

**Soils Exploration
Services, Inc.**

INVOICE

Steam Valve
98 Hagenberger Loop
Oakland, CA 94621

September 30, 1993
Invoice #1957

ATTENTION: Terry Buenquoy

JOB #: ,1899

LOCATION: 1899 Dennison

DATE WORKED: Sept 27,93

Qty	Used	Description	Unit	Per	Amount
			Price	Unit	
5.00	hours	Drilling w/CME 45 Including mobilization and auger cleaning.	130.00	hr	650.00

TOTAL AMOUNT OF THIS INVOICE: \$ 650.00

9/27/93 Payment Received: \$ <650.00

TOTAL AMOUNT DUE: \$.00

GEOTECHNICAL & ENVIRONMENTAL DRILLING

P.O. BOX 5993 • VACAVILLE, CALIFORNIA 95696 • (707) 451-9213

CONTRACTOR LIC. #C-57 582696

90103

Section I

Chain of Custody and Analysis Request

page ___ of ___

Consultant Stem Valve Machine
 Address 98 Hagen Berger Loop
Oakland Ca 94261
 Phone No. 510-635909 Fax No. 510-635-2223
 Project Manager TERRY R. BOUQUENOY
 Alternate Contact DAVE CURTIS
 Project No. 1899 DENNISON P.O. No. TERRY

Turn Around Time
 (circle one)
 Same Day 72 Hrs
 24 Hrs 48 Hrs
 Normal 5 Day



Superior Precision Analytical, Inc.
 P.O. Box 1545
 Martinez, California 94553
 Martinez 1 (510) 229-1512 Martinez 2 (510) 229-0166
 San Francisco (415) 647-2081

Sampler: SOILS EXPLORATION SERVICE
 Regulatory Agency: _____

Section II: Analysis Request

635-9748

Laboratory Sample Identification	S = Soil A = Air W = Water Matrix	mod 8015 - Gas	mod 8015 - BTEX	mod 8015 - Diesel	8010	8240	CAM17	TCCLP Metals:	Metals:	418.1 - TPH by IR	O & G	PCBs	Date Sampled	Time Sampled	Number of Containers	Preservative (yes or no)	Sampling Remarks
																	<input type="checkbox"/> Bio-remediation <input type="checkbox"/> Underground storage tank <input type="checkbox"/> Monitoring <input type="checkbox"/> Recent Contamination <input type="checkbox"/> Unknown Compounds
1 BORING # 1		X	X	X													
2 BORING # 2		X	X	X													
3 BORING # 3		X	X	X													
4 BORING # 4		X	X	X													
5 BORING # 5		X	X	X													
6 BORING # 6		X	X	X													
7																	
8																	
9																	
10																	
11																	
12																	

Relinquished by <u>SOILS EXPLORATION</u>	Date/Time <u>9-27-93</u>	Received by <u>E. Kahan</u>	Date/Time <u>9/27 11:25</u>	Lab please initial the following: Samples Stored in Ice <u>yes</u> Appropriate Containers <u>40</u> Samples Preserved <u>↓</u> VOAs without Headspace <u>↓</u> Comments _____
Relinquished by <u>E. Kahan</u>	Date/Time <u>9/27 3:34</u>	Received by _____	Date/Time _____	
Relinquished by _____	Date/Time _____	Received by <u>Blauer</u>	Date/Time <u>9-27 3:30pm</u>	



Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 ▪ Martinez, California 94553 ▪ (510) 229-1512 / fax (510) 229-1526

SOILS EXPLORATION SERVICE
Attn: TERRY R. BOUQUENOY

Project 1899 DENNISEN
Reported 03-October-1993

ANALYSIS FOR CAM 17 METALS

California Administration Code Title 22, Paragraph 66700 & EPA Methods
SW-846 6010 & 7000 series.

