Los Alamos Environmental Restoration Records Processing Facility

ER Record I.D.# 63132

LOS ALAMOS NATIONAL LABORATORY
ENVIRONMENTAL RESTORATION
Records Processing Facility
ER Records Index Form

ER ID NO. 63132 ***Date Received:*** 6/14/99 ***Processor:*** YCA ***Page Count:*** 24

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Miscellaneous Comments:

REFERENCE CITED

3565

(64) 63152

Date: Tue, 28 Jul 1998 22:02:30 -0600 (MDT)
From: Waste Services <WSERVD@EM71.LANL.GOV>
To: afs@lanl.gov
Subject: WPF PROCESSING NOTIFICATION

(Please DO NOT email a reply to this computer generated message)
(Inquiries can be made at: 665-3454)

WASTE MANAGEMENT COORDINATOR

Name: AL STADELMAIER Group: ESAFM MS: C928

WASTE PROFILE FORM PROCESSING NOTIFICATION

Waste Services has received and is processing your Waste Profile Form. If clarification of the documentation is needed, then a Waste Services Team member will contact you or the Waste Generator.

The following reference number has been assigned to your Waste Profile Form. Any inquiries to Waste Services regarding this Waste Profile Form should reference this number. Inquiries should be directed to:

RIVERA, ROBERT at 665-6411

WPF Reference Number: ***** 29244 *****
WPF Logged in : 28-JUL-98
WPF Waste Location : TA 16 Building 000000 Room 0
Waste Generator : ROBERT F GARCIA
Waste Description : SEPTIC TANK #16-385 ANALYTICAL SAMPLE NUMBERS 98DS270, 98DS272, 98DS273, 98DS275, 98DS276

JUN 14 1999
YMA

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WASTE PROFILE FORM

Contact (if other than given below)

For rapid processing complete all section in black or blue ink and mail to: EM-SWO at MS J595.
For assistance with completing this form, call EM-SWO at 5-4000.

Reference Number (For EM-SWO Use Only)

Generator's Z Number	Waste Generator's Name (print)	WMC's Z Number	WMC's Name (print)
076~~36~~ 68	Robert F. Garcia	095169	Albert Stadelmaier

Generator's Telephone	Generator's Mail Stop	Waste Generating Group	Waste Stream Techincal Area	Building	Room
7-6891	C-930	ESA-WMM	16	NA	NA

Waste Accumulation (Check only one)

- ☐ Satellite Accumulation Area — Site No.: _____
- ☐ Less-than-90-day Storage Area — Site No.: _____
- ☐ TSDF — Site No.: _____
- ☐ Universal Waste Storage Area — Site No.: _____
- ☐ None of the above

ER Use Only ☐ ER Site PRS #: _____

Method of Characterization (Check as many as apply)

☒ Analysis/Documents Attached

- ☒ Chemical / Physical Analysis — Sample # SEE BELOW
- ☐ Radiological Analysis — Sample # _____
- ☐ PCB Analysis — Sample # _____
- ☐ Acceptable Knowledge Documentation — Documentation # _____
- ☐ MSDS

Section 1 - Chemical and Physical Information

Waste Type (Check only one)

- ☐ Unused/Unspent Chemical (Complete all sections as appropriate)
- ☒ Process Waste/Spent Chemical/ other (Complete all of sections)
- ☐ "Green is Clean" Waste (Complete all sections as appropriate)

Waste Classes

Radiological Information

Was Waste Generated in a RCA ? ☐ Yes ☒ No

- ☒ Non-radioactive
- ☐ Radioactive
  - ☐ Low-Level
  - ☐ Transuranic

Wastewater Information

- ☒ Wastewater for SWSC (TA-46) (Complete Attachment 1)
- ☐ Wastewater for RLWTF (TA-50/TA-21) (CompleteAttachment 2)
- ☐ Wastewater for TA-16 (HE)

Classification Information

- ☒ Unclassified
- ☐ Classified/Sensitive

Waste Category (Check as many as apply)

- ☒ Inorganic
- ☐ Organic
- Volatile Organics ☐ < 500 ppm ☐ ≥ 500 ppm
- ☐ Solvent *
- ☐ Degreaser *
- ☐ Dioxin
- ☐ Electroplating
- ☐ Treated hazardous waste residue
- ☐ Explosive process
- ☐ Infectious/Medical
- ☐ Biological
- ☐ Beryllium
- ☐ Empty Container (See Instructions)
- ☐ Battery (See Instructions)
- Asbestos ☐ friable ☐ non-friable
- PCB Source Concentration
  - ☐ PCB < 50 ppm
  - ☐ PCB ≥ 50 - < 500 ppm
  - ☐ PCB ≥ 500 ppm
- ☐ Other (Describe below)

* Concentrations 10% or greater before use.

Waste Sources (Check only one)

Routine Waste

- ☐ Decon
- ☐ Material Processing/Production
- ☐ Research/Development/Testing
- ☐ Scheduled Maintenance
- ☐ Housekeeping - Routine
- ☐ Spill Cleanup - Routine
- ☒ Sampling - Routine Monitoring
- ☐ Other (Describe below)

Non-Routine Waste

- ☐ Abatement
- ☐ Construction/Upgrades
- ☐ Demolition
- ☐ Decon/Decom
- ☐ Investigation derived
- ☐ Orphan/Legacy
- ☐ Remediation/Restoration
- ☐ Repacking (Secondary)
- ☐ Unscheduled Maintenance
- ☐ Housekeeping - Non-routine
- ☐ Spill Cleanup - Non-routine
- ☐ UST - Non-petroleum
- ☐ UST - Petroleum
- ☐ Other (Describe below)

Waste Matrix (Check only one)

Gas

- ☐ ≤ 1.5 Atmosperes Pressure
- ☐ > 1.5 Atmosperes pressure
- ☐ Liquified compressed gas

Liquid

- ☐ Aqueous
- ☐ Non-aqueous
- ☒ Suspended Solids/aqueous
- ☐ Suspended Solids/non-aqueous

Solid

- ☐ Powder/Ash
- ☐ Solid
- ☐ Sludge
- ☐ Absorbed liqiud

Matrix Type (Check only one)

- ☐ Homogeneous
- ☒ Heterogeneous (Describe below)

Waste/Process Description (Chemical formulas may be used in this field)

Septic tank #16-385

Analytical sample numbers 98DS270, 98DS271, 98DS272, 98DS273, 98DS274, 98DS275, 98DS276

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Section 2 - Characteristics

Ignitability (Check only one.) (°F)	(°C)	Corrosivity (Check only one.) (pH)	Reactivity (Check as many as apply.)	Boiling Point (Check only one.) (°F)	(°C)
☐ < 73	< 22.8	☐ ≤ 2.0	☐ RCRA Unstable	☐ ≤ 95	≤ 35
☐ 73 - 99	22.8 - 37.2	☐ 2.1 - 4.0	☐ Water Reactive	☒ > 95	> 35
☐ 100 - 139	37.8 - 59.4	☐ 4.1 - 6.0	☐ Cyanide Bearing (>250 ppm)		
☐ 140 - 200	60.0 - 99.3	☒ 6.1 - 9.0	☐ Sulfide Bearing (>500 ppm)		
☐ > 200	> 99.3	☐ 9.1 -12.4	☐ Pyrophoric		
☐ EPA Ignitable - Non-liquid		☐ ≥ 12.5	☐ Shock Sensitive		
☐ DOT Flammable Gas		☐ Liquid corrosive to steel	☐ Explosive - DOT Div. _____		
☐ DOT Oxidizer					
☒ Not ignitable		☐ Non-aqueous	☒ Non-reactive	☐ Not applicable	

Identify for all contaminants listed.	Characterization Method: AK	TCLP	Total	Concentration of Contaminants: None or Non-Detect	Present Below Regulatory Limit	Above Regulatory Limit (Concentration in ppm only) Minimum	Maximum
Toxicity Characteristic Metals							
Arsenic	☐	☒	☐	☒	☐ < 5.0 ppm	to	ppm
Barium	☐	☒	☐	☐	☒ < 100.0 ppm	to	ppm
Cadmium	☐	☒	☐	☒	☐ < 1.0 ppm	to	ppm
Chromium (Total)	☐	☒	☐	☒	☐ < 5.0 ppm	to	ppm
Lead	☐	☒	☐	☒	☐ < 5.0 ppm	to	ppm
Mercury	☐	☒	☐	☒	☐ < 0.2 ppm	to	ppm
Selenium	☐	☒	☐	☒	☐ < 1.0 ppm	to	ppm
Silver	☐	☒	☐	☒	☐ < 5.0 ppm	to	ppm
Toxicity Characteristic Organics							
Benzene	☐	☒	☐	☒	☐ < 0.5 ppm	to	ppm
Carbon tetrachloride	☐	☒	☐	☒	☐ < 0.5 ppm	to	ppm
Chlorodane	☐	☒	☐	☒	☐ < 0.03 ppm	to	ppm
Chlorobenzene	☐	☒	☐	☒	☐ < 100.0 ppm	to	ppm
Chloroform	☐	☒	☐	☒	☐ < 6.0 ppm	to	ppm
o - cresol	☐	☒	☐	☒	☐ < 200.0 ppm	to	ppm
m - cresol	☐	☒	☐	☒	☐ < 200.0 ppm	to	ppm
p - cresol	☐	☒	☐	☒	☐ < 200.0 ppm	to	ppm
Cresol - mixed	☐	☒	☐	☒	☐ < 200.0 ppm	to	ppm
2,4-D	☐	☒	☐	☒	☐ < 10.0 ppm	to	ppm
1,4-Dichlorobenzene	☐	☒	☐	☒	☐ < 7.5 ppm	to	ppm
1,2-Dichloroethane	☐	☒	☐	☒	☐ < 0.5 ppm	to	ppm
1,1-Dichloroethylene	☐	☒	☐	☒	☐ < 0.7 ppm	to	ppm
2,4-Dinitrotoluene	☐	☒	☐	☒	☐ < 0.13 ppm	to	ppm
Endrin	☐	☒	☐	☒	☐ < 0.02 ppm	to	ppm
Heptachlor (& its epoxide)	☐	☒	☐	☒	☐ < 0.008 ppm	to	ppm
Hexachlorobenzene	☐	☒	☐	☒	☐ < 0.13 ppm	to	ppm
Hexachlorobutadiene	☐	☒	☐	☒	☐ < 0.5 ppm	to	ppm
Hexachloroethane	☐	☒	☐	☒	☐ < 3.0 ppm	to	ppm
Lindane	☐	☒	☐	☒	☐ < 0.4 ppm	to	ppm
Methoxychlor	☐	☒	☐	☒	☐ < 10.0 ppm	to	ppm
Methyl ethyl ketone	☐	☒	☐	☐	☒ < 200.0 ppm	to	ppm
Nitrobenzene	☐	☒	☐	☒	☐ < 2.0 ppm	to	ppm
Pentachlorophenol	☐	☒	☐	☒	☐ < 100.0 ppm	to	ppm
Pyridine	☐	☒	☐	☒	☐ < 5.0 ppm	to	ppm
Tetrachloroethylene	☐	☒	☐	☒	☐ < 0.7 ppm	to	ppm
Toxaphene	☐	☒	☐	☒	☐ < 0.5 ppm	to	ppm
Trichloroethylene	☐	☒	☐	☒	☐ < 0.5 ppm	to	ppm
2,4,5-Trichlorophenol	☐	☒	☐	☒	☐ < 400.0 ppm	to	ppm
2,4,6-Trichlorophenol	☐	☒	☐	☒	☐ < 2.0 ppm	to	ppm
2,4,5- TP (Silvex)	☐	☒	☐	☒	☐ < 1.0 ppm	to	ppm
Vinyl chloride	☐	☒	☐	☒	☐ < 0.2 ppm	to	ppm

