampbell Analytical in Pacheco, California. McCampbell is certified by the California Department of Health Services as a Hazardous Materials Testing Laboratory, and is listed as DOHS HMTL #1644.

Personnel

All Blaine Tech Services, Inc. personnel receive 29 CFR 1910.120(e)(2) training as soon after being hired as is practical. In addition, many of our personnel have additional certifications that include specialized training in level B supplied air apparatus and the supervision of employees working on hazardous materials sites. Employees are not sent to a site unless we are confident they can adhere to any site safety provisions in force at the site and unless we know that they can follow the written provisions of an SSP and the verbal directions of an SSO.

In general, employees sent to a site to perform groundwater well sampling will assume an OSHA level D (wet) environment exists unless otherwise informed. The use of gloves and double glove protocols protects both our employees and the integrity of the samples being collected. Additional protective gear and procedures for higher OSHA levels of protection are available.

Reportage

Submission to the Regional Water Quality Control Board and the local implementing agency should include copies of the sampling report, the chain of custody and the certified analytical report issued by the Hazardous Materials Testing Laboratory.

Please call if we can be of any further assistance.

William Jones
Project Coordinator

WRJ/dg

attachments: table of well monitoring data

chain of custody

TABLE OF WELL MONITORING DATA

Well I.D. Date Sampled	MW-2 08/27/9	98		MW~3 08/27/9	98		MW-4 08/27/98	MW-5 08/27/98
Well Diameter (in.)	2			2			2	2
Total Well Depth (ft.)	22.92			21.00			22.94	21.69
Depth To Water (ft.)	6.42			6.25			5.43	5.77
Free Product (in.)	NONE			NONE			NONE	NONE
Reason If Not Sampled							GAUGE ONLY	GAUGE ONLY
1 Case Volume (gal.)	2.6			2.4				
Did Well Dewater?	NO			ИО				
Gallons Actually Evacuated	8.0			7.5				
Purging Device	BAILER			BAILER				
Sampling Device	BAILER			BAILER				
Time	14:05	14:09	14:13	14:30	14:34	14:38		
Temperature (Fahrenheit)	71.6	71.1	70.8	71.8	71.6	71.4		
рH	7.0	7.0	7.0	7.2	7.1	7.1		
Conductivity (micromhos/cm)	740	760	760	770	770	780		
Nephelometric Turbidity Units	>200	>200	>200	>200	>200	>200		
BTS Chain of Custody	980827-	-G2		980827-	-G2			
BTS Sample I.D.	MW-2			MW-3				
DOHS HMTL Laboratory	MCCAMPE	BELL		MCCAMPE	BELL			
Analysis	TPH-D,	BTEX,		TPH-D,	BTEX,			
	PNA's k	y 8015,		PNA's k	y 8015,			
	PAH's k	y 8270		PAH's k	y 8270			

TABLE OF WELL MONITORING DATA

Well I.D. Date Sampled	RW-1 * 08/27/98	RW-2** 08/27/98		
Well Diameter (in.) Total Well Depth (ft.) Depth To Water (ft.)	12 5.95	4 12.45 5.92		
Free Product (in.) Reason If Not Sampled	0.07 GAUGE ONLY	NONE		
1 Case Volume (gal.) Did Well Dewater? Gallons Actually Evacuated		4.2 NO 15.0		
Purging Device Sampling Device		ELECTRIC BAILER	SUBMERSI	BLE
Time Temperature (Fahrenheit) pH Conductivity (micromhos/cm) Nephelometric Turbidity Units		15:12 76.7 7.0 580 >200	15:13 76.8 6.8 560 >200	15:14 76.4 6.8 550 >200
BTS Chain of Custody BTS Sample I.D. DOHS HMTL Laboratory Analysis		980827-G RW-2 MCCAMPBE TPH-D, B' PNA's by PAH's by	LL TEX, 8015,	

^{*} RW-1: Absorbent sock replaced.

