

3/2/9/2000 3

February 19, 1996

Alameda County Health Care Services 1131 Harbor Bay Parkway, 2nd Floor Alameda, CA 94502

Attention: Ms. Amy Leech

RE: Berkeley Land Company

23555 Saklan Road Hayward, California

Dear Ms. Leech:

Per the request of Mr. Rick Montesano of Paradiso Mechanical, Inc., enclosed please find our report dated February 16, 1996, for the above referenced site.

Should you have any questions, please feel free to call our office at (510) 602-5100.

Sincerely,

Kaprealian Engineering, Inc.

Judy A. Dewey

Executive Secretary

jad\17

Enclosure

cc: Rick Montesano, Paradiso Mechanical, Inc.

ST. W. S. C. L.

KEI-P88-1110.QR10 February 16, 1996

Berkeley Land Company 4550 San Pablo Avenue Emeryville, CA 94608

٠,

Attention: Mr. Norm Alberts

RE: Quarterly Report

Berkeley Land Company 23555 Saklan Road Hayward, California

Dear Mr. Alberts:

This Kaprealian Engineering, Inc. (KEI) report presents the results of the most recent quarter of monitoring and sampling of the monitoring wells at the referenced property. All of the wells are currently monitored and sampled on a quarterly basis. This report covers the work performed in January of 1996.

#### **BACKGROUND**

The subject property occupies the northeast corner of the intersection of Saklan Road and Middle Lane in Hayward, California, and is situated approximately two miles from the shores of the San Francisco Bay. The property is located in a mixed light industrial and residential area. A Location Map is attached to this report. A large part of the property is used by Quality Tow, an automobile towing operation, for the storage of used vehicles.

In June of 1988, an underground fuel storage tank was reportedly removed from the property. On February 27, 1990, and March 1, 1990, two exploratory borings were drilled at the property. During the drilling of the borings, a six-inch diameter water well was discovered adjacent to the former underground fuel storage tank pit. On May 30, 1990, four exploratory borings were drilled and five monitoring wells installed at the property. KEI's initial work at the property was conducted on February 25, 1993, when the five existing monitoring wells were monitored and sampled. On June 1 and 2, 1993, seven exploratory borings, in conjunction with a Hydropunch study, were drilled at the property. A total of 13 borings have been drilled and five monitoring wells have been installed at the property.

A site description, detailed background information including a summary of all of the soil and ground water subsurface investigation/remediation work conducted to date, hydrogeologic conditions,

\* KEI-P88-1110.QR10 February 16, 1996 Page 2

and tables that summarize all of the soil and ground water sample analytical results are presented in KEI's report (KEI-P88-1110.R2) dated July 12, 1993.

#### RECENT FIELD ACTIVITIES

The five monitoring wells (MW1 through MW5) and the water well (WW1) were monitored and sampled once during the quarter. During monitoring, the wells were checked for depth to water and the presence of free product. Prior to sampling, the wells were also checked for the presence of a sheen. No free product or sheen was noted in any of the wells during the recent quarter. The monitoring data collected during the recent quarter are summarized in Table 1.

Ground water samples were collected from all of the wells on January 17, 1996. Prior to sampling, the wells were each purged of between 18.5 and 169.5 gallons of water by the use of a surface pump. During purging operations, the field parameters pH, temperature, and electrical conductivity were recorded and are presented in Table 2. Once the field parameters were observed to stabilize and a minimum of approximately four casing volumes had been removed from each well, water samples were then collected by the use of a clean Teflon bailer. The samples were decanted into clean VOA vials and/or one-liter amber bottles, as appropriate, which were then sealed with Teflon-lined screw caps, labeled, and stored in a cooler, on ice, until delivery to a state-certified laboratory.

#### HYDROLOGY

The measured depth to ground water at the property on January 17, 1996, ranged between 11.20 and 13.26 feet. The water levels in the wells have shown net increases ranging from 0.53 to 1.12 feet since October 19, 1995. Based on the water level data gathered on January 17, 1996, the ground water flow direction appeared to be predominantly to the west-southwest, as shown on the attached Potentiometric Surface Map, Figure 1. The ground water flow direction has been predominantly to the southwest since the inception of the monitoring program in May of 1993 (ten consecutive quarters). The average hydraulic gradient at the property on January 17, 1996, was approximately 0.003.

#### ANALYTICAL RESULTS

The ground water samples collected during the quarter were analyzed at Sequoia Analytical Laboratory and were accompanied by properly executed Chain of Custody documentation. The samples were analyzed

\*KEI-P88-1110.QR10 February 16, 1996 Page 3

for total petroleum hydrocarbons (TPH) as gasoline by EPA method 5030/modified 8015, TPH as diesel by EPA method 3510/modified 8015, and benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA method 8020. Ground water samples collected from MW2 and WW1 were also analyzed for EPA method 8270 constituents.

The analytical results of all of the ground water samples collected from the wells to date are summarized in Table 3. The concentrations of TPH as gasoline, benzene, and TPH as diesel detected in the ground water samples collected on January 17, 1996, are shown on the attached Figure 2. Copies of the laboratory analytical results and the Chain of Custody documentation are attached to this report.

#### DISCUSSION AND RECOMMENDATIONS

Free product has historically been detected in only one well at the site, WW1. A "fingerprint" analysis conducted on a sample of this product was determined to be diesel fuel. However, free product has not been detected at the site for the previous eight quarters (two hydrologic cycles).

In addition, BTEX constituents have been non-detectable in all of the wells at the site for the previous eight quarters (two hydrologic cycles), except for toluene and xylenes, which were detected in WW1 at concentrations of 1.0  $\mu$ g/L and 2.9  $\mu$ g/L, respectively, during the April 21, 1995 sampling event. However, as shown in the U.S. Environmental Protection Agency Drinking Water Standards and Health Advisories Table, the California Department of Health Services (DOHS) maximum contaminant levels (MCL) for toluene and (total) xylenes are 150  $\mu$ g/L and 1,750  $\mu$ g/L, respectively. These constituents are significantly below their respective MCL's.

