

GETTLER-RYAN INC.

2:06 pm, Apr 21, 2009

RECEIVED

Alameda County Environmental Health

TRANSMITTAL

TO: Ms. Tina Berry
Tosco Marketing Company
2000 Crow Canyon Place, Suite 400

San Ramon, California 94583

DATE:

June 22, 1998

PROJ. #:

140139.02-1

SUBJECT: Report

Unocal Station No. 0746

3943 Broadway Oakland, California

FROM:

Clyde J. Galantine Project Geologist Gettler-Ryan Inc. 6747 Sierra Court, Suite J Dublin, California 94568

WE ARE SENDING YOU:

COPIES DATED		DESCRIPTION			
1 June 18, 199		8 Product Piping Replacement Rep			
THESE ARE	TRANSMITTED as	checked below:			
[] For re	view and comment	[] Approved as submitted	[] Resubmit _ copies for approval		
[X] As re	quested	[] Approved as noted	[] Submit _ copies for distribution		
[] For ap	proval	[] Return for corrections	[] Return corrected prints		
[X] For Y	Your Files	·			

COMMENTS:

Enclosed is one copy of the above report. If you have any questions or comments, please call me at (510) 551-7555.

Store # 250746 Da	te: 10-22-98
Unit # 0746 Co	de:Color []
Description:	

6. B.

June 18, 1998

Ms. Tina Berry Tosco Marketing Company 2000 Crow Canyon Place, Suite 400 San Ramon, California 94583

Subject:

Product Piping Replacement Report for Unocal Service Station

No. 0746, 3943 Broadway, Oakland, California.

Dear Ms. Berry:

This report summarizes field activities performed by Gettler-Ryan Inc. (GR) on February 19, 1998, at the subject site during the recent replacement of product piping and dispensers. Construction activities were performed by Paradiso Construction Co. of San Leandro, California.

SITE DESCRIPTION

The subject site is situated on the west corner of the intersection of Broadway and 40th Street in Oakland, California (Figure 1). Station facilities include two 12,000-gallon double-wall glasteel gasoline underground storage tanks (USTs) in a common pit, one 520-gallon double-wall glasteel waste oil UST, two dispenser islands, one station building, and a car wash building. Locations of the pertinent site features are shown on Figure 2. The car wash, station building, dispenser islands, or canopy were not removed during product line replacement activities. To date, groundwater monitoring wells (MW-1 through MW-7) and one groundwater extraction well (RW-1) have been installed at the site.

FIELD ACTIVITIES

หลังเพื่อสิตสาราชาร์สาราชาชิตสาราชาว์ เกี่ยวได้เรื่องสำราช และสาราชาชิตสาราชาวิทยาลาสาราช (ค.ศ.) เลือนสาราชาว์

The product piping and associated dispensers were removed on February 19, 1998. Soil sampling activities were observed by Mr. Robert Weston of Alameda County Environmental Health Services (ACEHS).

140064.02

Dispenser/Product Piping Sampling

After removal of the product piping, four small holes were dug beneath each end of the two dispenser islands with a shovel or hand auger. Soil samples were then collected at each location by manually advancing clean brass tubes to a depth of 4 feet below ground surface (bgs). Sample handling procedures are attached. Sample locations are shown on Figure 2. Groundwater was not encountered during sampling activities. A total of four soil samples were collected and transported to Sequoia Analytical (Sequoia), located in Redwood City (ELAP #1210), California, for chemical analytical analyses. All soil samples were analyzed for Total Petroleum Hydrocarbons calculated as gasoline (TPHg), benzene, toluene, ethylbenzene, and xylenes (BTEX) compounds, and methyl tert-butyl ether (MTBE).

Soil removed from the product piping trenches was stockpiled at the site pending disposal. Four samples were collected from arbitrary locations on the piles. These stockpile samples were submitted to the laboratory for compositing and analysis of TPHg, BTEX, MTBE, and total and soluble lead.

Petroleum hydrocarbons were not detected in one of the product line soil samples. Petroleum hydrocarbon concentrations in the three soil samples ranged from 23 to 4,300 parts per million (ppm) of TPHg, non detected (ND) to 0.039 ppm of benzene, and ND to 2.9 ppm of MTBE. The soil stockpile sample contained 4.0 ppm of TPHg, 100 ppm of total lead, and 4.4 ppm of soluble lead, but was ND for MTBE. Analytical methods and results are summarized in Table 1, and copies of the laboratory results are attached.

