

ENVIRONMENTAL
PROTECTION

May 18, 1998
Letter 0164.L5

98 MAY 19 PM 2:14

Ms. Susan Hugo
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502

RE: **REPORT TRANSMITTAL**
RGA Job # HSHI3628
Hardage Suite Hotels, Inc. Site
Intersection of Shellmound Street and Powell Street
Emeryville, California

Dear Ms. Hugo:

At the request of Mr. Chuck Pendry of Hardage Suite Hotels, Inc, you will find enclosed the following documents for the subject site. A summary of the findings of these reports will be provided to you under separate cover.

<u>Report Date</u>	<u>Report Author</u>	<u>Report Title</u>
05/18/90	Tenera Environmental Service	Review of Site Characterization Studies and Proposed Work Plan
05/22/90	Applied Geosciences Inc.	Preliminary Site Assessment
06/08/90	Alameda County Env. Health	Proposed Remedial Actions (letter)
07/05/90	Tenera Environmental Service	Supplemental Site Characterization Studies
03/08/90	Alameda County Env. Health	ATDC Project (letter)
02/12/92	Applied Geosciences Inc.	Phase II Subsurface Investigation



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<u>Report Date</u>	<u>Report Author</u>	<u>Report Title</u>
06/22/95	EMG	Phase I Environmental Site Assessment
03/25/96	EMG	Results of Groundwater Sampling
04/12/96	EMG	Another Tree Development
11/06/97	JPC Geologists, Inc.	Escrow Summary Of The California Real Estate Environmental
11/27/97	RGA	Well Sampling Report
12/11/97	RGA	Environmental Assessment Update Report

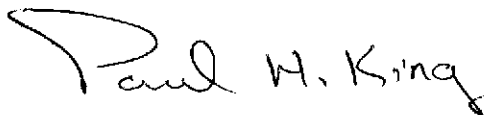
Should you have any questions please do not hesitate to call us at (510) 547-7771.

Very Truly Yours,

RGA Environmental, Inc.



Karin Schroeter
Project Manager



Paul H. King
California Registered Geologist

PHK/bj
0164.L5

May 15, 1998
Letter 0164.L6

Ms. Susan Hugo
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502

RE: SITE HISTORY REPORT SUMMARY
RGA Job # HSHI3628
Hardage Suite Hotels, Inc. Site
Intersection of Shellmound Street and Powell Street
Emeryville, California

Dear Ms. Hugo:

At the request of Mr. Chuck Pendry of Hardage Suite Hotels, Inc, you will find enclosed a summary of the following documents for the subject site. The purpose of this letter is to provide a summary of the findings of previous site investigations.

<u>Report Date</u>	<u>Report Author</u>	<u>Report Title</u>
05/18/90	Tenera Environmental Service	Review of Site Characterization Studies and Proposed Work Plan
05/22/90	Applied Geosciences Inc.	Preliminary Site Assessment
06/08/90	Alameda County Env. Health	Proposed Remedial Actions (letter)
07/05/90	Tenera Environmental Service	Supplemental Site Characterization Studies
03/08/90	Alameda County Env. Health	ATDC Project (letter)
02/12/92	Applied Geosciences Inc.	Phase II Subsurface Investigation
06/22/95	EMG	Phase I Environmental Site Assessment
03/25/96	EMG	Results of Groundwater Sampling
04/12/96	EMG	Another Tree Development



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11/06/97	JPC Geologists, Inc.	Escrow Summary Of The California Real Estate Environmental
11/21/97	RGA	Groundwater Monitoring and Sampling Report
12/11/97	RGA	Environmental Assessment Update Report

Each of these is summarized below.

TENERA ENVIRONMENTAL SERVICE "REVIEW OF SITE CHARACTERIZATION STUDIES AND PROPOSED WORK PLAN" DATED 5/18/90

Tenera Environmental Services (Tenera) met with the Alameda County Department of Environmental Health (ACDEH) caseworker, Dennis Byrne, and the property owner, Another Tree Development Corporation (ATDC) on May 10, 1990 to discuss development of the site. In response to a request from the ACDEH, Tenera prepared the document "Review of Site Characterization Studies and Proposed Work Plan" dated May 18, 1990. In the work plan, Tenera reviewed and summarized reports by others which discussed the history of development and use of the Property. Tenera concluded that the nature and location of existing and potential sources of soil and groundwater contamination on the site had been adequately identified through prior site investigations. Tenera provided recommendations as follows:

- a. ACDEH approve excavation and disposal of a localized area of elevated metal concentrations which exceeded the applicable TTLC values.
- b. ACDEH grant approval to leave asphalt-like waste material in place and to cap the area where the asphalt-like material was present with building foundations, paving, or similar materials.
- c. Complete a focused groundwater investigation in conjunction with development of the site. The investigation would include the installation and sampling of groundwater monitoring wells.