Chronology

Laboratory Number 90103

Identification	Sampled	Received	Extracted	Analyzed	Run #	Lab #
BORING #2	09/27/93	09/27/93	09/30/93	10/01/93		2
BORING #3	09/27/93	09/27/93	09/30/93	10/01/93		3
BORING #5	09/27/93	09/27/93	09/30/93	10/01/93		5
BORING #6	09/27/93	09/27/93	09/30/93	10/01/93		6



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SOILS EXPLORATION SERVICE
Attn: TERRY R. BOUQUENOY

Project 1899 DENNISEN
Reported 03-October-1993

ANALYSIS FOR CAM 17 METALS

Laboratory Number	Sample Identification	Matrix
90103- 2	BORING #2	Soil
90103- 3	BORING #3	Soil
90103- 5	BORING #5	Soil
90103- 6	BORING #6	Soil

RESULTS OF ANALYSIS

Laboratory Number: 90103- 2 90103- 3 90103- 5 90103- 6

Antimony	(Sb) :	ND<5	ND<5	ND<5	ND<5
Arsenic	(As) :	3	4	ND<1	5
Barium	(Ba) :	56	54	34	54
Beryllium	(Be) :	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Cadmium	(Cd) :	ND<0.5	0.6	ND<0.5	ND<0.5
Chromium	(Cr) :	52	77	38	51
Cobalt	(Co) :	12	11	7	12
Copper	(Cu) :	18	30	6	12
Lead	(Pb) :	ND<5	8	ND<5	ND<5
Mercury	(Hg) :	ND<0.05	0.13	ND<0.05	0.30
Molybdenum	(Mo) :	ND<5	ND<5	ND<5	ND<5
Nickel	(Ni) :	76	84	33	68
Selenium	(Se) :	ND<1	ND<1	ND<1	ND<1
Silver	(Ag) :	ND<5	ND<5	ND<5	ND<5
Thallium	(Tl) :	ND<5	ND<5	ND<5	ND<5
Vanadium	(V) :	36	36	37	26
Zinc	(Zn) :	51	64	23	42
Concentration:		mg/Kg	mg/Kg	mg/Kg	mg/Kg



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ANALYSIS FOR CAM 17 METALS Quality Assurance and Control Data - Soil

Laboratory Number 90103

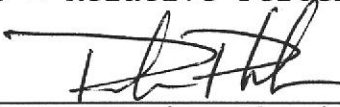
Compound		Method Blank (mg/Kg)	PQL (mg/Kg)	Average Spike Recovery (%)	Limits (%)	RPD (%)
Antimony	(Sb) :	ND<5	5	107%	75-125	3%
Arsenic	(As) :	ND<1	1	87%	75-125	1%
Barium	(Ba) :	ND<5	5	105%	75-125	0%
Beryllium	(Be) :	ND<0.5	0.5	111%	75-125	0%
Cadmium	(Cd) :	ND<0.5	0.5	116%	75-125	1%
Chromium	(Cr) :	ND<5	5	107%	75-125	2%
Cobalt	(Co) :	ND<5	5	115%	75-125	3%
Copper	(Cu) :	ND<5	5	107%	75-125	0%
Lead	(Pb) :	ND<5	5	114%	75-125	1%
Mercury	(Hg) :	ND<0.05	0.05	116%	75-125	2%
Molybdenum	(Mo) :	ND<5	5	108%	75-125	0%
Nickel	(Ni) :	ND<5	5	112%	75-125	1%
Selenium	(Se) :	ND<1	1	100%	75-125	3%
Silver	(Ag) :	ND<5	5	105%	75-125	2%
Thallium	(Tl) :	ND<5	5	113%	75-125	2%
Vanadium	(V) :	ND<5	5	107%	75-125	1%
Zinc	(Zn) :	ND<5	5	109%	75-125	5%

Definitions:

ND = Not Detected
PQL = Practical Quantitation Limit

RPD = Relative Percent Difference

QC File No. 90103

 10/5/93

Senior Chemist
Account Manager



Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 ▪ Martinez, California 94553 ▪ (510) 229-1512 / fax (510) 229-1526

SOILS EXPLORATION SERVICE
Attn: TERRY R. BOUQUENOIY

Project 1899 DENNISON
Reported 11/02/93

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed Matrix
90405- 1	BORING #1	09/27/93	11/02/93 Soil
90405- 2	BORING #2	09/27/93	11/02/93 Soil
90405- 3	BORING #3	09/27/93	11/02/93 Soil
90405- 4	BORING #4	09/27/93	11/02/93 Soil
90405- 5	BORING #5	09/27/93	11/02/93 Soil
90405- 6	BORING #6	09/27/93	11/02/93 Soil

RESULTS OF ANALYSIS

Laboratory Number: 90405- 1 90405- 2 90405- 3 90405- 4 90405- 5

Oil and Grease:	ND<50	73	ND<50	ND<50	ND<50
Concentration:	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg

Laboratory Number: 90405- 6

Oil and Grease:	ND<50
Concentration:	mg/Kg



Superior Precision Analytical, Inc.