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Section 3 - Additional Constituents

Additional Constituents and Contaminates Please account for 100% of waste. Ranges should be given within guidelines of LIG 404-00-03 of individual constituents. List all other constituents (including inerts) not identified above and attach any applicable analysis. No chemical formulas allowed in this field. Continue in Section 3 Additional Inforamation as necessary. CAS Numbers are needed for all chemical constituents, for material without a CAS Number enter "No CAS Number". Contact Waste Services at 5-4000 for assistance.

CAS No.	Name of constituent	Minimum		Maximum	
	3+4 - methylphenol	0	to	8.9 ~~PPM~~ PPB	%
	Benzoic acid	0	to	320 ~~PPM~~ PPB	%
	water	95	to	100	%
			to		%
			to		%
			to		%
			to		%
			to		%
			to		%
			to		%
			to		%
			to		%
			to		%
	Total of max. ranges of this section.	100			in %
	Total of max. ranges from page 2.				in ppm

Additional Information (use additional sheet if necessary)

If additional information is available on the chemical, physical, or radiological character of the waste not covered on this form, provide it below:

WASTE GENERATOR CERTIFICATION: Based on my knowledge of the waste and/or chemical/physical analysis, I certify that the information on this form is correct. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Signature Robert Garcia | Date 7-13-98

WASTE MANAGEMENT COORDINATOR: I have reviewed this form and to the best of my knowledge, the information is complete and accurate.

Signature Albert S. Hadelmaier | Date 7-13-98

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Attachment 1 - Wastewater Characteristics for SWSC (TA-46)

For help in completing this section of the form, call ESH-18 at 7-4882. Identify presence of any contaminants listed below. **Use of Acceptable Knowledge in lieu of analytical data must be pre-approved by ESH-18.**

Microtox Analysis # 80313 WAC NOTE: Microtox analysis **must be** performed. Contact JCI/ENV to schedule analysis.

Are there any detectable levels of gross Alpha, gross Beta, gross Gamma, and/or Tritium? ☒ No ☐ Yes

All methods of analysis must conform to those approved pursuant to 40 CFR 136 unless an alternative method has been approved by ESH-18.
All metal concentrations are for the dissolved fraction present in the sample unless otherwise indicated.

Flow Rate Parameters	☒ Flow Rate of 100 gallons/day or less			☐ Flow Rate greater than 100 gallons/day		
	None/ Non-Detect	Within Regulatory Limit	Above Limit	None/ Non-Detect	Within Regulatory Limit	Above Limit
pH		☒ 5 -11 SU	☐		☐ 5 - 11 SU	☐
Chemical Oxygen Demand (COD)		☒ ≤ 750 mg/l	☐		☐ ≤ 500 mg/l	☐
Microtox results: (a)		☒ < 55% screen	☐		☐ < 50% screen	☐
(b)		☐ > 20% EC50	☐		☐ > 25% EC50	☐
Temperature		☒ ≤ 180 °F	☐		☐ ≤ 140 °F	☐
Cyanide (Total)	☒	☐ < 5.0 mg/l	☐	☐	☐ < 1.0 mg/l	☐
Fluoride	☒	☐ < 200.0 mg/l	☐	☐	☐ < 50.0 mg/l	☐
Iron	☐	☒ < 100.0 mg/l	☐	☐	☐ < 35.0 mg/l	☐
Magnesium	☐	☒ < 100.0 mg/l	☐	☐	☐ < 50.0 mg/l	☐
Manganese	☐	☒ < 5.0 mg/l	☐	☐	☐ < 1.0 mg/l	☐
Metals (Total)	☐	☒ < 40.0 mg/l	☐	☐	☐ < 10.0 mg/l	☐
Nickel	☒	☐ < 50.0 mg/l	☐	☐	☐ ≤ 3.0 mg/l	☐
Nitrogen (Total)	☐	☒ ≤ 100.0 mg/l	☐	☐	☐ < 50.0 mg/l	☐
Oil and Grease	☒	☐ < 100.0 mg/l	☐	☐	☐ < 50.0 mg/l	☐
Phosphorus (Total)	☐	☒ < 100.0 mg/l	☐	☐	☐ < 50.0 mg/l	☐
Silver	☒	☐ < 5.0 mg/l	☐	☐	☐ < 0.5 mg/l	☐
Total Suspended Solids (TSS)	☐	☒ ≤ 400.0 mg/l	☐	☐	☐ ≤ 300.0 mg/l	☐
Zinc	☐	☒ < 25.0 mg/l	☐	☐	☐ < 5.0 mg/l	☐

Wastewater contaminants Identify for all constituents listed	None/Non-Detect	Present within Regulatory Limit	Above Limit
Dissolved Aluminum	☒	☐ < 5.0 mg/l	☐
Dissolved Arsenic	☒	☐ < 0.2 mg/l	☐
Dissolved Barium	☐	☒ < 100.0 mg/l	☐
Dissolved Beryllium	☒	☐ < 5.3 mg/l	☐
Dissolved Boron	☒	☐ < 5.0 mg/l	☐
Dissolved Cadmium	☒	☐ < 0.05 mg/l	☐
Chlorine (Total Residual)	☐	☒ < 3.0 mg/l	☐
Dissolved Chromium	☒	☐ < 1.0 mg/l	☐
Dissolved Cobalt	☒	☐ < 1.0 mg/l	☐
Dissolved Copper	☐	☒ < 0.5 mg/l	☐
Dissolved Lead	☒	☐ < 0.1 mg/l	☐
Total Mercury	☒	☐ < 0.01 mg/l	☐
Dissolved Molybdenum	☒	☐ < 75.0 mg/l	☐
Polychlorinated Biphenyls (PCB)	☒	None detected	☐
Dissolved Selenium	☒	☐ < 0.05 mg/l	☐
Dissolved Vanadium	☒	☐ < 0.1 mg/l	☐
Dissolved Zinc	☐	☒ < 25.0 mg/l	☐

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Attachment 2- Wastewater Characteristics for RLWTF (TA-50 & TA-21)

For help in completing this section of the form, call 7-4301.

Indicate if waste was: ☐ Accelerator produced ☐ Reactor produced ☐ Other (Describe in WPF Section 1 "Waste/Process Description")

Radionuclide Contaminants

Identify for the following:	Present At Or Below LOC (in Ci/l)	Range if Above LOC in Ci/l Min. / Max.	Identify for the following:	Present At Or Below LOC (in Ci/l)	Range if Above LOC in Ci/l Min. / Max.
As-74	☐ ≤ 4.0 E-8	_____ / _____	Rb-84	☐ ≤ 1.0 E-8	_____ / _____
Be-7	☐ ≤ 1.0 E-6	_____ / _____	Sc-46	☐ ≤ 2.0 E-8	_____ / _____
Ce-141	☐ ≤ 5.0 E-8	_____ / _____	Sc-48	☐ ≤ 2.0 E-8	_____ / _____
Cs-134	☐ ≤ 2.0 E-9	_____ / _____	Sc-75	☐ ≤ 2.0 E-8	_____ / _____
Cs-137	☐ ≤ 3.0 E-9	_____ / _____	Na-22	☐ ≤ 1.0 E-8	_____ / _____
Co-56	☐ ≤ 1.0 E-8	_____ / _____	Sr-85	☐ ≤ 7.0 E-8	_____ / _____
Co-57	☐ ≤ 1.0 E-7	_____ / _____	Sr-89	☐ ≤ 2.0 E-8	_____ / _____
Co-58	☐ ≤ 4.0 E-8	_____ / _____	Sr-90	☐ ≤ 1.0 E-9	_____ / _____
Co-60	☐ ≤ 5.0 E-9	_____ / _____	Sn-113	☐ ≤ 5.0 E-8	_____ / _____
Eu-152	☐ ≤ 2.0 E-8	_____ / _____	V-48	☐ ≤ 2.0 E-8	_____ / _____
H-3	☐ ≤ 2.0 E-8	_____ / _____	Y-88	☐ ≤ 3.0 E-8	_____ / _____
I-133	☐ ≤ 1.0 E-8	_____ / _____	Zn-65	☐ ≤ 9.0 E-9	_____ / _____
Mn-52	☐ ≤ 2.0 E-8	_____ / _____	Am-241	☐ ≤ 0.1 E-6	_____ / _____
Mn-54	☐ ≤ 5.0 E-8	_____ / _____	Pu-238	☐ ≤ 0.1 E-6	_____ / _____
Ra-226 + 228	☐ ≤ 3.0 E-11	_____ / _____	Pu-239	☐ ≤ 0.1 E-6	_____ / _____
Rb-83	☐ ≤ 2.0 E-8	_____ / _____	U-234	☐ ≤ 5.0 E-8	_____ / _____
Others:					
_____		_____ / _____	_____		_____ / _____
_____		_____ / _____	_____		_____ / _____
_____		_____ / _____	_____		_____ / _____