In the report it was stated that previous investigations in 1982 (Woodward Clyde), 1987 and 1988 (Earth Metrics, Inc.) included 14 borings for purposes of environmental sampling, 18 borings for purposes of geotechnical sampling, and eight trenches for purposes of identifying buried obstructions. The locations of these borings and trenches are shown on Figure 3-1 in the report. These soil borings were designated as WCC1, 1A, 2, 2A, 2B, 2C, 6 and 6A by Woodward-Clyde (1982); and EM8, 8A, 8B, 8C, 8D, 8E, 8F, B1, B2, TP1, TP2, TP3, TP4, TP5, TP6, TP7, and TP8 by Earth Metrics, Inc. (1988).

The results of soil sample analyses for inorganic and organic constituents are summarized in the report in Tables 3-1 and 3-2, respectively. The sample results are summarized in this letter as Tables A1 and A2, respectively.

No groundwater monitoring wells were installed at the site. A brief discussion of groundwater monitoring wells in the vicinity of the site (the closest one being approximately 100 feet north of the site) and the results of samples collected from the wells is provided. Observations and interpretations of the findings of the previous groundwater investigations relative to the subject site are also provided.

APPLIED GEOSCIENCES, INC. "PRELIMINARY SITE ASSESSMENT" DATED 5/22/90

The objective of this investigation was to assess the likelihood that potentially hazardous materials may be present at the site from past and/or present uses of the site and of the immediate site vicinity. The report discussed previous site investigations, previous property use, and potential sources of the asphalt-like material and elevated metals concentrations at the site discussed previously by Tenera. The estimated thickness of buried asphaltic material at the site is shown in Figure 10 in the report. The locations of soil borings from previous investigations are designated as EM8 by Earth Metrics, Inc. (1988); and 1, 2, 3, 4 and 5 by Geomatrix (1987) are shown on Figure 3 in the report.

The report discussion (Section 7.0) contains observations from review of historical aerial photographs which indicate that contamination at the site may have originated from the following.

- Historical industrial use of the site for manufacturing of roofing materials and floor covering may have resulted in petroleum-based products impacting the site.
- A conveyor used to load railway cars may have resulted in the accumulation of tar-like substances where the conveyor terminated at a former railway spur.
- In the vicinity of the former railroad spur and a former concrete holding tank, elevated concentrations of heavy metals may have originated from spilling during loading railcars.

The report contained six recommendations, including assessment of groundwater quality at the site and periodic review of reports of hazardous waste sites in the vicinity of the site to assess the potential impact to the site.

ALAMEDA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH "PROPOSED REMEDIAL ACTIONS" DATED 6/8/90

The ACDEH responded to the Tenera work plan in a letter dated June 8, 1990. In the letter, the ACDEH granted approval for excavation of the localized area of soil and for the groundwater monitoring well sites suggested in the work plan. The ACDEH also requested that the nature and extent of the asphalt-like material identified beneath a portion of the site be characterized.

TENERA ENVIRONMENTAL SERVICE "SUPPLEMENTAL SITE CHARACTERIZATION STUDIES" DATED 7/5/90

This report described the results of supplemental site investigations completed at the subject site, and discussed Tintera's findings regarding the existence and nature of the asphaltic material reported to have been present on the site during prior site investigations. Tintera concluded that they had identified the extent of the asphalt-like material and stated that the material was not hazardous.

The borings shown on Figure 2-2 in the report (designated as B-1, B-2, B-3, B-4, B-5, B-6, B-7 and B-8) were completed for purposes of assessing the existence and extent of the asphalt-like waste material, and for the collection of samples for laboratory analysis. Observations of soil from the borings showed that varying thicknesses ranging from 5 to 8 inches at depths of 2 to 4 feet of a black silty clay matrix with a slight oily odor were present in several of the eight borings.

Samples from borings B-1, B-2, B-3 and B-5 were analyzed for total petroleum hydrocarbons (in the heavy hydrocarbon range, consistent with the assessment for asphaltic material), and for benzene, toluene, ethylbenzene and xylenes (BTEX). Total petroleum hydrocarbon concentrations ranging from less than 50 ppm to 420 ppm were detected in all samples, and BTEX was not detected. Analysis of one sample (B2) for Title 22 hazardous waste determination showed that the sample would not be classified as a hazardous waste. The sample results are summarized in Table B1, attached with this letter.

APPLIED GEOSCIENCES INC. "PHASE II SUBSURFACE INVESTIGATION" DATED 2/12/92

The objective of this investigation was to assess the presence of hazardous materials in the soil or groundwater beneath the site from off-site and/or on-site sources, and in drums identified at the site that contained unidentified liquid.

Three borings were installed along the eastern property boundary, designated as ATD1, ATD2, and ATD3, and three borings were installed along the western portion of the site, designated as ATD5, ATD6, and ATD7. These borings were subsequently converted to groundwater monitoring wells. At the boring EM8 location (identified during a previous investigation) a borehole was advanced to a depth of approximately 5 to 10 feet below the groundwater table and converted to groundwater monitoring well ATD4. The locations of these wells are shown in Figure 2 in the report. The locations of other borings designated as HA1, HA2, HA3, HA4, HA5, HA6, HA7, B1, B2, B3, B4 and B5, as well as six surface grab samples designated as GS1, GS2, GS3, GS4, GS5, and GS6 are also shown on Figure 2 in the report.

