

ALCO
HAZMAT

KAPREALIAN ENGINEERING
INCORPORATED

94 JUN 13 PM 2:43

June 10, 1994

Alameda County Health Care Services
80 Swan Way, Room 200
Oakland, CA 94621

Attention: Mr. Scott Seery

RE: Unocal Service Station #3292
15008 E. 14th Street
San Leandro, California

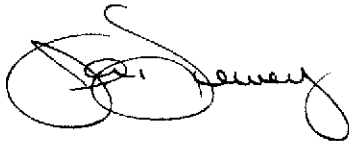
Dear Mr. Seery:

Per the request of Mr. Edward C. Ralston of Unocal Corporation, enclosed please find our report dated May 3, 1994, for the above referenced site.

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

Sincerely,

Kaprealian Engineering, Inc.



Judy A. Dewey

jad\82

Enclosure

cc: Edward C. Ralston, Unocal Corporation

KAPREALIAN ENGINEERING
INCORPORATED

KEI-P91-0102.R7
May 3, 1994

Unocal Corporation
2000 Crow Canyon Place, Suite 400
P.O. Box 5155
San Ramon, California 94583

Attention: Mr. Edward C. Ralston

RE: Sampling and Disposal of
Stockpiled Soil at
Unocal Service Station #3292
15008 E. 14th Street
San Leandro, California

Dear Mr. Ralston:

This report summarizes the analytical results of the composite soil samples that were collected from the stockpiled soil generated during the excavation of electrical trenches at the referenced site. The soil analyses were conducted to comply with the local regulatory agency requirements for proper disposal of potentially contaminated soil.

On April 18, 1994, one composite soil sample (designated as Comp A) was collected from approximately 36 cubic yards of stockpiled soil to determine proper disposal of the soil. The soil was generated during the excavation of electrical trenches. Each composite sample consisted of four individual grab samples taken at various locations and at depths of approximately 2 feet into the stockpile. The individual samples were subsequently composited by the lab. The individual samples were collected in two-inch diameter, clean brass tubes, which were then sealed with aluminum foil, plastic caps and tape, and placed in a cooled ice chest for subsequent delivery to a certified laboratory for analysis. All samples were analyzed by Sequoia Analytical Laboratory in Concord, California, and were accompanied by properly executed Chain of Custody documentation. Sample point locations are as shown on Figure 1.

The composite soil sample (Comp A) was analyzed to determine concentrations of total petroleum hydrocarbons (TPH) as gasoline by EPA method 5030/modified 8015, benzene, toluene, ethylbenzene, and xylenes by EPA method 8020, reactivity, corrosivity, and ignitability. The composite sample was also analyzed for lead by the use of soluble threshold limit concentrations (STLC) waste extraction test. Results of the soil analyses are summarized in Table 1. Copies of the laboratory analyses and the Chain of Custody documentation are attached to this report.

KEI-P91-0102.R7

May 3, 1994

Page 2

Based on the analytical results of the composite soil sample, approximately 36 cubic yards of stockpiled soil, represented by sample Comp A, were profiled for disposal to BFI Waste Systems (an approved Class III disposal site) in Livermore, California. On April 29, 1994, 36 cubic yards of stockpiled soil were disposed of at BFI Landfill by Balch Petroleum of Milpitas, California.

Should you have any questions regarding this report, please feel free to contact me at (510) 602-5100

Sincerely,

Kaprealian Engineering, Inc.

A handwritten signature in cursive script, appearing to read "Nayiri Kaloustian".