Other Contaminants

Metal contaminants	Present Below LOC (in ppm)	Range if above LOC (in ppm) Min. / Max.
Aluminum	☐ < 5.0	_____ to _____ ppm
Boron	☐ < 5.0	_____ to _____ ppm
Cobalt	☐ < 1.0	_____ to _____ ppm
Copper	☐ < 1.0	_____ to _____ ppm
Vanadium	☐ < 0.1	_____ to _____ ppm
Zinc	☐ < 95.4	_____ to _____ ppm

Additional Contaminants:	Min. / Max.
Chemical Oxygen Demand (COD)	_____ to _____ mg/l
Total Suspended Solids (TSS)	_____ to _____ mg/l
☐ Total Nitrogen or (only one	_____ to _____ mg/l
☐ Total Nitrates entry needed)	_____ to _____ mg/l

Radioactive Contaminant Totals:

Total Alpha: _____ Ci/l
Total Beta: _____ Ci/l
Total Gamma: _____ Ci/l

For TA-55 use only.

Wastewater will be discharged through one of the following:

☐ Acid Line ☐ Caustic Line ☐ Industrial waste line

☐ Yes ☐ No Scintillation Cocktail Brand Name _____ Volume _____ Unit _____

☐ Yes ☐ No Chemical treatment for Boilers / Water Chillers

☐ Yes ☐ No Industrial Cleaner Type _____ Volume _____ Unit _____

Average daily volume when discharge occurs: _____ ☐ Gallons/day ☐ Liters/day

Maximum daily volume when discharge occurs: _____ ☐ Gallons/day ☐ Liters/day

Estimated number of days per year discharge will occur: _____

Estimated total volume per year discharged to the Radioactive Liquid Waste Collection System at TA-50 / TA-21: _____ ☐ Gallons ☐ Liters

ASSAIGAI ANALYTICAL LABORATORIES, INC.
7300 Jefferson, N.E. • Albuquerque, New Mexico 87109 • (505) 345-8964 • FAX (505) 345-7259
3332 Wedgewood, E-5 • El Paso, Texas 79925 • (915) 593-6000 • FAX (915) 593-7820

* explanation of codes	
B	analyte detected in Method Blank
E	result is estimated
H	analyzed out of hold time
N	tentatively identified compound
S	subcontracted
1-9	see footnote

LOS ALAMOS NATIONAL LABS
attn: DUSTIE STEPHENS
MAIL STOP K491/ESH-19
LOS ALAMOS, NM 87545

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: LOS ALAMOS NATIONAL LABS
Project: 9803111 8M70 XF70 30HE 0000 Z#111503

William P. Biava: President of Assaigai Analytical Laboratories, Inc.

Client ID: *98DS270* Sample Matrix: *LIQUID* Sample Collected: *03/11/98 09:30:00*

Fraction	QC Group	CAS #		Result	Units	Dilution Factor	Detection Limit	*	Sequence	Run Date
			SW846-8240 Volatiles							
9803111-01A	X98139	75-34-3	1,1 Dichloroethane	< 1.0	ug / L	1	1		XG.1998.227-7	03/16/98
	X98139	75-35-4	1,1 Dichloroethene	< 1.0	ug / L	1	1		XG.1998.227-7	
	X98139	71-55-6	1,1,1 Trichloroethane	< 1.0	ug / L	1	1		XG.1998.227-7	
	X98139	630-20-6	1,1,1,2 Tetrachloroethane	< 1.0	ug / L	1	1		XG.1998.227-7	
	X98139	79-00-5	1,1,2 Trichloroethane	< 1.0	ug / L	1	1		XG.1998.227-7	
	X98139	79-34-5	1,1,2,2 Tetrachloroethane	< 1.0	ug / L	1	1		XG.1998.227-7	
	X98139	106-93-4	1,2 Dibromoethane (EDB)	< 1.0	ug / L	1	1		XG.1998.227-7	
	X98139	95-50-1	1,2 Dichlorobenzene	< 1.0	ug / L	1	1		XG.1998.227-7	
	X98139	107-06-2	1,2 Dichloroethane	< 1.0	ug / L	1	1		XG.1998.227-7	
	X98139	78-87-5	1,2 Dichloropropane	< 1.0	ug / L	1	1		XG.1998.227-7	
	X98139	96-18-4	1,2,3 Trichloropropane	< 1.0	ug / L	1	1		XG.1998.227-7	
	X98139	541-73-1	1,3 Dichlorobenzene	< 1.0	ug / L	1	1		XG.1998.227-7	
	X98139	764-41-0	1,4 Dichloro-2-butene	< 10	ug / L	1	10		XG.1998.227-7	
	X98139	106-46-7	1,4 Dichlorobenzene	< 1.0	ug / L	1	1		XG.1998.227-7	
	X98139	78-93-3	2-Butanone (MEK)	5.6	ug / L	1	5		XG.1998.227-7	
	X98139	110-75-8	2-Chloroethylvinylether	< 5.0	ug / L	1	5		XG.1998.227-7	
	X98139	591-78-6	2-Hexanone (MBK)	< 5.0	ug / L	1	5		XG.1998.227-7	
	X98139	108-10-1	4-Methyl-2-pentanone (MIBK)	< 5.0	ug / L	1	5		XG.1998.227-7	
	X98139	67-64-1	Acetone	< 5.0	ug / L	1	5		XG.1998.227-7	
	X98139	107-02-8	Acrolein	< 20	ug / L	1	20		XG.1998.227-7	
	X98139	107-13-1	Acrylonitrile	< 20	ug / L	1	20		XG.1998.227-7	
	X98139	71-43-2	Benzene	< 1.0	ug / L	1	1		XG.1998.227-7	
	X98139	75-27-4	Bromodichloromethane	< 1.0	ug / L	1	1		XG.1998.227-7	

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Client: **LOS ALAMOS NATIONAL LABS**

Project: **9803111** **8M70 XF70 30HE 0000 Z#111503**

9803111-01A	X98139	75-25-2	Bromoform	< 1.0	ug / L	1	1		XG.1998.227-7	03/16/98
	X98139	74-83-9	Bromomethane	< 5.0	ug / L	1	5		XG.1998.227-7	
	X98139	75-15-0	Carbon disulfide	< 5.0	ug / L	1	5		XG.1998.227-7	
	X98139	56-23-5	Carbon tetrachloride	< 1.0	ug / L	1	1		XG.1998.227-7	
	X98139	108-90-7	Chlorobenzene	< 1.0	ug / L	1	1		XG.1998.227-7	
	X98139	124-48-1	Chlorodibromomethane	< 1.0	ug / L	1	1		XG.1998.227-7	
	X98139	75-00-3	Chloroethane	< 5.0	ug / L	1	5		XG.1998.227-7	
	X98139	67-66-3	Chloroform	< 1.0	ug / L	1	1		XG.1998.227-7	
	X98139	74-87-3	Chloromethane	< 5.0	ug / L	1	5		XG.1998.227-7	
	X98139	156-59-2	cis-1,2 dichloroethene	< 1.0	ug / L	1	1		XG.1998.227-7	
	X98139	10061-01-5	cis-1,3 dichloropropene	< 1.0	ug / L	1	1		XG.1998.227-7	
	X98139	74-95-3	Dibromomethane	< 1.0	ug / L	1	1		XG.1998.227-7	
	X98139	97-63-2	Ethyl methacrylate	< 5.0	ug / L	1	5		XG.1998.227-7	
	X98139	100-41-4	Ethylbenzene	< 1.0	ug / L	1	1		XG.1998.227-7	
	X98139		Freon 113	< 5.0	ug / L	1	5		XG.1998.227-7	
	X98139	75-71-8	Freon 12	< 10	ug / L	1	10		XG.1998.227-7	
	X98139	74-88-4	Iodomethane	< 5.0	ug / L	1	5		XG.1998.227-7	
	X98139	1634-04-4	Methyl t-butyl ether (MTBE)	< 1.0	ug / L	1	1		XG.1998.227-7	
	X98139	75-09-2	Methylene chloride	< 10	ug / L	1	10		XG.1998.227-7	
	X98139	95-47-6	o-Xylene	< 1.0	ug / L	1	1		XG.1998.227-7	
	X98139		p/m Xylenes	< 2.0	ug / L	1	2		XG.1998.227-7	
	X98139	100-42-5	Styrene	< 1.0	ug / L	1	1		XG.1998.227-7	
	X98139	156-60-5	t-1,2 Dichloroethene	< 1.0	ug / L	1	1		XG.1998.227-7	
	X98139	10061-02-6	t-1,3 Dichloropropene	< 1.0	ug / L	1	1		XG.1998.227-7	
	X98139	127-18-4	Tetrachloroethene	< 1.0	ug / L	1	1		XG.1998.227-7	
	X98139	108-88-3	Toluene	< 1.0	ug / L	1	1		XG.1998.227-7	
	X98139	79-01-6	Trichloroethene	< 1.0	ug / L	1	1		XG.1998.227-7	
	X98139	75-69-4	Trichlorofluoromethane	< 5.0	ug / L	1	5		XG.1998.227-7	
	X98139	108-05-4	Vinyl acetate	< 5.0	ug / L	1	5		XG.1998.227-7	
	X98139	75-01-4	Vinyl chloride	< 5.0	ug / L	1	5		XG.1998.227-7	