^{**} RW-2: Approximately 20 mL of separate phase hydrocarbon removed from installed skimmer.

BLAINE 1680 ROGERS AVENUE SAN JOSE, CALIFORNIA 95112			CONE	DUCT	ANALYS	SIS TO DE	TECT	LLAB Mc CAMPBELL IDHS#
TECH SERVICES INC. FAX (408) 573-7771 PHONE (408) 573-0555								ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND
CHAIN OF CUSTODY 980827-62] .g							☐ EPA ☐ RWQCB REGION ☐ LIA ☐ OTHER
SITE GI TRUCKING FACILITY 1750 ADAMS ACC	CONTAINERS			ļ	بابا			SPECIAL INSTRUCTIONS
1750 ADAMS Ave] 							BLYMMER ENG. DX. ATN. MARK DETTERMENT
FA) Leandes MATRIX CONTAINERS OF ST	COMPOSITE	MAS	PAHIC	BTEX	TOH-D			ATW MARK DETTERMENT
SAMPLE I.D. Ø≥ TOTAL	ا ا		<u> </u>		+			ADD'L INFORMATION STATUS CONDITION LAB SAMPLE #
MW-2 4/21/18 14/8 W 6 6 MW-3 1443 1 1		X	X	X	X			
MW-3 1 1443 1 1	ļļ.		X	X				Curl of the of
RIV-2 V 1520 V		<u> </u>	Δ	\angle	X			SMAIL PLASS OF HOLD PER CLIENT
]						
SAMPLING DATE TIME SAMPLING PERFORMED BY		ا				- 1		RESULTS NEEDED NO LATER THAN PER CLIEST
THELEASE LIE TO TO THE LEASE LIE TO THE LIE TO	E 20/9		TIME	as		RECEIVE	DB/QL.	DATE TIME
BELEASED BY DATE			TIME			RECEIVE	D BY	DATE TIME
RELEASED BY DATE	Ē		TIME		1	RECEIVE	D BY	DATE TIME
·	E SEN	T	TIME	SENT	- Ta	OOLER#		
AGRO						•		

Attachment B

1 1 1 ×

Laboratory Analytical Report, McCampbell Analytical Inc.

dated September 4, 1998

110 Second Avenue South, #D7, Pacheco, CA 94553-5560 Telephone: 925-798-1620 Fax: 925-798-1622 http://www.mccampbell.com E-mail: main@mccampbell.com

Blymyer Engineers, Inc.	Client Project ID: #980827-62; GI	Date Sampled: 08/27/98		
1829 Clement Avenue	Trucking Facility	Date Received: 08/28/98		
Alameda, CA 94501	Client Contact: Mark Detterman	Date Extracted: 08/28/98		
	Client P.O:	Date Analyzed: 08/28/98		

09/04/98

Dear Mark:

Enclosed are:

- 1). the results of 2 samples from your #980827-62; GI Trucking Facility 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

110 Second Avenue South, #D7, Pacheco, CA 94553-5560
Telephone: 925-798-1620 Fax: 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

Blymyer Engineers, Inc.	Client Project ID: #980827-62; GI	Date Sampled: 08/27/98	
1829 Clement Avenue	Trucking Facility	Date Received: 08/28/98	
Alameda, CA 94501	Client Contact: Mark Detterman	Date Extracted: 08/28/98	
	Client P.O:	Date Analyzed: 08/28/98	

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g) ⁺	MTBE	Benzene	Toluene	Ethylben- zene	Xylenes	% Recovery Surrogate
94294	MW-2	w			ND	ND	ND	ND	89
94295	MW-3	w			ND	ND	ND	ND	89
									-
						· · · · · · · · · · · · · · · · · · ·			
									
								-	
									
			•						· · · · · · · · · · · · · · · · · · ·
Reporting	Limit unless					-			
otherwise	stated; ND letected above	W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
	orting limit	S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

^{*} water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

[#] cluttered chromatogram; sample peak coelutes with surrogate peak

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 gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; c) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

