



Superior Analytical Laboratory

FAX COVER SHEET

Laboratory: (510) 313-0850 Facsimile: (510) 229-0916
 835 Arnold Drive Suite 106 Martinez, California 94553

ENVIRONMENTAL
 PROTECTION
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To: Steam Valve Machine Company
 From: Superior Analytical Laboratory

Date: 10-25-96
 Page 1 of 19

To: Terry Bouquenoy
 From: Afsaneh Salimpour

Steam Valve Machine Company
98 Hegenberger Loop
Oakland, CA 94621

Date: October 25, 1996

Attn: Terry Bouquenois

Laboratory Number : 21977

Project Number/Name : N/A

Dear Terry Bouquenois:

Attached is Superior Analytical Laboratory report for the samples received on October 14, 1996. This report has been reviewed and approved for release. Following the cover letter is the Case Narrative detailing sample receipt and analysis. Also enclosed is a copy of the original Chain-of-Custody record confirming receipt of samples.

Please note that any unused portion of the sample will be discarded after November 13, 1996, unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions, please contact our Laboratory at (510) 313-0850.

Sincerely,


Afsaneh Salimpour
Project Manager



CASE NARRATIVE

Steam Valve Machine Company
Project Number/Name: N/A
Laboratory Number: 21977

Sample Receipt


Two soil samples and
Four water samples were received by
Superior Analytical Laboratory on October 14, 1996.
Insufficient sample amount to run CAM17 for water samples.
No abnormalities were noted with sample receiving.

Sample Analysis

The samples were analysed for methods , 6010, 7471, 8015M and
8020.

TPH/8015:

- Reporting limits raised due to insufficient sample amount.



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OCT-25-1996 16:25

510-229-1526

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Steam Valve Machine Company
 Attn: Terry Bouquenoey

Project
 Reported on October 21, 1996

Analysis for CAM 17 Metals
 California Code of Regulations Title 22
 Methods SW-846 6010 & 7000 Series

Chronology

Laboratory Number 21977

Sample ID	Sampled	Received	Extract.	Analyzed	QC Batch	LAB #
Well #1 3.5 feet	10/14/96	10/14/96	10/21/96	10/21/96	CJ211.12 CJ182.44	01
Well #2	10/14/96	10/14/96	10/21/96	10/21/96	CJ211.12 CJ182.44	02

QC Samples

QC Batch #	QC Sample ID	TypeRef.	Matrix	Extract.	Analyzed
CJ211.12-01	Method Blank	MB	Soil	10/21/96	10/21/96
CJ211.12-02	Laboratory Spike	LS	Soil	10/21/96	10/21/96
CJ211.12-03	Laboratory Spike Duplicate	LSD	Soil	10/21/96	10/21/96
CJ211.12-04	Well #1 3.5 feet	MS 21977-01	Soil	10/21/96	10/21/96
CJ211.12-05	Well #1 3.5 feet	MSD 21977-01	Soil	10/21/96	10/21/96
CJ182.44-01	Method Blank	MB	Soil	10/18/96	10/21/96
CJ182.44-02	Laboratory Spike	LS	Soil	10/18/96	10/21/96
CJ182.44-03	Laboratory Spike Duplicate	LSD	Soil	10/18/96	10/21/96
CJ182.44-04	Well #1 3.5 feet	MS 21977-01	Soil	10/18/96	10/21/96
CJ182.44-05	Well #1 3.5 feet	MSD 21977-01	Soil	10/18/96	10/21/96

Steam Valve Machine Company
Attn: Terry Bouquenoey

Project
Reported on October 21, 1996

Analysis for CAM 17 Metals
California Code of Regulations Title 22
Methods SW-846 6010 & 7000 Series

LAB ID	Sample ID	Matrix	Dil. Factor	Moisture
21977-01	Well #1 3.5 feet	Soil	1.0	-
21977-02	Well #2	Soil	1.0	-

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

Compound	21977-01		21977-02	
	Conc.	RL	Conc.	RL
	mg/kg		mg/kg	
Mercury (SW-846 7471)	0.29	0.05	0.42	0.05
Antimony (SW-846 6010)	ND	5.0	ND	5.0
Arsenic (SW-846 6010)	6.1	5.0	ND	5.0
Barium (SW-846 6010)	41	0.75	37	0.75
Beryllium (SW-846 6010)	0.28	0.25	0.28	0.25
Cadmium (SW-846 6010)	ND	0.25	ND	0.25
Chromium (SW-846 6010)	28	0.5	24	0.5
Cobalt (SW-846 6010)	7.4	0.5	7.1	0.5
Copper (SW-846 6010)	10	1.0	14	1.0
Lead (SW-846 6010)	3.9	2.5	5.0	2.5
Molybdenum (SW-846 6010)	ND	1.0	ND	1.0
Nickel (SW-846 6010)	51	1.0	49	1.0
Silver (SW-846 6010)	ND	1.0	ND	1.0
Selenium (SW-846 6010)	ND	5.0	ND	5.0
Thallium (SW-846 6010)	ND	10	ND	10
Vanadium (SW-846 6010)	18	1.5	16	1.5
Zinc (SW-846 6010)	33	1.0	30	1.0