Client Sample ID ***98DS271*** Sample Matrix ***LIQUID*** Sample Collected ***03/11/98 09:30:00***

Fraction	QC Group	CAS #		Result	Units	Dilution Factor	Detection Limit	*	Sequence	Run Date
			SW846-8270 Semi-Volatiles							
9803111-02A	X98147	120-82-1	1,2,4-Trichlorobenzene	< 1.7	ug / L	2	1		XG.1998.299-7	04/01/98
	X98147	95-50-1	1,2-Dichlorobenzene	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	541-73-1	1,3-Dichlorobenzene	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	106-46-7	1,4-Dichlorobenzene	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	90-12-0	1-Methylnaphthalene	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	58-90-2	2,3,4,6-Tetrachlorophenol	< 8.6	ug / L	2	5		XG.1998.299-7	
	X98147	95-95-4	2,4,5-Trichlorophenol	< 8.6	ug / L	2	5		XG.1998.299-7	
	X98147	88-06-2	2,4,6-Trichlorophenol	< 8.6	ug / L	2	5		XG.1998.299-7	
	X98147	120-83-2	2,4-Dichlorophenol	< 8.6	ug / L	2	5		XG.1998.299-7	
	X98147	105-67-9	2,4-Dimethylphenol	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	51-28-5	2,4-Dinitrophenol	< 17	ug / L	2	10		XG.1998.299-7	

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9803111-02A	X98147	121-14-2	2,4-Dinitrotoluene	< 8.6	ug / L	2	5		XG.1998.299-7	04/01/98
	X98147	606-20-2	2,6-Dinitrotoluene	< 8.6	ug / L	2	5		XG.1998.299-7	
	X98147	91-58-7	2-Chloronaphthalene	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	95-57-8	2-Chlorophenol	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	91-57-6	2-Methylnaphthalene	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	95-48-7	2-Methylphenol	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	88-74-4	2-Nitroaniline	< 8.6	ug / L	2	5		XG.1998.299-7	
	X98147	88-75-5	2-Nitrophenol	< 8.6	ug / L	2	5		XG.1998.299-7	
	X98147		3+4 Methylphenol	8.9	ug / L	2	1		XG.1998.299-7	
	X98147	91-94-1	3,3'-Dichlorobenzidine	< 17	ug / L	2	10		XG.1998.299-7	
	X98147	99-09-2	3-Nitroaniline	< 8.6	ug / L	2	5		XG.1998.299-7	
	X98147	534-52-1	4,6-Dinitro-2-methylphenol	< 17	ug / L	2	10		XG.1998.299-7	
	X98147	101-55-3	4-Bromophenyl-phenylether	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	59-50-7	4-Chloro-3-methylphenol	< 8.6	ug / L	2	5		XG.1998.299-7	
	X98147	106-47-8	4-Chloroaniline	< 8.6	ug / L	2	5		XG.1998.299-7	
	X98147	7005-72-3	4-Chlorophenyl-phenylether	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	100-01-6	4-Nitroaniline	< 8.6	ug / L	2	5		XG.1998.299-7	
	X98147	100-02-7	4-Nitrophenol	< 17	ug / L	2	10		XG.1998.299-7	
	X98147	83-32-9	Acenaphthene	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	208-96-8	Acenaphthylene	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	62-53-3	Aniline	< 17	ug / L	2	10		XG.1998.299-7	
	X98147	120-12-7	Anthracene	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147		Azobenzene&1,2-Diphenylhydrazine	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	92-87-5	Benzidine	< 43	ug / L	2	25		XG.1998.299-7	
	X98147	56-55-3	Benzo (a) anthracene	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	50-32-8	Benzo(a)pyrene	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147		Benzo(b & k)fluoranthene	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	191-24-2	Benzo(g,h,i)perylene	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	65-85-0	Benzoic acid	320	ug / L	3	25		XG.1998.299-15	04/02/98
	X98147	100-51-6	Benzyl alcohol	< 8.6	ug / L	2	5		XG.1998.299-7	04/01/98
	X98147	111-44-4	bis (2-Chloroethyl) ether	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	111-91-1	bis(2-Chloroethoxy)methane	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	108-60-1	bis(2-Chloroisopropyl)ether	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	117-81-7	bis(2-Ethylhexyl)phthalate	< 8.6	ug / L	2	5		XG.1998.299-7	
	X98147	85-68-7	Butylbenzylphthalate	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	218-01-9	Chrysene	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	84-74-2	di-n-Butylphthalate	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	117-84-0	di-n-Octylpthalate	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	53-70-3	Dibenz(a,h)anthracene	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	132-64-9	Dibenzofuran	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	84-66-2	Diethylphthalate	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	131-11-3	Dimethylphthalate	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	206-44-0	Fluoranthene	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	86737	Fluorene	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	118-74-1	Hexachlorobenzene	< 17	ug / L	2	10		XG.1998.299-7	
	X98147	87-68-3	Hexachlorobutadiene	< 17	ug / L	2	10		XG.1998.299-7	
	X98147	77-47-4	Hexachlorocyclopentadiene	< 17	ug / L	2	10		XG.1998.299-7	
	X98147	67-72-1	Hexachloroethane	< 8.6	ug / L	2	5		XG.1998.299-7	
	X98147	193-39-5	Indeno(1,2,3-cd)pyrene	< 1.7	ug / L	2	1		XG.1998.299-7	

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9803111-02A	X98147	78-59-1	Isophorone	< 1.7	ug / L	2	1		XG.1998.299-7	04/01/98
	X98147	621-64-7	n-Nitroso-di-n-propylamine	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	62-75-9	n-Nitroso-dimethyl-amine	< 17	ug / L	2	10		XG.1998.299-7	
	X98147	86-30-6	n-Nitrosodiphenylamine	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	91-20-3	Naphthalene	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	98-95-3	Nitrobenzene	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	87-86-5	Pentachlorophenol	< 17	ug / L	2	10		XG.1998.299-7	
	X98147	85-01-8	Phenanthrene	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	108-95-2	Phenol	< 17	ug / L	2	10		XG.1998.299-7	
	X98147	129-00-0	Pyrene	< 1.7	ug / L	2	1		XG.1998.299-7	
	X98147	110-86-1	Pyridine	< 17	ug / L	2	10		XG.1998.299-7	

Client Sample ID **98DS272** Sample Matrix **LIQUID** Sample Collected **03/11/98 09:30:00**

Fraction	QC Group	CAS #		Result	Units	Dilution Factor	Detection Limit	*	Sequence	Run Date
			SW846-6010 ICP							
9803111-03A	M98228	7440-38-2	Arsenic	< 0.06	mg / L	1	0.06		MW.1998.396-70	03/29/98
	M98228	7440-39-3	Barium	0.02	mg / L	1	0.01		MW.1998.396-70	
	M98228	7440-43-9	Cadmium	< 0.008	mg / L	1	0.008		MW.1998.396-70	
	M98228	7440-47-3	Chromium	< 0.04	mg / L	1	0.04		MW.1998.396-70	
	M98228	7439-92-1	Lead	< 0.06	mg / L	1	0.06		MW.1998.396-70	
	M98228	7782-49-2	Selenium	< 0.05	mg / L	1	0.05		MW.1998.396-70	
	M98228	7440-22-4	Silver	< 0.02	mg / L	1	0.02		MW.1998.396-70	
			SW846-7470 / EPA-245.1							
9803111-03A	M98221	7439-97-6	Mercury	< 0.0002	mg / L	1	0.0002		MW.1998.367-13	03/26/98

Client Sample ID **98DS273** Sample Matrix **LIQUID** Sample Collected **03/11/98 09:30:00**

Fraction	QC Group	CAS #		Result	Units	Dilution Factor	Detection Limit	*	Sequence	Run Date
			EPA-410.1							
9803111-04A	COD98006		Chemical Oxygen Demand	76.5	mg / L	1	1		MT.1998.636-6	03/18/98

Client Sample ID **98DS274** Sample Matrix **LIQUID** Sample Collected **03/11/98 09:30:00**

Fraction	QC Group	CAS #		Result	Units	Dilution Factor	Detection Limit	*	Sequence	Run Date
			EPA-300.0 anions							
9803111-05A	W9895		Nitrate, as N	< 0.2	mg / L	1	0.2		MW.1998.395-32	03/25/98
			SM-4500-N & NH3B,C							
9803111-05A	W9891		Kjeldahl Nitrogen, Total	59.6	mg / L	25	0.2		MW.1998.341-15	03/20/98

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			SM-4500-NH3B,C							
9803111-05A	W9892	7664-41-7	Ammonia, as N	49.8	mg / L	25	0.2		MW.1998.342-9	03/20/98

Client Sample ID ***98DS275*** Sample Matrix ***LIQUID*** Sample Collected ***03/11/98 09:30:00***

Fraction	QC Group	CAS #		Result	Units	Dilution Factor	Detection Limit	*	Sequence	Run Date
			EPA-150.1							
9803111-06A	WPH98027		pH	8.1	units	1	0.1		MT.1998.610-4	03/12/98
			EPA-160.2							
9803111-06A	TSS98015		Total Suspended Solids	26.0	mg / L	1	4		MT.1998.628-16	03/13/98
			EPA-300.0 anions							
9803111-06A	W98105		Chloride	48.5	mg / L	5	0.5		MW.1998.399-23	03/31/98
	W9895		Fluoride	< 0.5	mg / L	1	0.5		MW.1998.395-34	03/25/98

**** Sample specific analytical Detection Limit is determined by multiplying the sample Dilution Factor by the listed method Detection Limit. ****

