

**APPENDIX O**  
**SWMU 20 TCLP RESULTS**

**SWMU 20 TCLP Analysis – Sludge in Septic Tank**

**March 1999**



**COVER FORM  
COMBINED SAMPLES RESULTS  
SUMMARY INFORMATION**

Form RLIMS67-V1.0  
03039914513756  
Page 1



Date Reported.....:

Date Printed.....: 03-MAR-99 14:51  
Report Group Name.: 99U-0022

Client Ref Number.: Not Provided  
Release Number.....: Not Provided

SAIC  
Attention: John Carter  
11251 Roger Bacon Drive  
Mail Stop R-3-1  
Reston, VA 20190

<u>Client Sample Name</u>	<u>Laboratory Sample Name</u>	<u>Laboratory Sample ID</u>	<u>Laboratory Gross Name</u>	<u>Laboratory Gross ID</u>
SD-20-02 SAIC01	99U00189	9991303W	99U-0022-01	6991301D
SD-20-02 SAIC01	99U00189	9991303X	99U-0022-02	6991301D
SD-20-02 SAIC01	99U00189	9991303Y	99U-0022-03	6991301E
SD-20-02 SAIC01	99U00189	9991303Z	99U-0022-04	6991301E
SD-20-02 SAIC01	99U00189	99913040	99U-0022-05	6991301J
SD-20-02 SAIC01	99U00189	99913041	99U-0022-06	6991301K
SD-20-02 SAIC01	99U00189	99913042	99U-0022-07	6991301L
SD-20-02 SAIC01	99U00189	99913043	99U-0022-08	6991301M
SD-20-02 SAIC01	99U00189	99913044	99U-0022-09	6991301N
TB-156901-1	TB-156901-1	999130C1	99U-0022-05	6991301J
TB-156902-1	TB-156902-1	999130C8	99U-0022-06	6991301K

*Jim S. Mikosell*  
Project Manager: Jim S. Mikosell

960 West LeVoy Drive / Salt Lake City, Utah 84123-2547  
Phone (801) 266-7700 FAX (801) 268-9992



**RESULT FORM  
COMBINED SAMPLES RESULTS  
ANALYTICAL REPORT**

Form RLIMS67-V1.0  
03039914513756  
Page 2



6992361D

Client Name.....: SAIC

Date Printed.....: 03-MAR-99 14:51  
Report Group Name.: 99U-0022

Client Sample Name...: SB-26-02|SAIC01  
Chain of Custody.....: 01-0827-03-6523-027  
Sampling Site.....: DESSERT CHEMICAL DEP

Date Received.....: 04-FEB-99 00:00  
Date Sampled.....: 03-FEB-99 14:30

Analyte Name	Units	Method	CRDL	Result
Benzene	ng/L	TCLP-8240	.5	ND
Carbon Tetrachloride	ng/L	TCLP-8240	.5	ND
Chlorobenzene	ng/L	TCLP-8240	100	ND
Chloroform	ng/L	TCLP-8240	6	ND
1,2-Dichloroethane	ng/L	TCLP-8240	.5	ND
1,1-Dichloroethylene	ng/L	TCLP-8240	.7	ND
Methyl Ethyl Ketone	ng/L	TCLP-8240	200	ND
Tetrachloroethylene	ng/L	TCLP-8240	.7	ND
Trichloroethylene	ng/L	TCLP-8240	.5	ND
Vinyl Chloride	ng/L	TCLP-8240	.2	ND
m-Cresol and p-Cresol	ng/L	TCLP-8270	200	ND
o-Cresol	ng/L	TCLP-8270	200	ND
1,4-Dichlorobenzene	ng/L	TCLP-8270	7.5	ND
2,4-Dinitrotoluene	ng/L	TCLP-8270	0.130	ND
Hexachlorobenzene	ng/L	TCLP-8270	0.130	ND
Hexachloro-1,3-butadiene	ng/L	TCLP-8270	0.500	ND
Hexachloroethane	ng/L	TCLP-8270	3.0	ND
Nitrobenzene	ng/L	TCLP-8270	2.0	ND
Pentachlorophenol	ng/L	TCLP-8270	100	ND
Pyridine	ng/L	TCLP-8270	5.0	ND
2,4,5-Trichlorophenol	ng/L	TCLP-8270	400	ND
2,4,6-Trichlorophenol	ng/L	TCLP-8270	2.0	ND
Arsenic	ng/L	6010	5.0	ND
Barium	ng/L	6010	100	0.284
Cadmium	ng/L	6010	1.0	0.184
Chromium	ng/L	6010	5.0	ND
Lead	ng/L	6010	5.0	ND
Selenium	ng/L	6010	1.0	ND
Silver	ng/L	6010	5.0	ND
Mercury	ng/L	IT-SW-7470	0.200	ND
INPA	ug/g	LT04	0.5	ND
MPA	ug/g	LT04	0.5	ND
Thiodiglycol	ug/g	LLS	4.2	ND
MOISTURE	%	XX-EP-600		74.1



RESULT FORM  
COMBINED SAMPLES RESULTS

Form RLIMS67-V1.0  
03039914513756

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ANALYTICAL REPORT



G991301D

Client Name.....: SAIC

Date Printed.....: 03-MAR-99 14:51

Report Group Name.: 99U-0022

Client Sample Name....: TD-156901-1

Date Received.....: 04-FEB-99 00:00

Chain of Custody.....: 01-0827-03-6523-027

Date Sampled.....:

Sampling Site.....: DESERT CHEMICAL DEP

<u>Analyte Name</u>	<u>Units</u>	<u>Method</u>	<u>CRDL</u>	<u>Result</u>
Arsenic	ug/L	6010	5.0	ND
Barium	ug/L	6010	100	ND
Cadmium	ug/L	6010	1.0	ND
Chromium	ug/L	6010	5.0	ND
Lead	ug/L	6010	5.0	ND
Selenium	ug/L	6010	1.0	ND
Silver	ug/L	6010	5.0	ND