Laboratory analysis for samples from ATD1, ATD2, ATD3, ATD4, ATD5, ATD6, ATD7, HA1, HA2, HA3, HA4, HA5, HA6, HA7, HA8, B1, B2, B3, B4 and B5 was performed for soil samples collected at depths of 0.5, 3.0, 4.5 and 6.0 feet below the ground surface in each boring and are summarized in Tables C1 and C2 of this letter.

The report presented findings and recommendations which included the following:

- a. The concentrations of metals and/or petroleum products detected during the investigation might warrant classification of the subsurface soil as hazardous.
- b. The findings of the investigation should be reviewed with the ACDEH caseworker to determine the applicability of the previous approvals for site development by the ACDEH.
- c. Groundwater had been determined to flow to the west and/or southwest.
- d. The laboratory results of on-site groundwater monitoring wells indicate that surrounding properties which are reported on regulatory agency databases have not significantly impacted the Property.

EMG "PHASE I ENVIRONMENTAL SITE ASSESSMENT" DATED 6/22/95

The purpose of this report was to assess environmental conditions at the site.

The report discussed previous property uses and identified the presence of two groundwater monitoring wells at the site. The EMG report identified the most recent investigation of the site as being documented in a report by AGI dated February 12, 1992, and stated that the County's comments on the 1992 investigation were not provided or available. The EMG report provided several recommendations, including that the wells be sampled. These wells were not sampled for this report.

EMG "RESULTS OF GROUNDWATER SAMPLING" DATED 3/25/96

The objective of this report was to evaluate water quality in the two identified groundwater monitoring wells at the site. One groundwater sample was collected from each well. The results are shown in Table D1, attached with this letter.

EMG "ANOTHER TREE DEVELOPMENT" DATED 4/12/96

The objective of this report was to clarify environmental issues at the subject site which had been discussed in earlier EMG reports. EMG reported that based on distance (a minimum of 700 feet from the property), the environmental issues associated with the CALSITES sites identified in earlier EMG reports are likely not significant, and that impact from these sites to the subject site is unlikely. Additionally, should metals, petroleum, or BTEX contamination have migrated (assuming they were present) from these CALSITES onto the subject site, the contaminants would have been identified during the groundwater analyses. EMG reported that based on the lack of a contaminant source at the property, the soil at the property is not subject to possible contaminants which might cause a change of posture on the part of the ACDEH.

JPC GEOLOGISTS, INC. "ESCROW SUMMARY OF THE CALIFORNIA REAL ESTATE ENVIROCHECK

JPC Geologists, Inc. obtained current lists of known hazardous substance contaminated sites from government agencies that oversee clean-up at contaminated sites. The report consisted of locating the center point of the subject property relative to the hazardous substance contaminated sites.

RGA ENVIRONMENTAL, INC. "GROUNDWATER MONITORING AND SAMPLING REPORT" DATED 11/21/97

This report documents the results of the monitoring and sampling of two groundwater monitoring wells at the subject site.

The well caps for the two groundwater monitoring wells designated as MW1 and MW2 were observed to have been labeled previously by others as ATD7 and ATD5, respectively, as shown on Figure 2 in the report. A third monitoring well was located where pallets of pipe had been stored during the sampling episodes, also shown on Figure 2 in the report.

The sampling results for MW1 and MW2 are shown Table E1 attached with this letter.

RGA ENVIRONMENTAL, INC. "ENVIRONMENTAL ASSESSMENT UPDATE REPORT" DATED 12/11/97

The objective of this report was to assess the site which included:

- a. A physical inspection of the subject Property and visual observation for evidence of hazardous material used and potential hazardous waste contamination.
- b. A review and comparison of agency listings to determine if new potential contaminant sources have been identified in the vicinity of the Property since 1995.
- c. Inquiry and communications with relevant agencies regarding availability of files for review of evidence of past hazardous materials use, contamination, or remediation on the subject site or properties within a one mile distance from the Property boundaries.
- d. Review of available reports documenting past investigations of historical property use and subsurface investigations at or near the site.

Based on the findings of this Phase I Update, RGA Environmental, Inc. provided the following recommendations:

- a. Secure the Property boundary to prevent the additional accumulation of any other potentially hazardous waste.

- b. Containerize and remove any hazardous waste which is present at the Property which could impact the Property.
- c. Submit a work plan to the ACDEH for monitoring and sampling of the existing groundwater monitoring wells, and the addition of any groundwater monitoring wells, as necessary, to satisfy the request set forth by the ACDEH for groundwater monitoring well downgradient of the asphalt-like material.

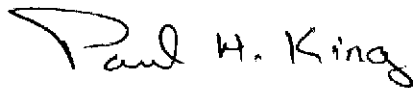
Should you have any questions please do not hesitate to call us at (510) 547-7771.

Very Truly Yours,

RGA Environmental, Inc.



Karin Schroeter
Project Manager



Paul H. King
California Registered Geologist

Attachments: Tables A1, A2, B1, C1, C2, D1, E1

Cc: Chuck Hibert, Hardage Suite Hotels, Inc.