Nayiri Kaloustian
Technical Assistant

/nk

Attachments: Table 1
Figure 1
Laboratory Analyses
Chain of Custody documentation

KEI-P91-0102.R7
May 3, 1994

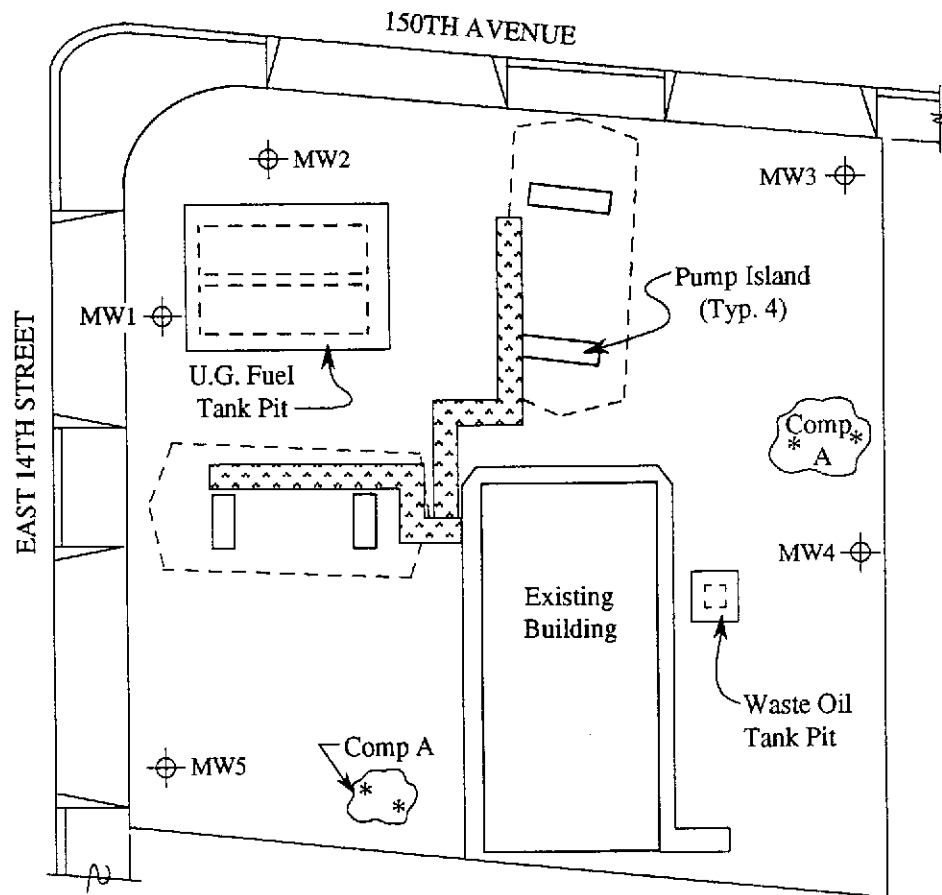
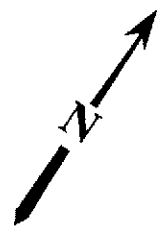
TABLE 1
SUMMARY OF LABORATORY ANALYSES
SOIL

<u>Date</u>	<u>Sample</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl-benzene</u>	<u>Xylenes</u>
4/18/94	Comp A♦	1.9	ND	ND	ND	0.010





♦ Additional Analytical: Corrosivity (pH) = 7.1, Ignitability = >100°C, Reactivity = ND, STLC lead = 0.29 mg/L.

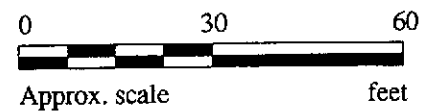
ND = Non-detectable.

Results in parts per million (ppm), unless otherwise indicated.



LEGEND

-  Monitoring well
-  Sample point location
-  Stockpiled soil (not to scale)
-  Excavated electrical trench (not to scale)



STOCKPILE SOIL LOCATION MAP



**UNOCAL SERVICE STATION #3292
15008 E. 14TH STREET
SAN LEANDRO, CA**

**FIGURE
1**



Kaprealian Engineering, Inc. 2401 Stanwell Dr., Ste. 400 Concord, CA 94520 Attention: Avo Avedissian	Client Project ID: Unocal #3292, 15008 E. 14th Street, Sample Matrix: Soil Analysis Method: EPA 5030/8015/8020 First Sample #: 404-0751	San Leandro Received: Apr 18, 1994 Reported: Apr 19, 1994
---	--	---

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 404-0751 Comp. A*	Sample I.D. Method Blank
Purgeable Hydrocarbons	1.0	1.9	
Benzene	0.005	N.D.	
Toluene	0.005	N.D.	
Ethyl Benzene	0.005	N.D.	
Total Xylenes	0.005	0.010	

Chromatogram Pattern: Unidentified Hydrocarbons >C8

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0
Date Analyzed:	4/18/94	4/18/94
Instrument Identification:	HP-2	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	99	108

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

SEQUOIA ANALYTICAL, #1271


Alan B. Kemp
Project Manager

Please Note:

*This sample does not appear to contain gasoline. Unidentified hydrocarbons >C8 refers to unidentified peaks in the total extractable petroleum hydrocarbon range.