RESULT FORM  
COMBINED SAMPLES RESULTS  
ANALYTICAL REPORT

Form RLIMS67-V1.0  
03039914513756

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Q991301D

Client Name.....: SAIC

Date Printed.....: 03-MAR-99 14:51

Report Group Name.: 990-0022

Client Sample Name....: TD-156903-1

Date Received.....: 04-FEB-99 00:00

Chain of Custody.....: 01-0827-03-6523-027

Date Sampled.....:

Sampling Site.....: DESERT CHEMICAL DEP

<u>Analyte Name</u>	<u>Units</u>	<u>Method</u>	<u>CRDL</u>	<u>Result</u>
Mercury	mg/L	IT-SW-7470	0.200	ND

960 West LeVoy Drive / Salt Lake City, Utah 84123-2547  
Phone (801) 266-7700 FAX (801) 266-9992

**SWMU 20 TCLP Analysis – Soil Below Septic Tank; Concrete  
Chips from Septic Tank**

**April 1999**



REPLY TO  
ATTENTION CF

DEPARTMENT OF THE ARMY

Deseret Chemical Depot  
Tooele, Utah 84074-5031

May 6, 1999

Risk Management Directorate

SUBJECT: SWMU 20 Septic Tank Analytical Results

Mr. Brad Lauchnor  
Division of Solid and Hazardous Waste  
Department of Environmental Quality  
288 North 1460 West  
Salt Lake City, Utah 84114-4880

Dear Mr. Lauchnor:

The enclosed SWMU 20 septic tank analytical results are provided to you for information. Soil sample ID 99-002 was collected below the septic tank and concrete chip sample ID 99-001 was from the tank itself.

If you have any questions or require additional information, please contact Mr. Nam T. Doan at (435) 833-4178.

Sincerely,

*Walton W. Levi*  
Walton W. Levi

Director of Risk Management

Enclosure



Deseret Chemical Depot  
 POC: Roger Rasmussen  
 (435) 833-4003

**Chain of Custody Record**

Purchase Order # PUC Bridgeville Gen. Inv.

DCD Sample ID	Phys State	Ignitibility	Corrosivity	Reactivity	TCLP			F-Solvents			TOX	TOC	PCBs	Explosives
					Metals	Semi-VOs	Volatiles	Semi-Vos	Volatiles	Methanol				
99-001	Sg				•	•	•							
99-002	Sg				•	•	•							

Relinquished by: (Signature) <i>R. Rasmussen</i>	Received by: (Signature)	Date/Time 2/2/99 3:25 pm
Relinquished by: (Signature)	Received by: (Signature) <i>G. J. ...</i>	Date/Time 4/2/99 @ 1525
Relinquished by: (Signature)	Received by: (Signature)	Date/Time ON ICE
Relinquished by: (Signature)	Received by: (Signature)	Date/Time

Chemtech Ford  
 6100 So. Stratler  
 384. S900 So.

262-7277



CHEMTECH-FORD



Date: 5/ 5/99

To: Deseret Chemical Depot  
 Risk Man Div attn: Roger Rasmussen  
 attn: SCBTO-RM Building 5108  
 Tooele, UT 84074

Group #: 29113  
 Lab #: 99-U002752  
 Sample Desc: 99-001

Date Sampled:  
 Date Submitted: 4/ 2/99

Time Sampled:  
 Time Received: 15:25

TCLP Evaluation

EPA Hazardous Waste No.	Parameter	Regulatory Limit mg/L (ppm)	Sample Result mg/L (ppm)	
D004	Arsenic	5.0	< 0.2	Pass
D005	Barium	100.0	0.1	Pass
D006	Cadmium	1.0	< 0.01	Pass
D007	Chromium	5.0	< 0.02	Pass
D008	Lead	5.0	< 0.1	Pass
D009	Mercury	0.2	< 0.0002	Pass
D010	Selenium	1.0	< 0.1	Pass
D011	Silver	5.0	< 0.01	Pass
D018	Benzene	0.5	< 0.02	Pass
D019	Carbon Tetrachloride	0.5	< 0.05	Pass
D021	Chlorobenzene	100.0	< 0.02	Pass
D022	Chloroform	6.0	< 0.05	Pass
D027	1,4-Dichlorobenzene	7.5	< 0.1	Pass
D028	1,2-Dichloroethane	0.5	< 0.05	Pass
D029	1,1-Dichloroethylene	0.7	< 0.05	Pass
D033	Hexachlorobutadiene	0.5	< 0.1	Pass
D035	Methyl Ethyl Ketone	200.0	< 0.5	Pass
D038	Pyridine	5.0*	< 5	Pass
D039	Tetrachloroethylene	0.7	< 0.05	Pass
D040	Trichloroethylene	0.5	< 0.05	Pass
D043	Vinyl Chloride	0.2	< 0.05	Pass
D027	1,4-Dichlorobenzene	7.5	< 0.05	Pass
D030	2,4-Dinitrotoluene	0.13*	< 0.05	Pass
D032	Hexachlorobenzene	0.13*	< 0.05	Pass
D033	Hexachlorobutadiene	0.5	< 0.05	Pass
D034	Hexachloroethane	3.0	< 0.05	Pass
D023	2-Methylphenol	200	< 0.05	Pass
D024&D025	3-&4-Methylphenol	200	< 0.05	Pass
D036	Nitrobenzene	2.0	< 0.05	Pass
D036	Pentachlorophenol	100.0	< 0.05	Pass
D041	2,4,5-Trichlorophenol	400.0	< 0.05	Pass
D042	2,4,6-Trichlorophenol	2.0	< 0.05	Pass

CHEMTECH-FORD



Date: 5/ 5/99

To: Deseret Chemical Depot  
Risk Man Div attn: Roger Rasmussen  
attn: SCBTO-RM Building 5108  
Tooele, UT 84074

Group #: 29113  
Lab #: 99-U002752  
Sample Desc: 99-001

Date Sampled:  
Date Submitted: 4/ 2/99

Time Sampled:  
Time Received: 15:25

**TCLP Evaluation**

- \*If quantitation limit for Pyridine is greater than regulatory limit, the quantitation limit becomes the regulatory limit.
- \*If quantitation limit for 2,4-Dinitrotoluene is greater than regulatory limit, the quantitation limit becomes the regulatory limit.
- \*If quantitation limit for Hexachlorobenzene is greater than regulatory limit, the quantitation limit becomes the regulatory limit.