Analysis for CAM 17 Metals
 California Code of Regulations Title 22
 Methods SW-846 6010 & 7000 Series

Quality Assurance and Control Data

Laboratory Number: 21977
 Method Blank(s)

CJ211.12-01	CJ182.44-01
Conc. RL	Conc. RL
mg/kg	mg/kg

	CJ211.12-01	CJ182.44-01
	Conc. RL	Conc. RL
	mg/kg	mg/kg
Mercury (SW-846 7471)	ND	0.05
Antimony (SW-846 6010)		ND 5.0
Arsenic (SW-846 6010)		ND 5.0
Barium (SW-846 6010)		ND 0.75
Beryllium (SW-846 6010)		ND 0.25
Cadmium (SW-846 6010)		ND 0.25
Chromium (SW-846 6010)		ND 0.5
Cobalt (SW-846 6010)		ND 0.5
Copper (SW-846 6010)		ND 1.0
Lead (SW-846 6010)		ND 2.5
Molybdenum (SW-846 6010)		ND 1.0
Nickel (SW-846 6010)		ND 1.0
Silver (SW-846 6010)		ND 1.0
Selenium (SW-846 6010)		ND 5.0
Thallium (SW-846 6010)		ND 10
Vanadium (SW-846 6010)		ND 1.5
Zinc (SW-846 6010)		ND 1.0

Analysis for CAM 17 Metals
 California Code of Regulations Title 22
 Methods SW-846 6010 & 7000 Series

Quality Assurance and Control Data

Laboratory Number: 21977

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPD %
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For Soil Matrix (mg/kg)
 CJ211.12 02 / 03 - Laboratory Control Spikes

Mercury (SW-846 7471)		1.0	0.905/0.940	91/94	75-125	3
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For Soil Matrix (mg/kg)
 CJ182.44 02 / 03 - Laboratory Control Spikes

Antimony (SW-846 6010)		50	47.3/46.9	95/94	75-125	1
Arsenic (SW-846 6010)		50	45.5/46.1	91/92	75-125	1
Barium (SW-846 6010)		50	46.5/46.4	93/93	75-125	0
Beryllium (SW-846 6010)		50	44.1/44.1	88/88	75-125	0
Cadmium (SW-846 6010)		50	48.6/48.6	97/97	75-125	0
Chromium (SW-846 6010)		50	49.1/49.0	98/98	75-125	0
Cobalt (SW-846 6010)		50	48.7/48.6	97/97	75-125	0
Copper (SW-846 6010)		50	47.9/47.8	96/96	75-125	0
Lead (SW-846 6010)		50	48.3/48.2	97/96	75-125	1
Molybdenum (SW-846 6010)		50	48.2/48.3	96/97	75-125	1
Nickel (SW-846 6010)		50	49.6/49.2	99/98	75-125	1
Silver (SW-846 6010)		50	47.9/48.2	96/96	75-125	0
Selenium (SW-846 6010)		50	47.7/46.6	95/93	75-125	2
Thallium (SW-846 6010)		50	49.8/48.8	100/98	75-125	2
Vanadium (SW-846 6010)		50	47.6/47.5	95/95	75-125	0
Zinc (SW-846 6010)		50	48.5/48.4	97/97	75-125	0

For Soil Matrix (mg/kg)
 CJ211.12 04 / 05 - Sample Spiked: 21977 - 01

Mercury (SW-846 7471)	0.29	1.0	1.26/1.29	97/100	75-125	3
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Analysis for CAM 17 Metals
 California Code of Regulations Title 22
 Methods SW-846 6010 & 7000 Series

Quality Assurance and Control Data

Laboratory Number: 21977

Compound	Sample	SPK Level	SPK Result	Recovery %	Limits %	RPD %
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For Soil Matrix (mg/kg)
 CJ182.44 04 / 05 - Sample Spiked: 21977 - 01