Kaprealian Engineering, Inc.
 2401 Stanwell Dr., Ste. 400
 Concord, CA 94520
 Attention: Avo Avedissian

Client Project ID: Unocal #3292, 15008 E. 14th Street, San Leandro
 Matrix: Solid

QC Sample Group: 404-0751

Reported: Apr 19, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Fontecha	J. Fontecha	J. Fontecha	J. Fontecha

MS/MSD Batch#:	BLK041894	BLK041894	BLK041894	BLK041894
Date Prepared:	4/18/94	4/18/94	4/18/94	4/18/94
Date Analyzed:	4/18/94	4/18/94	4/18/94	4/18/94
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Conc. Spiked:	0.40 mg/kg	0.40 mg/kg	0.40 mg/kg	1.2 mg/kg
Matrix Spike % Recovery:	93	95	95	97
Matrix Spike Duplicate % Recovery:	95	95	98	98
Relative % Difference:	2.1	0.0	3.1	1.0

LCS Batch#:	1LCS041894	1LCS041894	1LCS041894	1LCS041894
Date Prepared:	4/18/94	4/18/94	4/18/94	4/18/94
Date Analyzed:	4/18/94	4/18/94	4/18/94	4/18/94
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
LCS % Recovery:	119	106	109	109

% Recovery Control Limits:	55-145	47-149	47-155	56-140
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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.

SEQUOIA ANALYTICAL, #1271

Alan B. Kemp
 Project Manager





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

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

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

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

1900 Bates Ave., Suite LM • Concord, CA 94520 • (510) 686-9600

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

Company Name: <i>Kapreational Engineering Inc</i>		Project Name: <i>15008 E. 14th Street, San Leandro</i>	
Address: <i>2401 Stanwell Dr #400</i>		UNOCAL Project Manager:	
City: <i>Concord</i>	State: <i>Ca.</i>	Zip Code: <i>94520</i>	
Telephone: <i>510-602-5100</i>	FAX #: <i>510-687-0602</i>	Site #: <i>3292</i>	
Report To: <i>Joe Avedissian</i>	Sampler: <i>Divan Melkoun</i>	QC Data: <input checked="" type="checkbox"/> Level A (Standard) <input type="checkbox"/> Level B <input type="checkbox"/> Level C <input type="checkbox"/> Level D	

Turnaround 10 Working Days 2 Working Days
 Time: 5 Working Days 24 Hours
 3 Working Days 2 - 8 Hours

Analyses Requested
 Drinking Water
 Waste Water
 Other

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	Analyses Requested					Comments
1. <i>Comp. A</i>	<i>4/12/94</i>	<i>Soil</i>	<i>4</i>	<i>Brass tube</i>		<i>TPHG-BTXE</i>					<i>4040751A-D</i>
2.											
3.											
4.											
5.											
6.											
7.											
8.											
9.											
10.											

Relinquished By: <i>Divan Melkoun</i>	Date: <i>4/19/94</i>	Time: <i>4:30</i>	Received By: <i>DPhillips</i>	Date: <i>4-19</i>	Time: <i>4:30</i>
Relinquished By: _____	Date: _____	Time: _____	Received By: _____	Date: _____	Time: _____
Relinquished By: _____	Date: _____	Time: _____	Received By Lab: _____	Date: _____	Time: _____

Were Samples Received in Good Condition? Yes No Samples on Ice? Yes No Method of Shipment SAL Page ___ of ___

To be completed upon receipt of report:
 1) Were the analyses requested on the Chain of Custody reported? Yes No If no, what analyses are still needed? _____
 2) Was the report issued within the requested turnaround time? Yes No If no, what was the turnaround time? _____
 Approved by: _____ Signature: _____ Company: _____ Date: _____

Pink - Client
Yellow - Sequoia
White - Sequoia



Kaprealian Engineering, Inc. 2401 Stanwell Dr., Ste. 400 Concord, CA 94520 Attention: Avo Avedissian	Client Project ID: Unocal #3292, 15008 E. 14th Street, Sample Descript: STLC Extract of Soil San Leandro Analysis for: STLC Lead First Sample #: #4040751	Sampled: Apr 18, 1994 Relogged: Apr 19, 1994 Extracted: Apr 20, 1994 Analyzed: Apr 22, 1994 Reported: Apr 22, 1994
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LABORATORY ANALYSIS FOR: STLC Lead

Sample Number	Sample Description	Detection Limit mg/L	Sample Result mg/L
404-0751	Comp A	0.050	0.29