As previously noted, the primary constituent of concern at the subject site is diesel. On December 7, 1995, KEI contacted Ms. Amy Leech of the Alameda County Health Care Services (ACHCS) Agency to discuss the status of the site. Ms. Leech noted that a risk-based closure analysis (RBCA) may be warranted at this site. She also stated that a RBCA for a diesel-related site would include concentration action levels for the constituents naphthalene and benzo(a)pyrene. Therefore, during the recent quarterly sampling event, ground water samples collected from WW1 and MW3 were also analyzed for EPA method 8270 constituents. The analytical results of these two samples indicated non-detectable concentrations of all of the EPA method 8270 constituents (including naphthalene and benzo(a)pyrene).

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Based on the above discussion, in light of the fact that the downgradient vicinity of the site is commercially developed, and based on no known beneficial use of the shallow-zone aquifer at and in the vicinity of the site, KEI recommends that Berkeley Land Company request formal site closure for this property. If site closure is approved by the ACHCS, KEI will prepare a work plan for the proper destruction of all of the wells.

#### DISTRIBUTION

A copy of this report should be sent to Ms. Amy Leech of the ACHCS, and to the Regional Water Quality Control Board, San Francisco Bay Region.

#### LIMITATIONS

Environmental changes, either naturally-occurring or artificially-induced, may cause changes in ground water levels and flow paths, thereby changing the extent and concentration of any contaminants.

Our studies assume that the field and laboratory data are reasonably representative of the site as a whole, and assume that subsurface conditions are reasonably conducive to interpolation and extrapolation.

The results of this study are based on the data obtained from the field and laboratory analyses obtained from a state-certified laboratory. We have analyzed these data using what we believe to be currently applicable engineering techniques and principles in the Northern California region. We make no warranty, either expressed or implied, regarding the above, including laboratory analyses, except that our services have been performed in accordance with generally accepted professional principles and practices existing for such work.

KEI-P88-1110.QR10 February 16, 1996 Page 5

If you should have any questions regarding this report, please do not hesitate to call at (510) 602-5100.

Sincerely,

Kaprealian Engineering, Inc.

Armond A. Balaian Staff Engineer

Joel G. Greger, C.E.G. Senior Engineering Geologist

License No. EG 1633 Exp. Date 8/31/96

Rt. M. Men

Robert H. Kezerian Project Manager

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Attachments: Tables 1, 2 & 3

Location Map

Potentiometric Surface Map - Figure 1

Concentrations of Petroleum Hydrocarbons - Figure 2

JOEL G. GREGER No. EG 1633 CERTIFIED ENGINEERING

GEOLOGIST

CAL!

Laboratory Analyses

Chain of Custody documentation

TABLE 1
SUMMARY OF MONITORING DATA

Well #	Ground Water Elevation (feet)	Water (feet)∳	Total Well Depth (feet) ♦	Product Thickness (feet)	<u>Sheen</u>	Water Purged (gallons)	Product Purged (ounces)
	(M	onitored and	sampled on	January 17	7, 1996	)	
MW1	20.85	12.91	24.75	0	No	31	0
MW2	21.37	12.96	26.58	Ŏ	No	27	0
MW3	20.86	12.77	19.84	Ö	No	18.5	0
MW4	20.80	11.20	26.27	Ö	No	39.5	0
MW5	21.18	11.46	20.27	Ö	No	23	0
WW1	NA	13.26	42.27	ő	No	169.5	0
				_	2,0	105.5	J
	(M	onitored and	Sampled on	October 19	, 1995)	1	
167.10	• • • •						
MW1	20.18	13.58	25.74	0	ИО	32	0
MW2	20.58	13.75	20.15	0	ИО	17	0
MW3	20.33	13.30	27.07	0	No	36	0
MW4	20.05	11.95	26.80	0	ИО	39	0
MW5	20.06	12.58	20.85	0	ИО	22	0
WW1	NA	13.35	41.00	0	No	162	0
		(Monitored a	nd Campled o	m July of	10051		
		(MONITCOLEG &	nd pambied (	m oury 26,	1995)		
MW1	21.11	12.65	24.77	0	No	32	0
MW2	21.53	12.80	26.70	Ö	No	37	0
MW3	21.08	12.55	19.85	Ö	No	20	0
MW4	20.97	11.03	26.30	Ö	No	40	0
MW5	21.34	11.30	20.28	Ö	No	24	0
WW1	NA	13.00	42.40	Ö	No	180	0
						100	U
	(	Monitored an	d Sampled or	n April 21,	, 1995)		
MW1	22.28	11.48	24 70	•		_	
MW2	22.86		24.78	0	No	35	0
MW3	22.29	11.47 11.34	26.58	0	No	40	0
MW4	22.29	9.84	19.84	0	No	21	0
MW5	22.16	10.02	26.28	0	No	43	0
WW1	22.62 NA	11.81	20.24	0	No	27	0
14 14 T	IAW	TT • QT	45.02	0	No	194	<1*

### TABLE 1 (Continued)

## SUMMARY OF MONITORING DATA

Well #	Well Casing Elevation (feet)**
MW1	33.76
MW2	34.33
MW3	33.63
MW4	32.00
MW5	32.64
WW1	NA

#### NA = Not available.

- ♦ The depth to water level and total well depth measurements were taken from the top of the well casings.
- \* Product collected in skimmer only.
- \*\* The elevations of the top of the well casing are relative to Mean Sea Level (MSL), per the Alameda County Benchmark located at Eden Avenue and West Street (elevation = 33.16 feet MSL).