SOIL DISPOSAL

A total of 30.20 tons of stockpiled soil was transported from the site by Denbeste Transportation, Inc. of Windsor, California to the Forward Inc. Landfill in Stockton, California for disposal on March 3, 1998. A copy of the soil disposal confirmation letter is attached.

DISTRIBUTION

GSI recommends that a copy of this report be forwarded to Mr. Robert Weston of Alameda County Health Care Services Agency at 1131 Harbor Bay Parkway, 2nd Floor, Alameda, California 94502.

If you have any questions regarding this report, please call us in our Dublin office at (510) 551-7555.

Sincerely,

Gettler-Ryan Inc.

Clyde J. Galartine Project Geologist

Stephen J. Carter Senior Geologist

R.G. 5577

Attachments: Table 1 Soil Chemical Analytical Data

Figure 1. Vicinity Map

Figure 2. Site Plan/Sample Location Map

GR Field Methods and Procedures

Laboratory Reports and Chain-of-Custody Forms

No. 5577

OF CALIFORN

Soil Disposal Confirmation Letter

TABLE 1 - SOIL CHEMICAL ANALYTICAL DATA

Unocal Service Station No. 0746 3943 Broadway Oakland, California

Sample Location and ID	Sample Depth (feet)	Date Collected	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl- benzene (ppm)	Xylenes (ppm)	MTBE (ppm)	Total Lead (ppm)
Product Lines									
UT-1-4	4	2/19/98	2400^{1}	ND^2	ND^2	8.8	56	ND^2	nr
UT-2-4	4	2/19/98	4300 ¹	ND^2	6.3	58	410	ND^2	nr
UT-3-4	4	2/19/98	23	0.039	0.077	0.22	0.051	2.9	пг
UT-4-4	4	2/19/98	ND	ND	ND	ND	ND	ND	nr
Stockpile									
US-1 (A-D)	4	2/19/98	4.0	ND	0.016	0.0090	0.13	0.31	100^{3}

EXPLANATION:

ANALYTICAL LABORATORY:

feet = feet below ground surface

Sequoia Analytical (ELAP #1210)

ppm = parts per million

nr = not requested

ND = Not detected. See analytical data for detection limits.

ANALYTICAL METHODS:

TPHg = Total Petroleum Hydrocarbons as gasoline according to EPA Method 8015 Modified.

BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes according to EPA Method 8020.

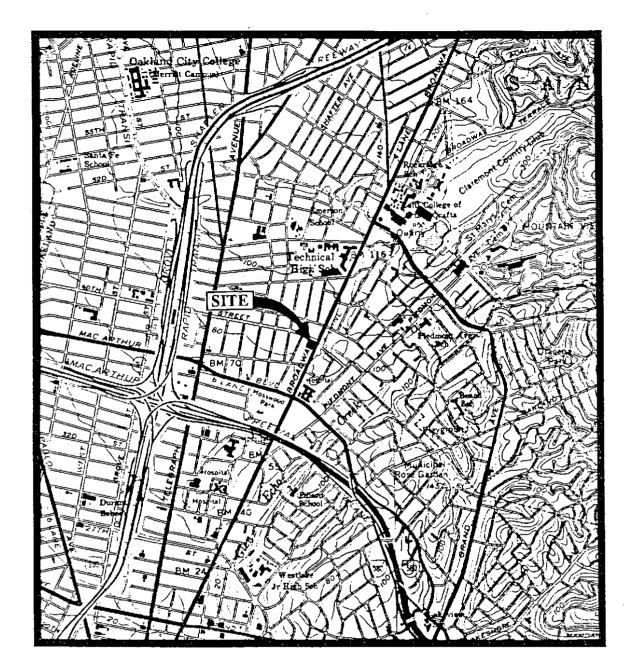
MTBE = Methyl tert-Butyl Ether according to EPA Method 8020.

Total Lead by EPA Method 6010.

¹ Laboratory reports chromatogram pattern indicates weathered gas C7-C12.

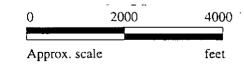
²Not detected at an elevated detection limit.

³ The sample also contained 4.4 ppm soluble lead.



