



# SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063  
(415) 364-9600 • FAX (415) 364-9233

Acoultite  
35 South Linden Avenue  
South San Francisco, CA 94080  
Attention: Eddy Tabet

Client Project ID: Dorothy Coates  
Matrix Descript: Soil  
Analysis Method: EPA 5030/8015/8020  
First Sample #: 107-4800

Sampled: Jul 25, 1991  
Received: Jul 25, 1991  
Analyzed: Jul 29, 1991  
Reported: Aug 1, 1991

## TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P.	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
		Hydrocarbons mg/kg (ppm)				
107-4800	North End of Tank	60	0.019	0.014	N.D.	0.40
107-4801	South End of Tank	38	0.0050	0.0050	0.016	0.082

### Detection Limits:

1.0                      0.0050                      0.0050                      0.0050                      0.0050

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.  
Analytes reported as N.D. were not present above the stated limit of detection.

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*Elizabeth W. Hackl*  
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Project Manager

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Accutite  
35 South Linden Avenue  
South San Francisco, CA 94080  
Attention: Eddy Tabet

Client Project ID: Dorothy Coates

QC Sample Group: 1074800-01

Reported: Aug 1, 1991

## QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl- benzene	Xylenes
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Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	L. Gonzales	L. Gonzales	L. Gonzales	L. Gonzales
Reporting Units:	ng	ng	ng	ng
Date Analyzed:	Jul 29, 1991	Jul 29, 1991	Jul 29, 1991	Jul 29, 1991
QC Sample #:	GBLK072991	GBLK072991	GBLK072991	GBLK072991

Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	100	100	100	300
Conc. Matrix Spike:	95	94	92	280
Matrix Spike % Recovery:	95	94	92	93
Conc. Matrix Spike Dup.:	85	85	84	260
Matrix Spike Duplicate % Recovery:	85	85	84	87
Relative % Difference:	11	10	9.1	7.4

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*Elizabeth W. Hard*  
Elizabeth W. Hard  
Project Manager

% Recovery:	$\frac{\text{Conc. of M.S.} - \text{Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$
Relative % Difference:	$\frac{\text{Conc. of M.S.} - \text{Conc. of M.S.D.}}{(\text{Conc. of M.S.} + \text{Conc. of M.S.D.}) / 2} \times 100$

1074800.ACC <2>



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Acculite	Client Project ID: Dorothy Coates	Sampled: Jul 25, 1991
35 South Linden Avenue	Matrix Descript: Soil	Received: Jul 25, 1991
South San Francisco, CA 94080	Analysis Method: EPA 3550/8015	Extracted: Jul 30, 1991
Attention: Eddy Tabet	First Sample #: 107-4800	Analyzed: Jul 31, 1991
		Reported: Aug 1, 1991

## TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	High B.P. Hydrocarbons mg/kg (ppm)
107-4800	North End of Tank	3,400
107-4801	South End of Tank	2,200

Detection Limits:

1.0

High Boiling Point Hydrocarbons are quantitated against a diesel fuel standard.  
Analytes reported as N.D. were not present above the stated limit of detection.

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Project Manager

1074800.ACC <3>



# SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063  
(415) 364-9600 • FAX (415) 364-9233

Accutite	Client Project ID: Dorothy Coates
35 South Linden Avenue	
South San Francisco, CA 94080	
Attention: Eddy Tabet	QC Sample Group: 1074800-01
	Reported: Aug 1, 1991

## QUALITY CONTROL DATA REPORT

<b>ANALYTE</b>	Diesel
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Method: EPA 8016  
 Analyst: M. Lalkhtman  
 Reporting Units: #G  
 Date Analyzed: Jul 31, 1991  
 QC Sample #: DBLK073091

Sample Conc.: N.D.

Spike Conc. Added: 800

Conc. Matrix Spike: 700

Matrix Spike % Recovery: 78

Conc. Matrix Spike Dup.: 650

Matrix Spike Duplicate % Recovery: 72

Relative % Difference: 7.4

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*Elizabeth W. Hackl*  
 Elizabeth W. Hackl  
 Project Manager

% Recovery:	$\frac{\text{Conc. of M.S.} - \text{Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$
Relative % Difference:	$\frac{\text{Conc. of M.S.} - \text{Conc. of M.S.D.}}{(\text{Conc. of M.S.} + \text{Conc. of M.S.D.}) / 2} \times 100$



# SEQUOIA ANALYTICAL

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Accutite  
35 South Linden Avenue  
South San Francisco, CA 94080  
Attention: Eddy Tabet

Client Project ID: Dorothy Coates  
Matrix Descript: Soil  
Analysis Method: SM 5520 E&F (Gravimetric)  
First Sample #: 107-4800

Sampled: Jul 25, 1991  
Received: Jul 25, 1991  
Extracted: Jul 29, 1991  
Analyzed: Jul 30, 1991  
Reported: Aug 1, 1991