6100 SOUTH STRATLER  
SALT LAKE CITY UTAH 84107 6905  
801 262 7299 PHONE  
801 262 7375 FAX

CHEMTECH-FORD



Date: 5/ 5/99

To: Deseret Chemical Depot  
 Risk Man Div attn: Roger Rasmussen  
 attn: SCBTO-RM Building 5108  
 Tooele, UT 84074

Group #: 29113  
 Lab #: 99-U002752  
 Sample Desc: 99-001  
 Sample Matrix: SOIL  
 Date Sampled:  
 Date Submitted: 4/ 2/99

Time Sampled:  
 Time Received: 15:25

CERTIFICATE OF ANALYSIS

MINIMUM  
 REPORTING

PARAMETER	RESULT	LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
TCLP Ext. Solution pH, units	4.93	0.05	4/ 9/99 14:40		AER
pH, solution selection, units	11.00	0.05	4/ 9/99 14:40	SW 846 9045	AER
pH, after extraction TCLP, units	10.50	0.05	4/ 9/99 14:40	SW 846 9045	AER
Arsenic (TCLP), as As, mg/L	< 0.2	0.2	4/20/99 10:01	SW-846 6010	EG
Barium (TCLP), as Ba, mg/L	0.1	0.1	4/20/99 10:01	SW-846 6010	EG
Cadmium (TCLP), as Cd, mg/L	< 0	0	4/28/99 21:03	SW-846 6010	EG
Chromium (TCLP), as Cr, mg/L	< 0.02	0.02	4/20/99 10:01	SW-846 6010	EG
Lead (TCLP), as Pb, mg/L	< 0.1	0.1	4/20/99 10:01	SW-846 6010	EG
Mercury (TCLP), as Hg, mg/Kg	< 0.0002	0.0002	4/15/99 14:15	SW 846 7470A	MJB
Selenium (TCLP), as Se, mg/L	< 0.1	0.1	4/20/99 10:01	SW-846 6010	EG
Silver (TCLP), as Ag, mg/L	< 0	0	4/28/99 21:03	SW-846 6010	EG
Temperature, Receiving, C	0.0		4/ 2/99 15:25		CSM

NOTE: Sample received on ice.

Approved By:

Ron Fuller, Laboratory Director

MRL = Report detection limit

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{generic.rpt}

6110 SOUTH STRATLER  
 SALT LAKE COUNTY, UTAH 84117-8805  
 (801) 488-7000  
 FAX (801) 488-7000

CHEMTECH-FORD



Date: 5/ 5/99

To: Deseret Chemical Depot  
 Risk Man Div attn: Roger Rasmussen  
 attn: SCBTO-RM Building 5108  
 Tooele, UT 84074


Group #: 29113  
 Lab #: 99-U002752  
 Sample Desc: 99-001  
 Sample Matrix: SOIL  
 Date Sampled:  
 Date Submitted: 4/ 2/99

Time Sampled:  
 Time Received: 15:25

CERTIFICATE OF ANALYSIS

RECEIVING TEMPERATURE: 0.0 C

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	METHOD
Volatiles			
Analyst: AC	Date Analyzed: 4/12/99	Time: 11:42	
Benzene (TCLP), mg/L	< 0.02	0.02	SW846-8260A
Carbon Tetrachloride (TCLP), mg/L	< 0.05	0.05	SW846-8260A
Chlorobenzene (TCLP), mg/L	< 0.02	0.02	SW846-8260A
Chloroform (TCLP), mg/L	< 0.05	0.05	SW846-8260A
1,4-Dichlorobenzene (TCLP), mg/L	< 0.1	0.1	SW846-8260A
1,2-Dichloroethane (TCLP), mg/L	< 0.05	0.05	SW846-8260A
1,1-Dichloroethene (TCLP), mg/L	< 0.05	0.05	SW846-8260A
Hexachlorobutadiene (TCLP), mg/L	< 0.1	0.1	SW846-8260A
Methyl Ethyl Ketone (TCLP), mg/L	< 0.5	0.5	SW846-8260A
Pyridine (TCLP), mg/L	< 5	5	SW846-8260A
Tetrachloroethene (TCLP), mg/L	< 0.05	0.05	SW846-8260A
Trichloroethene (TCLP), mg/L	< 0.05	0.05	SW846-8260A
Vinyl Chloride (TCLP), mg/L	< 0.05	0.05	SW846-8260A

Approved By:   
 Ron Fuller, Laboratory Director

MRL = Report detection limit



Date: 5/ 5/99

To: Deseret Chemical Depot  
 Risk Man Div attn: Roger Rasmussen  
 attn: SCBTO-RM Building 5108  
 Tooele, UT 84074

Group #: 29113  
 Lab #: 99-U002752  
 Sample Desc: 99-001  
 Sample Matrix: SOIL  
 Date Sampled:  
 Date Submitted: 4/ 2/99

Time Sampled:  
 Time Received: 15:25

## CERTIFICATE OF ANALYSIS

RECEIVING TEMPERATURE: 0.0 C

PARAMETER	RESULT	MINIMUM REPORTING LIMIT	
		(MRL)	METHOD
Semi-Volatiles			
Analyst: AC	Date Analyzed: 4/15/99	Time: 11:12	
Extracted by: AC	Date Extracted: 4/15/99	Extraction Method: 3510	
1,4-Dichlorobenzene (TCLP), mg/L	< 0.05	0.05	SW 846 8270B
2,4-Dinitrotoluene (TCLP), mg/L	< 0.05	0.05	SW 846 8270B
Hexachlorobenzene (TCLP), mg/L	< 0.05	0.05	SW 846 8270B
Hexachlorobutadiene (TCLP), mg/L	< 0.05	0.05	SW 846 8270B
Hexachloroethane (TCLP), mg/L	< 0.05	0.05	SW 846 8270B
2-Methylphenol (TCLP), mg/L	< 0.05	0.05	SW 846 8270B
3- & 4-Methylphenol (TCLP), mg/L	< 0.05	0.05	SW 846 8270B
Nitrobenzene (TCLP), mg/L	< 0.05	0.05	SW 846 8270B
Pentachlorophenol (TCLP), mg/L	< 0.05	0.05	SW 846 8270B
2,4,5-Trichlorophenol (TCLP), mg/L	< 0.05	0.05	SW 846 8270B
2,4,6-Trichlorophenol (TCLP), mg/L	< 0.05	0.05	SW 846 8270B