PHK/bj
0164.L6

TABLE A1

Summary of Inorganic Substance Determinations on Soil Samples

Sample Description (a)	Analytical Determination (b) (c)																			
	Silver mg/kg (ppm)	Arsenic mg/kg (ppm)	Barium mg/kg (ppm)	Beryl- lilium mg/kg (ppm)	Cadmium mg/kg (ppm)	Cobalt mg/kg (ppm)	Total Chro- mium mg/kg (ppm)	Hexa- valerx Chro- mium mg/kg (ppm)	Copper mg/kg (ppm)	Mercury mg/kg (ppm)	Manga- nese mg/kg (ppm)	Molyb- denum mg/kg (ppm)	Nickel mg/kg (ppm)	Lead mg/kg (ppm)	Anti- mony mg/kg (ppm)	Sele- nium mg/kg (ppm)	Thallium mg/kg (ppm)	Vanadium mg/kg (ppm)	Zinc mg/kg (ppm)	Tin mg/kg (ppm)
A. Woodward-Clyde 1982																				
Boring WCC1							76	--	30			32	15						70	
Boring WCC1A																				
Boring WCC2		3.5			--	11	46	--	370			38	340						350	
Boring WCC1A																				
Boring WCC2A																				
Boring WCC2B																				
Boring WCC2C																				
Boring WCC6					--		880	0.2	230			56	110						550	
Boring WCC6A																				
B. Earth Metrics, Inc. 1987																				
Boring EM8 (@ 3ft BGS)	20.4	19.2	377.2	--	24.8	6.5	133.3		46,819.0	40.1	264.3	--	61.7	2,129.9	--	39.8	--	23.9	24,317.3	140.7
Boring EM8 (@ 5 ft BGS)	--	--	29.4	--	2.7	8.9	34.0	--	72.8	--	214.6	--	35.3	7.6	--	--	--	22.8	77.5	--
Boring EM8A	--	--	30.1	--	4.02	7.3	24.7		61.1	--	545.5	4.3	7.7	12.1	--	--	--	32.4	77.3	
Boring EM8B	4.1	20.6	203.8	--	26.8	9.7	105.7		4,025.7	35.4	761.2	<5.3	37.9	2347.7	89.6	<48.7	--	45.3	8,663.4	
Boring EM8C	10.9	45.5	92.2	--	37.6	15.3	181.6		11,663.2	42.9	1,181.7	<6.8	82.7	7,080.5	205.9	<39.6	<9.9	59.0	13,337.4	
Boring EM8D	--	--	71.6	--	1.8	4.6	33.0		44.9	--	94.4	--	20.3	29.1	<9.9	<3.9	<9.9	18.1	61.7	
Boring EM8E	5.7	17.9	184.4	--	9.91	5.0	363.6		4,585.4	75.5	350.4	--	<12.3	10,634.7	105.7	<12.5	--	14.6	3,787.3	
Boring EM8F	0.4	--	120.9	--	3.43	5.0	45.1		77.4	--	298.3	--	18.6	210.9	--	--	--	42.1	226.1	

NOTES:

- (a) See Figure 3-1 for locations of borings.
 (b) The "--" symbol in this table indicates not detected. See below for detection limits.
 (c) A blank space or no entry in the table indicates not analyzed.

DETECTION LIMITS:

- A. Woodward-Clyde 1982: Cadmium, 0.5 mg/kg; Hexavalent Chromium, 0.2 mg/kg.
 B. Molybdenum, 1.0 mg/kg; Selenium, 4.0 mg/kg; Silver, 0.4 mg/kg; Thallium, 10.0 mg/kg; and Tin, 2.0 mg/kg.

TABLE A2

Summary of Organic Substance Determinations
on Soil Samples from the Another Tree Emeryville Project

Analytical Determination (a)	Boring EM-8 @ 3-3.5 ft	Boring EM-8 @ 5-5.5 ft	Boring EM-8C @ 3.5 ft
Oil and Grease	95	< 6	
Polynuclear Aromatic Hydrocarbons			
Naphthalene			<6.2
Acenaphthylene			<12.5
Acenaphthene			<6.2
Fluorene			<1.2
Phenanthrene			4.3
Anthracene			<0.2
Fluoranthene			30.2
Pyrene			16.7
Benzo(a) anthracene			2.6
Chrysene			0.8
Benzo(b) fluoranthene			3.7
Benzo(k) fluoranthene			3.1
Benzo(a) pyrene			0.8
Dibenz(ah) anthracene			2.4
Benzo(ghi) perylene			1.8
Indenopyrene			1.0

NOTES:

- (a) All values expressed in parts per million (ppm).
 (b) A blank space or no entry in the table indicates not analyzed.

SOURCE:

Earth Metrics, Inc. 1988. Draft Work Plan for Soils Contamination Characterization of Marketplace Site in Emeryville, California. The Martin Group, January 28, 1988.