↑ N

Base modified from 7.5 minute U.S.G.S. Oakland East and West Quadrangles (both photorevised 1980)



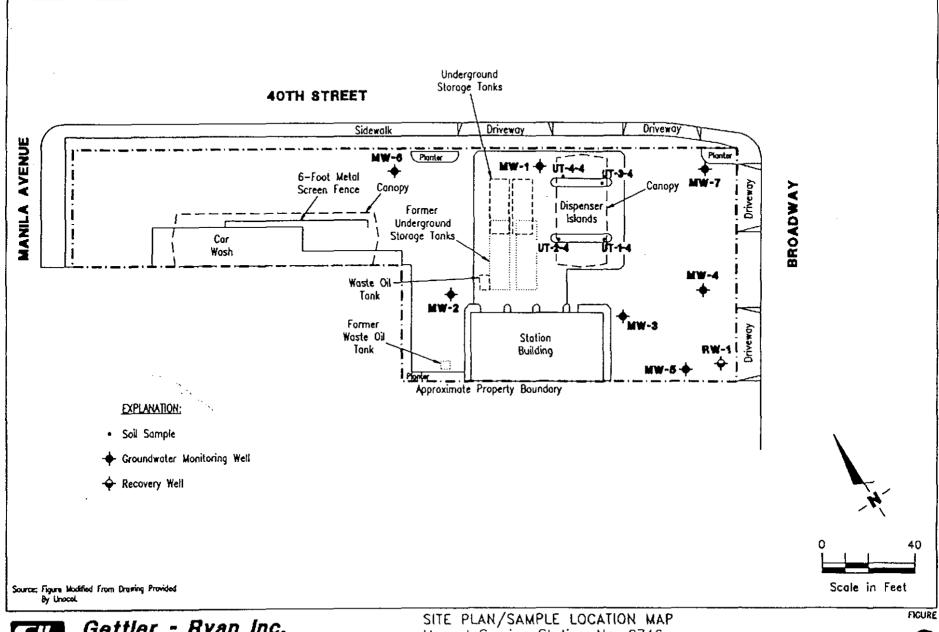


Gettler - Ryan Inc.

6747 Sierro Ct., Suite J Dublin, CA 94568 (510) 551-7555

UNOCAL SERVICE STATION #0746 3943 BROADWAY OAKLAND, CALIFORNIA FIGURE

1





Gettler - Ryan Inc.

6747 Sierra Ct., Suite J Dublin, CA 94568 (510) 551-7555 SITE PLAN/SAMPLE LOCATION MAP Unocal Service Station No. 0746 3943 Broadway Oakland, California

REVISED DATE

REVIEWED BY

DATE 03/98

JOB NUMBER 140064

GETTLER-RYAN FIELD METHODS AND PROCEDURES

GETTLER-RYAN INC.

FIELD METHODS AND PROCEDURES

Site Safety Plan

Field work performed by Gettler-Ryan Inc. (GR) is conducted in accordance with GR's Health and Safety Plan and the Site Safety Plan. GR personnel and subcontractors who perform work at the site are briefed on the contents of these plans prior to initiating site work. The GR geologist or engineer at the site when the work is performed acts as the Site Safety Officer. GR utilizes a photoionization detector (PID) to monitor ambient conditions as part of the Health and Safety Plan.

Collection of Samples

Soil samples are collected from the wall or base of the excavation with a hand-driven sampling device fitted with a 2-inch-diameter, clean brass tube or stainless steel liner. If safety considerations preclude collection of the samples with the drive sampler, the excavating equipment is used to bring soil from the pit wall to the surface, where a sample tube is filled by driving it into the soil in the excavator's bucket. After removal from the sampling device, sample tubes are covered on both ends with teflon sheeting, capped, labeled, and place in a cooler with blue ice for preservation. A chain-of-custody form is initiated in the field and accompanies the selected soil samples to the analytical laboratory.

If it is necessary to collect a sample of groundwater standing in the UST pit, the sample is collected by lowering a new, clean teflon bailer into the pit from a safe position along the pit wall. Once filled and retrieved, the groundwater in the bailer is carefully decanted into the appropriate containers supplied by the analytical laboratory. If required, preservative is added to the sample bottles by the laboratory prior to delivery. The samples are then labelled and place in a cooler with blue ice for preservation. A chain-of-custody form is initiated in the field and accompanies the selected soil samples to the analytical laboratory.