TABLE 2

RECORD OF THE TEMPERATURE, CONDUCTIVITY, AND pH VALUES
IN THE MONITORING WELLS DURING PURGING AND PRIOR TO SAMPLING

## (Measured on January 17, 1996)

			Casing			
Gallons pe	er	Gallons	Volumes	Temperature	Conductivity	
Well # Casing Volu	<u>ume Time</u>	Purged	Purged	(°F)	$([\mu mhos/cm] \times 100$	Ha (
· -						An <u>1</u> 2222
MW1 7.70	9:30	0	0	61.4	3.15	7.92
		8	1.04	63.5	3.27	7.68
		16	2.08	64.1	3.39	7.50
		24	3.12	64.3	3.50	7.41
	9:50		4.03	64.4	3.57	7.36
MW2 8.85	10:30	0	0	63.2	3.14	7.81
		7	0.79	64.3	3.29	7.60
		14	1.58	64.5	3.37	7.51
		21	2.37	64.7	3.40	7.43
	10:47		3.05	64.9	3.46	7.39
MW3 4.60	13:17	0	0	63.8	3.23	7.93
		4.5	0.98	64.6	3.10	7.74
		9	1.96	64.9	3.39	7.59
		13.5	2.93	65.1	3.44	7.52
	13:32		4.02	65.3	3.50	7.47
MW4 9.80	12:20	0	0	63.6	3.18	7.71
		10	1.02	64.2	3.30	7.53
		20	2.04	64.5	3.33	7.42
		30	3.06	64.8	3.39	7.36
	12:43		4.03	65.0	3.42	7.32
MW5 5.73	11:25	0	0	63.8	3.37	7.73
		5.5	0.96	64.6	3.45	7.51
		11	1.92	65.2	3.60	7.40
		17	2.97	65.4	3.64	7.36
	11:41	23	4.01	65.5	3.62	7.31
WW1 42.35	14:07	0	0	64.0	3.51	7.75
		42.5	1.00	64.6	3.37	7.51
		85	2.01	65.4	3.38	7.40
		127.5	3.01	65.1	3.29	7.35
	15:30	169.5	4.00	65.2	3.21	7.31

TABLE 3
SUMMARY OF LABORATORY ANALYSES
WATER

<u>Date</u>	Sample Well #	TPH as <u>Diesel</u>	TPH as <u>Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	Ethyl- benzene	Xylenes
1/17/96	MW1	52♦♦	ND	ND	ND	ND	ND
	MW2	ND	ND	ND	ND	ND	ND
	MW3▼	120	ND	ND	ND	ND	ND
	MW4	ND	ND	ND	ND	ND	ND
	MW5	ИD	ИD	ND	ND	ND	ИD
	WW1▼	8,400	ND	ND	ND	ND	ND
10/19/95	MW1	ND	ND	ND	ND	ND	ND
	MW2	ND	ИD	ND	ND	ND	ND
	EWM	77	ND	ND	ND	ND	ND
	MW4	ND	ND	ND	ND	ND	ND
	MW5	ND	ИD	ND	ND	ND	ND
	WW1	560	ND	ND	ND	ND	ND
7/26/95	MW1	ND	ND	ND	ND	ND	ND
	MW2	ND	ND	ND	ND	ND	ND
	EWM.	ND	ND	ND	ND	ND	ND
	MW4	ND	ND	ND	ND	ND	ND
	MW5	ND	ND	ND	ND	ND	ND
	WW1	11,000	3,500*	ND	ND	ND	ND
4/21/95	MW1	ND	ND	ND	ND	ND	ND
	MW2	ИD	ND	ND	ND	ND	ND
	MW3	75	ND	ND	ND	ND	ND
	MW4	ND	ND	ND	ND	ND	ND
	MW5	ND	ND	ND	ND	ND	ND
	WW1	3,100	86	ИD	1.0	ИD	2.9
1/18/95	MW1	ND	ND	ND	ND	ND	ND
	MW2	ND	ND	ND	ND	ND	ND
	MW3	82	ND	ND	ND	ND	ND
	MW4	ND	ND	ND	ND	ND	ND
	MW5	ND	ND	ND	ND	ND	ND
	WW1	30,000	410*	ND	ND	ND	ND
10/18/94	MW1	ИD	ND	ИD	ND	ND	ND
	MW2	ND	ND	ND	ИD	ND	ND
	KWM3	120	ND	ИD	ND	ND	ND
	MW4	ИD	ND	ND	ND	ND	ND
	MW5	ND	ND	ND	ИD	ИD	ND
	WW1	2,400	180*	ND	ИD	ND	ND

## TABLE 3 (Continued)

# SUMMARY OF LABORATORY ANALYSES WATER

<u>Date</u>	Sample Well #	TPH as <u>Diesel</u>		Benzer	ne <u>Toluen</u>	Ethyl e <u>benze</u>	
7/13/94++	MW1	66♦♦	ND	ND	ND	ND	ND
&	MW2	67♦♦	ND	ND	ND	ND	ND
8/15/94	EWM.	92♦♦	ND	ИD	ND	ND	ND
	MW4	64♦♦	ND	ND	ND	ND	ND
	MW5	62♦♦	ND	ИD	ND	ND	ND
	WW1	9,200	1,600*	ND	ND	ND	ИD
1/20/94	MW1	73	ND	ИD	ИД	ND	ND
	MW2	ND	ND	ND	ND	ND	ND
	MW3	130	ND	ИD	ND	ND	ND
	MW4	ND	ND	ND	ND	ND	ND
	MW5	340♦	ND	ND	ND	ND	ND
	WW1	190,000	34,000*	ИД	ND	ИД	ND
10/28/93	MW1	120♦	200*	1.8	ND	ND	ND
• •	MW2	ND	ND	ND	ND	ND	ND
	MW3	170	ND	ND	ND	ND	1.4
	MW4	ИD	ND	ND	ND	ИD	ИД
	MW5	ИD	ND	ND	ND	ND	ND
	WW1	NOT S	AMPLED DUE	TO THE	PRESENCE (	OF FREE	PRODUCT
7/12/93+	MW1	200♦	150	1.1	ND	ND	0.51
&	MW2	ND	ND	ИD	ИD	ИD	ИД
8/20/93	MW3	ND	ND	ND	ND	ИD	ND
	MW4	ND	ND	ND	ND	ND	ND
	MW5	ND	ND	ND	ND	ND	ND
	WW1	NOT S	AMPLED DUE	TO THE	PRESENCE (	OF FREE	PRODUCT
2/25/93	MW1	5,900♦	4,600**	45	18	ND	750
	MW2	ND	ND	ND	ND	ND	ND
	MW3	200	ND	ND	ND	ND	ND
	MW4	ND	ИD	ND	ND	ND	ND
	MW5	ND	ND	ИД	ИД	ИD	ND
	WW1	NOT S	AMPLED DUE	TO THE	PRESENCE (	OF FREE	PRODUCT

- Sequoia Analytical Laboratory reported that the hydrocarbons detected appeared to be a diesel and non-diesel mixture.
- ♦♦ Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear to be diesel.