110 Second Avenue South, #D7, Pacheco, CA 94553-5560
Telephone: 925-798-1620 Fax: 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

Blymyer Eng	ineers, Inc.	Client Project ID:		Date Sampled: 08/27/98		
1829 Clemen	t Avenue	Trucking Facility		Date Received: 08/28/98		
Alameda, CA	. 94501	Client Contact: M	fark Detterman	Date Extracted: 08/3		
		Client P.O:		Date Analyzed:	09/01/98	
EPA methods me	Diesel 1 odified 8015, and 3550	Range (C10-C23) Ex O or 3510; California RWQ	tractable Hydrocarb CB (SF Bay Region) metho	ons as Diesel * od GCFID(3550) or GCF	ID(3510)	
Lab ID	Client ID	Matrix	TPH(d) ⁺		% Recovery Surrogate	
94295	MW-2	w	93,c,b		106	
94295	MW-3	w	410,a,b		#	
<u> </u>						
			·····			

* 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

50 ug/L

1.0 mg/kg

W

S

Reporting Limit unless otherwise

stated; ND means not detected above the reporting limit

^{*} 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.

110 2nd Avenue South, #D7, Pacheco, CA 94553 · Tele: 925-798-1620 Fax: 925-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 08/28/98-08/29/98 Matrix: WATER

	Concent	ration	(mg/L)		% Reco	very	
Analyte	Sample			Amount		_	RPD
	(#94114) 	MS 	MSD	Spiked	MS	MSD	
TPH (gas)	0.0	94.3	97.1	100.0	94.3	97.1	3.0
Benzene	0.0	9.4	9.7	10.0	94.0	97.0	3.1
Toluene	0.0	9.6	9.9	10.0	96.0	99.0	3.1
Ethyl Benzene	0.0	9.8	10.3	10.0	98.0	103.0	5.0
Xylenes	0.0	29.5	31.3	30.0	98.3	104.3	5.9
TPH(diesel)	0.0	171	157	150	114	105	8.9
TRPH (oil & grease)	0	20700	21000	23700	87	89	1.4

% Rec. = (MS - Sample) / amount spiked x 100

 $RPD = (MS - MSD) / (MS + MSD) \times 2 \times 100$

QC REPORT FOR HYDROCARBON ANALYSES

Date: 09/01/98-09/02/98 Matrix: WATER

	Concent	ration	(mg/L)		% Reco	very	
Analyte	Sample (#94114)	MS	MSD	Amount Spiked	MS	MSD	RPD
TPH (gas)	0.0	91.3	96.6	 100.0	 91.3	96.6	5.7
Benzene	0.0	8.9	9.1	10.0	89.0	91.0	2.2
Toluene	0.0	9.2	9.4	10.0	92.0	94.0	2.2
Ethyl Benzene	0.0	9.4	9.7	10.0	94.0	97.0	3.1
Xylenes	0.0	28.6	29.3	30.0	95.3	97.7	2.4
TPH(diesel)	0.0	173	167	150	115	111	3.3
TRPH (oil & grease)	0	21400	20700	23700	90	87	3.3

% Rec. = (MS - Sample) / amount spiked x 100

RPD = $(MS - MSD) / (MS + MSD) \times 2 \times 100$

CHROMALAB, INC.

Environmental Services (SDB)

September 4, 1998

Submission #: 9808436

MCCAMPBELL ANALYTICAL, INC.

Atten: Ed Hamilton

Project: BTS-GIT

Received: August 28, 1998

Project#: 12196

re: One sample for Polynuclear Aromatic Hydrocarbons (PAHs) analysis.