Field Screening of Soil Samples

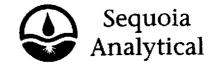
A PID is used to perform head-space analysis in the field for the presence of organic vapors from soil samples. This test procedure involves placing a small amount of the soil to be screened in a sealable plastic bag. The bag is warmed in the sun to allow organic compounds in the soil sample to volatilize. The PID probe is inserted through the wall of the bag and into the headspace inside, and the meter reading is recorded in the field notes. An alternative method involves placing a plastic cap over the end of the sample tube. The PID probe is placed through a hole in the plastic cap, and vapors with the covered tube measured. Head-space screening is performed and results recorded as reconnaissance data only. GR does not consider field screening techniques to be verification of the presence or absence of hydrocarbons.

Storing and Sampling of Soil Stockpiles

Excavated material is stockpiled on and covered with plastic sheeting. Stockpile samples are collected and analyzed for disposal classification on the basis of one composite sample per 100 cubic yards of soil. Stockpile samples are composed of four discrete soil samples, each collected from an arbitrary location on the stockpile. The four discrete samples are then composited in the laboratory prior to analysis.

Each discrete stockpile sample is collected by removing the upper 12 to 18 inches of soil, and them driving the stainless steel or brass sample tube into the stockpiled material with a mallet or drive sampler. The sample tubes are then covered on both ends with teflon sheeting, capped, labeled, and placed in a cooler with blue ice for preservation. A chain-of-custody form is initiated in the field and accompanies the selected soil samples to the analytical laboratory. Stockpiled soils are covered with plastic sheeting after completion of sampling.

LABORATORY ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY RECORDS



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 (650) 364-9600 (510) 988-9600 (916) 921-9600 FAX (650) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568 Client Proj. ID: Unocal 0746/Oakland

Sampled: 02/19/98 Received: 02/19/98

Dublin, CA 94500

Lab Proj. ID: 9802D78

Analyzed: see below Reported: 03/04/98

Attention:

C. Galantine

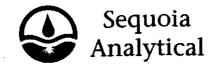
LABORATORY ANALYSIS

Analyte Units Date Detection Sample Analyzed Limit Results Lab No: 9802D78-05 Sample Desc : SOLID, US-1 (Comp) Lead by ICP mg/Kg 02/26/98 5.0 100

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

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory Project Manager



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 (650) 364-9600 (510) 988-9600 (916) 921-9600 FAX (650) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

☐ Gettler Ryan/Geostrategies ☐ 6747 Sierra Court Suite J ☐ Dublin, CA 94568 Client Proj. ID: Unocal 0746/Oakland

Sample Descript: UT-1-4 Matrix: SOLID

Analysis Method: 8015Mod/8020

Received: 02/19/98 Extracted: 02/25/98 Analyzed: 03/02/98 Reported: 03/04/98

Sampled: 02/19/98

Attention: C. Galantine

Lab Number: 9802D78-01

QC Batch Number: GC022598BTEXEXC

Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte		tion Limit g/Kg	Sample Results mg/Kg
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene		500	N.D. N.D. N.D. 8.8
Xylenes (Total) Chromatogram Pattern: Weathered Gas		2.5	56 C7-C12
Surrogates Trifluorotoluene 4-Bromofluorobenzene	Contro 70 60	l Limits % 130 140	% Recovery 105 Q

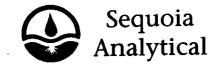
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory Project Manager

Page:

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Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 (650) 364-9600 (510) 988-9600 (916) 921-9600 FAX (650) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568 Client Proj. ID: Unocal 0746/Oakland

Sample Descript: UT-2-4 Matrix: SOLID

Analysis Method: 8015Mod/8020 Lab Number: 9802D78-02 Sampled: 02/19/98 Received: 02/19/98 Extracted: 02/25/98 Analyzed: 03/02/98

Reported: 03/04/98

QC Batch Number: GC022598BTEXEXC

Instrument ID: GCHP18

Attention: C. Galantine

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte		ection Limit mg/Kg	Sa	mple Results mg/Kg
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:	•••••••••••	500 12 2.5 2.5 2.5 2.5		4300 N.D. N.D. 6.3 58 410
Weathered Gas		•		C7-C12
Surrogates Trifluorotoluene 4-Bromofluorobenzene	Con 70 60		% R 30 40	lecovery 103 Q