Approved By: 

Ron Fuller, Laboratory Director

MRL = Report detection limit

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(generic.rpt)

6100 SOUTH STRATLER  
 SALT LAKE CITY, UTAH 84107-8303  
 801 262 7100 PHONE  
 801 262 7378 FAX



Date: 5/ 5/99

To: Deseret Chemical Depot  
Risk Man Div attn: Roger Rasmussen  
attn: SCBTO-RM Building 5108  
Tooele, UT 84074

Group #: 29113  
Lab #: 99-U002752  
Sample Desc: 99-001  
Sample Matrix: SOIL  
Date Sampled:  
Date Submitted: 4/ 2/99

Time Sampled:  
Time Received: 15:25

CERTIFICATE OF ANALYSIS

RECEIVING TEMPERATURE: 0.0 C

PARAMETER	RESULT	MINIMUM REPORTING LIMIT	METHOD
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NOTE: Sample received on ice.

Approved By:

Ron Fuller, Laboratory Director

MRL = Report detection limit



CHEMTECH-FORD



Date: 5/ 5/99

To: Deseret Chemical Depot  
 Risk Man Div attn: Roger Rasmussen  
 attn: SCBTO-RM Building 5108  
 Tooele, UT 84074

Group #: 29113  
 Lab #: 99-U002753  
 Sample Desc: 99-002  
 Sample Matrix: SOIL  
 Date Sampled:  
 Date Submitted: 4/ 2/99

Time Sampled:  
 Time Received: 15:25

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING		METHOD	ANALYST
		LIMIT (MRL)	DATE ANALYZED		
INORGANIC PARAMETERS					
TCLP Ext. Solution pH, units	4.93	0.05	4/ 9/99 14:40		AER
pH, solution selection, units	7.00	0.05	4/ 9/99 14:40	SW 846 9045	AER
pH, after extraction TCLP, units	7.00	0.05	4/ 9/99 14:40	SW 846 9045	AER
Arsenic (TCLP), as As, mg/L	< 0.2	0.2	4/20/99 10:01	SW-846 6010	EG
Barium (TCLP), as Ba, mg/L	0.4	0.1	4/20/99 10:01	SW-846 6010	EG
Cadmium (TCLP), as Cd, mg/L	< 0.01	0.01	4/28/99 21:03	SW-846 6010	EG
Chromium (TCLP), as Cr, mg/L	< 0.02	0.02	4/20/99 10:01	SW-846 6010	EG
Lead (TCLP), as Pb, mg/L	< 0.1	0.1	4/20/99 10:01	SW-846 6010	EG
Mercury (TCLP), as Hg, mg/Kg	< 0.0002	0.0002	4/15/99 14:15	SW 846 7470A	MJB
Selenium (TCLP), as Se, mg/L	< 0.1	0.1	4/20/99 10:01	SW-846 6010	EG
Silver (TCLP), as Ag, mg/L	< 0.01	0.01	4/28/99 21:03	SW-846 6010	EG
Temperature, Receiving, C	0.0		4/ 2/99 15:25		CSM

NOTE: Sample received on ice.

Approved By: \_\_\_\_\_

Ron Fuller, Laboratory Director

MRL = Report detection limit

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{generic.rpt}

6100 SOUTH STRATLER  
 SALT LAKE CITY UTAH 84107 6905  
 801 262 7299 PHONE  
 801 262 7378 FAX

CHEMTECH-FORD



Date: 5/ 5/99

To: Deseret Chemical Depot  
 Risk Man Div attn: Roger Rasmussen  
 attn: SCBTO-RM Building 5108  
 Tooele, UT 84074


Group #: 29113  
 Lab #: 99-U002753  
 Sample Desc: 99-002  
 Sample Matrix: SOIL  
 Date Sampled:  
 Date Submitted: 4/ 2/99

Time Sampled:  
 Time Received: 15:25

CERTIFICATE OF ANALYSIS

RECEIVING TEMPERATURE: 0.0 C

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	METHOD
Volatiles			
Analyst: AC	Date Analyzed: 4/12/99	Time: 11:42	
Benzene (TCLP), mg/L	< 0.002	0.002	SW846-8260A
Carbon Tetrachloride (TCLP), mg/L	< 0.005	0.005	SW846-8260A
Chlorobenzene (TCLP), mg/L	< 0.002	0.002	SW846-8260A
Chloroform (TCLP), mg/L	< 0.005	0.005	SW846-8260A
1,4-Dichlorobenzene (TCLP), mg/L	< 0.01	0.01	SW846-8260A
1,2-Dichloroethane (TCLP), mg/L	< 0.005	0.005	SW846-8260A
1,1-Dichloroethene (TCLP), mg/L	< 0.005	0.005	SW846-8260A
Hexachlorobutadiene (TCLP), mg/L	< 0.01	0.01	SW846-8260A
Methyl Ethyl Ketone (TCLP), mg/L	< 0.05	0.05	SW846-8260A
Pyridine (TCLP), mg/L	< 0.5	0.5	SW846-8260A
Tetrachloroethene (TCLP), mg/L	< 0.005	0.005	SW846-8260A
Trichloroethene (TCLP), mg/L	< 0.005	0.005	SW846-8260A
Vinyl Chloride (TCLP), mg/L	< 0.005	0.005	SW846-8260A

Approved By: 

Ron Fuller, Laboratory Director

MRL = Report detection limit

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{generic.rpt}

6100 SOUTH STRATLER  
 SALT LAKE CITY UTAH 84107 6905  
 801 262 7299 PHONE  
 801 262 7378 FAX

CHEMTECH-FORD



Date: 5/ 5/99

To: Deseret Chemical Depot  
 Risk Man Div attn: Roger Rasmussen  
 attn: SCBTO-RM Building 5108  
 Tooele, UT 84074