Antimony (SW-846 6010)	ND	50	22.7R/20.7R	45/41	75-125	9
Arsenic (SW-846 6010)	6.06	50	53.8/51.5	95/91	75-125	4
Barium (SW-846 6010)	41.0	50	90.3/94.7	99/107	75-125	8
Beryllium (SW-846 6010)	0.28	50	44.9/45.1	89/90	75-125	1
Cadmium (SW-846 6010)	ND	50	46.3/47.2	93/94	75-125	1
Chromium (SW-846 6010)	28.0	50	72.7/77.4	89/99	75-125	11
Cobalt (SW-846 6010)	7.42	50	53.3/54.1	92/93	75-125	1
Copper (SW-846 6010)	10.2	50	57.8/59.5	95/99	75-125	4
Lead (SW-846 6010)	3.92	50	49.5/50.0	91/92	75-125	1
Molybdenum (SW-846 6010)	ND	50	44.1/44.2	88/88	75-125	0
Nickel (SW-846 6010)	50.8	50	94.0/102	86/102	75-125	17
Silver (SW-846 6010)	ND	50	44.7/45.9	89/92	75-125	3
Selenium (SW-846 6010)	ND	50	41.9/42.2	84/84	75-125	0
Thallium (SW-846 6010)	ND	50	46.2/46.4	92/93	75-125	1
Vanadium (SW-846 6010)	17.9	50	66.5/67.6	97/99	75-125	2
Zinc (SW-846 6010)	32.7	50	79.5/83.9	94/102	75-125	8

MS and/or MSD recoveries were out of control limits. LCS / LCSD recoveries were within acceptable limits.

Definitions:

- ND = Not Detected
- RL = Reporting Limit
- NA = Not Analyzed
- RPD = Relative Percent Difference
- µg/L = parts per billion (ppb)
- ng/L = parts per million (ppm)

- µg/kg = parts per billion (ppb)
- mg/kg = parts per million (ppm)

team Valve Machine Company
 ttn: Terry Bouquenoey

Project
 Reported on October 22, 1996

Total Extractable Petroleum Hydrocarbons
 by EPA SW-846 Method 8015M

Chronology

Laboratory Number 21977

Sample ID	Sampled	Received	Extract.	Analyzed	QC Batch	LAB #
Well #1 3.5 feet	10/14/96	10/14/96	10/21/96	10/21/96	CJ211.21	01
Well #2	10/14/96	10/14/96	10/21/96	10/21/96	CJ211.21	02
Well #1	10/14/96	10/14/96	10/17/96	10/17/96	CJ171.02	03
Well #2	10/14/96	10/14/96	10/17/96	10/17/96	CJ171.02	04

QC Samples

QC Batch #	QC Sample ID	TypeRef.	Matrix	Extract.	Analyzed
CJ171.02-01	Method Blank	MB	Water	10/17/96	10/17/96
CJ171.02-02	Laboratory Spike	LS	Water	10/17/96	10/17/96
CJ171.02-03	Laboratory Spike Duplicate	LSD	Water	10/17/96	10/17/96
CJ211.21-01	Method Blank	MB	Soil	10/21/96	10/21/96
CJ211.21-02	Laboratory Spike	LS	Soil	10/21/96	10/21/96
CJ211.21-03	Laboratory Spike Duplicate	LSD	Soil	10/21/96	10/21/96
CJ211.21-04	G-12-8.5	MS 21973-01	Soil	10/21/96	10/21/96
CJ211.21-05	G-12-8.5	MSD 21973-01	Soil	10/21/96	10/21/96

Steam Valve Machine Company
 Attn: Terry Bouquenoy

Project
 Reported on October 22, 1996

Total Extractable Petroleum Hydrocarbons
 by EPA SW-846 Method 8015M

LAB ID	Sample ID	Matrix	Dil. Factor	Moisture
21977-01	Well #1 3.5 feet	Soil	1.0	-
21977-02	Well #2	Soil	1.0	-
21977-03 @	Well #1	Water	25.0	-
21977-04 @	Well #2	Water	25.0	-

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

Compound	21977-01		21977-02		21977-03		21977-04	
	Conc.	RL	Conc.	RL	Conc.	RL	Conc.	RL
	mg/kg		mg/kg		ug/L		ug/L	
Diesel:	ND	1	ND	1	20000	1300	3400	1300
Unknown Hydrocarbons	10**	1	5**	1	NA		NA	
>> Surrogate Recoveries (%) <<								
Tetracosane	114		103		111		84	

Total Extractable Petroleum Hydrocarbons
by EPA SW-846 Method 8015M

Quality Assurance and Control Data

Laboratory Number: 21977
Method Blank(s)

	CJ171.02-01		CJ211.21-01	
	Conc.	RL	Conc.	RL
	ug/L		mg/Kg	
Diesel:	ND	50	ND	1
Unknown Hydrocarbons	ND	50	ND	1
>> Surrogate Recoveries (%) <<				
Tetracosane	119		109	