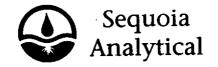
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mile Eregory Project Manager

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Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 (650) 364-9600 (510) 988-9600 (916) 921-9600 FAX (650) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568

Client Proj. ID: Unocal 0746/Oakland

Sample Descript: UT-3-4

Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9802D78-03 Received: 02/19/98 Extracted: 02/25/98 Analyzed: 03/02/98 Reported: 03/04/98

Sampled: 02/19/98

Attention: C. Galantine

QC Batch Number: GC022598BTEXEXC

Instrument ID: GCHP01

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	= -	ection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:		2.5 0.062 0.012 0.012 0.012 0.012	2.9 0.039 0.077 0.22
Surrogates Trifluorotoluene 4-Bromofluorobenzene	Con 70 60	trol Limits % 130 140	% Recovery 97 33 Q

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

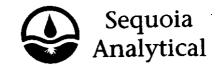
ELAP #1210

SEQUOIA ANALYTICAL -

Wike Gregory Project Manager

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Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 (650) 364-9600 (510) 988-9600 (916) 921-9600 FAX (650) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568 Client Proj. ID: Unocal 0746/Oakland

Sample Descript: UT-4-4

Matrix: SOLID' Analysis Method: 8015Mod/8020 Lab Number: 9802D78-04 Sampled: 02/19/98 Received: 02/19/98 Extracted: 02/25/98 Analyzed: 03/02/98

Reported: 03/04/98

Attention: C. Galantine

QC Batch Number: GC022598BTEXEXC

Instrument ID: GCHP01

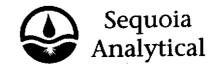
Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:	1.0 0.025 0.0050 0.0050 0.0050 0.0050	N.D. N.D. N.D. N.D. N.D. N.D.
Surrogates Trifluorotoluene 4-Bromofluorobenzene	Control Limits % 70 130 60 140	% Recovery 88 76

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

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory Project Manager



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

(650) 364-9600 (510) 988-9600 (916) 921-9600 FAX (650) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568

Client Proj. ID: Unocal 0746/Oakland Sample Descript: US-1(Comp)

Matrix: SOLID

Analysis Method: 8015Mod/8020

Received: 02/19/98 Extracted: 02/25/98 Analyzed: 02/27/98 Reported: 03/04/98

Sampled: 02/19/98

Attention: C. Galantine

Lab Number: 9802D78-05

QC Batch Number: GC022598BTEXEXC

Instrument ID: GCHP22

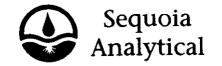
Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	De	tection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:		1.0 0.025 0.0050 0.0050 0.0050 0.0050	0.31 N.D. 0.016 0.0090
Surrogates Trifluorotoluene 4-Bromofluorobenzene	Cor 70 60	ntrol Limits % 130 140	% Recovery 111 94

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

SEQUOIA ANALYTICAL -ELAP #1210

/Gregory roject Manager



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 (650) 364-9600 (510) 988-9600 (916) 921-9600 FAX (650) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568 Attention: C. Galantine

Client Proj. ID: Unocal 0746/Oakland

Received: 02/19/98

Lab Proj. ID: 9802D78

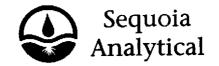
Reported: 03/04/98

LABORATORY NARRATIVE

Q - Surrogate diluted out. Low #Q - Low surrogate due to matrix interference.

SEQUOIA ANALYTICAL

Mile Gregory Project Manager



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 (650) 364-9600 (510) 988-9600 (916) 921-9600 FAX (650) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Gettler Ryan/Geostrategies 6747 Sierra Court, Ste J Dublin, CA 94568

Client Project ID:

Unocal 0746/Oakland

Matrix:

Solid

Attention: C. Galantine

Work Order #:

-01-05

Reported:

Mar 6, 1998

QUALITY CONTROL DATA REPORT

9802D78

Analyte:	Benzene	Toluene	Ethyl	Xylenes	Gas
			Benzene		
QC Batch#: G	C022598BTEXEXC	GC022598BTEXEXC	GC022598BTEXEXC	GC022598BTEXEXC	GC022598BTEXEXC
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD #:	9802E8502	9802E8502	9802E8502	9802E8502	9802E8502
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	2/25/98	2/25/98	2/25/98	2/25/98	2/25/98
Analyzed Date:	2/25/98	2/25/98	2/25/98	2/25/98	2/25/98
nstrument I.D.#:	GCHP22	GCHP22	GCHP22	GCHP22	GCHP22
Conc. Spiked:	0.20 mg/Kg	0.20 mg/Kg	0.20 mg/Kg	0.60 mg/Kg	1.2 mg/Kg
Result:	0.20	0.20	0.20	0.60	1.2
MS % Recovery:	100	100	100	100	100
Dup. Result:	0.20	0.20	0.20	0.60	1.1
MSD % Recov.:	100	100	100	100	92
RPD:	0.0	0.0	0.0	0.0	8.7
RPD Limit:	0-25	0-25	0-25	0-25	0-25
LCS #:	BLK022598	BLK022598	BLK022598	BLK022598	BLK022598
Prepared Date:	2/25/98	2/25/98	2/25/98	2/25/98	2/25/98
Analyzed Date:	2/26/98	2/26/98	2/26/98	2/26/98	2/26/98
nstrument I.D.#:	GCHP22	GCHP22	GCHP22	GCHP22	GCHP22
Conc. Spiked:	0.20 mg/Kg	0.20 mg/Kg	0.20 mg/Kg	0.60 mg/Kg	1.2 mg/Kg
LCS Result:	0.22	0.21	0.21	0.64	1.2
LCS % Recov.:	110	105	105	107	100
MS/MSD	60-140	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130	70-130
Control Limits			, • . • •		70 100

SEQUOIA ANALYTICAL

Mike Spegory Prøject 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.

^{**} MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 (650) 364-9600 (510) 988-9600 (916) 921-9600 FAX (650) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Gettler Ryan/Geostrategies 6747 Sierra Court, Ste J Client Project ID:

Unocal 0746/Oakland

Matrix:

Solid

Dublin, CA 94568 Attention: C. Galantine

Work Order #:

9802D78-05

Reported:

Mar 6, 1998;

QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel	
QC Batch#:	ME0226986010MDE	ME0226986010MDE	ME0226986010MDE	ME0226986010MDE	
Analy, Method:		EPA 6010	EPA 6010	EPA 6010	
Prep. Method:		EPA 3050	EPA 3050	EPA 3050	
Analyst	T 0	T 0	T. 0	T 0	
Analyst: MS/MSD #:		T. Sears	T. Sears	T. Sears	
Sample Conc.:		980267701	980267701	980267701	
		N.D.	82	130	
Prepared Date:	• •	2/26/98	2/26/98	2/26/98	
Analyzed Date:		2/26/98	2/26/98	2/26/98	
Instrument I.D.#:		MTJA5	MTJA5	MTJA5	
Conc. Spiked:	50 mg/Kg	50 mg/Kg	50 mg/Kg	50 mg/Kg	
Result:	44	45	140	170	
MS % Recovery:	88	90	116	80	
Dup. Result:	44	47	130	160	
MSD % Recov.:	88	94	96	60	
RPD:	0.0	4.3	7.4	6.1	
RPD Limit:		0-20	0-20	0-20	
LCS #:	BLK022698	BLK022698	BLK022698	BLK022698	
Prepared Date:	2/26/98	2/26/98	2/26/98	2/26/98	
Analyzed Date:		2/26/98	2/26/98	2/26/98	
Instrument I.D.#:		MTJA5	MTJA5	MTJA5	
Conc. Spiked:		50 mg/Kg	50 mg/Kg	50 mg/Kg	
LCS Result:	53	51	53	52	
LCS % Recov.:		102	106	104	
200 % 110004	. 100	102		104	
MS/MSD	90.400	90.400		90 100	
LCS	80-120	80-120	80-120	80-120	
Control Limits	80-120	80-120	80-120	80-120	
j Control Limits					

SEQUOIA ANALYTICAL

Mike Aregory 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.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

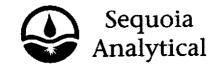
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ó	680 Chesapeake Drive • Redwood City, CA 94063 •	(415	364-9600
	obo chesapeane bille i location only, on a loca		, ~~ . ~~