Group #: 29113  
 Lab #: 99-U002753  
 Sample Desc: 99-002  
 Sample Matrix: SOIL  
 Date Sampled:  
 Date Submitted: 4/ 2/99

Time Sampled:  
 Time Received: 15:25

CERTIFICATE OF ANALYSIS

RECEIVING TEMPERATURE: 0.0 C

PARAMETER	RESULT	MINIMUM REPORTING LIMIT	
		(MRL)	METHOD
Semi-Volatiles			
Analyst: AC	Date Analyzed: 4/15/99	Time: 11:12	
Extracted by: AC	Date Extracted: 4/15/99	Extraction Method: 3510	
1,4-Dichlorobenzene (TCLP), mg/L	< 0.05	0.05	SW 846 8270B
2,4-Dinitrotoluene (TCLP), mg/L	< 0.05	0.05	SW 846 8270B
Hexachlorobenzene (TCLP), mg/L	< 0.05	0.05	SW 846 8270B
Hexachlorobutadiene (TCLP), mg/L	< 0.05	0.05	SW 846 8270B
Hexachloroethane (TCLP), mg/L	< 0.05	0.05	SW 846 8270B
2-Methylphenol (TCLP), mg/L	< 0.05	0.05	SW 846 8270B
3- & 4-Methylphenol (TCLP), mg/L	< 0.05	0.05	SW 846 8270B
Nitrobenzene (TCLP), mg/L	< 0.05	0.05	SW 846 8270B
Pentachlorophenol (TCLP), mg/L	< 0.05	0.05	SW 846 8270B
2,4,5-Trichlorophenol (TCLP), mg/L	< 0.05	0.05	SW 846 8270B
2,4,6-Trichlorophenol (TCLP), mg/L	< 0.05	0.05	SW 846 8270B

Approved By:   
 Ron Fuller, Laboratory Director

MRL = Report detection limit

{generic.rpt}

CHEMTECH-FORD



Date: 5/ 5/99

To: Deseret Chemical Depot  
Risk Man Div attn: Roger Rasmussen  
attn: SCBTO-RM Building 5108  
Tooele, UT 84074

Group #: 29113  
Lab #: 99-U002753  
Sample Desc: 99-002  
Sample Matrix: SOIL  
Date Sampled:  
Date Submitted: 4/ 2/99

Time Sampled:  
Time Received: 15:25


CERTIFICATE OF ANALYSIS

RECEIVING TEMPERATURE: 0.0 C

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	METHOD
-----------	--------	-------------------------------	--------

NOTE: Sample received on ice.

Approved By:

  
Ron Fuller, Laboratory Director

MRL = Report detection limit

Page 8

{generic.rpt}

6100 SOUTH STRATLER  
SALT LAKE CITY UTAH 84107 6905  
801 262 7299 PHONE  
801 262 7376 FAX

CHEMTECH-FORD



Date: 5/ 5/99

To: Deseret Chemical Depot  
 Risk Man Div attn: Roger Rasmussen  
 attn: SCBTO-RM Building 5108  
 Tooele, UT 84074

Group #: 29113  
 Lab #: 99-U002753  
 Sample Desc: 99-002

Date Sampled:  
 Date Submitted: 4/ 2/99

Time Sampled:  
 Time Received: 15:25

TCLP Evaluation

EPA Hazardous Waste No.	Parameter	Regulatory Limit mg/L (ppm)	Sample Result mg/L (ppm)	
D004	Arsenic	5.0	< 0.2	Pass
D005	Barium	100.0	0.4	Pass
D006	Cadmium	1.0	< 0.01	Pass
D007	Chromium	5.0	< 0.02	Pass
D008	Lead	5.0	< 0.1	Pass
D009	Mercury	0.2	< 0.0002	Pass
D010	Selenium	1.0	< 0.1	Pass
D011	Silver	5.0	< 0.01	Pass
D018	Benzene	0.5	< 0.002	Pass
D019	Carbon Tetrachloride	0.5	< 0.005	Pass
D021	Chlorobenzene	100.0	< 0.002	Pass
D022	Chloroform	6.0	< 0.005	Pass
D027	1,4-Dichlorobenzene	7.5	< 0.01	Pass
D028	1,2-Dichloroethane	0.5	< 0.005	Pass
D029	1,1-Dichloroethylene	0.7	< 0.005	Pass
D033	Hexachlorobutadiene	0.5	< 0.01	Pass
D035	Methyl Ethyl Ketone	200.0	< 0.05	Pass
D038	Pyridine	5.0*	< 0.5	Pass
D039	Tetrachloroethylene	0.7	< 0.005	Pass
D040	Trichloroethylene	0.5	< 0.005	Pass
D043	Vinyl Chloride	0.2	< 0.005	Pass
D027	1,4-Dichlorobenzene	7.5	< 0.05	Pass
D030	2,4-Dinitrotoluene	0.13*	< 0.05	Pass
D032	Hexachlorobenzene	0.13*	< 0.05	Pass
D033	Hexachlorobutadiene	0.5	< 0.05	Pass
D034	Hexachloroethane	3.0	< 0.05	Pass
D023	2-Methylphenol	200	< 0.05	Pass
D024&D025	3-&4-Methylphenol	200	< 0.05	Pass
D036	Nitrobenzene	2.0	< 0.05	Pass
D036	Pentachlorophenol	100.0	< 0.05	Pass
D041	2,4,5-Trichlorophenol	400.0	< 0.05	Pass
D042	2,4,6-Trichlorophenol	2.0	< 0.05	Pass

CHEMTECH-FORD



Date: 5/ 5/99

To: Deseret Chemical Depot  
Risk Man Div attn: Roger Rasmussen  
attn: SCBTO-RM Building 5108  
Tooele, UT 84074

Group #: 29113  
Lab #: 99-U002753  
Sample Desc: 99-002

Date Sampled:  
Date Submitted: 4/ 2/99

Time Sampled:  
Time Received: 15:25.