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

nt: **LOS ALAMOS NATIONAL LABS**

Project: **9803111 8M70 XF70 30HE 0000 Z#111503**

* explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

QC Type **LCS: Lab Control Spike** QC Matrix **WATER**

QC Group	Run ID		Result	Units	*	Run Group - #	Run Date
		EPA-160.2					
TSS98015	TSS98015(2)	Total Suspended Solids	59	% Recovery		MT.1998.628 - 2	03/13/98
		EPA-300.0 anions					
W98105	W98105-002	Chloride	98	% Recovery		MW.1998.399 - 4	03/30/98
W9895	W9895-002	Fluoride	99	% Recovery		MW.1998.395 - 4	03/24/98
	W9895-002	Nitrate, as N	97	% Recovery		MW.1998.395 - 4	
		EPA-410.1					
COD98006	COD98006(1)	Chemical Oxygen Demand	103	% Recovery		MT.1998.636 - 1	03/18/98
	COD98006(13)	Chemical Oxygen Demand	92	% Recovery		MT.1998.636 - 13	
		SM-4500-N & NH3B,C					
W9891	W9891-004	Kjeldahl Nitrogen, Total	104	(%) Recov		MW.1998.341 - 5	03/20/98
		SM-4500-NH3B,C					
W9892	W9892-004	Ammonia, as N	92	(%) Recov		MW.1998.342 - 5	03/20/98
		SW846-6010 ICP					
8228	M98228-002	Arsenic	102	(%) Recov		MW.1998.396 - 62	03/29/98
	M98228-002	Barium	96	(%) Recov		MW.1998.396 - 62	
	M98228-002	Cadmium	103	(%) Recov		MW.1998.396 - 62	
	M98228-002	Chromium	100	(%) Recov		MW.1998.396 - 62	
	M98228-002	Lead	100	(%) Recov		MW.1998.396 - 62	
	M98228-002	Selenium	105	(%) Recov		MW.1998.396 - 62	
	M98228-002	Silver	100	(%) Recov		MW.1998.396 - 62	
		SW846-7470 / EPA-245.1					
M98221	M98221-002	Mercury	100	(%) Recov		MW.1998.367 - 9	03/26/98
		SW846-8240 Volatiles					
X98139	X98139-001	1,1 Dichloroethene	101	% Recovery		XG.1998.227 - 1	03/16/98
	X98139-001	Benzene	99	% Recovery		XG.1998.227 - 1	
	X98139-001	Chlorobenzene	97	% Recovery		XG.1998.227 - 1	
	X98139-001	Toluene	98	% Recovery		XG.1998.227 - 1	
	X98139-001	Trichloroethene	98	% Recovery		XG.1998.227 - 1	
		SW846-8270 Semi-Volatiles					
X98147	X98147-002	1,2,4-Trichlorobenzene	75	% Recovery		XG.1998.299 - 1	04/01/98
	X98147-002	1,4-Dichlorobenzene	70	% Recovery		XG.1998.299 - 1	
	X98147-002	2,4-Dinitrotoluene	92	% Recovery		XG.1998.299 - 1	
	X98147-002	2-Chlorophenol	79	% Recovery		XG.1998.299 - 1	
	X98147-002	4-Chloro-3-methylphenol	81	% Recovery		XG.1998.299 - 1	
	X98147-002	4-Nitrophenol	38	% Recovery		XG.1998.299 - 1	
	X98147-002	Acenaphthene	82	% Recovery		XG.1998.299 - 1	
	X98147-002	n-Nitroso-di-n-propylamine	82	% Recovery		XG.1998.299 - 1	
	X98147-002	Pentachlorophenol	92	% Recovery		XG.1998.299 - 1	
	X98147-002	Phenol	36	% Recovery		XG.1998.299 - 1	

Quality Control Summary

: LOS ALAMOS NATIONAL LABS

Project: 9803111 8M70 XF70 30HE 0000 Z#111503

* explanation of codes	
D	Not applicable due to sample dilution
L	Not applicable due to MDL proximity

X98147	X98147-002	Pyrene	90	% Recovery		XG.1998.299 - 1	04/01/98

QC Type: **LCSD: Lab Control Spike Duplicate Accuracy** QC Matrix: **WATER**

QC Group	Run ID		Result	Units	*	Run Group - #	Run Date
		EPA-160.2					
TSS98015	TSS98015(3)	Total Suspended Solids	75	% Recovery		MT.1998.628 - 3	03/13/98
		EPA-300.0 anions					
W98105	W98105-003	Chloride	98	% Recovery		MW.1998.399 - 5	03/30/98
W9895	W9895-003	Fluoride	98	% Recovery		MW.1998.395 - 5	03/24/98
	W9895-003	Nitrate, as N	99	% Recovery		MW.1998.395 - 5	
		EPA-410.1					
COD98006	COD98006(2)	Chemical Oxygen Demand	103	% Recovery		MT.1998.636 - 2	03/18/98
	COD98006(14)	Chemical Oxygen Demand	92	% Recovery		MT.1998.636 - 14	
		SM-4500-N & NH3B,C					
W9891	W9891-005	Kjeldahl Nitrogen, Total	101	(%) Recov		MW.1998.341 - 6	03/20/98
		SM-4500-NH3B,C					
892	W9892-005	Ammonia, as N	91	(%) Recov		MW.1998.342 - 6	03/20/98
		SW846-6010 ICP					
M98228	M98228-003	Arsenic	103	(%) Recov		MW.1998.396 - 63	03/29/98
	M98228-003	Barium	96	(%) Recov		MW.1998.396 - 63	
	M98228-003	Cadmium	103	(%) Recov		MW.1998.396 - 63	
	M98228-003	Chromium	100	(%) Recov		MW.1998.396 - 63	
	M98228-003	Lead	100	(%) Recov		MW.1998.396 - 63	
	M98228-003	Selenium	106	(%) Recov		MW.1998.396 - 63	
	M98228-003	Silver	100	(%) Recov		MW.1998.396 - 63	
		SW846-7470 / EPA-245.1					
M98221	M98221-003	Mercury	97	(%) Recov		MW.1998.367 - 10	03/26/98
		SW846-8240 Volatiles					
X98139	X98139-002	1,1 Dichloroethene	104	% Recovery		XG.1998.227 - 2	03/16/98
	X98139-002	Benzene	100	% Recovery		XG.1998.227 - 2	
	X98139-002	Chlorobenzene	97	% Recovery		XG.1998.227 - 2	
	X98139-002	Toluene	98	% Recovery		XG.1998.227 - 2	
	X98139-002	Trichloroethene	100	% Recovery		XG.1998.227 - 2	
		SW846-8270 Semi-Volatiles					
X98147	X98147-003	1,2,4-Trichlorobenzene	79	% Recovery		XG.1998.299 - 2	04/01/98
	X98147-003	1,4-Dichlorobenzene	74	% Recovery		XG.1998.299 - 2	
	X98147-003	2,4-Dinitrotoluene	96	% Recovery		XG.1998.299 - 2	
	X98147-003	2-Chlorophenol	82	% Recovery		XG.1998.299 - 2	
	X98147-003	4-Chloro-3-methylphenol	84	% Recovery		XG.1998.299 - 2	
	X98147-003	4-Nitrophenol	39	% Recovery		XG.1998.299 - 2	
	X98147-003	Acenaphthene	86	% Recovery		XG.1998.299 - 2	
	X98147-003	n-Nitroso-di-n-propylamine	86	% Recovery		XG.1998.299 - 2	
	X98147-003	Pentachlorophenol	94	% Recovery		XG.1998.299 - 2	

Quality Control Summary

C : LOS ALAMOS NATIONAL LABS

Project: 9803111 8M70 XF70 30HE 0000 Z#111503

* explanation of codes	
D	Not applicable due to sample dilution
L	Not applicable due to MDL proximity

X98147	X98147-003	Phenol	38	% Recovery		XG.1998.299 - 2	04/01/98
	X98147-003	Pyrene	95	% Recovery		XG.1998.299 - 2	

QC Type **LCSD: Lab Control Spike Duplicate Precision** QC Matrix **WATER**

QC Group	Run ID		Result	Units	*	Run Group - #	Run Date
		EPA-160.2					
TSS98015	TSS98015(3)	Total Suspended Solids	12	PFA		MT.1998.628 - 3	03/13/98
		EPA-300.0 anions					
W98105	W98105-003	Chloride	< 1	RPD		MW.1998.399 - 5	03/30/98
W9895	W9895-003	Fluoride	< 1	RPD		MW.1998.395 - 5	03/24/98
	W9895-003	Nitrate, as N	2	RPD		MW.1998.395 - 5	
		EPA-410.1					
COD98006	COD98006(2)	Chemical Oxygen Demand	< 1	RPD		MT.1998.636 - 2	03/18/98
	COD98006(14)	Chemical Oxygen Demand	< 1	RPD		MT.1998.636 - 14	
		SM-4500-N & NH3B,C					
W9891	W9891-005	Kjeldahl Nitrogen, Total	3	(%) RPD		MW.1998.341 - 6	03/20/98
		SM-4500-NH3B,C					
892	W9892-005	Ammonia, as N	1	(%) RPD		MW.1998.342 - 6	03/20/98
		SW846-6010 ICP					
M98228	M98228-003	Arsenic	< 1	(%) RPD		MW.1998.396 - 63	03/29/98
	M98228-003	Barium	< 1	(%) RPD		MW.1998.396 - 63	
	M98228-003	Cadmium	< 1	(%) RPD		MW.1998.396 - 63	
	M98228-003	Chromium	< 1	(%) RPD		MW.1998.396 - 63	
	M98228-003	Lead	< 1	(%) RPD		MW.1998.396 - 63	
	M98228-003	Selenium	< 1	(%) RPD		MW.1998.396 - 63	
	M98228-003	Silver	< 1	(%) RPD		MW.1998.396 - 63	
		SW846-7470 / EPA-245.1					
M98221	M98221-003	Mercury	3	(%) RPD		MW.1998.367 - 10	03/26/98
		SW846-8240 Volatiles					
X98139	X98139-002	1,1 Dichloroethene	3	RPD		XG.1998.227 - 2	03/16/98
	X98139-002	Benzene	2	RPD		XG.1998.227 - 2	
	X98139-002	Chlorobenzene	< 1	RPD		XG.1998.227 - 2	
	X98139-002	Toluene	< 1	RPD		XG.1998.227 - 2	
	X98139-002	Trichloroethene	1	RPD		XG.1998.227 - 2	
		SW846-8270 Semi-Volatiles					
X98147	X98147-003	1,2,4-Trichlorobenzene	6	RPD		XG.1998.299 - 2	04/01/98
	X98147-003	1,4-Dichlorobenzene	5	RPD		XG.1998.299 - 2	
	X98147-003	2,4-Dinitrotoluene	4	RPD		XG.1998.299 - 2	
	X98147-003	2-Chlorophenol	4	RPD		XG.1998.299 - 2	
	X98147-003	4-Chloro-3-methylphenol	4	RPD		XG.1998.299 - 2	
	X98147-003	4-Nitrophenol	4	RPD		XG.1998.299 - 2	
	X98147-003	Acenaphthene	5	RPD		XG.1998.299 - 2	
	X98147-003	n-Nitroso-di-n-propylamine	4	RPD		XG.1998.299 - 2	

* explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

X98147	X98147-003	Pentachlorophenol	2	RPD		XG.1998.299 - 2	04/01/98
	X98147-003	Phenol	5	RPD		XG.1998.299 - 2	
	X98147-003	Pyrene	5	RPD		XG.1998.299 - 2	

QC Type **MB: Method Blank** QC Matrix **WATER**

QC Group	Run ID		Result	Units	*	Run Group - #	Run Date
		EPA-160.2					
TSS98015	TSS98015(1)	Total Suspended Solids	< 4.0	mg / L		MT.1998.628 - 1	03/13/98
		EPA-300.0 anions					
W98105	W98105-001	Chloride	< 0.5	mg / L		MW.1998.399 - 3	03/30/98
W9895	W9895-001	Fluoride	< 0.5	mg / L		MW.1998.395 - 3	03/24/98
	W9895-001	Nitrate, as N	< 0.2	mg / L		MW.1998.395 - 3	
		SM-4500-N & NH3B,C					
W9891	W9891-001	Kjeldahl Nitrogen, Total	< 0.2	mg / L		MW.1998.341 - 2	03/20/98
		SM-4500-NH3B,C					
W9892	W9892-001	Ammonia, as N	< 0.2	mg / L		MW.1998.342 - 2	03/20/98
		SW846-6010 ICP					
3228	M98228-001	Arsenic	< 0.06	mg / L		MW.1998.396 - 61	03/29/98
	M98228-001	Barium	< 0.01	mg / L		MW.1998.396 - 61	
	M98228-001	Cadmium	< 0.008	mg / L		MW.1998.396 - 61	
	M98228-001	Chromium	< 0.04	mg / L		MW.1998.396 - 61	
	M98228-001	Lead	< 0.06	mg / L		MW.1998.396 - 61	
	M98228-001	Selenium	< 0.05	mg / L		MW.1998.396 - 61	
	M98228-001	Silver	< 0.02	mg / L		MW.1998.396 - 61	
		SW846-7470 / EPA-245.1					
M98221	M98221-001	Mercury	< 0.0002	mg / L		MW.1998.367 - 8	03/26/98
		SW846-8240 Volatiles					
X98139	X98139-003	1,1 Dichloroethane	< 1.0	ug / L		XG.1998.227 - 3	03/16/98
	X98139-003	1,1 Dichloroethene	< 1.0	ug / L		XG.1998.227 - 3	
	X98139-003	1,1,1 Trichloroethane	< 1.0	ug / L		XG.1998.227 - 3	
	X98139-003	1,1,1,2 Tetrachloroethane	< 1.0	ug / L		XG.1998.227 - 3	
	X98139-003	1,1,2 Trichloroethane	< 1.0	ug / L		XG.1998.227 - 3	
	X98139-003	1,1,2,2 Tetrachloroethane	< 1.0	ug / L		XG.1998.227 - 3	
	X98139-003	1,2 Dibromoethane (EDB)	< 1.0	ug / L		XG.1998.227 - 3	
	X98139-003	1,2 Dichlorobenzene	< 1.0	ug / L		XG.1998.227 - 3	
	X98139-003	1,2 Dichloroethane	< 1.0	ug / L		XG.1998.227 - 3	
	X98139-003	1,2 Dichloropropane	< 1.0	ug / L		XG.1998.227 - 3	
	X98139-003	1,2,3 Trichloropropane	< 1.0	ug / L		XG.1998.227 - 3	
	X98139-003	1,3 Dichlorobenzene	< 1.0	ug / L		XG.1998.227 - 3	
	X98139-003	1,4 Dichloro-2-butene	< 10	ug / L		XG.1998.227 - 3	
	X98139-003	1,4 Dichlorobenzene	< 1.0	ug / L		XG.1998.227 - 3	
	X98139-003	2-Butanone (MEK)	< 5.0	ug / L		XG.1998.227 - 3	
	X98139-003	2-Chloroethylvinylether	< 5.0	ug / L		XG.1998.227 - 3	
	X98139-003	2-Hexanone (MBK)	< 5.0	ug / L		XG.1998.227 - 3	

Quality Control Summary

t: LOS ALAMOS NATIONAL LABS

Project: 9803111 8M70 XF70 30HE 0000 Z#111503

* explanation of codes	
D	Not applicable due to sample dilution
L	Not applicable due to MDL proximity

X98139	X98139-003	4-Methyl-2-pentanone (MIBK)	< 5.0	ug / L		XG.1998.227 - 3	03/16/98
	X98139-003	Acetone	< 5.0	ug / L		XG.1998.227 - 3	
	X98139-003	Acrolein	< 20	ug / L		XG.1998.227 - 3	
	X98139-003	Acrylonitrile	< 20	ug / L		XG.1998.227 - 3	
	X98139-003	Benzene	< 1.0	ug / L		XG.1998.227 - 3	
	X98139-003	Bromodichloromethane	< 1.0	ug / L		XG.1998.227 - 3	
	X98139-003	Bromoform	< 1.0	ug / L		XG.1998.227 - 3	
	X98139-003	Bromomethane	< 5.0	ug / L		XG.1998.227 - 3	
	X98139-003	Carbon disulfide	< 5.0	ug / L		XG.1998.227 - 3	
	X98139-003	Carbon tetrachloride	< 1.0	ug / L		XG.1998.227 - 3	
	X98139-003	Chlorobenzene	< 1.0	ug / L		XG.1998.227 - 3	
	X98139-003	Chlorodibromomethane	< 1.0	ug / L		XG.1998.227 - 3	
	X98139-003	Chloroethane	< 5.0	ug / L		XG.1998.227 - 3	
	X98139-003	Chloroform	< 1.0	ug / L		XG.1998.227 - 3	
	X98139-003	Chloromethane	< 5.0	ug / L		XG.1998.227 - 3	
	X98139-003	cis-1,2 dichloroethene	< 1.0	ug / L		XG.1998.227 - 3	
	X98139-003	cis-1,3 dichloropropene	< 1.0	ug / L		XG.1998.227 - 3	
	X98139-003	Dibromomethane	< 1.0	ug / L		XG.1998.227 - 3	
	X98139-003	Ethyl methacrylate	< 5.0	ug / L		XG.1998.227 - 3	
	X98139-003	Ethylbenzene	< 1.0	ug / L		XG.1998.227 - 3	
	X98139-003	Freon 113	< 5.0	ug / L		XG.1998.227 - 3	
	X98139-003	Freon 12	< 10	ug / L		XG.1998.227 - 3	
	X98139-003	Iodomethane	< 5.0	ug / L		XG.1998.227 - 3	
	X98139-003	Methyl t-butyl ether (MTBE)	< 1.0	ug / L		XG.1998.227 - 3	
	X98139-003	Methylene chloride	< 10	ug / L		XG.1998.227 - 3	
	X98139-003	o-Xylene	< 1.0	ug / L		XG.1998.227 - 3	
	X98139-003	p/m Xylenes	< 2.0	ug / L		XG.1998.227 - 3	
	X98139-003	Styrene	< 1.0	ug / L		XG.1998.227 - 3	
	X98139-003	t-1,2 Dichloroethene	< 1.0	ug / L		XG.1998.227 - 3	
	X98139-003	t-1,3 Dichloropropene	< 1.0	ug / L		XG.1998.227 - 3	
	X98139-003	Tetrachloroethene	< 1.0	ug / L		XG.1998.227 - 3	
	X98139-003	Toluene	< 1.0	ug / L		XG.1998.227 - 3	
	X98139-003	Trichloroethene	< 1.0	ug / L		XG.1998.227 - 3	
	X98139-003	Trichlorofluoromethane	< 5.0	ug / L		XG.1998.227 - 3	
	X98139-003	Vinyl acetate	< 5.0	ug / L		XG.1998.227 - 3	
	X98139-003	Vinyl chloride	< 5.0	ug / L		XG.1998.227 - 3	

SW846-8270 Semi-Volatiles

X98147	X98147-001	1,2,4-Trichlorobenzene	< 1.5	ug / L		XG.1998.299 - 3	04/01/98
	X98147-001	1,2-Dichlorobenzene	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	1,3-Dichlorobenzene	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	1,4-Dichlorobenzene	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	1-Methylnaphthalene	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	2,3,4,6-Tetrachlorophenol	< 7.7	ug / L		XG.1998.299 - 3	
	X98147-001	2,4,5-Trichlorophenol	< 7.7	ug / L		XG.1998.299 - 3	
	X98147-001	2,4,6-Trichlorophenol	< 7.7	ug / L		XG.1998.299 - 3	
	X98147-001	2,4-Dichlorophenol	< 7.7	ug / L		XG.1998.299 - 3	
	X98147-001	2,4-Dimethylphenol	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	2,4-Dinitrophenol	< 15	ug / L		XG.1998.299 - 3	
	X98147-001	2,4-Dinitrotoluene	< 7.7	ug / L		XG.1998.299 - 3	
	X98147-001	2,6-Dinitrotoluene	< 7.7	ug / L		XG.1998.299 - 3	

Quality Control Summary

* explanation of codes	
D	Not applicable due to sample dilution
L	Not applicable due to MDL proximity