Total Extractable Petroleum Hydrocarbons
by EPA SW-846 Method 8015M

Quality Assurance and Control Data

Laboratory Number: 21977

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPD %
For Water Matrix (ug/L)						
CJ171.02 02 / 03 - Laboratory Control Spikes						
Diesel:		1000	1010/1060	101/106	50-150	5
>> Surrogate Recoveries (%) <<						
Tetracosane				124/124	50-150	
For Soil Matrix (mg/Kg)						
CJ211.21 02 / 03 - Laboratory Control Spikes						
Diesel:		33	34/35	103/106	50-150	3
>> Surrogate Recoveries (%) <<						
Tetracosane				97/99	50-150	
For Soil Matrix (mg/Kg)						
CJ211.21 04 / 05 - Sample Spiked: 21973 - 01						
Diesel:	1	33	32/34	94/100	50-150	6
>> Surrogate Recoveries (%) <<						
Tetracosane				89/93	50-150	

Narrative:

9 - Reporting limits raised due to insufficient sample amount.

** - Heavier hydrocarbons were found in the range of diesel, but do not resemble a diesel fingerprint. Possibly motor oil.

Definitions:

ND = Not Detected

RL = Reporting Limit

NA = Not Analysed

RPD = Relative Percent Difference

ug/L = parts per billion (ppb)

mg/L = parts per million (ppm)

ug/kg = parts per billion (ppb)

mg/kg = parts per million (ppm)

Steam Valve Machine Company
 Attn: Terry Bouquency

Project
 Reported on October 24, 1996

Gasoline Range Petroleum Hydrocarbons and BTXE
 by EPA SW-846 5030/8015M/8020
 Gasoline Range quantitated as all compounds from C6-C10

Chronology

Laboratory Number 21977

Sample ID	Sampled	Received	Extract.	Analyzed	QC Batch	LAB #
Well #1 3.5 feet	10/14/96	10/14/96	10/23/96	10/23/96	CJ231.05	01
Well #2	10/14/96	10/14/96	10/23/96	10/23/96	CJ231.05	02
Well #1	10/14/96	10/14/96	10/22/96	10/22/96	CJ221.37	03
Well #2	10/14/96	10/14/96	10/22/96	10/22/96	CJ221.37	04
Well #3	10/14/96	10/14/96	10/22/96	10/22/96	CJ221.37	05
Well #4	10/14/96	10/14/96	10/22/96	10/22/96	CJ221.37	06

QC Samples

QC Batch #	QC Sample ID	TypeRef.	Matrix	Extract.	Analyzed
CJ221.37-01	Method Blank	MB	Water	10/22/96	10/22/96
CJ221.37-02	Laboratory Spike	LS	Water	10/22/96	10/22/96
CJ221.37-03	RW-68	MS 21968-11	Water	10/22/96	10/22/96
CJ221.37-04	RW-68	MSD 21968-11	Water	10/22/96	10/22/96
CJ231.05-01	Method Blank	MB	Soil	10/23/96	10/23/96
CJ231.05-02	Laboratory Spike	LS	Soil	10/23/96	10/23/96
CJ231.05-03	G-14-9.0	MS 21973-04	Soil	10/23/96	10/23/96
CJ231.05-04	G-14-9.0	MSD 21973-04	Soil	10/23/96	10/23/96

Steam Valve Machine Company
Attn: Terry Bouquenoey

Project
Reported on October 24, 1996

Gasoline Range Petroleum Hydrocarbons and BTXE
by EPA SW-846 5030/8015M/8020
Gasoline Range quantitated as all compounds from C6-C10

LAB ID	Sample ID	Matrix	Dil. Factor	Moisture
21977-01	Well #1 3.5 feet	Soil	1.0	-
21977-02	Well #2	Soil	1.0	-
21977-03	Well #1	Water	1.0	-
21977-04	Well #2	Water	1.0	-

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

Compound	21977-01		21977-02		21977-03		21977-04	
	Conc.	RL	Conc.	RL	Conc.	RL	Conc.	RL
	mg/kg		mg/kg		ug/L		ug/L	
Gasoline_Range	5.9	1	ND	1	450	50	220	50
Benzene	0.15	0.005	ND	0.005	55	0.5	25	0.5
Toluene	0.010	0.005	ND	0.005	0.9	0.5	0.6	0.5
Ethyl Benzene	0.78	0.005	ND	0.005	2.1	0.5	1.1	0.5
Xylenes	0.43	0.005	ND	0.005	4.2	0.5	2.4	0.5