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

SEQUOIA ANALYTICAL, #1271


Alan B. Kemp
Project Manager





Kaprealian Engineering, Inc. 2401 Starwell Dr., Ste. 400 Concord, CA 94520 Attention: Avo Avedissian	Client Project ID: Unocal #3292, 15008 E. 14th Street, Sample Descript: Soil, Comp A Lab Number: 404-0751	San Leandro	Sampled: Apr 18, 1994 Relogged: Apr 19, 1994 Analyzed: 4/21 & 22/94 Reported: Apr 22, 1994
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CORROSIVITY AND IGNITABILITY

Analyte	Detection Limit	Sample Results
Corrosivity: pH.....	N.A.	7.1
Ignitability: Flashpoint (Pensky-Martens), °C.....	N.A.	> 100 °C

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

SEQUOIA ANALYTICAL, #1271


Alan B. Kemp
Project Manager

#4040751.KEI <2>





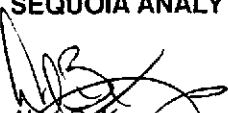
Kaprealian Engineering, Inc. 2401 Stanwell Dr., Ste. 400 Concord, CA 94520 Attention: Avo Avedissian	Client Project ID: Unocal #3292, 15008 E. 14th Street, Sample Descript: Soil, Comp A Lab Number: 404-0751	San Leandro	Sampled: Apr 18, 1994 Relogged: Apr 19, 1994 Analyzed: Apr 20, 1994 Reported: Apr 22, 1994
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REACTIVITY

Analyte	Detection Limit	Sample Results
Reactivity:		
Sulfide, mg/kg.....	10	N.D.
Cyanide, mg/kg.....	0.50	N.D.
Reaction with water.....	N.A.	Negative

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

SEQUOIA ANALYTICAL, #1210


Alan B. Kemp
Project Manager





Kaprelian Engineering, Inc.
2401 Stanwell Dr., Ste. 400
Concord, CA 94520
Attention: Avo Avedissian

Client Project ID: Unocal #3292, 15008 E. 14th Street, San Leandro
Matrix: Liquid

QC Sample Group: 404-0751

Reported: Apr 25, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Reactive Cyanide	Reactive Cyanide
Method:	SW 846	SW 846
Analyst:	J. Heider	K. Newberry

Date Analyzed: 4/20/94 4/20/94

Sample #: 9404885-1 9404885-1

Sample Concentration: N.D. N.D.

Sample Duplicate Concentration: N.D. N.D.

% RPD: 0.0 0.0

% RPD Control Limits: ±20 ±20

SEQUOIA ANALYTICAL, #1210


Alan B. Kemp
Project Manager





Kaprealian Engineering, Inc.
 2401 Stanwell Dr., Ste. 400
 Concord, CA 94520
 Attention: Avo Avedissian

Client Project ID: Unocal #3292, 15008 E. 14th Street, San Leandro
 Matrix: Liquid

QC Sample Group: 404-0751

Reported: Apr 25, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Corrosivity	Ignitability
Method:	EPA 9045	EPA 1010
Analyst:	M. Nguyen	S. Phillips

Date Analyzed: 4/21/94 4/22/94

Sample #: 4040751 Xylene;
Flashpoint = 29°C

Sample Concentration: 7.1 25

Sample Duplicate Concentration: 7.1 25

% RPD: 0.0 0.0

% RPD:
Control Limits: 0-30 0-30

SEQUOIA ANALYTICAL, #1271


 Alan B. Kemp
 Project Manager





Kaprealian Engineering, Inc. 2401 Stanwell Dr., Ste. 400 Concord, CA 94520 Attention: Avo Avedissian	Client Project ID: Unocal #3292, 15008 E. 14th Street, San Leandro Matrix: Liquid	QC Sample Group: 404-0751	Reported: Apr 25, 1994
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QUALITY CONTROL DATA REPORT

ANALYTE	STLC Lead
Method:	EPA 7420
Analyst:	K.V.S.

MS/MSD
Batch#: 4040751

Date Prepared: 4/22/94
Date Analyzed: 4/22/94
Instrument I.D.#: SpectrAA-20
Conc. Spiked: 2.0 mg/L

Matrix Spike
% Recovery: 93

Matrix Spike
Duplicate %
Recovery: 86

Relative %
Difference: 7.8

LCS Batch#: BLK042094

Date Prepared: 4/20/94
Date Analyzed: 4/22/94
Instrument I.D.#: SpectrAA-20

LCS %
Recovery: 77

% Recovery Control Limits:	75-125
---	--------

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.