- ☐ 819 atriker Ave., Suite 8 Sacramento, CA 95834 (916) 921-9600
- ☐ 404 N. Wiget Lane Walnut Creek, CA 94598 (510) 988-9600
- ☐ 18939 120th Ave., N.E., Suite 101 Bothell, WA 98011 (206) 481-9200
- ☐ East 11115 Montgomery, Suite B Spokane, WA 99206 (509) 924-9200
- ☐ 15055 S.W. Sequoia Pkwy, Suite 110 Portland, OR 97222 (503) 624-9800

Consultant Company: Gettler-Ryan	Project Name: Unocal # 0746
Address: 6747 Sierra Ct Suite J 140064.02	UNOCAL Project Manager: Ting Berry
City: Oublin State: CA Zip Code: 94568	AFE #:
Telephone: (516) 55/-7555 FAX #:(516) 55/ -7888	Site #, City, State: #0746, 3943 Broadway Ockland
Report To: C Eglantine Sampler: C Galantine	QC Data: Level D (Standard) Level C Level B Level A
	rinking Water Analyses Requested 역전구원기에 발 19 2 2
Time:	Vaste Water Other
Client Date/Time Matrix # of Cont. Laborator Sample I.D. Sampled Desc. Cont. Type Sample	
1. UT-1-4 2/19/98 Soil 1 tube 1	
2. UT-2-4 1 1 2	X
3.67-3-4	
4. LT-4-4 4	
5.	
6.US-1 (Comp) V 4 V 3	17171
7.	
8.	
9.	
10.	
Relinquished By: Will July Date: 2/19/95/ Time: /2.5	5 Received By: Ray Sturge Date: 2/6/148 Time: 12:55
Relinquished By: Lander Date: 1/9 Time:	Received By: Date: Time:
Relinquished By: Date: Time:	Received By Lab: Date: 2/19(9) Time: 14:23
Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice	? 🗆 Yes 🗅 No Method of Shipment Page of
To be completed upon receipt of report: -1) Were the analyses requested on the Chain of Custody reported? □ Yes □ 2) Was the report issued within the requested turnaround time? □ Yes □ No.	☐ No. If no, what analyses are still needed?
Approved by: Signature:	



Clyde Galantine

680 Chesapeake Drive 404 N. Wiget Lane

Redwood City, CA 94063 Walnut Creek, CA 94598 819 Striker Avenue, Suite 8 Sacramento, CA 95834

(650) 364-9600 (510) 988-9600 (916) 921-9600

FAX (650) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568

Attention:

Client Proj. ID:

Unocal 0746/Oakland

Sampled: 02/19/98 Received: 03/06/98 Analyzed: see below

Lab Proj. ID: 9803352

Reported: 03/11/98

LABORATORY ANALYSIS

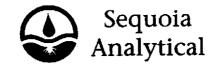
£35

Analyte	Units Date Analyzed		Detection Limit	Sample Results		
Lab No: 9803352-01 Sample Desc : SOLID,US-1-Comp						
Lead: STLC Extraction	mg/L	03/10/98	0.10	4.4		

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

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory Project Manager



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 (650) 364-9600 (510) 988-9600 (916) 921-9600 FAX (650) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Gettler Ryan/Geostrategies 6747 Sierra Court, Ste J Client Project ID:

Unocal 0746/Oakland

Dublin, CA 94568

Attention: Clyde Galantine

Matrix: Liquid

Work Order #: 9

9803352 -01

Reported:

Mar 25, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel	
	-				
** *	E0310986010MDB	ME0310986010MDB	ME0310986010MDB	ME0310986010MDB	
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010	
Prep. Method:	EPA 3010	EPA 3010	EPA 3010	EPA 3010	
Analyst:	S. LaBarron	S, LaBarron	S. LaBarron	S. LaBarron	
MS/MSD#:	980350501	980350501	980350501	980350501	
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	
Prepared Date:	3/10/98	3/10/98	3/10/98	3/10/98	
Analyzed Date:	3/10/98	3/10/98	3/10/98	3/10/98	
Instrument I.D.#:	MTJA5	MTJA5	MTJA5	MTJA5	
Conc. Spiked:	1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L	
Result:	1,1	1.1	1.0	1.1	
MS % Recovery:	110	110	100	110	
Dup. Result:	1.0	1.1	1.0	1.1	
MSD % Recov.:	100	110	100	110	
RPD:	9.5	0.0	0.0	0.0	
RPD Limit:	0-20	0-20	0-20	0-20	
LCS #:	BLK031098	BLK031098	BLK031098	BLK031098	
Prepared Date:	3/10/98	3/10/98	3/10/98	3/10/98	
Analyzed Date:	3/10/98	3/10/98	3/10/98	3/10/98	
Instrument I.D.#:	MTJA5	MTJA5	MTJA5	MTJA5	
Conc. Spiked:	1.0 mg/L	1.0 mg/L	$1.0\mathrm{mg/L}$	1.0 mg/L	
LCS Result:	1.1	1.1	1.0	1.1	
LCS % Recov.:	110	110	100	110	
MS/MSD	80-120	80-120	80-120	80-120	
LCS	80-120	80-120	80-120	80-120	
Control Limits					