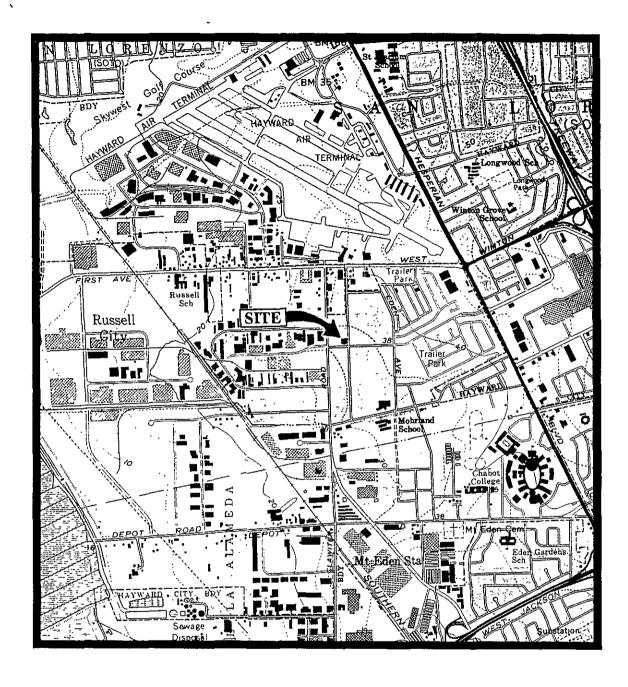
## TABLE 3 (Continued)

# SUMMARY OF LABORATORY ANALYSES WATER

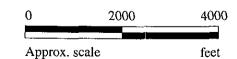
- ▼ All EPA method 8270 (GC/MS) constituents were non-detectable.
- \* Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear to be gasoline.
- \*\* Sequoia Analytical Laboratory reported that the hydrocarbons detected appeared to be a gasoline and non-gasoline mixture.
- + Samples collected on July 12, 1993, were analyzed for TPH as gasoline and BTEX. Samples collected on August 20, 1993, were analyzed for TPH as diesel.
- ++ Samples collected on July 13, 1994, were analyzed for TPH as gasoline and BTEX, and for TPH as diesel for well WW1. Samples collected on August 15, 1994, were analyzed for TPH as diesel for wells MW1 through MW5.

ND = Non-detectable.

Results are in micrograms per liter ( $\mu g/L$ ), unless otherwise indicated.

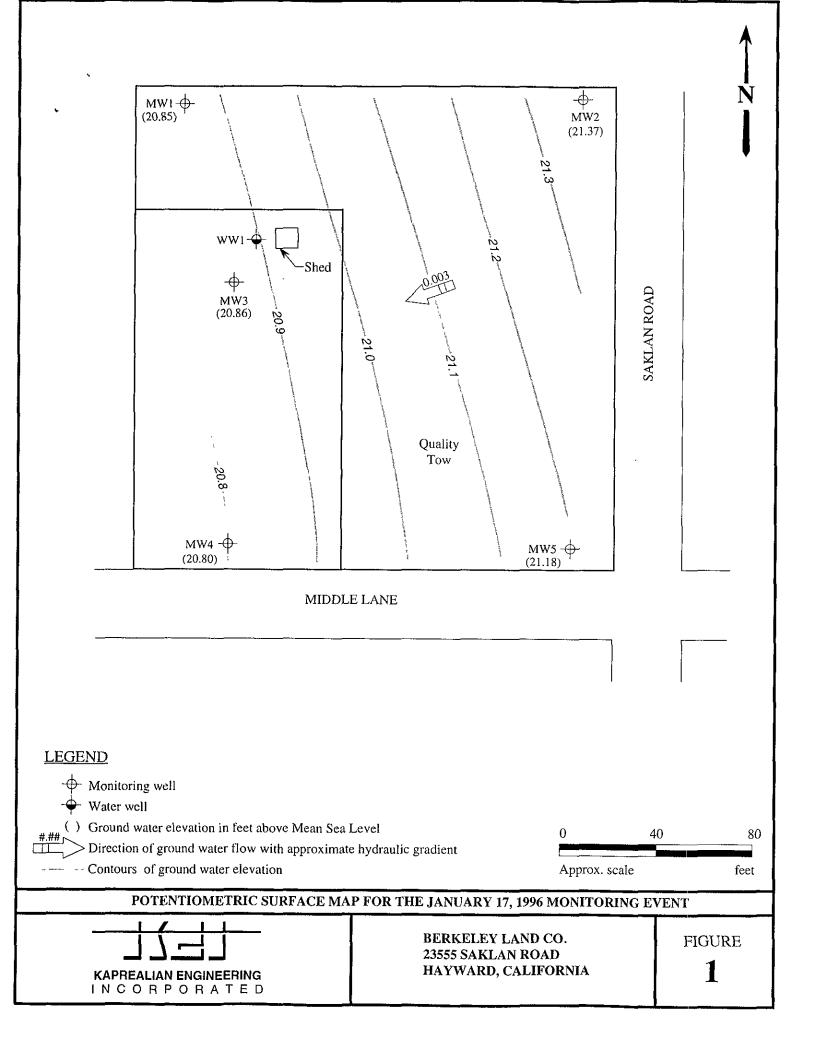


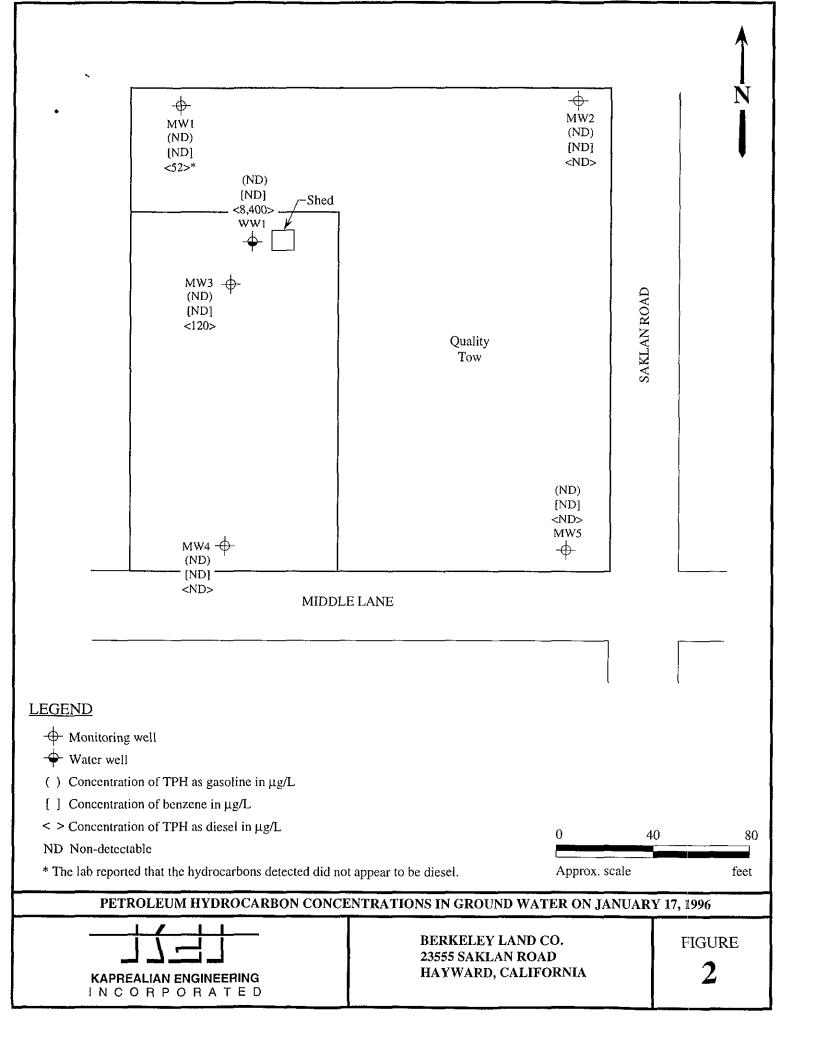
Base modified from 7.5 minute U.S.G.S. Hayward & San Leandro Quadrangles (both photorevised 1980)