TABLE B1

Summary of Analytical Determinations
Supplemental Site Characterization Program
Another tree Emeryville Project

Analytical Determination (a)	Sample Description			
	B-1 @ 3 ft	B-2 @ 4 ft	B-3 @ 2 ft	B-5 at 4 ft
Total Petroleum Hydrocarbons (EPA 418.1)	420	<50	53	130
Benzene, Toluene, Ethylbenzene, and Xylenes (EPA 8020)	ND	ND	ND	ND
Chlorinated Hydrocarbons (EPA 8010)	-	ND	-	-
Semi-Volatile Organics (EPA 8270)	-	(b)	-	-
Title 22 Analysis	-	-	-	-
Reactivity	-	NR	-	-
Corrosivity	-	NC	-	-
Ignitability	-	NI	-	-
Toxicity	-	-	-	-
96-hour Bioassay	-	>750	-	-
Inorganics	-	-	-	-
Antimony	-	1	-	-
Arsenic	-	3	-	-
Barium	-	240	-	-
Beryllium	-	0.4	-	-
Cadmium	-	6.1	-	-
Chromium	-	37	-	-
Cobalt	-	6	-	-
Copper	-	16	-	-
Fluoride	-	2.7	-	-
Lead	-	6	-	-
Mercury	-	0.07	-	-
Molybdenum	-	3	-	-
Nickel	-	25	-	-
Selenium	-	ND	-	-
Silver	-	ND	-	-
Thallium	-	ND	-	-
Vanadium	-	46	-	-
Zinc	-	36	-	-

NOTES:

- (a) All values in parts per million, unless otherwise noted.
(b) Pyrene was detected in the sample at the detection limit of 0.03 parts per million. No other semi-volatile organic substances were detected in the sample.

LEGEND:

- ND: Not detected.
NR: Not reactive per criteria of Article 11, Chapter 30, Title 22 CCR.
NC: Not corrosive per criteria of Article 11, Chapter 30, Title 22 CCR.
NI: Not ignitable per criteria of Article 11, Chapter 30, Title 22 CCR.
- The "-" symbol indicates not analyzed.

TABLE C1
SAMPLE ANALYSIS RESULTS (1)

Sample Number	Depth (3)	Analytical Methods (4)	Reported Results (5)
ATD1W-1	GW	8080 413.2 TPH-D	BRL (6) 1 ppm BRL
ATD1W-2	GW	8270 TPH-G	(7) BRL
ATD2W-1	GW	413.2 TPH-D	3 ppm BRL
ATD2W-2	GW	8270 TPH-G	(8) BRL
ATD3W-1	GW	624 413.2 TPH-D	BRL 1 ppm BRL
ATD3W-2	GW	8270 TPH-G	BRL BRL
ATD4W-1	GW	624 413.2 TPH-D	BRL 2 ppm BRL
ATD4W-2	GW	8270 TPH-G	BRL BRL
ATD5W-1	GW	8080 413.2 TPH-D	BRL 2 ppm BRL
ATD5W-2	GW	8270 TPH-G	BRL BRL
ATD6W-1	GW	624 413.2 TPH-D	(9) 4 ppm BRL
ATD6W-2	GW	8270 TPH-G	BRL BRL

TABLE C1
SAMPLE ANALYSIS RESULTS (1)

Sample Number	Depth (3)	Analytical Methods (4)	Reported Results (5)
ATD7W-1	GW	413.2 TPH-D	3 ppm BRL
ATD7W-2	GW	8270 TPH-G	BRL BRL
ATD8W-1 (10)	GW	413.2 TPH-D	4 ppm BRL
ATD1-1	2.5	8080 413.2 TPH-D	BRL 7,500 ppm 36 ppm
ATD1-2	5	413.2 TPH-D	1,300 ppm 14 ppm
ATD1-3	7.5	413.2 TPH-D	BRL BRL
ATD1-4	10	413.2 TPH-D	BRL BRL
ATD1-5	15	413.2 TPH-D	BRL 6 ppm
ATD2-1	2.5	8080 413.2 TPH-D	BRL 8 ppm BRL
ATD2-4	10	8080 413.2 TPH-D	BRL 8 ppm BRL
ATD3-1	2.5	8080 413.2 TPH-D	BRL 140 ppm BRL
ATD3-2	5	413.2 TPH-D	BRL BRL

TABLE C1
SAMPLE ANALYSIS RESULTS (1)

Sample Number	Depth (3)	Analytical Methods (4)	Reported Results (5)
ATD3-3	7.5	413.2 TPH-D	BRL BRL
ATD3-4	10	413.2 TPH-D	BRL BRL
ATD4-1	2.5	413.2 TPH-D	2,500 ppm 42 ppm
ATD4-2	5	413.2 TPH-D	BRL 7 ppm
ATD4-3	7.5	8240 413.2 TPH-D	BRL BRL 7 ppm
ATD4-4	10	413.2 TPH-D	BRL 6 ppm
ATD5-1	2.5	413.2 TPH-D	6,100 ppm 230 ppm
ATD5-3	7.5	413.2 TPH-D	9 ppm BRL
ATD5-4	10	413.2 TPH-D	160 ppm 6 ppm
ATD6-1	2.5	413.2 TPH-D	35 ppm BRL
ATD6-2	5	8240 8270 TPH-G 413.2 TPH-D	(11) (12) 160 ppm 240 ppm 11 ppm
ATD6-3	7.5	TPH-G 413.2 TPH-D	0.62 ppm 38 ppm BRL