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C E R T I F I C A T E O F A N A L Y S I S

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

Page 2 of 2
QA/QC INFORMATION
SET: 90405

NA = ANALYSIS NOT REQUESTED
ND = ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT
mg/kg = parts per million (ppm)

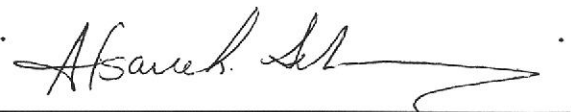
OIL AND GREASE ANALYSIS By Standard Methods Method 5520F:
Minimum Detection Limit in Soil: 50mg/kg

Modified EPA SW-846 Method 8015 for Extractable Hydrocarbons:
Minimum Quantitation Limit for Diesel in Soil: 1mg/kg

EPA SW-846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons:
Minimum Quantitation Limit for Gasoline in Soil: 1mg/kg

EPA SW-846 Method 8020/BTXE
Minimum Quantitation Limit in Soil: 0.005mg/kg

ANALYTE	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Oil and Grease:	78/84	7%	56-106


Senior Chemist



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SOILS EXPLORATION SERVICE
Attn: TERRY R. BOUQUENOY

Project 1899 DENNISEN
Reported 10/04/93

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed Matrix
90103- 1	BORING #1	09/27/93	10/01/93 Soil
90103- 2	BORING #2	09/27/93	10/01/93 Soil
90103- 3	BORING #3	09/27/93	10/01/93 Soil
90103- 4	BORING #4	09/27/93	10/01/93 Soil
90103- 5	BORING #5	09/27/93	10/01/93 Soil
90103- 6	BORING #6	09/27/93	10/01/93 Soil

RESULTS OF ANALYSIS

Laboratory Number: 90103- 1 90103- 2 90103- 3 90103- 4 90103- 5

Gasoline:	17	ND<1	ND<1	ND<1	ND<1
Benzene:	0.14	0.013	ND<.003	ND<.003	ND<.003
Toluene:	1.1	0.075	ND<.003	ND<.003	ND<.003
Ethyl Benzene:	0.38	0.021	ND<.003	ND<.003	ND<.003
Total Xylenes:	1.6	0.084	ND<.009	ND<.009	ND<.009
Diesel Range:	89	ND<10	ND<10	ND<10	ND<10
Concentration:	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg

Laboratory Number: 90103- 6

Gasoline:	ND<1
Benzene:	ND<.003
Toluene:	ND<.003
Ethyl Benzene:	ND<.003
Total Xylenes:	ND<.009
Diesel Range:	26
Concentration:	mg/Kg



CERTIFICATE OF ANALYSIS
ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

Page 2 of 2
QA/QC INFORMATION
SET: 90103

NA = ANALYSIS NOT REQUESTED
ND = ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT
mg/kg = parts per million (ppm)

Modified EPA SW-846 Method 8015 for Extractable Hydrocarbons:
Minimum Quantitation Limit for Diesel in Soil: 10mg/kg

EPA SW-846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons:
Minimum Quantitation Limit for Gasoline in Soil: 1mg/kg

EPA SW-846 Method 8020/BTXE
Minimum Quantitation Limit in Soil: 0.003mg/kg

ANALYTE	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Gasoline:	112/99	12%	70-130
Benzene:	98/102	4%	70-130
Toluene:	91/99	8%	70-130
Ethyl Benzene:	96/98	2%	70-130
Total Xylenes:	94/96	2%	70-130
Diesel Range:	114/119	4%	75-125

 10/5/93
Senior Chemist