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.

e Gregory

SEQUOIA ANALYTICAL

Project Manager

^{**} MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 (650) 364-9600 (510) 988-9600 (916) 921-9600 FAX (650) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568 Attention: Clyde Galantine Client Proj. ID: Unocal 0746/Oakland

Received: 03/06/98

Lab Proj. ID: 9803352

Reported: 03/11/98

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of ______ pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

SEQUOIA ANALYTICAL

Mike Cregory Project Manager

UNOCAL 76

14 680 Chesapeake Drive • Redwood City, CA 94063 • (415) 364-9600

□ 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600

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□ 18939 120th Ave., N.E., Suite 101 • Bothell, WA 98011 • (206) 481-9200

© East 11115 Montgomery, Suite B • Spokane, WA 99206 • (509) 924-9200

☐ 15055 S.W. Sequoia Pkwy, Suite 110 • Portland, OR 97222 • (503) 624-9800

Consultant Company: Getter-Ryan				Project Name: Unocal # 0746												
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city: Dublin	State:	\sim \sim		Zip Code:	94568	AFE #:	• ` `	`		•						┛┇
Telephone: (5/6) 5	SF-7885		FAX #: <i>(</i> {	510) 551	-7888	Site #, C	City, Sta	ate: 👯	074	<u>6. 31</u>	43 Br	parlin	44	0	Kland	Cilent
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Turnaround 💆 10 W	/ork Days 🚨 5 \	Nork Days	; □3V	Vork Days		rinking V	Vater			Ai	nalyses	Request	ed 9	802 N.	78 m 19	2 23
				Vaste Water (18)												
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Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laborator Sample	ry # Z	5//	Sur						<u>/·</u>	Comments	_ _
1. UT-1-4	219/98	Soil	1	tube	1	1	ļ						<u> </u>	٠.		Laboratory
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3. UT-3-4				<u> </u>	3	1 *		,								
4. LIT-4-4					4_	14										ellow
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6.US-1 (Comp)	Ψ	ΙΨ	4	γ	2	1×	X						 		·	4
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Relinquished By:) 00		Rece	eived B	y Lab:	Th	7		Date: 2	1/9/48	Time:	14:23				
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o be completed upon Were the analy	ses requested o	n the Chai	n of Cus	stody repoi	rted? Cl Yes	i⊇No If n	o, wha	t analy	yses ar	re still ne	eded?					-
	issued within the															_

SOIL DISPOSAL CONFIRMATION LETTER



April 1, 1998

Gettler-Ryan, Inc. 6747 Sierra Court, Suite J Dublin, California 94568

Attention: Clyde Galantine

RE:

FORWARD, INC. Approval No. 668122 Contaminated Soil from Unocal S/S# 0746 3943 Broadway, Oakland, CA

Dear Mr. Galantine:

FORWARD, INC. is pleased to confirm the disposal of 30.20 tons of soil from the referenced site. The material was received at our Manteca, California facility for disposal on March 3, 1998. The waste was placed in a Class II Class 2 waste management unit.

Approval for this material was based on the information provided in the waste profile and associated materials submitted by Gettler-Ryan, Inc., dated February 23, 1998 on behalf of the Tosco Marketing Company. Acceptance of the waste is subject to the "Terms and Conditions" agreed to and signed by Gettler-Ryan (agent for Tosco Marketing Company).

Thank you for the opportunity to be of service. Should you have any questions regarding this matter, please do not hesitate to contact myself or Customer Service at (800) 204-4242.

Sincerely,

FORWARD, INC.

Brad J. Bonner Sales Manager

BJB/sz

F:\FORWARD\MERGE PORMS\CONSULTANT CONFIRMATION OF DISPOSAL