TABLE C1
SAMPLE ANALYSIS RESULTS (1)

Sample Number	Depth (3)	Analytical Methods (4)	Reported Results (5)
ATD6-4	10	413.2 TPH-D	24 ppm BRL
ATD7-1	2.5	413.2 TPH-D	3,900 ppm 130 ppm
ATD7-2	5	413.2 TPH-D	360 ppm 11 ppm
ATD7-3	7.5	413.2 TPH-D	10 ppm 21 ppm
ATD7-4	10	413.2 TPH-D	BRL BRL
HA1-1	1.5	8080 TPH-D	BRL BRL
HA1-2	3	8080 TPH-D	BRL BRL
HA2-1	1.5	8080 TPH-D	BRL BRL
HA2-1D (13)	1.5	8080 TPH-D	BRL BRL
HA3-1	2.5	8270 TPH-G	(14) 2.7 ppm
HA4-1	2.5	8270 TPH-G	(15) BRL
HA5-1	2.5	8270 TPH-G	(14, 16) 45 ppm
HA5-2	4.5	8270 TPH-G	(14, 16) 37 ppm
HA6-1	2.5	8270 TPH-G	(16) BRL

TABLE C1
 SAMPLE ANALYSIS RESULTS (1)

Sample Number	Depth (3)	Analytical Methods (4)	Reported Results (5)
HA8-1	2.5	8270 TPH-G	(14) BRL
HA8-2	4.5	8270 TPH-G	(14) BRL
B1-1	1.5	8080 413.2 TPH-D	BRL 18 ppm 5 ppm
B1-2	3.5	413.2 TPH-D	BRL BRL
B2-1	1.5	413.2 TPH-D	2,000 ppm 14 ppm
B2-2	3.5	413.2 TPH-D	70 ppm 6 ppm
B3-1	1.5	8080 413.2 TPH-D	BRL 5,100 ppm 16 ppm
B3-2	3.5	413.2 TPH-D	BRL 6 ppm
B4-1	1.5	413.2 TPH-D	3,400 ppm 16 ppm
B4-2	3.5	413.2 TPH-D	8 ppm 14 ppm
B5-1	1.5	413.2 TPH-D	230 ppm 12 ppm
B5-2	3.5	413.2 TPH-D	6 ppm 7 ppm

TABLE C1

SAMPLE ANALYSIS RESULTS (1)

Sample Number	Depth (3)	Analytical Methods (4)	Reported Results (5)
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NOTES:

1. Sample analysis performed on the given samples with the exception of California Assessment Manual (CAM) metals analysis.
2. The first alphanumeric combination in the sample number (e.g. ATD1 is the sample location designation shown in Figure 2.
3. Approximate depth in feet below the ground surface (BGS) except for groundwater samples, which are indicated "GW".
4. Analyses performed in general accordance with the EPA methods whose numbers or analytes are listed.
5. For water samples, results are reported in milligrams per liter (mg/L), which is approximately equivalent to parts per million (ppm), or in micrograms per liter (ug/L), which is approximately equivalent to parts per billion (ppb). For soil samples, results are reported in kilogram (mg/kg), which is equivalent to ppm, or in micrograms per kilogram (ug/kg), which is equivalent to ppb.
6. BRL = below the reporting limits for the analytical method utilized.
7. Caprolactam, 2,5-dimethyl benzenebutanoic, and 3 methylbenzoil were tentatively identified at concentrations of 29 ppb, 140 ppb, and 17 ppb, respectively, in sample no. ATD1W-2. The tentatively identified compounds are typical of fabric and perfume.
8. Seven semivolatile organic compounds (SVOCs) were tentatively identified in sample no. ATD2W-2. The tentatively identified compounds are typical of decaying animal matter. The estimated concentrations of the tentatively identified compounds ranged from 25 ppb (1-hexadecanol) to 3,500 ppb (1,11-dodecadiene).
9. Benzene, toluene, ethylbenzene, and total xylenes (BTEX) were reported in sample no. ATD6W-1 at concentrations of 6 ppb, 5 ppb, 3 ppb, and 5 ppb, respectively. The Maximum Contaminant Level (MCL) of benzene for primary drinking water, as promulgated in title 22, Division 4, Chapter 15, Article 5.5 of the California Code of Regulations (CCR), is 1 ppb. Four volatile organic compounds (VOCs) were tentatively identified in sample no. ATD6W-1. The tentatively identified compounds are typical of a petroleum hydrocarbon product. The estimated concentrations of the tentatively identified compounds ranged from 9 ppb (2-pentane) to 39 ppb (methyl cyclopentane).