BERKELEY LAND CO. 23555 SAKLAN ROAD HAYWARD, CALIFORNIA LOCATION MAP







680 Chesapeake Drive 404 N. Wiget Lane 819 Striker Avenue, Suite 8 Sacramento, CA 95834

Redwood City, CA 94063 Walnut Creek, CA 94598 (415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

MPDS Services

2401 Stanwell Dr., Ste. 300 Concord, CA 94520

Attention: Jarrel Crider

Client Project ID: Berkeley Land, 23555 Saklan Rd.,Hayward

Matrix Descript:

Water

Sampled: Received: Jan 17, 1996 Jan 17, 1996

First Sample #:

Analysis Method: EPA 5030/8015 Mod./8020 601-1092

Reported:

Feb 2, 1996

#### TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Sample Number	Sample Description	Purgeable Hydrocarbons μg/L	<b>Benzene</b> μg/L	<b>Toluene</b> μg/L	Ethyl Benzene µg/L	Total Xylenes μg/L
601-1092	MW-1	ND	ND	ND	ND	ND
601-1093	MW-2	ND	ND	ND	ND	ND
601-1094	MW-3	ND	ND	ND	ND	ND
601-1095	MW-4	ND	ND	ND	ND	ND
601-1096	MW-5	ND	ND	ND	ND	ND
601-1097	WW-1	ND	ND	ND	ND	ND

Detection Limits:	EU.		0.50	0.50	0.50	
( Detection Limits.	ວບ	0.50	0.50	ບ.ວບ	ບ.ວບ	
	·					

Total Purgeable Petroleum Hydrocarbons are quantitated against a fresh gasoline standard. Analytes reported as ND were not present above the stated limit of detection.

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp Project Manager

Page 1 of 2





680 Chesapeake Drive 404 N. Wiget Lane 819 Striker Avenue, Suite 8 Sacramento, CA 95834

Redwood City, CA 94063 Walnut Creek, CA 94598 (415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

MPDS Services 2401 Stanwell Dr., Ste. 300 Concord, CA 94520 Attention: Jarrel Crider

Matrix Descript:

First Sample #:

Client Project ID: Berkeley Land, 23555 Saklan Rd., Hayward Water

Analysis Method: EPA 5030/8015 Mod./8020

601-1092 CREATING TO SECURE OF THE PROPERTY OF THE PROP

Sampled: Jan 17, 1996 Received:

Reported:

Jan 17, 1996 Feb 2, 1996

#### TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Sample Number	Sample Description	Chromatogram Pattern	DL Mult. Factor	Date Analyzed	Instrument ID	Surrogate Recovery, % QC Limits: 70-130
601-1092	MW-1		1.0	1/27/96	HP-2	109
601-1093	MW-2		1.0	1/27/96	HP-2	107
601-1094	к-WM		1.0	1/27/96	HP-2	104
601-1095	MW-4		1.0	1/27/96	HP-2	110
601-1096	MW-5		1.0	1/27/96	HP-2	109
601-1097	WW-1		1.0	1/27/96	HP-2	109

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp Project Manager





Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 (415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

MPDS Services 2401 Stanwell Dr., Ste. 300 Concord, CA 94520 Attention: Jarrel Crider

Client Project ID: Berkeley Sample Matrix: Water

Berkeley Land, 23555 Saklan Rd Hayward

owa sperimowana or bressa wa yakarani se sassa na mining assarina a antina a antina a antina o antina o antina

Sampled: Received: Jan 17, 1996 Jan 17, 1996

Analysis Method: First Sample #: EPA 3510/8015 Mod. 601-1092

Reported:

Feb 2, 1996

#### TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit μg/L	Sample I.D. 601-1092 MW-1*	Sample I.D. 601-1093 MW-2	Sample I.D. 601-1094 MW-3	Sample I.D. 601-1095 MW-4	Sample 1.D. 601-1096 MW-5	Sample I.D. 601-1097 WW-1
Extractable Hydrocarbons	50	52	N.D.	120	N.D.	N.D.	8400
Chromatogram Pa	ttern:	Unidentified Hydrocarbons >C16		Diesel			Diesel

**Quality Control Data** 

						· · · · ·
Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0	1.0
Date Extracted:	1/22/96	1/22/96	1/22/96	1/22/96	1/22/96	1/22/96
Date Analyzed:	1/23/96	1/23/96	1/23/96	1/23/96	1/23/96	1/23/96
Instrument Identification:	HP-3A	НР-ЗА	НР-ЗА	HP-3A	НР-ЗА	HP-3A

Extractable Hydrocarbons are quantitated against a fresh diesel standard. Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

Please Note:

Signature on File

\*This sample does not appear to contain diesel. "Unidentified Hydrocarbons > C16" refers to unidentified peaks in the total oil and grease range.