LOS ALAMOS NATIONAL LABS

Project: **9803111** **8M70 XF70 30HE 0000 Z#111503**

X98147	X98147-001	2-Chloronaphthalene	< 1.5	ug / L		XG.1998.299 - 3	04/01/98
	X98147-001	2-Chlorophenol	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	2-Methylnaphthalene	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	2-Methylphenol	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	2-Nitroaniline	< 7.7	ug / L		XG.1998.299 - 3	
	X98147-001	2-Nitrophenol	< 7.7	ug / L		XG.1998.299 - 3	
	X98147-001	3+4 Methylphenol	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	3,3'-Dichlorobenzidine	< 15	ug / L		XG.1998.299 - 3	
	X98147-001	3-Nitroaniline	< 7.7	ug / L		XG.1998.299 - 3	
	X98147-001	4,6-Dinitro-2-methylphenol	< 15	ug / L		XG.1998.299 - 3	
	X98147-001	4-Bromophenyl-phenylether	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	4-Chloro-3-methylphenol	< 7.7	ug / L		XG.1998.299 - 3	
	X98147-001	4-Chloroaniline	< 7.7	ug / L		XG.1998.299 - 3	
	X98147-001	4-Chlorophenyl-phenylether	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	4-Nitroaniline	< 7.7	ug / L		XG.1998.299 - 3	
	X98147-001	4-Nitrophenol	< 15	ug / L		XG.1998.299 - 3	
	X98147-001	Acenaphthene	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	Acenaphthylene	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	Aniline	< 15	ug / L		XG.1998.299 - 3	
	X98147-001	Anthracene	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	Azobenzene&1,2-Diphenylhydrazine	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	Benzidine	< 38	ug / L		XG.1998.299 - 3	
	X98147-001	Benzo (a) anthracene	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	Benzo(a)pyrene	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	Benzo(b & k)fluoranthene	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	Benzo(g,h,i)perylene	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	Benzoic acid	< 38	ug / L		XG.1998.299 - 3	
	X98147-001	Benzyl alcohol	< 7.7	ug / L		XG.1998.299 - 3	
	X98147-001	bis (2-Chloroethyl) ether	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	bis(2-Chloroethoxy)methane	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	bis(2-Chloroisopropyl)ether	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	bis(2-Ethylhexyl)phthalate	< 7.7	ug / L		XG.1998.299 - 3	
	X98147-001	Butylbenzylphthalate	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	Chrysene	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	di-n-Butylphthalate	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	di-n-Octylpthalate	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	Dibenz(a,h)anthracene	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	Dibenzofuran	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	Diethylphthalate	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	Dimethylphthalate	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	Fluoranthene	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	Fluorene	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	Hexachlorobenzene	< 15	ug / L		XG.1998.299 - 3	
	X98147-001	Hexachlorobutadiene	< 15	ug / L		XG.1998.299 - 3	
	X98147-001	Hexachlorocyclopentadiene	< 15	ug / L		XG.1998.299 - 3	
	X98147-001	Hexachloroethane	< 7.7	ug / L		XG.1998.299 - 3	
	X98147-001	Indeno(1,2,3-cd)pyrene	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	Isophorone	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	n-Nitroso-di-n-propylamine	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	n-Nitroso-dimethyl-amine	< 15	ug / L		XG.1998.299 - 3	
	X98147-001	n-Nitrosodiphenylamine	< 1.5	ug / L		XG.1998.299 - 3	

Quality Control Summary

t: LOS ALAMOS NATIONAL LABS
Project: 9803111 8M70 XF70 30HE 0000 Z#111503

* explanation of codes	
D	Not applicable due to sample dilution
L	Not applicable due to MDL proximity

X98147	X98147-001	Naphthalene	< 1.5	ug / L		XG.1998.299 - 3	04/01/98
	X98147-001	Nitrobenzene	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	Pentachlorophenol	< 15	ug / L		XG.1998.299 - 3	
	X98147-001	Phenanthrene	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	Phenol	< 15	ug / L		XG.1998.299 - 3	
	X98147-001	Pyrene	< 1.5	ug / L		XG.1998.299 - 3	
	X98147-001	Pyridine	< 15	ug / L		XG.1998.299 - 3	

QC Type **MD: Matrix Duplicate** QC Matrix **WATER**

QC Group	Run ID		Result	Units	*	Run Group - #	Run Date
		EPA-150.1					
WPH98027	WPH98027(2)	pH	0.01	DIFF		MT.1998.610 - 2	03/12/98
		EPA-160.2					
TSS98015	TSS98015(22)	Total Suspended Solids	2	PFA		MT.1998.628 - 22	03/13/98

QC Type **MS: Matrix Spike** QC Matrix **WATER**

QC Group	Run ID		Result	Units	*	Run Group - #	Run Date
		EPA-300.0 anions					
W98105	W98105-014	Chloride	97	% Recovery		MW.1998.399 - 18	03/31/98
W9895	W9895-005	Fluoride	102	% Recovery		MW.1998.395 - 7	03/24/98
	W9895-005	Nitrate, as N	95	% Recovery		MW.1998.395 - 7	
		EPA-410.1					
COD98006	COD98006(4)	Chemical Oxygen Demand	101	% Recovery		MT.1998.636 - 4	03/18/98
		SM-4500-N & NH3B,C					
W9891	W9891-009	Kjeldahl Nitrogen, Total	107	(%) Recov		MW.1998.341 - 10	03/20/98
		SM-4500-NH3B,C					
W9892	W9892-012	Ammonia, as N	91	(%) Recov		MW.1998.342 - 14	03/20/98
		SW846-6010 ICP					
M98228	M98228-005	Arsenic	108	(%) Recov		MW.1998.396 - 65	03/29/98
	M98228-005	Barium	100	(%) Recov		MW.1998.396 - 65	
	M98228-005	Cadmium	107	(%) Recov		MW.1998.396 - 65	
	M98228-005	Chromium	103	(%) Recov		MW.1998.396 - 65	
	M98228-005	Lead	104	(%) Recov		MW.1998.396 - 65	
	M98228-005	Selenium	111	(%) Recov		MW.1998.396 - 65	
	M98228-005	Silver	100	(%) Recov		MW.1998.396 - 65	
		SW846-7470 / EPA-245.1					
M98221	M98221-010	Mercury	84	(%) Recov		MW.1998.367 - 17	03/26/98
		SW846-8240 Volatiles					
X98139	X98139-005	1,1 Dichloroethene	102	% Recovery		XG.1998.227 - 5	03/16/98

Quality Control Summary

Client: LOS ALAMOS NATIONAL LABS
Project: 9803111 8M70 XF70 30HE 0000 Z#111503

* explanation of codes	
D	Not applicable due to sample dilution
L	Not applicable due to MDL proximity

X98139	X98139-005	Benzene	98	% Recovery		XG.1998.227 - 5	03/16/98
	X98139-005	Chlorobenzene	97	% Recovery		XG.1998.227 - 5	
	X98139-005	Toluene	95	% Recovery		XG.1998.227 - 5	
	X98139-005	Trichloroethene	98	% Recovery		XG.1998.227 - 5	
		SW846-8270 Semi-Volatiles					
X98147	X98147-010	1,2,4-Trichlorobenzene	87	% Recovery		XG.1998.299 - 10	04/01/98
	X98147-010	1,4-Dichlorobenzene	83	% Recovery		XG.1998.299 - 10	
	X98147-010	2,4-Dinitrotoluene	100	% Recovery		XG.1998.299 - 10	
	X98147-010	2-Chlorophenol	84	% Recovery		XG.1998.299 - 10	
	X98147-010	4-Chloro-3-methylphenol	88	% Recovery		XG.1998.299 - 10	
	X98147-010	4-Nitrophenol	42	% Recovery		XG.1998.299 - 10	
	X98147-010	Acenaphthene	91	% Recovery		XG.1998.299 - 10	
	X98147-010	n-Nitroso-di-n-propylamine	88	% Recovery		XG.1998.299 - 10	
	X98147-010	Pentachlorophenol	101	% Recovery		XG.1998.299 - 10	
	X98147-010	Phenol	41	% Recovery		XG.1998.299 - 10	
	X98147-010	Pyrene	99	% Recovery		XG.1998.299 - 10	

QC Type **MSD: Matrix Spike Duplicate Accuracy** QC Matrix **WATER**

Group	Run ID		Result	Units	*	Run Group - #	Run Date
		EPA-300.0 anions					
W98105	W98105-015	Chloride	96	% Recovery		MW.1998.399 - 19	03/31/98
W9895	W9895-006	Fluoride	99	% Recovery		MW.1998.395 - 8	03/24/98
	W9895-006	Nitrate, as N	95	% Recovery		MW.1998.395 - 8	
		EPA-410.1					
COD98006	COD98006(5)	Chemical Oxygen Demand	104	% Recovery		MT.1998.636 - 5	03/18/98
		SM-4500-N & NH3B,C					
W9891	W9891-010	Kjeldahl Nitrogen, Total	106	(%) Recov		MW.1998.341 - 11	03/20/98
		SM-4500-NH3B,C					
W9892	W9892-013	Ammonia, as N	95	(%) Recov		MW.1998.342 - 15	03/20/98
		SW846-6010 ICP					
M98228	M98228-006	Arsenic	108	(%) Recov		MW.1998.396 - 66	03/29/98
	M98228-006	Barium	100	(%) Recov		MW.1998.396 - 66	
	M98228-006	Cadmium	105	(%) Recov		MW.1998.396 - 66	
	M98228-006	Chromium	102	(%) Recov		MW.1998.396 - 66	
	M98228-006	Lead	104	(%) Recov		MW.1998.396 - 66	
	M98228-006	Selenium	108	(%) Recov		MW.1998.396 - 66	
	M98228-006	Silver	100	(%) Recov		MW.1998.396 - 66	
		SW846-7470 / EPA-245.1					
M98221	M98221-011	Mercury	18	(%) Recov		MW.1998.367 - 20	03/26/98
		SW846-8240 Volatiles					
8139	X98139-006	1,1 Dichloroethene	104	% Recovery		XG.1998.227 - 6	03/16/98
	X98139-006	Benzene	97	% Recovery		XG.1998.227 - 6	
	X98139-006	Chlorobenzene	96	% Recovery		XG.1998.227 - 6	