TABLE C1

SAMPLE ANALYSIS RESULTS (1)

Sample Number	Depth (3)	Analytical Methods (4)	Reported Results (5)
10.			Sample No. ATD8W-1 is a duplicate of sample no. ATD4W-1.
11.			Eight volatile organic compounds (VOCs) were tentatively identified in sample no. ATD6-2. The tentatively identified compounds ranged from 4 ppm (1,2,3-trimethyl cyclopentane) to 8.5 ppm (2, 6-dimethyl 2-octane).
12.			Five semivolatile compounds (SVOCs) were reported and an additional seventeen SVOCs were tentatively identified in sample no. ATD6-2. Naphthalene, 2-methylnaphthalene, phenanthrene, di-n-butylphthalate, and bis(2-ethylhexyl) phthalate were reported at concentrations of 0.11 ppm, 0.35 ppm, 0.15 ppm, 0.19 ppm, and 0.33 ppm, respectively. The tentatively identified compounds are typical of a petroleum hydrocarbon product. The estimated concentrations of the tentatively identified compounds ranged from 0.33 ppm (1,4,5-trimethyl naphthalene) to 2.5 ppm (octacasane).
13.			Sample no. HA2-1D was obtained directly beneath sample no. HA2-1 and was considered an approximate duplicate soil sample. It is not possible to obtain a true duplicate soil sample due to the inherently homogeneous nature of the soil.
14.			Di-n-butylphthalate (160 ppb) was reported and 12 other compounds were tentatively identified in sample no. HA3-1. Di-n-butylphthalate was also reported in the method blank and may have been a laboratory artifact. The tentatively identified compounds are typical of petroleum hydrocarbon related compounds, were also tentatively identified in sample nos. HA5-1, HA5-2, HA8-1, and HA8-2.
15.			Di-n-butylphthalate was reported in sample no. HA4-1 at a concentration of 980 ppb. Di-n-butylphthalate was also reported in the method blank and may have been a laboratory artifact in this sample. No other compounds were reported or tentatively identified in sample no. HA4-1.
16.			Eight SVOCs were reported in sample no. HA5-1. The concentrations of the SVOCs ranged from 110 ppb (phenanthrene) to 260 ppb (crysene). The reported SVOCs are typically related to oil products. The reported compounds, and other related compounds, were also reported in sample nos. HA5-2 and HA6-1.

TABLE C2

CAM Metals Sample Analysis Results (1)

Sample Number	Depth (3)	Analyte (4)	Reported Results (5)	10X STLC (6)	TTL MCL
ATD1W-1	GW	CAM Metals	Low	--	--
ATD2W-1	GW	CAM Metals	Low	--	--
ATD3W-1	GW	CAM Metals	Low	--	--
ATD4W-1	GW	CAM Metals	Low	--	--
ATD5W-1	GW	Chromium	80 ppb	--	50 ppb
ATD6W-1	GW	CAM Metals	Low	--	--
ATD7W-1	GW	CAM Metals	Low	--	--
ATD1-1	2.5	CAM Metals	Low	--	--
ATD1-2	5	Copper Lead	460 ppm 200 ppm	250 ppm 50 ppm	2,500 ppm 1,000 ppm
ATD1-3	7.5	CAM Metals	Low	--	--
ATD1-4	10	CAM Metals	Low	--	--
ATD1-5	15	CAM Metals	Low	--	--
ATD2-1	2.5	CAM Metals	Low	--	--
ATD2-4	10	CAM Metals	Low	--	--
ATD3-1	2.5	Lead	270 ppm	50 ppm	1,000 ppm
ATD3-2	5	CAM Metals	Low	--	--
ATD3-3	7.5	CAM Metals	Low	--	--
ATD3-4	10	CAM Metals	Low	--	--
ATD4-1-2	2.5	Copper Lead Mercury	970 ppm 750 ppm 15 ppm	250 ppm 50 ppm 2 ppm	2,500 ppm 1,000 ppm 20 ppm
ATD4-2-2	5	CAM Metals	Low	--	--
ATD4-3-2	7.5	CAM Metals	Low	--	--

TABLE C2

CAM Metals Sample Analysis Results (1)

Sample Number	Depth (3)	Analyte (4)	Reported Results (5)	10X STLC (6)	TTLCL MCL
ATD4-4-4	10	CAM Metals	Low	--	--
ATD5-1-2	2.5	Lead Mercury	190 ppm 4.7 ppm	50 ppm 2 ppm	1,000 ppm 20 ppm
ATD5-3-2	7.5	CAM Metals	Low	--	--
ATD5-4-2	10	CAM Metals	Low	--	--
ATD6-1-2	2.5	CAM Metals	Low	--	--
ATD6-2-2	5	CAM Metals	Low	--	--
ATD6-3-2	7.5	CAM Metals	Low	--	--
ATD6-4-2	10	CAM Metals	Low	--	--
ATD7-1-2	2.5	Lead Mercury	290 ppm 57 ppm	50 ppm 2 ppm	1,000 ppm 20 ppm
ATD7-2-2	5	CAM Metals	Low	--	--
ATD7-3-2	7.5	CAM Metals	Low	--	--
ATD7-4-2	10	CAM Metals	Low	--	--
HA1-1	1.5	CAM Metals	Low	--	--
HA1-2	3	CAM Metals	Low	--	--
HA2-1	1.5	CAM Metals	Low	--	--
HA2-1D (9)	1.5	Lead	110 ppm	50 ppm	1,000 ppm
B1-1-2	1.5	CAM Metals	Low	--	--
B1-2-2	3.5	CAM Metals	Low	--	--
B2-1-2	1.5	Lead	62 ppm	50 ppm	1,000 ppm
B2-2-2	3.5	CAM Metals	Low	--	--
B3-1-2	1.5	Lead	110 ppm	50 ppm	1,000 ppm