Method: SW846 Method 8270A Nov 1990

Client Sample ID: MW-2

Sp1#: 203378 Sampled: August 27, 1998

Matrix: WATER Run#: 14636

Extracted: September 1, 1998

Analyzed: September 1, 1998

ANALYTE NAPHTHALENE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK I SPIKE (%)	DILUTION FACTOR
ACENAPHTHYLENE	N.D.	2.0	N.D.		1
ACENAPHTHELENE ACENAPHTHENE	Ŋ.D.	2.0	N.D.		ī
FLUORENE	N.D.	2.0	N.D.	97.3	ī
	N.D.	5.0	N.D.		1
PHENANTHRENE ANTHRACENE	N.D.	2.0	N.D.		ī
ANIACENE	N.D.	2.0	N.D.		ī
FLUORANTHENE	N.D.	2.0	N.D.		ī
PYRENE	N.D.	2.0	N.D.	92.3	ī
BENZO (A) ANTHRACENE	N.D.	2.0	N.D.		ī
CHRYSENE	N.D.	2.0	N.D.		ī
BENZO (B) FLUORANTHENE	N.D.	2.0	N.D.		1
BENZO (K) FLUORANTHENE	N.D.	2.0	N.D.		ī
BENZO (A) PYRENE	N.D.	2.0	N.D.		Ŧ
INDENO(1,2,3-CD)PYRENE	N.D.	2.0	N.D.		ī
DIBENZO (A, H) ANTHRACENE	N.D.	2.0	N.D.		1
BENZO (CHI) PERYLENE	N.D.	$\bar{2}.\bar{0}$	N.D.		i

Michael Lee Analyst

Michael Verona

Operations Manager

CHROMALAB, INC.

Environmental Services (SDB)

September 4, 1998

Submission #: 9808436

MCCAMPBELL ANALYTICAL, INC.

Atten: Ed Hamilton

Project: BTS-GIT

Project#: 12196

Received: August 28, 1998

re: One sample for Polynuclear Aromatic Hydrocarbons (PAHs) analysis.

Method: SW846 Method 8270A Nov 1990

Client Sample ID: MW-3

Spl#: 203379 Sampled: August 27, 1998

Matrix: WATER Run#:14636 Extracted: September 1, 1998 Analyzed: September 1, 1998

REPORTING BLANK BLANK DILUTION RESULT LIMIT RESULT SPIKE FACTOR **ANALYTE** (ug/L) <u>(ug/L)</u> (ug/L) (%) NAPHTHALENE N.D. N.D. 1 1 2.0 2.0 ACENAPHTHYLENE N.D. 1 ACENAPHTHENE N.D. 2.0 N.D. 97.3 FLUORENE N.D. 5.0 N.D. - -N.D. N.D.

PHENANTHRENE ANTHRACENE N.D. N.D. FLUORANTHENE N.D. N.D. PYRENE N.D. 2.0 92.3 N.D. BENZO (A) ANTHRACENE N.D. N.D. CHRYSENE N.D. N.D. BENZO (B) FLUORANTHENE BENZO (K) FLUORANTHENE N.D. N.D. N.D. N.D. BENZO (A) PYRENE N.D. N.D. INDENO (1,2,3-CD) PYRENE DIBENZO (A, H) ANTHRACENE N.D. N.D. N.D. 2.0 N.D. BENZO (GHI) PERYLENE N.D. 2.0 N.D.

Note: Recovery of 2-fluorobiphenyl (surrogate) was out of control limit due to

matrix interference.

ielaello.

Michael Lee

Analyst

Michael Verona

Operations Manager

DDY RECORD

McCAMBELL ANALYTICAL IN

110 2"d AVENUE SOUTH, #D7

PACHECO, CA 94553-5560 Telephone: (925) 798-1620 RUSH 24 HOUR 48 HOUR 5 DAY ROUTINE Fax: (925) 798-1622 Report To: Ed Hamilton Bill To: MAI ANALYSIS REQUEST OTHER Project #: 12 196 Project Name: B.T.S.-GI.T. Project Location: EPA - Priority Pollutant Metals METHOD **SAMPLING** LEAD (7240/7421/239.2/6010) MATRIX PRESERVED EPA 608/8080-PCB's only COMMENTS EPA 624/8240/8260 Type Containers ORGANIC LEAD # Containers SAMPLE ID LOCATION EPA 601/8010 EPA 602/8020 Date Time EPA 608/808 Air Sludge Other Water Soil Ice HCI HNO, Other 9/27 8/27 MW-a MW-3 Date: 928 Relinguished By: Received By: Time: Remarks: Time: Received By:

174

Time: Received By:

Time: Received By: Relinquished D Relinguished By:

CHROMALAB, INC.