**TCLP Evaluation**

- \*If quantitation limit for Pyridine is greater than regulatory limit, the quantitation limit becomes the regulatory limit.
- \*If quantitation limit for 2,4-Dinitrotoluene is greater than regulatory limit, the quantitation limit becomes the regulatory limit.
- \*If quantitation limit for Hexachlorobenzene is greater than regulatory limit, the quantitation limit becomes the regulatory limit.

**SWMU 20 TCLP Analysis – Septic Tank Discharge Pipe;  
Discharge Pipe Overburden**

**February 2000**



# Mountain States Analytical, Inc.

1645 West 2200 South · Salt Lake City, Utah 84119 · 800-973-6724

**Client:** Wayne Shorter  
SAIC  
11251 Roger Bacon Drive  
Reston, VA 20190  
7038-108-983 Fax: 703-709-1042

**Report Number:** 0002041-1  
**Date Reported:** 02/17/00  
**Work Order:** 0002041  
**Lab Sample ID:** 0002041-01A  
**Client Sample ID:** SEPTC PIPE  
**Date Collected:** 01/26/00  
**Date Received:** 02/04/00 00:00  
**Matrix:** Solid  
**COC ID:**

**Project:** Desert Chemical Depot  
**Project ID:**  
**Purchase Order:**

Parameter	Result	MDL	PQL	Units	DF	Date Analyzed	Analyst
<b>SW-846 1311: TCLP Extraction, Metals, Solid</b>							
Prep Batch ID: 1706						02/04/00 19:00	SJC
<b>SW-846 1311: TCLP Extraction, Mercury, Solid</b>							
Prep Batch ID: 1705						02/04/00 19:00	SJC
<b>SW-846 3010A: Flame/hrICP Prep, Extract</b>							
Prep Batch ID: 1733						02/09/00 11:56	LC
<b>SW-846 7470A: Mercury by CVAA, Extract</b>							
Mercury	U	0.1	0.5	µg/L	1	02/09/00 14:57	JEP
<b>SW-846 7470A: Mercury Prep CVAA, Extract</b>							
Prep Batch ID: 1720						02/08/00 10:49	JEP
<b>SW-846 6010B: Metals by hrICP, (UTS), Extract</b>							
Arsenic	U	0.02	0.1	mg/L	1	02/10/00 10:46	ITI
Barium	0.177	0.003	0.015	mg/L	1	02/10/00 10:46	ITI
Cadmium	0.00401 J	0.003	0.015	mg/L	1	02/10/00 10:46	ITI
Chromium	U	0.01	0.05	mg/L	1	02/10/00 10:46	ITI
Copper	0.0390 J	0.01	0.05	mg/L	1	02/10/00 10:46	ITI
Lead	0.0591 J	0.02	0.1	mg/L	1	02/10/00 10:46	ITI
Selenium	U	0.03	0.15	mg/L	1	02/10/00 10:46	ITI
Silver	U	0.004	0.02	mg/L	1	02/10/00 10:46	ITI
Zinc	4.15	0.05	0.25	mg/L	1	02/10/00 10:46	ITI

U - Not detected above the MDL

B - Analyte detected in the associated Method Blank

S - Results outside normal recovery limits

J - Analyte detected below the PQL

E - Result is outside of quantitation range

R - RPD outside normal precision limits





# Mountain States Analytical, Inc.

1645 West 2200 South · Salt Lake City, Utah 84119 · 800-973-6724

**Client:** Wayne Shorter  
SAIC  
11251 Roger Bacon Drive  
Reston, VA 20190  
7038-108-983 Fax: 703-709-1042

**Report Number:** 0002041-1  
**Date Reported:** 02/17/00  
**Work Order:** 0002041  
**Lab Sample ID:** 0002041-01B  
**Client Sample ID:** SEPTC PIPE  
**Date Collected:** 01/26/00  
**Date Received:** 02/04/00 00:00  
**Matrix:** Solid  
**COC ID:**

**Project:** Desert Chemical Depot  
**Project ID:**  
**Purchase Order:**

Parameter	Result	MDL	PQL	Units	DF	Date Analyzed	Analyst
<b>SW-846 1311: TCLP Extraction, Semi-VOA, Solid</b>							
Prep Batch ID: 1707						02/04/00 19:00	SJC
<b>SW-846 1311: TCLP Extraction, ZHE, Solid</b>							
Prep Batch ID: 1739						02/09/00 17:25	SSJ
<b>SW-846 8270C: Semi-Volatiles, Extract</b>							
2,4-Dinitrotoluene	U	40	200	µg/L	5	02/09/00 22:39	KPF
Hexachlorobenzene	U	80	200	µg/L	5	02/09/00 22:39	KPF
Hexachlorobutadiene	U	200	200	µg/L	5	02/09/00 22:39	KPF
Hexachloroethane	U	200	200	µg/L	5	02/09/00 22:39	KPF
2-Methylphenol (o-Cresol)	U	120	500	µg/L	5	02/09/00 22:39	KPF
3 and 4- Methylphenol (m+p cresol)	U	100	500	µg/L	5	02/09/00 22:39	KPF
Nitrobenzene	U	60	200	µg/L	5	02/09/00 22:39	KPF
Pentachlorophenol	U	120	500	µg/L	5	02/09/00 22:39	KPF
Pyridine	U	60	200	µg/L	5	02/09/00 22:39	KPF
2,4,5-Trichlorophenol	U	140	500	µg/L	5	02/09/00 22:39	KPF
2,4,6-Trichlorophenol	U	140	500	µg/L	5	02/09/00 22:39	KPF
<b>Surrogates</b>		<b>Recovery Range</b>					
2,4,6-Tribromophenol	89.1	3.02-156		% Recovery	5	02/09/00 22:39	KPF
2-Fluorophenol	69.4	1-94.3		% Recovery	5	02/09/00 22:39	KPF
2-Fluorobiphenyl	83.5	39.1-108		% Recovery	5	02/09/00 22:39	KPF
Nitrobenzene-d5	83.7	44.7-107		% Recovery	5	02/09/00 22:39	KPF
Phenol-d6	50.3	1-82.6		% Recovery	5	02/09/00 22:39	KPF
Terphenyl-d14	87.7	17.8-142		% Recovery	5	02/09/00 22:39	KPF

Note for 02/09/00 22:39 analysis: Sample was diluted due to the dark color of the sample extract and the presence of non-target analytes.