SEQUOIA ANALYTICAL, #1271


 Alan B. Kemp
 Project Manager



SEQUOIA/UNOCAL ANALYTICAL RELOG SHEET

CLIENT: KEI
PROJECT ID: UNOCAL #3292
PROJ. MANAGER: ABK
DATE REC'D: 4-18-94 MATRIX: SOIL

DATE RELOG: 4-19-94
DATE DUE: 4-22-94
DATE SAMP: 4-18-94
T.A.T: 2h

~~PREVIOUS LOGGED SAMPLES~~

TAT Change status to: _____
Change status as of Day: _____ Time: _____

CHANGE ANALYSES
Add Analyses:
Cancel Analyses:

Sample Number	Analyses
<u>4040751</u>	<u>STLC-Pb, RCI</u>

~~SAMPLES ON HOLD~~

Add analyses

Sample description	Analyses

TAT _____
Client Authorization (Person/Date/Time) Bob K. / 4-19-94 / 3:30 pm
Project Manager _____

(Please submit to sample control with a copy of the COC & log-in sheets)

To be completed upon receipt of report:

- 1) Were the analyses requested on the Chain of Custody reported? Yes No If no, what analyses are still needed?
- 2) Was the report issued within the requested turnaround time? Yes No If no, what was the turnaround time?

Approved by: Bob K. Signature: _____ Company: KEI

Rev2.0.ADS

4/22/94

SEQUOIA/UNOCAL ANALYTICAL RELOG SHEET

CLIENT: KEI DATE RELOG: 4-19-94
PROJECT ID: UNOCAL #3292 DATE DUE: 4-22-94
PROJ. MANAGER: ABK DATE SAMP: 4-18-94
DATE REC'D: 4-18-94 MATRIX: SOIL T.A.T. 7h

PREVIOUSLY LOGGED SAMPLES

TAT Change status to: _____
Change status as of Day: _____ Time: _____

CHANGE ANALYSES

Add Analyses:
Cancel Analyses:

Sample Number 4040751 Analyses STLC-Pb, RCI

SAMPLES ON HOLD

Add analyses

Sample description	Analyses

TAT _____
Client Authorization (Person/Date/Time) Bob K. / 4-19-94 / 3:30 pm
Project Manager _____

(Please submit to sample control with a copy of the COC & log-in sheets)

To be completed upon receipt of receipt of report:

- 1) Were the analyses requested on the Chain of Custody reported? __Yes __No If no, what analyses are still needed?
- 2) Was the report issued within the requested turnaround time? __Yes __No If no, what was the turnaround time?

Approved by: _____ Signature: _____ Company: _____



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

1900 Bates Ave., Suite LM • Concord, CA 94520 • (510) 686-9600

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

Company Name: <i>Kaprealian Engineering Inc.</i>		Project Name: <i>15008 E. 14th Street, San Leandro</i>	
Address: <i>2401 Stanwell Dr #400</i>		UNOCAL Project Manager:	
City: <i>Concord</i>	State: <i>Ca.</i>	Zip Code: <i>94520</i>	
Telephone: <i>510-602-5100</i>		FAX #: <i>510-687-0602</i>	Site #: <i>3292</i>
Report To: <i>Avo Avedissian</i>	Sampler: <i>Diran Melkoun</i>	QC Data: <input checked="" type="checkbox"/> Level A (Standard) <input type="checkbox"/> Level B <input type="checkbox"/> Level C <input type="checkbox"/> Level D	

Turnaround 10 Working Days 2 Working Days
 5 Working Days 24 Hours
 3 Working Days 2 - 8 Hours

Drinking Water
 Waste Water
 Other

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	Analyses Requested							Comments
<i>Comp. A</i>	<i>4/18/94</i>	<i>SOIL</i>	<i>4</i>	<i>Brass tube</i>	<i>✓</i>	<i>TPHG-DIXE</i>							<i>4040751 A-D</i>

Relinquished By: <i>Diran Melkoun</i>	Date: <i>4/19/94</i>	Time: <i>4:30</i>	Received By: <i>DPhillips</i>	Date: <i>4-18</i>	Time: <i>4:30</i>
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By Lab:	Date:	Time:

Were Samples Received in Good Condition? Yes No Samples on Ice? Yes No Method of Shipment *SAL* Page ___ of ___

to be completed upon receipt of report:

1) Were the analyses requested on the Chain of Custody reported? Yes No If no, what analyses are still needed? _____

2) Was the report issued within the requested turnaround time? Yes No If no, what was the turnaround time? _____

Approved by: _____ Signature: _____ Company: _____ Date: _____

Pink - Client
Yellow - Sequoia
White - Sequoia