Environmental Service (SDB)

Sample Receipt Checklist

Client Name: MCCAMPBELL ANALYTICAL,	INC.				/28/98 <i>l</i> <u>-</u>
		Receive	ed by: 🗜	3.14 "	H x
Reference/Submis: 41705 9808436 Checklist completed by:	nedy	7-5/-/ Date	8 Revi	ewed by	Initials
Matrix: <u>Wates</u>	Carrier	name: (Client -	(L)	Not.
Shipping container/cooler in good condition	on?		Yes <u>C</u>	No	Presen Not
Custody seals intact on shipping container	r/cooler?		Yes	No	Presen Not
Custody seals intact on sample bottles?			Yes	_	Presen
Chain of custody present?					
Chain of custody signed when relinquished	and recei	ved?			Yes N
Chain of custody agrees with sample labels				,	Yes N
Samples in proper container/bottle?					YesN
				•	Yes _C N
Sample containers intact?	et?				Yes 💯 N
Sufficient sample volume for indicated te			•		Yes 1
All samples received within holding time?			Temp: (<u> 28</u> .c	Yes
Container/Temp Blank temperature in compl	liance?		_	_	Yes
Water - VOA vials have zero headspace?			submitted		
Water - pH acceptable upon receipt?					chemist fo
Any No and/or NA (not applicable) respons	se must be	detailed	in the co	mments 86	ection below =========
Client contacted: Date	contacted	:	Perso	n contact	ed:
Contacted by: Rega	rding:				
Comments:					
Corrective Action:					
COLLECTIAN VCCTOW.	_				

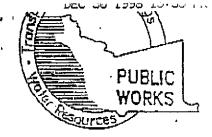
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BLAINE 1680 ROGERS AVENUE SAN JOSE, CALIFORNIA 95112	CON	NDUCT ANALY	SIS TO DETECT	LILAB Mc CAMPEUL IDHS#
TECH SERVICES INC. FAX (408) 573-7771 PHONE (408) 573-0555				ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND
CHAIN OF CUSTODY				☐ EPA ☐ RWQCB REGION
980827-62				LIA
CLIENT B	? ;			ОТНЕЯ
Bymyen was INC.				SPECIAL INSTRUCTIONS
SITE GT TRUCKING FALLUNG		4,		Divoice of Report TO
1750 ADAMS Ave =		世		Buymyer ENG. DX
Fa) Leandeo MATRIX CONTAINERS OF STATE OF STAT	DAA'S	Brex TPH-D		ATTO: MARK Detterment
SOIL = H2O		RITE HOT		
SAMPLE I.D. 5 TOTAL 5				ADD'L INFORMATION STATUS CONDITION LABS, 94294
				94295
MW-3 1443 1 1				1
1 RW-2 V 1520 V				SPH in surphy HOLD PER CLIENT 94296 H
	1			·
VQASI OSGIMETALSI OTHER				
ICE/I PRESERVATION				
COOD CONDITION AFTECTI ATE HEAD SPACE ABSENT CONTANNERS	1 1			
SAMPLING DATE, TIME SAMPLING		(Me	<u> </u>	RESULTS NEEDED NO LATER THAN PER CUENT
0/2/198	/ TIM		BECEIVED BY	DATE / TIME
8/10)	198 10	200	J J Kaled	U110 8/28/88 1005
BELEASED BY OWN OFF 9/2	ATIM PERCEN	E -/24%	RECEIVED BY	134 PA 12 45
RELEASED BY DATE	L TIM		RECEIVED BY	DATE TIME
SHIPPED VIA DATE SE	ENT TIM	IE SENT	COOLER#	
		ļ		