**SW-846 3510C/EPA 625: Separatory Funnel Liq/Liq Ext., SV, Water**

Prep Batch ID: 1731 4 02/08/00 13:00 JLS

**SW-846 3510C: Separatory Funnel Liq/Liq Ext., TCLP, Extract**

U - Not detected above the MDL  
J - Analyte detected below the PQL  
B - Analyte detected in the associated Method Blank  
E - Result is outside of quantitation range  
S - Results outside normal recovery limits  
R - RPD outside normal precision limits


**Mountain States Analytical, Inc.**

1645 West 2200 South · Salt Lake City, Utah 84119 · 800-973-6724

**Client:** Wayne Shorter  
 SAIC  
 11251 Roger Bacon Drive  
 Reston, VA 20190  
 7038-108-983 Fax: 703-709-1042

**Report Number:** 0002041-1  
**Date Reported:** 02/17/00  
**Work Order:** 0002041  
**Lab Sample ID:** 0002041-01B  
**Client Sample ID:** SEPTC PIPE  
**Date Collected:** 01/26/00  
**Date Received:** 02/04/00 00:00  
**Matrix:** Solid  
**COC ID:**

**Project:** Desert Chemical Depot  
**Project ID:**  
**Purchase Order:**

Parameter	Result	MDL	PQL	Units	DF	Date Analyzed	Analyst
Prep Batch ID: 1732					4	02/08/00 13:00	JLS
<b>SW-846 8260B: Volatiles, Extract</b>							
Benzene	U	3	50	µg/L	10	02/10/00 19:07	CMS
2-Butanone (MEK)	U	7	125	µg/L	10	02/10/00 19:07	CMS
Carbon tetrachloride	U	3	50	µg/L	10	02/10/00 19:07	CMS
Chlorobenzene	U	2	50	µg/L	10	02/10/00 19:07	CMS
Chloroform	U	3	50	µg/L	10	02/10/00 19:07	CMS
1,4-Dichlorobenzene	U	2	50	µg/L	10	02/10/00 19:07	CMS
1,1-Dichloroethene	U	3	50	µg/L	10	02/10/00 19:07	CMS
1,2-Dichloroethane	U	2	50	µg/L	10	02/10/00 19:07	CMS
Tetrachloroethene	U	2	50	µg/L	10	02/10/00 19:07	CMS
Trichloroethene	U	3	50	µg/L	10	02/10/00 19:07	CMS
Vinyl chloride	U	2	50	µg/L	10	02/10/00 19:07	CMS
<b>Surrogates</b>		<b>Recovery Range</b>					
Bromofluorobenzene	93.3	84.9-110		% Recovery	10	02/10/00 19:07	CMS
1,2-Dichloroethane-d4	101	74.7-129		% Recovery	10	02/10/00 19:07	CMS
Toluene-d8	98.6	86.3-113		% Recovery	10	02/10/00 19:07	CMS

U - Not detected above the MDL  
 J - Analyte detected below the PQL

B - Analyte detected in the associated Method Blank  
 E - Result is outside of quantitation range

S - Results outside normal recovery limits  
 R - RPD outside normal precision limits



# Mountain States Analytical, Inc.

1645 West 2200 South · Salt Lake City, Utah 84119 · 800-973-6724

**Client:** Wayne Shorter  
SAIC  
11251 Roger Bacon Drive  
Reston, VA 20190  
7038-108-983 Fax: 703-709-1042

**Report Number:** 0002041-1  
**Date Reported:** 02/17/00  
**Work Order:** 0002041  
**Lab Sample ID:** 0002041-02A  
**Client Sample ID:** SPIPE OVER  
**Date Collected:** 01/27/00  
**Date Received:** 02/04/00 00:00  
**Matrix:** Solid  
**COC ID:**

**Project:** Desert Chemical Depot  
**Project ID:**  
**Purchase Order:**

Parameter	Result	MDL	PQL	Units	DF	Date Analyzed	Analyst
<b>SW-846 1311: TCLP Extraction, Metals, Solid</b>							
Prep Batch ID: 1706						02/04/00 19:00	SJC
<b>SW-846 1311: TCLP Extraction, Mercury, Solid</b>							
Prep Batch ID: 1705						02/04/00 19:00	SJC
<b>SW-846 3010A: Flame/hrICP Prep, Extract</b>							
Prep Batch ID: 1733						02/09/00 11:56	LC
<b>SW-846 7470A: Mercury by CVAA, Extract</b>							
Mercury	1.43	0.1	0.5	µg/L	1	02/09/00 14:59	JEP
<b>SW-846 7470A: Mercury Prep CVAA, Extract</b>							
Prep Batch ID: 1720						02/08/00 10:49	JEP
<b>SW-846 6010B: Metals by hrICP, (UTS), Extract</b>							
Arsenic	0.0220 J	0.02	0.1	mg/L	1	02/10/00 10:49	ITI
Barium	0.890	0.003	0.015	mg/L	1	02/10/00 10:49	ITI
Cadmium	0.00740 J	0.003	0.015	mg/L	1	02/10/00 10:49	ITI
Chromium	U	0.01	0.05	mg/L	1	02/10/00 10:49	ITI
Copper	U	0.01	0.05	mg/L	1	02/10/00 10:49	ITI
Lead	U	0.02	0.1	mg/L	1	02/10/00 10:49	ITI
Selenium	U	0.03	0.15	mg/L	1	02/10/00 10:49	ITI
Silver	U	0.004	0.02	mg/L	1	02/10/00 10:49	ITI
Zinc	U	0.05	0.25	mg/L	1	02/10/00 10:49	ITI

U - Not detected above the MDL  
J - Analyte detected below the PQL

B - Analyte detected in the associated Method Blank  
E - Result is outside of quantitation range

S - Results outside normal recovery limits  
R - RPD outside normal precision limits