>> Surrogate Recoveries (%) <<

Trifluorotoluene (SS)	98	83	92	86
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Steam Valve Machine Company
 Attn: Terry Bouqueno

Project
 Reported on October 24, 1996

Gasoline Range Petroleum Hydrocarbons and BTXE
 by EPA SW-846 5030/8015M/8020
 Gasoline Range quantitated as all compounds from C6-C10

LAB ID	Sample ID	Matrix	Dil. Factor	Moisture
21977-05	Well #3	Water	1.0	-
21977-06	Well #4	Water	1.0	-

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

Compound	21977-05		21977-06	
	Conc.	RL	Conc.	RL
	ug/L		ug/L	
Gasoline_Range	ND	50	ND	50
Benzene	ND	0.5	0.5	0.5
Toluene	ND	0.5	0.7	0.5
Ethyl Benzene	ND	0.5	ND	0.5
Xylenes	ND	0.5	0.6	0.5
>> Surrogate Recoveries (%) <<				
Trifluorotoluene (SS)	90		78	

Gasoline Range Petroleum Hydrocarbons and BTXE
 by EPA SW-846 5030/8015M/8020
 Gasoline Range quantitated as all compounds from C6-C10

Quality Assurance and Control Data

Laboratory Number: 21977
 Method Blank(s)

	CJ221.37-01		CJ231.05-01	
	Conc.	RL	Conc.	RL
	ug/L		mg/kg	

Gasoline_Range	Conc.	RL	Conc.	RL
Gasoline_Range	ND	50	ND	1
Benzene	ND	0.5	ND	0.005
Toluene	ND	0.5	ND	0.005
Ethyl Benzene	ND	0.5	ND	0.005
Xylenes	ND	0.5	ND	0.005

>> Surrogate Recoveries (%) <<

Trifluorotoluene (SS)	104	96
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Gasoline Range Petroleum Hydrocarbons and BTXE
 by EPA SW-846 5030/8015M/8020
 Gasoline Range quantitated as all compounds from C6-C10

Quality Assurance and Control Data

Laboratory Number: 21977

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPD %
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For Water Matrix (ug/L)
 CJ221.37 02 / - Laboratory Control Spikes

Gasoline_Range		2000	2000	100	65-135	
Benzene		20	18	90	65-135	
Toluene		20	18	90	65-135	
Ethyl Benzene		20	18	90	65-135	
Xylenes		60	55	92	65-135	

>> Surrogate Recoveries (%) <<

Trifluorotoluene (SS)				103	50-150	
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For Soil Matrix (mg/kg)
 CJ231.05 02 / - Laboratory Control Spikes

Gasoline_Range		10	10	100	65-135	
Benzene		0.100	.087	87	65-135	
Toluene		0.100	.093	93	65-135	
Ethyl Benzene		0.100	.092	92	65-135	
Xylenes		0.300	.31	103	65-135	

>> Surrogate Recoveries (%) <<

Trifluorotoluene (SS)				89	50-150	
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For Water Matrix (ug/L)
 CJ221.37 03 / 04 - Sample Spiked: 21968 - 11

Gasoline_Range	ND	2000	2000/2000	100/100	65-135	0
Benzene	ND	20	18/16	90/80	65-135	12
Toluene	ND	20	18/16	90/80	65-135	12
Ethyl Benzene	ND	20	18/16	90/80	65-135	12

Gasoline Range Petroleum Hydrocarbons and BTXE
by EPA SW-846 5030/8015M/8020
Gasoline Range quantitated as all compounds from C6-C10

Quality Assurance and Control Data

Laboratory Number: 21977

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPD %
Xylenes	ND	60	55/49	92/82	65-135	11
>> Surrogate Recoveries (%) <<						
Trifluorotoluene (SS)				104/91	50-150	

For Soil Matrix (mg/kg)

CJ231.05 03 / 04 - Sample Spiked: 21973 - 04

Gasoline_Range	ND	10	10/10	100/100	65-135	0
Benzene	ND	0.100	.087/.096	87/96	65-135	10
Toluene	ND	0.100	.09/.087	90/87	65-135	3
Ethyl Benzene	ND	0.100	.092/.090	92/90	65-135	2
Xylenes	ND	0.300	.31/.30	103/100	65-135	3
>> Surrogate Recoveries (%) <<						
Trifluorotoluene (SS)				89/91	50-150	

Definitions:

ND = Not Detected

RL = Reporting Limit

NA = Not Analysed

RPD = Relative Percent Difference

ug/L = parts per billion (ppb)

mg/L = parts per million (ppm)

ug/kg = parts per billion (ppb)

mg/kg = parts per million (ppm)