Attachment C

 $\mathbf{f} = \mathbf{g} \cdot \mathbf{h}^{-1}$

Vicinity Water Wells

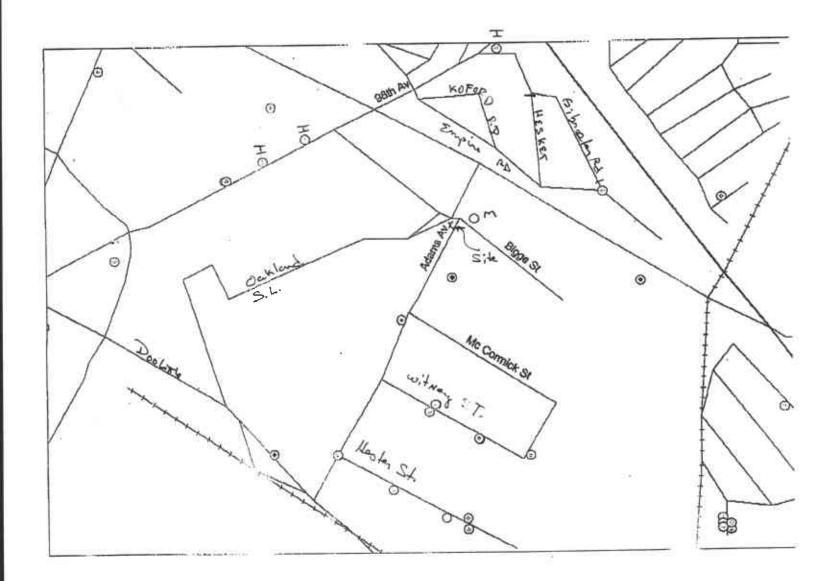
December 30, 1998



PUBLIC WORKS AGENCY
951 Turner Court, Hayward, CA 94545
(510) 670-5543

DATE: /2-30

FAX TRANSMITTAL	No of Pages (including cover):
T Mark Detlerminal FAX:	F Andreas Godfrey O M FAX:
Should you have problems receiving this FAX	
SUBJECT: 1/2 mile vail	
TRANSMITTING THE FOLLOWING:	• •