**Mountain States Analytical, Inc.**

1645 West 2200 South · Salt Lake City, Utah 84119 · 800-973-6724

**Client:** Wayne Shorter  
 SAIC  
 11251 Roger Bacon Drive  
 Reston, VA 20190  
 7038-108-983 Fax: 703-709-1042

**Report Number:** 0002041-1  
**Date Reported:** 02/17/00  
**Work Order:** 0002041  
**Lab Sample ID:** 0002041-02B  
**Client Sample ID:** SPIPE OVER  
**Date Collected:** 01/27/00  
**Date Received:** 02/04/00 00:00  
**Matrix:** Solid  
**COC ID:**

**Project:** Desert Chemical Depot  
**Project ID:**  
**Purchase Order:**

Parameter	Result	MDL	PQL	Units	DF	Date Analyzed	Analyst
<b>SW-846 1311: TCLP Extraction, Semi-VOA, Solid</b>							
Prep Batch ID: 1707						02/04/00 19:00	SJC
<b>SW-846 1311: TCLP Extraction, ZHE, Solid</b>							
Prep Batch ID: 1739						02/09/00 17:25	SSJ
<b>SW-846 8270C: Semi-Volatiles, Extract</b>							
2,4-Dinitrotoluene	U	40	200	µg/L	5	02/10/00 00:47	KPF
Hexachlorobenzene	U	80	200	µg/L	5	02/10/00 00:47	KPF
Hexachlorobutadiene	U	200	200	µg/L	5	02/10/00 00:47	KPF
Hexachloroethane	U	200	200	µg/L	5	02/10/00 00:47	KPF
2-Methylphenol (o-Cresol)	U	120	500	µg/L	5	02/10/00 00:47	KPF
3 and 4- Methylphenol (m+p cresol)	U	100	500	µg/L	5	02/10/00 00:47	KPF
Nitrobenzene	U	60	200	µg/L	5	02/10/00 00:47	KPF
Pentachlorophenol	U	120	500	µg/L	5	02/10/00 00:47	KPF
Pyridine	U	60	200	µg/L	5	02/10/00 00:47	KPF
2,4,5-Trichlorophenol	U	140	500	µg/L	5	02/10/00 00:47	KPF
2,4,6-Trichlorophenol	U	140	500	µg/L	5	02/10/00 00:47	KPF
<b>Surrogates</b>		<b>Recovery Range</b>					
2,4,6-Tribromophenol	78.9	3.02-156		% Recovery	5	02/10/00 00:47	KPF
2-Fluorophenol	60.8	1-94.3		% Recovery	5	02/10/00 00:47	KPF
2-Fluorobiphenyl	77.8	39.1-108		% Recovery	5	02/10/00 00:47	KPF
Nitrobenzene-d5	79.2	44.7-107		% Recovery	5	02/10/00 00:47	KPF
Phenol-d6	43.0	1-82.6		% Recovery	5	02/10/00 00:47	KPF
Terphenyl-d14	110	17.8-142		% Recovery	5	02/10/00 00:47	KPF

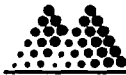
Note for 02/10/00 00:47 analysis: Sample was diluted due to the dark color of the sample extract and the presence of non-target analytes.

**SW-846 3510C/EPA 625: Separatory Funnel Liq/Liq Ext., SV, Water**

Prep Batch ID: 1731 4 02/08/00 13:00 JLS

**SW-846 3510C: Separatory Funnel Liq/Liq Ext., TCLP, Extract**

U - Not detected above the MDL      B - Analyte detected in the associated Method Blank      S - Results outside normal recovery limits  
 J - Analyte detected below the PQL      E - Result is outside of quantitation range      R - RPD outside normal precision limits



# Mountain States Analytical, Inc.

1645 West 2200 South · Salt Lake City, Utah 84119 · 800-973-6724

**Client:** Wayne Shorter  
SAIC  
11251 Roger Bacon Drive  
Reston, VA 20190  
7038-108-983 Fax: 703-709-1042

**Report Number:** 0002041-1  
**Date Reported:** 02/17/00  
**Work Order:** 0002041  
**Lab Sample ID:** 0002041-02B  
**Client Sample ID:** SPIPE OVER  
**Date Collected:** 01/27/00  
**Date Received:** 02/04/00 00:00  
**Matrix:** Solid  
**COC ID:**

**Project:** Desert Chemical Depot  
**Project ID:**  
**Purchase Order:**

Parameter	Result	MDL	PQL	Units	DF	Date Analyzed	Analyst
Prep Batch ID: 1732					4	02/08/00 13:00	JLS
<b>SW-846 8260B: Volatiles, Extract</b>							
Benzene	U	3	50	µg/L	10	02/10/00 19:34	CMS
2-Butanone (MEK)	U	7	125	µg/L	10	02/10/00 19:34	CMS
Carbon tetrachloride	U	3	50	µg/L	10	02/10/00 19:34	CMS
Chlorobenzene	U	2	50	µg/L	10	02/10/00 19:34	CMS
Chloroform	U	3	50	µg/L	10	02/10/00 19:34	CMS
1,4-Dichlorobenzene	U	2	50	µg/L	10	02/10/00 19:34	CMS
1,1-Dichloroethene	U	3	50	µg/L	10	02/10/00 19:34	CMS
1,2-Dichloroethane	U	2	50	µg/L	10	02/10/00 19:34	CMS
Tetrachloroethene	U	2	50	µg/L	10	02/10/00 19:34	CMS
Trichloroethene	U	3	50	µg/L	10	02/10/00 19:34	CMS
Vinyl chloride	U	2	50	µg/L	10	02/10/00 19:34	CMS
<b>Surrogates</b>		<b>Recovery Range</b>					
Bromofluorobenzene	92.2	84.9-110		% Recovery	10	02/10/00 19:34	CMS
1,2-Dichloroethane-d4	101	74.7-129		% Recovery	10	02/10/00 19:34	CMS
Toluene-d8	99.0	86.3-113		% Recovery	10	02/10/00 19:34	CMS

U - Not detected above the MDL  
J - Analyte detected below the PQL

B - Analyte detected in the associated Method Blank  
E - Result is outside of quantitation range

S - Results outside normal recovery limits  
R - RPD outside normal precision limits