## TOTAL RECOVERABLE PETROLEUM OIL

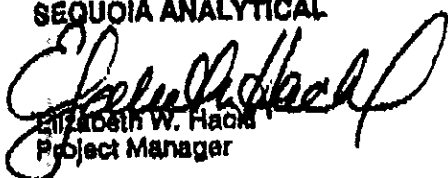
Sample Number	Sample Description	Oil & Grease mg/kg (ppm)
107-4800	North End of Tank	3,900
107-4801	South End of Tank	1,100

Detection Limits:

30

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

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1074800.ACC <5>



# SEQUOIA ANALYTICAL

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Accutite  
35 South Linden Avenue  
South San Francisco, CA 94080  
Attention: Eddy Tabet

Client Project ID: Dorothy Coates

QC Sample Group: 1074800-01

Reported: Aug 1, 1991

## QUALITY CONTROL DATA REPORT

ANALYTE	Total Oil & Grease
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Method: 8M 5520 E&F  
 Analyst: V. Nunzir  
 Reporting Units: mg  
 Date Analyzed: Jul 30, 1991  
 QC Sample #: BLK072991

Sample Conc.: N.D.

Spike Conc. Added: 100

Conc. Matrix Spike: 84

Matrix Spike % Recovery: 84

Conc. Matrix Spike Dup.: 81

Matrix Spike Duplicate % Recovery: 81

Relative % Difference: 3.6

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*Elizabeth W. Hackl*  
 Elizabeth W. Hackl  
 Project Manager

% Recovery:	$\frac{\text{Conc. of M.S.} - \text{Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$
Relative % Difference:	$\frac{\text{Conc. of M.S.} - \text{Conc. of M.S.D.}}{(\text{Conc. of M.S.} + \text{Conc. of M.S.D.}) / 2} \times 100$



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Account:  
35 South Linden Avenue  
South San Francisco, CA 94080  
Attention: Eddy Tabet

Client Project ID: Dorothy Costes  
Sample Descript: Soil, North End of Tank  
Lab Number: 107-4800

Sampled: Jul 25, 1991  
Received: Jul 25, 1991  
Extracted: Jul 30, 1991  
Analyzed: Jul 31, 1991  
Reported: Aug 1, 1991

## LABORATORY ANALYSIS

Analyte	Detection Limit mg/kg	Sample Results mg/kg
Cadmium	0.50	N.D.
Chromium	0.50	
Lead	0.25	16
Nickel	2.5	21
Zinc	0.50	43

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

SEQUOIA ANALYTICAL

*Elizabeth W. Hack*  
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Project Manager



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Account: 35 South Linden Avenue  
South San Francisco, CA 94080  
Attention: Eddy Tabet

Client Project ID: Dorothy Coates  
Sample Descript: Soil, South End of Tank  
Lab Number: 107-4801

Sampled: Jul 25, 1991  
Received: Jul 25, 1991  
Extracted: Jul 30, 1991  
Analyzed: Jul 31, 1991  
Reported: Aug 1, 1991

## LABORATORY ANALYSIS

Analyte	Detection Limit mg/kg	Sample Results mg/kg
Cadmium	0.50	N.D.
Chromium	0.50	1.0
Copper	0.25	2.0
Nickel	2.5	20.0
Zinc	0.50	1.0

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

SEQUOIA ANALYTICAL

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Project Manager





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Account: 35 South Linden Avenue  
South San Francisco, CA 94080  
Attention: Eddy Tabet

Client Project ID: Dorothy Coates

QC Sample Group: 1074800-01

Reported: Aug 1, 1991

## QUALITY CONTROL DATA REPORT

ANALYTE	Lead	Cadmium	Chromium	Nickel	Zinc
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Method:	EPA 7421	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Analyst:	V. Patel	C. Medefasser	C. Medefasser	C. Medefasser	C. Medefasser
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Jul 31, 1991	Jul 31, 1991	Jul 31, 1991	Jul 31, 1991	Jul 31, 1991
QC Sample #:	107-3689	107-4238	107-4238	107-4238	107-4238

Sample Conc.:	6.3	N.D.	9.3	11	16
Spike Conc. Added:	50	250	250	250	250
Conc. Matrix Spike:	55	240	260	270	260
Matrix Spike % Recovery:	97	98	100	100	94
Conc. Matrix Spike Dup.:	55	250	260	270	260
Matrix Spike Duplicate % Recovery:	97	100	100	100	98
Relative % Difference:	0.0	4.1	0.0	0.0	3.9

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*Elizabeth W. Hawk*  
Elizabeth W. Hawk  
Project Manager

% Recovery:	$\frac{\text{Conc. of M.S.} - \text{Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$
Relative % Difference:	$\frac{\text{Conc. of M.S.} - \text{Conc. of M.S.D.}}{(\text{Conc. of M.S.} + \text{Conc. of M.S.D.}) / 2} \times 100$

1074800.ACC <8>



# SEQUOIA ANALYTICAL

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Accutite  
35 South Linden Avenue  
South San Francisco, CA 94080  
Attention: Eddy Tabet

Client Project ID: Dorothy Coates  
Sample Descript: Soil, North End of Tank  
Analysis Method: EPA 5030/8010  
Lab Number: 107-4800

Sampled: Jul 25, 1991  
Received: Jul 25, 1991  
Analyzed: Aug 2, 1991  
Reported: Aug 2, 1991

## HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Bromodichloromethane.....	500	N.D.
Bromoform.....	1,000	N.D.
Bromomethane.....	1,000	N.D.
Carbon tetrachloride.....	500	N.D.
Chlorobenzene.....	500	N.D.
Chloroethane.....	1,000	N.D.
2-Chloroethylvinyl ether.....	1,000	N.D.
Chloroform.....	500	N.D.
Chloromethane.....	1,000	N.D.
Dibromochloromethane.....	500	N.D.
1,2-Dichlorobenzene.....	500	N.D.
1,3-Dichlorobenzene.....	500	N.D.
1,4-Dichlorobenzene.....	500	N.D.
1,1-Dichloroethane.....	500	N.D.
1,2-Dichloroethane.....	500	N.D.
1,1-Dichloroethene.....	500	N.D.
cis-1,2-Dichloroethene.....	500	N.D.
trans-1,2-Dichloroethene.....	500	N.D.
1,2-Dichloropropane.....	500	N.D.
cis-1,3-Dichloropropene.....	1,000	N.D.
trans-1,3-Dichloropropene.....	1,000	N.D.
Methylene chloride.....	2,000	N.D.
1,1,2,2-Tetrachloroethane.....	500	N.D.
Tetrachloroethane.....	500	N.D.
1,1,1-Trichloroethane.....	500	N.D.
1,1,2-Trichloroethane.....	500	N.D.
Trichloroethene.....	500	N.D.
Trichlorofluoromethane.....	1,000	N.D.
Vinyl chloride.....	1,000	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

*Elizabeth W. Hackl*  
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Project Manager

107-4800.ACC <1>



# SEQUOIA ANALYTICAL


680 Chesapeake Drive • Redwood City, CA 94063  
(415) 364-9600 • FAX (415) 364-9233

Account: 35 South Linden Avenue South San Francisco, CA 94080 Attention: Eddy Tabet	Client Project ID: Dorothy Coates Sample Descript: Soil, South End of Tank Analysis Method: EPA 8030/8010 Lab Number: 107-4801	Sampled: Jul 25, 1991 Received: Jul 25, 1991 Analyzed: Aug 2, 1991 Reported: Aug 2, 1991
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## HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Bromodichloromethane.....	100	N.D.
Bromoform.....	200	N.D.
Bromomethane.....	200	N.D.
Carbon tetrachloride.....	100	N.D.
Chlorobenzene.....	100	N.D.
Chloroethane.....	200	N.D.
2-Chloroethylvinyl ether.....	200	N.D.
Chloroform.....	100	N.D.
Chloromethane.....	200	N.D.
Dibromochloromethane.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.
1,4-Dichlorobenzene.....	100	N.D.
1,1-Dichloroethane.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.
1,1-Dichloroethene.....	100	N.D.
cis-1,2-Dichloroethene.....	100	N.D.
trans-1,2-Dichloroethene.....	100	N.D.
1,2-Dichloropropane.....	100	N.D.
cis-1,3-Dichloropropene.....	200	N.D.
trans-1,3-Dichloropropene.....	200	N.D.
Methylene chloride.....	400	N.D.
1,1,2,2-Tetrachloroethane.....	100	N.D.
Tetrachloroethene.....	100	N.D.
1,1,1-Trichloroethane.....	100	N.D.
1,1,2-Trichloroethane.....	100	N.D.
Trichloroethene.....	100	N.D.
Trichlorofluoromethane.....	200	N.D.
Vinyl chloride.....	200	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL  
  
 Elizabeth W. Hack  
 Project Manager

107-4801.A00 <2>



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35 South Linden Avenue  
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Attention: Eddy Tabet

Client Project ID: Dorothy Coates

QC Sample Group: 1074800-4801

Reported: Aug 2, 1991

## QUALITY CONTROL DATA REPORT

ANALYTE	1,1-Dichloroethane	Trichloroethane	Chloro- benzene
Method:	EPA 8010	EPA 8010	EPA 8010
Analyst:	J. Villar	J. Villar	J. Villar
Reporting Units:	µg/kg	µg/kg	µg/kg
Date Analyzed:	Aug 1, 1991	Aug 1, 1991	Aug 1, 1991
QC Sample #:	BLK080191	BLK080191	BLK080191
Sample Conc.:	N.D.	N.D.	N.D.
Spike Conc. Added:	50	50	50
Conc. Matrix Spike:	38	49	44
Matrix Spike % Recovery:	76	98	88
Conc. Matrix Spike Dup.:	45	54	45
Matrix Spike Duplicate % Recovery:	90	110	90
Relative % Difference:	17	9.7	2.3

SEQUOIA ANALYTICAL

*Elizabeth W. Hackl*  
Elizabeth W. Hackl  
Project Manager

% Recovery:	$\frac{\text{Conc. of M.S.} - \text{Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$
Relative % Difference:	$\frac{\text{Conc. of M.S.} - \text{Conc. of M.S.D.}}{(\text{Conc. of M.S.} + \text{Conc. of M.S.D.}) / 2} \times 100$

107-4800.ACC <3>