1	The state of the s	Vigitees TO: 20 11	Owner		Drindate	Totaldepth			U30	
5/3W	2003	155 98th Avenue	California Glass	OAK	3/90	20	8		MON	0
S/3W	286 4	100 98th Avenue	California Glass	OAK	3/90	20	8	4	MON	C
\$/3W	28G 5	155 98th Avenue	California Glass	QAK	3/00	20	8	4	HOM	- 0
	28Q ·	2000 Adama Avenue	Safeway	SLE	12/89	0	8	0	BOR.	
	28Q	2000 Adama Avenue	Safeway	ŞLE	10/89	8	0	0	BOR	5
S/3W	280 5	2000 Adams Avenue	Safeway	SLE	10/89	21	8	4	MON	- 0
S/3W	280 6	2000 Adams Avenue	Safeway	SLE	10/89	21	6	4	MON	9
WE/2		2000 Adams Avenue	Safeway	SLE	10/89	21	6	4	MON	- 0
S/3W	280.7	Blage Street & SPT Rail	Reynolds & Brown	SLE	4/89	16	13	0	SOR.	-
5/3W	27M	Empire Rd	Caterpillar, Inc.	OAK	05/90	65	5	2	MON	
15/3W	27M 1	Empire Road & Gibralter	Caterpillar, Inc.	OAK	6/90	15	7	2	MON	
WE/2	34M16		Safaway Milk Flont	GLE	9/80	26	16	2	MOH	
:5/9W	200 8	2000 Adams Ave	Precision Foundars, Inc.	SLE	10/90	61	28	4	ल्या	
SAW	238.4	Hoater St. & Adams Are	Safeway	SLE	1/91	63	9	4	MON	
ENSIN.	280 9	2000 Adams Street		SLE	1/01	67	10	4	MON	
2S/3W	2801	2000 Adema Street	Safeway	SLE	5/91	17		2	MON	
25/3W	28R T	519 Whitney St	Benkiser Electric	SLE	4/91	0	110	0	BOR	
28/3W	28R G	519 Whitney St	Benkiser Electric	SLE	3/91	15		+	MON	
26/3W	28R 7	519 Whitney St	Benkiser Electric	SLE	3/91	15			MON	
25/3W	28R 8	519 Whitney St	Benkiser Electric			30				_
28/3W	33A20	10505 Doolittle Drive	Port of Oakland	OAK	4/91	20			-	_
29/3W	28011	10505 Doolittle Drive	Port of Oakland	OAK	_	22	-	-	-	
29/3W	22P 1	9824 HESKET DR	FULTON	OAK	/54	250			-	
29/31/	28G 1	150 TUNIS RD & 98TH	RATTO BROTHER	OAK		-			1	30
28/314	25G 2	191 98TH AVE	HATTO BROS INC.	OAK		305			-	
າຍເລເນ	2011	1780 VOVINS VAE	MUNE TRUCK	RITE	12/86	25	-			
26/977	po.t 2.	TARO VOVINS VALE	T"UNE TRUEK	DLE	12/0d	25			7 7 11 1	-
PERM	0.04.28	1750 ADAMS AVE	PULNE TRUCK	STE	12/80	25		-		
25/3W	28J 4	1750 ADAMS AVE	MILNE TRUCK	SLE	12/86	27			-	
25/3W	28J 5	2000 ADAMS AVE	SAFEWAY STORES	SLE	6/07	21	_	_	MON	-
25/3W	28Q 1	390 DOOLITTLE DRIVE	EDGEWATER INTN'L TR	SLE	5/86	20			_	_
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29/3W	280 3	2000 ADAMS AVE	SAFEWAY MILK PLANT	SLE	06/86	27			Tes	
25/3W	280.4	2000 ADAMS AVE	SAFEWAY MILK PLANT	SLE	07/86	20	9 9	_	Z TEC	
25/3W		528 WHITNEY ST	MOORE BUSINESS FOR	SLE	7/05	1/	4 (5 MUI	
32/3W		528 WHITNEY ST	MOORE BUCINESS FOR	SLE	7/05	10	4	4	2 777	
28/3/4		528 WHITNEY ST	MOORE BURNERS FOR	SLE	7/95	1-	4	2 :	2 1597	21
20/014	-	oro DOOLITTLE FOR	"AISER ACCUTECUL	SUE		3	3	4	2 ****	
	ROA 3	AUS HESTER ST	HAMFIOT'	GLE	0: /35		5	5	2	1
12.00	1224.4	1 'S HESTER ST	HAMFIOI'	CUE		1	7	4	2	*
		425 HESTER ST	CHAMPION	SLE		1	4	3	2 MQ	R
	33A 5		CHAMPION	SLE					6 1/55	11
25/3W		425 HESTER ST	CHAMPION	SLÉ			-	5	6 Kió	61
25/3W		428 HESTER ST	CHAMPION	SLE				4	OM B	1
26/3W		425 HESTER 6T	425 HESTER ST	SLE				4	2 14	
25/3W	-	425 HESTER ST	425 HESTER STREET IN	-					2	
2S/3W		425 HESTER ST							2	
2\$/3W		600 DOOUTTLE OR	LIKIT WINDOWS 1	-				_	8	
WE/SZ		497 HESTER STREET	1	SUE					8	
SS/SV	77-1-1-1-1	AUT HESTER STEEL	T. MALOUS ST.	SILE				_	2	
	CLEANA	# 14 DOOLITTLE 1: 1'	J WALCH O	STUE	-		-		4	
2073U	A) DOOLITTLE	POOLITTLE SECCIAT			-			4	1
20/5/		: "I DOOLITTLE	POOLITTLE / SECCIAT				-	4	4	ici)
25/3W		800 DOOLITTLE	DOOLITTLE ASSOCIAT	-				1	4	
25/31/	33A18	800 DOOLITTLE	DOOLITTLE ASSOCIAT	_				8		
		900 DOOLITTLE	- DOOLITTLE ASSOCIAT		01/89	TI 2	8	et i	4 100	entra Eli