TABLE C2

CAM Metals Sample Analysis Results (1)

Sample Number	Depth (3)	Analyte (4)	Reported Results (5)	10X STLC (6)	TTLIC MCL
B3-2-2	3.5	CAM Metals	Low	--	--
B4-1-2	1.5	Lead	63 ppm	50 ppm	1,000 ppm
B4-2-2	3.5	CAM Metals	Low	--	--
B5-1-2	1.5	Copper	5,200 ppm	250 ppm	2,500 ppm
		Lead	1,200 ppm	50 ppm	1,000 ppm
		Mercury	4.6 ppm	2 ppm	20 ppm
B5-2-2	3.5	CAM Metals	Low	--	--

Soluble CAM Metals Sample Analysis Results

HA3-1 (10)	2.5	CAM Metals	Low	--	--
HA4-1 (10)	2.5	CAM Metals	Low	--	--
HA5-1 (10)	2.5	Chromium	15 ppm	--	5 ppm
		Lead	8 ppm	--	5 ppm
		Mercury	1.6 ppm	--	0.2 ppm
HA5-2 (10)	4.5	Lead	4.6 ppm	--	5 ppm
HA6-1 (10)	2.5	CAM Metals	Low	--	--
HA8-1 (10)	2.5	CAM Metals	Low	--	--
HA8-2 (10)	4.5	Cadmium	0.76 ppm	--	1 ppm
		Chromium	5 ppm	--	5 ppm
		Copper	56 ppm	--	25 ppm
		Lead	130 ppm	--	5 ppm
		Mercury	0.18 ppm	--	0.2 ppm
		Zinc	270 ppm	--	250 ppm

TABLE C2

CAM Metals Sample Analysis Results (1)

Sample Number	Depth (3)	Analyte (4)	Reported Results (5)	10X STLC (6)	TTLIC MCL
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NOTES:

1. Sample analysis for metals regulated in the California Code of Regulations (CCR). CAM metals analysis is conducted in general accordance with EPA Method Nos. 3005, 6010, and 7000, depending on the metal.
2. The first alphanumeric combination in the sample number (e.g. ATD1) is the sample location designation shown in Figure 2.
3. Approximate depth in feet below the ground surface (BGS) except for groundwater samples, which are indicated "GW".
4. A specific analyte is listed when the reported results of the analyte exceeded current regulatory guidelines.
5. For water samples, results are reported in milligrams per liter (mg/L), which is approximately equivalent to parts per million (ppm). For soil samples, results are reported in milligrams per kilogram (mg/kg), which is equivalent to ppm or micrograms per kilogram (ug/kg), which is equivalent to parts per billion (ppb).
6. 10X STLC = 10 times the Soluble Threshold Limit Concentration (STLC). Samples that are reported to contain concentrations exceeding 10X STLC have the potential to have a soluble fraction that exceeds the STLC, as promulgated in CCR, Title 22, Division 4.5, Chapter 10.
7. TTLIC = Total Threshold Limit Concentration (for waste soils) as promulgated in CCR, Title 22, Division 4.5, Chapter 10. MCL = Maximum Contaminant Level (for primary drinking water) as promulgated in CCR, Title 22, Chapter 15, Article 5.5.
8. "Low" means that the 17 metals analyzed in the sample were reported in concentrations judged to be at background or slightly elevated levels.
9. Sample no. HA2-1D was obtained directly beneath sample no. HA2-1 and was considered an approximate duplicate soil sample. It is not possible to obtain a true duplicate soil sample due to the inherently homogeneous nature of the soil.
10. Sample nos. HA3-1, HA4-1, HA5-1, HA6-1, HA8-1, and HA8-2 were analyzed for soluble CAM metals. The regulatory limits listed under the TTLIC/MCL column are STLC as promulgated in CCR, Title 22, Division 4.5, Chapter 10.

TABLE D-1

Analytical Results

Sample No.	BTEX (ug/L)	TPH-DRO (ug/L)	TPH-GRO (ug/L)	RCRA Metals (mg/L)
MW-1	ND	ND	ND	Barium - 0.09
MW-2	ND	ND	ND	Barium - 0.140 Mercury - 0.002

TABLE E-1

Summary of Laboratory analytical Results
Groundwater Samples

Samples Collected on November 9, 1997

Well No.	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes
MW1	240	NA	NA	NA	NA	NA	NA
MW2*	220	NA	NA	NA	NA	NA	NA

Samples Collected on November 5, 1997

Well No.	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes
MW1**	210	ND	ND	ND	ND	ND	ND
MW2**	230	ND	ND	ND	ND	ND	ND

Notes:

Results are in ug/L, unless otherwise indicated.

* Chromium was not detected.

** The metals arsenic, barium, cadmium, chromium, mercury, lead, selenium, and silver were either not detected or were detected at concentrations below their respective Maximum Contaminant Levels (MCLs) with the exception of chromium, which was detected in well MW2 at a concentration of 0.010 ug/L.