Alan B. Kemp Project Manager





680 Chesapeake Drive 404 N. Wiget Lane 819 Striker Avenue, Suite 8 Sacramento, CA 95834

Redwood City, CA 94063 Walnut Creek, CA 94598

(415) 364-9600 (510) 988-9600 (916) 921-9600

FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

MPDS Services Client Project ID: Berkeley Land, 23555 Saklan Rd., Hayward Sampled: Jan 1 2401 Stanwell Dr., Ste. 300 Concord, CA 94520 . Attention: Jarrel Crider

Sample Descript: Water, MW-3 Analysis Method: EPA 8270 Lab Number:

601-1094

Jan 17, 1996 Jan 17, 1996 Received: Extracted: Jan 19, 1996 Analyzed: Jan 23, 1996. Reported: Feb 2, 1996 . Standard and a saidh 1979 in saighgean Saidh a sheesta meastan at sheatha chaileann saide na meann mig a tag

## SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/L		Sample Results µg/L
Acenaphthene	2.0		N.D.
Acenaphthylene	2.0		N.D.
Aniline	2.0	***************************************	N.D.
Anthracene	2.0		N.D.
Benzidine	50		N.D.
Benzoic Acid	10		N.D.
Benzo(a)anthracene	2.0		N.D.
Benzo(b)fluoranthene	2.0		N.D.
Benzo(k)fluoranthene	2.0		N.D.
Benzo(g,h,i)perylene	2.0		N.D.
Benzo(a)pyrene	2.0		N.D.
Benzyl alcohol	2.0		N.D.
Bis(2-chloroethoxy)methane	2.0		N.D.
Bis(2-chloroethyl)ether	2.0	***************************************	N.D.
Bis(2-chloroisopropyl)ether	2.0		N.D.
Bis(2-ethylhexyl)phthalate	50	***************************************	N.D.
4-Bromophenyl phenyl ether	2.0		N.D.
Butyl benzyl phthalate	2.0		N.D.
4-Chloroaniline	2.0	***************************************	N.D.
2-Chloronaphthalene	2.0		N.D.
4-Chloro-3-methylphenol	2.0	***************************************	N.D.
2-Chlorophenol	2.0		N.D.
4-Chlorophenyl phenyl ether	2.0		N.D.
Chrysene	2.0		N.D.
Dibenz(a,h)anthracene	2.0	***************************************	N.D.
Dibenzofuran	2.0	***************************************	N.D.
Di-N-butyl phthalate	10	***************************************	N.D.
1,3-Dichlorobenzene	2.0		N.D.
1,4-Dichlorobenzene	2.0	***************************************	N.D.
1,2-Dichlorobenzene	2.0		N.D.
3,3-Dichlorobenzidine	10	***************************************	N.D.
2,4-Dichlorophenol	2.0		N.D.
Diethyl phthalate	2.0	***************************************	N.D.
2,4-Dimethylphenol	2.0		N.D.
Dimethyl phthalate	2.0		N.D.
4,6-Dinitro-2-methylphenol	10		N.D.
2,4-Dinitrophenol	10		N.D.
2,4-Dinitrotoluene	2.0	***************************************	N.D.
2,6-Dinitrotoiuene	2.0		N.D.
Di-N-octyl phthalate	2.0		N.D.





Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834

(415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

rang Caragon a mang mang mang di kapa MPDS Services 2401 Stanwell Dr., Ste. 300 Concord, CA 94520 Attention: Jarrel Crider

Client Project ID: Berkeley Land, 23555 Saklan Rd., Hayward Sample Descript: Water, MW-3 Analysis Method: EPA 8270 Lab Number: 601-1094

Jan 17, 1996 Sampled: Received: Jan 17, 1996 Extracted: Jan 19, 1996 Analyzed: Jan 23, 1996 Reported: Feb 2, 1996 Aus momentale de la compactación d

## SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/L		Sample Results µg/L
Fluoranthene	2.0		N.D.
Fluorene	2.0		N.D.
Hexachlorobenzene	2.0		N.D.
Hexachlorobutadiene	2.0		N.D.
Hexachlorocyclopentadiene	2.0		N.D.
Hexachloroethane	2.0		N.D.
Indeno(1,2,3-cd)pyrene	2.0		N.D.
Isophorone	2.0		N.D.
2-Methylnaphthalene	2.0		N.D.
2-Methylphenol	2.0		N.D.
4-Methylphenol	2.0		N.D.
Naphthalene	2.0		N.D.
2-Nitroaniline	10		N.D.
3-Nitroaniline	10		N.D.
4-Nitroaniline	10		N.D.
Nitrobenzene	2.0		N.D.
2-Nitrophenol	2.0		N.D.
4-Nitrophenol	10		N.D.
N-Nitrosodimethylamine	2.0		N.D.
N-Nitrosodiphenylamine	2.0		N.D.
N-Nitroso-di-N-propylamine	2.0		N.D.
Pentachlorophenol	10		N.D.
Phenanthrene	2.0		N.D.
Phenol	2.0	***************************************	N.D.
Pyrene	2.0		N.D.
1,2,4-Trichlorobenzene	2.0		N.D.
2,4,5-Trichlorophenol	10		N.D.
2,4,6-Trichlorophenol	2.0		N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp Project Manager





680 Chesapeake Drive 404 N Wiget Lane 819 Striker Avenue, Suite 8 Sacramento, CA 95834

Redwood City, CA 94063 Walnut Creek, CA 94598

(415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

2401 Stanwell Dr., Ste. 300 Concord, CA 94520 Attention: Jarrel Crider

Sample Descript: Water, WW-1 Analysis Method: Lab Number:

anta i kakana makasasasasasan kakasa ma MPDS Services Client Project ID: Berkeley Land, 23555 Saklan Rd., Hayward EPA 8270 601-1097

Jan 17, 1996 Sampled: Received: Jan 17, 1996 Extracted: Jan 19, 1996 Jan 23, 1996. Analyzed: Reported: Feb 2, 1996 TO BE A SECTION OF THE PRODUCT OF A SECTION OF A SECTION

## SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	<b>Detection Limit</b>		Sample Results
	μg/L		$\mu$ g/L
Acenaphthene	2.0		N.D.
Acenaphthylene	2.0		N.D.
Aniline	2.0	***************************************	N.D.
Anthracene	2.0		N.D.
Benzidine	50		N.D.
Benzoic Acid	10	***************************************	N.D.
Benzo(a)anthracene	2.0		N.D.
Benzo(b)fluoranthene	2.0		N.D.
Benzo(k)fluoranthene	2.0	***************************************	N.D.
Benzo(g,h,i)perylene	2.0		N.D.
Benzo(a)pyrene	2.0		N.D.
Benzyl alcohol	2.0	***************************************	N.D.
Bis(2-chloroethoxy)methane	2.0		N.D.
Bis(2-chloroethyl)ether	2.0		N.D.
Bis(2-chloroisopropyl)ether	2.0		N.D.
Bis(2-ethylhexyl)phthalate	50		N.D.
4-Bromophenyl phenyl ether	2.0	.,	N.D.
Butyl benzyl phthalate	2.0		N.D.
4-Chloroaniline	2.0	***************************************	N.D.
2-Chloronaphthalene	2.0	***************************************	N.D.
4-Chloro-3-methylphenol	2.0	***************************************	N.D.
2-Chiorophenol	2.0		N.D.
4-Chlorophenyl phenyl ether	2.0		N.D.
Chrysene	2.0		N.D.
Dibenz(a,h)anthracene	2.0		N.D.
Dibenzofuran	2.0	************************************	N.D.
Di-N-butyl phthalate	10		N.D.
1,3-Dichlorobenzene	2.0		N.D.
1,4-Dichlorobenzene	2.0		N.D.
1,2-Dichlorobenzene	2.0	******************************	N.D.
3,3-Dichlorobenzidine	10	*****	N.D.
2,4-Dichlorophenol	2.0		N.D.
Diethyl phthalate	2.0	**************************	N.D.
2,4-Dimethylphenol	2.0	.,	N.D.
Dimethyl phthalate	2.0	********************************	N.D.
4,6-Dinitro-2-methylphenol	10	***************************************	N.D.
2,4-Dinitrophenol	10		N.D.
2,4-Dinitrotoluene	2.0		N.D.
2,6-Dinitrotoluene	2.0		N.D.
Di-N-octyl phthalate	2.0	***************************************	N.D.





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(415) 364-9600 (510) 988-9600 (916) 921-9600

Sämpled:

FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Jan 17, 1996

gen wata wan daleka bawa katawa MPDS Services 2401 Stanwell Dr., Ste. 300 Concord, CA 94520 Attention: Jarrel Crider

Berkeley Land, 23555 Saklan Rd., Hayward Client Project ID: Sample Descript: Water, WW-1 Analysis Method: **EPA 8270** Lab Number: 601-1097

Received: Jan 17, 1996 Jan 19, 1996 Extracted: Jan 23, 1996 Analyzed: Reported: Feb 2, 1996 

## SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/L		Sample Results µg/L
Fluoranthene	2.0	***************************************	N.D.
Fluorene	2.0	***************************************	N.D.
Hexachlorobenzene	2.0	***************************************	N.D.
Hexachlorobutadiene	2.0	***************************************	N.D.
Hexachlorocyclopentadiene	2.0	***************************************	N.D.
Hexachloroethane	2.0	***************************************	N.D.
Indeno(1,2,3-cd)pyrene	2.0		N.D.
Isophorone	2.0	***************************************	N.D.
2-Methylnaphthalene	2.0	***************************************	N.D.
2-Methylphenol	2.0		N.D.
4-Methylphenol	2.0		N.D.
Naphthalene	2.0	***************************************	N.D.
2-Nitroaniline	10	***************************************	N.D.
3-Nitroaniline	10	***************************************	N.D.
4-Nitroaniline	10	***************************************	N.D.
Nitrobenzene	2.0	***************************************	N.D.
2-Nitrophenol	2.0		N.D.
4-Nitrophenol	10	***************************************	N.D.
N-Nitrosodimethylamine	2.0	***************************************	N.D.
N-Nitrosodiphenylamine	2.0	***************************************	N.D.
N-Nitroso-di-N-propylamine	2.0		N.D.
Pentachlorophenol	10	***************************************	N.D.
Phenanthrene	2.0	***************************************	N.D.
Phenol	2.0		N.D.
Pyrene	2.0		N.D.
1,2,4-Trichlorobenzene	2.0	***************************************	N.D.
2,4,5-Trichlorophenol	10		N.D.
2,4,6-Trichlorophenol	2.0	***************************************	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL, #1271** 

Signature on File

Alan B. Kemp **Project Manager** 





Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834

Berkeley Land, 23555 Saklan Rd., Hayward

(415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

MPDS Services

2401 Stanwell Dr., Ste. 300 Concord, CA 94520

: Attention: Jarrel Crider

Client Project ID:

Matrix: Liquid

QC Sample Group: 6011092-097

Reported:

eb 2, 1996<sup>-</sup>

#### **QUALITY CONTROL DATA REPORT**

ANALYTE	Benzene	Toluene	Ethyl	Xylenes	Diesel	
			Benzene			
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015	
Analyst:	S. Chullakorn	S. Chullakorn	S. Chullakorn	S. Chullakorn	J. Dinsay	
MS/MSD						
Batch#:	6010965	6010965	6010965	6010965	BLK012296	
Date Prepared:	1/27/96	1/27/96	1/27/96	1/27/96	1/22/96	
Date Analyzed:	1/27/96	1/27/96	1/27/96	1/27/96	1/22/96	
nstrument I.D.#:	HP-2	HP-2	HP-2	HP-2	HP-3A	
Conc. Spiked:	20 μg/L	20 μg/L	20 μg/L	60 μg/L	300 μg/L	
Matrix Spike						
% Recovery:	110	105	110	107	80	
Matrix Spike						
Duplicate %						
Recovery:	115	110	110	112	77	
Relative %						
Difference:	4.4	4.7	0.0	4.6	4.3	

LCS Batch#:	1LCS012796	1LCS012796	1LCS012796	1LCS012796	LCS012296	
Date Prepared:	1/27/96	1/27/96	1/27/96	1/27/96	1/22/96	
Date Analyzed:	1/27/96	1/27/96	1/27/96	1/27/96	1/22/96	
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2	HP-3A	
LCS %						
Recovery:	120	115	120	120	70	
% Recovery Control Limits:	71-133	72-128	72-130	71-120	50-150	 ,

#### Please Note:

**SEQUOIA ANALYTICAL, #1271** 

Signature on File

Alan B. Kemp Project Manager The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample tortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.





Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834

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MPDS Services

2401 Stanwell Dr., Ste. 300 Concord, CA 94520

; Attention: Jarrel Crider

Client Project ID:

ID: Berkeley Land, 23555 Saklan Rd., Hayward

Matrix:

QC Sample Group: 6011092-097 ริโดยที่สามารถทำและ ภาษาสามารถที่ สามารถทำสามารถที่สามารถที่สามารถที่สามารถที่สามารถที่สามารถที่สามารถที่สามาร

Reported:

### **QUALITY CONTROL DATA REPORT**

ANALYTE	Phenol	2-Chlorophenol	1,4-Dichloro- benzene	N-Nitroso-Di- N-propylamine	1,2,4-Trichloro- benzene	4-Chloro-3- Methylphenol	
Method:	EPA 8270	EPA 8270	EPA 8270	EPA 8270	EPA 8270	EPA 8270	[
Analyst:	T. Granicher	T. Granicher	T. Granicher	T. Granicher	T. Granicher	T. Granicher	
MS/MSD							
Batch#:	MS011996	MS011996	MS011996	MS011996	MS011996	MS011996	
Date Prepared:	1/19/96	1/19/96	1/19/96	1/19/96	1/19/96	1/19/96	
Date Analyzed:	1/24/96	1/24/96	1/24/96	1/24/96	1/24/96	1/24/96	
Instrument I.D.#:	GC/MS 1	GC/MS 1	GC/MS 1	GC/MS 1	GC/MS 1	GC/MS 1	
Conc. Spiked:	200 μg/L	200 µg/L	100 μg/L	100 μg/L	100 μg/L	200 μg/L	
Matrix Spike							
% Recovery:	52	81	66	80	72	84	
Matrix Spike Duplicate % Recovery:	49	77	66	74	70	81	
Relative % Difference:	5.9	5.1	0.0	7.8	2.8	3.6	
LCS Batch#:	LCS011996	LCS011996	LCS011996	LCS011996	LCS011996	LCS011996	
Date Prepared: Date Analyzed: Instrument I.D.#:	1/19/96 1/23/96 GC/MS 1	1/19/96 1/23/96 GC/MS 1	1/19/96 1/23/96 GC/MS 1	1/19/96 1/23/96 GC/MS 1	1/19/96 1/23/96 GC/MS 1	1/19/96 1/23/96 GC/MS 1	

Date Prepared: Date Analyzed: Instrument I.D.#:	1/19/96 1/23/96 GC/MS 1						
LCS % Recovery:	46	73	50	72	52	69	
% Recovery Control Limits:	12-89	27-123	36-97	41-116	39-98	23-97	

### **SEQUOIA ANALYTICAL, #1271**

Signature on File

Alan B. Kemp Project Manager Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.







Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 (415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

MPDS Services

2401 Stanwell Dr., Ste. 300 Concord, CA 94520

: Concord, CA 94520 - Attention: Jarrel Crider Client Project ID: Berkeley Land, 23555 Saklan Rd., Hayward

Matrix: Liqui

QC Sample Group: 6011092-097

Reported:

eb 2, 1996

#### **QUALITY CONTROL DATA REPORT**

ANALYTE	Acenaphthene	4-Nitrophenol	2,4-Dinitro- toluene	Pentachloro- phenol	Pyrene	
Method: Analyst:	EPA 8270 T. Granicher					
MS/MSD Batch#:	MS011996	MS011996	MS011996	MS011996	MS011996	
Date Prepared: Date Analyzed: Instrument I.D.#: Conc. Spiked:	1/19/96 1/24/96 GC/MS 1 100 µg/L	1/19/96 1/24/96 GC/MS 1 200 µg/L	1/19/96 1/24/96 GC/MS 1 100 µg/L	1/19/96 1/24/96 GC/MS 1 200 μg/L	1/19/96 1/24/96 GC/MS 1 100 µg/L	
Matrix Spike % Recovery:	80	39	76	61	78	
Matrix Spike Duplicate % Recovery:	76	38	72	62	76	
Relative % Difference:	5 1	26	5.4	1.6	2.6	

LCS Batch#:	LCS011996	LCS011996	LCS011996	LCS011996	LCS011996		
Date Prepared: Date Analyzed: Instrument I.D.#:	1/19/96 1/24/96 GC/MS 1						
LCS % Recovery:	66	29	66	54	72		
% Recovery Control Limits:	46-118	10-80	24-96	9-103	26-127		

是中国人民的工程是中国的国际基础的基础的基础的工程的主要的主要的主要的主要的工具的主要的一定的工程的工程,并不是一个

#### Please Note:

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp Project Manager The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.







## CHAIN OF CUSTODY

1001292

Concord, California 94520 Tel: (510) 602-5100, Fax: (510) 689-1918 ANALYSES REQUESTED TURN AROUND TIME: SIS # (90d CITY: Hayward MPLE Regula-VARTKES TASHDJIAN ADDRESS: 23555 Saklan Rd. TPH-DIESEL 8270 EPA WITNESSING AGENCY TOG 8010 REMARKS SAMPLING LOCATION WATER GRAB COMP NO. OF CONT. TIME DATE SAMPLE ID NO. 6011092 A-C 2 VOAS 10:08 1/17/96 Well MW 1 IAuber. AM 6011093 11:05 X ٦( MW2 6011094A-D 7004, X 1:49 X MW3 PH 4 2NOAS 1Amelien 6011095A-C 12:55 X L MWY 4 6011096 X 12:00 X ٦-MW5 6011097 A-D NOON 7 200As 3:45 pm X V WW 1 2 Auchios THE FOLLOWING MUST BE COMPLETED BY THE LABORATORY ACCEPTING SAMPLES FOR ANALYSES: RECEIVED BY: DATE/TIME RELINQUISHED BY: 1/17/96 1/17/9 6 1. HAVE ALL SAMPLES RECEIVED FOR ANALYSIS BEEN STORED ON ICE? 428 2. WILL SAMPLES REMAIN REFRIGERATED UNTIL ANALYZED? 3. DID ANY SAMPLES RECEIVED FOR ANALYSIS HAVE HEAD SPACE? LAND (SIGNATURE) (SIGNATURE) 4. WERE SAMPLES IN APPROPRIATE CONTAINERS AND PROPERLY PACKAGED? (SIGNATURE) (SIGNATURE) Louds 1-18-96 SIGNATURE: (SIGNATURE) (SIGNATURE)