Iri	Section	EC 30 1998 15:5; ;	UWNER CU LOD WAS TE	Licy	Pumonre	Locenshin	200077224	Lines How Last	034	1 taber
2\$/3W	28R10	Whitney & Edison	Bedford Prope MW-	SLE	10/97	16	8	2	MON	-
28/3W	28B11	Whitney & Edison	Redford Props MW-	SLE	10/91	17	7	2	MON	_
28/3W	20B12	Whitney & Edison	Cadford Props MW-	SLE	10/91	17	7		MON	_
2S/3W	281	Doplittle & Airport Acces	Domenic Cennizzaro 8	OAK	9/91	14	8	0	COR	
3818/1	2016	10700 Bigge Ave.	Flago Cronn & Rigging N	CLE	2/93	24	14		MOR	_
ANEVE C	2817	10700 Blage Ave.	Pines Come & Rigging N	SLS	2/93	24	10	2	MON	-
25/3W	29813	485 Hester St.	C. E. M. B & L PAY-2	SLE	5/03	18	6	4	PACH	
25/3W	28R14	485 Hester St.	C, K, M, B & L MW-3	SLE	5/93	16	5	4	MON	-
25/9W	28A15	488 Heater St.	C, K, M, B & L MW-1	SLE	1/93	15	5	4	MON	-
25/3W	28R16	717 Whitney St.	Bedford Prop. MW-5	3LE	9/92	14	12	2	MON	-
25/3W	28R17	717 Whitney St.	Bedford Prop. MW-6	SLE	9/92	13	10	2	MON	
25/3W	28R18	717 Whitney St	Eaton Corp	SLE	8/93	10	7	2	MON	
25/3W	28R19	717 Whitney St	Eaten Corp	SLE	6/93	10	7	2	MON	
25/3W	28820	717 Whitney St	Earon Corp	SLE	0/93	10	9	2	MON	
2S/3W	28G 6	121 98th Ave	Budget Rent a Car Corpo	OAK	5/93	11	4	2	MUN	
26/3W	200 7	121 98th Avo	Budget Rent a Car Corps		6/93	17	4	2.	MON	
25/31//	28G B	121 98th Ave	Radget Bent a Car Corre	-	5/03	11	4	2	MOT	
28/3/1	250 B	G2G Whitney St	The Principal (Inapplied G	411 10-00	2/06	23	5	2	Afri	
25/2W	2002	520 Whitney St	The Principal Stanneist G	-	2/34	20	ė	2	1407	
29/3W	27M 2	25 Malta Ct	Caterpiller, Inc	OAK	7/94	40	7	2	MON	1
28/3W	286 9	121 98th Av	Budget Bent a Car Corps	OAK	9/94	11	4	2	MON	1
25/3W	28J 8	2000 Adams Ave	Safeway Inc.	SLE	12/93	20	12	2	MON	-
26/3W	28J 9	2000 Adams Ave	Safeway Inc.	SLE	12/93	20	12	2	MON	1
29/3W	28J10	2000 Adams Ave	Safeway Inc.	ŞLE	12/93	20	12	2	10M	1
25/3W	28R23	480 Heater St	Kalser Aerotech	SLE	3/97	10	1	2	MOR	3
25/3W	33A21	880 Doolittle Dr	Kaiser Aerotech	SLE	7/98	10		1	MON	1
25/3W	33A22	600 Doolittle Dr	Kalser Aerotoch	SLE	7/98	10	7	1	MOR	1