Quality Control Summary

* explanation of codes	
D	Not applicable due to sample dilution
L	Not applicable due to MDL proximity

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Project: 9803111 8M70 XF70 30HE 0000 Z#111503

X98139	X98139-006	Toluene	93	% Recovery		XG.1998.227 - 6	03/16/98
	X98139-006	Trichloroethene	98	% Recovery		XG.1998.227 - 6	

QC Type **MSD: Matrix Spike Duplicate Precision** QC Matrix **WATER**

QC Group	Run ID		Result	Units	*	Run Group - #	Run Date
		EPA-300.0 anions					
W98105	W98105-015	Chloride	1	RPD		MW.1998.399 - 19	03/31/98
W9895	W9895-006	Fluoride	4	RPD		MW.1998.395 - 8	03/24/98
	W9895-006	Nitrate, as N	< 1	RPD		MW.1998.395 - 8	
		EPA-410.1					
COD98006	COD98006(5)	Chemical Oxygen Demand	2	RPD		MT.1998.636 - 5	03/18/98
		SM-4500-N & NH3B,C					
W9891	W9891-010	Kjeldahl Nitrogen, Total	1	(%) RPD		MW.1998.341 - 11	03/20/98
		SM-4500-NH3B,C					
W9892	W9892-013	Ammonia, as N	4	(%) RPD		MW.1998.342 - 15	03/20/98
		SW846-6010 ICP					
'228	M98228-006	Arsenic	< 1	(%) RPD		MW.1998.396 - 66	03/29/98
	M98228-006	Barium	< 1	(%) RPD		MW.1998.396 - 66	
	M98228-006	Cadmium	1	(%) RPD		MW.1998.396 - 66	
	M98228-006	Chromium	< 1	(%) RPD		MW.1998.396 - 66	
	M98228-006	Lead	< 1	(%) RPD		MW.1998.396 - 66	
	M98228-006	Selenium	3	(%) RPD		MW.1998.396 - 66	
	M98228-006	Silver	< 1	(%) RPD		MW.1998.396 - 66	
		SW846-7470 / EPA-245.1					
M98221	M98221-011	Mercury	129	(%) RPD		MW.1998.367 - 20	03/26/98
		SW846-8240 Volatiles					
X98139	X98139-006	1,1 Dichloroethene	2	RPD		XG.1998.227 - 6	03/16/98
	X98139-006	Benzene	< 1	RPD		XG.1998.227 - 6	
	X98139-006	Chlorobenzene	< 1	RPD		XG.1998.227 - 6	
	X98139-006	Toluene	2	RPD		XG.1998.227 - 6	
	X98139-006	Trichloroethene	< 1	RPD		XG.1998.227 - 6	

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Surrogate Summary: Fraction

Client: **LOS ALAMOS NATIONAL LABS**

Project: **9803111 8M70 XF70 30HE 0000 Z#111503**

* explanation of codes	
D	*Not applicable due to sample dilution*

Client Sample ID **98DS270** Sample Matrix **LIQUID**

Fraction	QC Group	Run ID	Surrogate	% Recovery	*	Run Group - #	Run Date
			SW846-8240 Volatiles				
9803111-01A	X98139	X98139-007	1,2 Dichloroethane-D4	102		XG.1998.227 - 7	03/16/98
		X98139-007	Bromofluorobenzene	91		XG.1998.227 - 7	
		X98139-007	Toluene-D8	100		XG.1998.227 - 7	

Client Sample ID **98DS271** Sample Matrix **LIQUID**

Fraction	QC Group	Run ID	Surrogate	% Recovery	*	Run Group - #	Run Date
			SW846-8270 Semi-Volatiles				
9803111-02A	X98147	X98147-007	2,4,6-Tribromophenol	105		XG.1998.299 - 7	04/01/98
		X98147-007	2,4,6-Tribromophenol	94		XG.1998.299 - 15	04/02/98
		X98147-007	2-Fluorobiphenyl	92		XG.1998.299 - 7	04/01/98
		X98147-007	2-Fluorobiphenyl	85		XG.1998.299 - 15	04/02/98
		X98147-007	2-Fluorophenol	58		XG.1998.299 - 7	04/01/98
		X98147-007	2-Fluorophenol	54		XG.1998.299 - 15	04/02/98
		X98147-007	Nitrobenzene-D5	93		XG.1998.299 - 7	04/01/98
		X98147-007	Nitrobenzene-D5	86		XG.1998.299 - 15	04/02/98
		X98147-007	Phenol-D6	43		XG.1998.299 - 7	04/01/98
		X98147-007	Phenol-D6	40		XG.1998.299 - 15	04/02/98
		X98147-007	Terphenyl-D14	87		XG.1998.299 - 7	04/01/98
		X98147-007	Terphenyl-D14	78		XG.1998.299 - 15	04/02/98

Assaigai Analytical Laboratories, Inc.

Surrogate Summary: QC

t: LOS ALAMOS NATIONAL LABS
Project: 9803111 8M70 XF70 30HE 0000 Z#111503

* explanation of codes	
D	Not applicable due to sample dilution

QC Type: LCS: Lab Control Spike — QC Matrix: WATER

QC Group	Run ID	Surrogate	% Recovery	*	Run Group - #	Run Date
		SW846-8240 Volatiles				
X98139	X98139-001	1,2 Dichloroethane-D4	101		XG.1998.227 - 1	03/16/98
	X98139-001	Bromofluorobenzene	93		XG.1998.227 - 1	
	X98139-001	Toluene-D8	99		XG.1998.227 - 1	
		SW846-8270 Semi-Volatiles				
X98147	X98147-002	2,4,6-Tribromophenol	96		XG.1998.299 - 1	04/01/98
	X98147-002	2-Fluorobiphenyl	87		XG.1998.299 - 1	
	X98147-002	2-Fluorophenol	55		XG.1998.299 - 1	
	X98147-002	Nitrobenzene-D5	90		XG.1998.299 - 1	
	X98147-002	Phenol-D6	38		XG.1998.299 - 1	
	X98147-002	Terphenyl-D14	87		XG.1998.299 - 1	

QC Type: LCSD: Lab Control Spike Duplicate Precision — QC Matrix: WATER

QC Group	Run ID	Surrogate	% Recovery	*	Run Group - #	Run Date
		SW846-8240 Volatiles				
X98139	X98139-002	1,2 Dichloroethane-D4	100		XG.1998.227 - 2	03/16/98
	X98139-002	Bromofluorobenzene	91		XG.1998.227 - 2	
	X98139-002	Toluene-D8	99		XG.1998.227 - 2	
		SW846-8270 Semi-Volatiles				
X98147	X98147-003	2,4,6-Tribromophenol	98		XG.1998.299 - 2	04/01/98
	X98147-003	2-Fluorobiphenyl	90		XG.1998.299 - 2	
	X98147-003	2-Fluorophenol	56		XG.1998.299 - 2	
	X98147-003	Nitrobenzene-D5	94		XG.1998.299 - 2	
	X98147-003	Phenol-D6	40		XG.1998.299 - 2	
	X98147-003	Terphenyl-D14	90		XG.1998.299 - 2	

QC Type: MB: Method Blank — QC Matrix: WATER

QC Group	Run ID	Surrogate	% Recovery	*	Run Group - #	Run Date
		SW846-8240 Volatiles				
X98139	X98139-003	1,2 Dichloroethane-D4	101		XG.1998.227 - 3	03/16/98
	X98139-003	Bromofluorobenzene	89		XG.1998.227 - 3	
	X98139-003	Toluene-D8	100		XG.1998.227 - 3	
		SW846-8270 Semi-Volatiles				
X98147	X98147-001	2,4,6-Tribromophenol	102		XG.1998.299 - 3	04/01/98
	X98147-001	2-Fluorobiphenyl	93		XG.1998.299 - 3	

Surrogate Summary: QC

t: **LOS ALAMOS NATIONAL LABS**

Project: **9803111 8M70 XF70 30HE 0000 Z#111503**

* explanation of codes	
D	Not applicable due to sample dilution

X98147	X98147-001	2-Fluorophenol	59		XG.1998.299 - 3	04/01/98
	X98147-001	Nitrobenzene-D5	98		XG.1998.299 - 3	
	X98147-001	Phenol-D6	42		XG.1998.299 - 3	
	X98147-001	Terphenyl-D14	91		XG.1998.299 - 3	

QC Type **MS: Matrix Spike** QC Matrix **WATER**

QC Group	Run ID	Surrogate	% Recovery	*	Run Group - #	Run Date
		SW846-8240 Volatiles				
X98139	X98139-005	1,2 Dichloroethane-D4	99		XG.1998.227 - 5	03/16/98
	X98139-005	Bromofluorobenzene	94		XG.1998.227 - 5	
	X98139-005	Toluene-D8	99		XG.1998.227 - 5	
		SW846-8270 Semi-Volatiles				
X98147	X98147-010	2,4,6-Tribromophenol	113		XG.1998.299 - 10	04/01/98
	X98147-010	2-Fluorobiphenyl	104		XG.1998.299 - 10	
	X98147-010	2-Fluorophenol	64		XG.1998.299 - 10	
	X98147-010	Nitrobenzene-D5	110		XG.1998.299 - 10	
	X98147-010	Phenol-D6	47		XG.1998.299 - 10	
	X98147-010	Terphenyl-D14	103		XG.1998.299 - 10	

QC Type **MSD: Matrix Spike Duplicate Precision** QC Matrix **WATER**

QC Group	Run ID	Surrogate	% Recovery	*	Run Group - #	Run Date
		SW846-8240 Volatiles				
X98139	X98139-006	1,2 Dichloroethane-D4	100		XG.1998.227 - 6	03/16/98
	X98139-006	Bromofluorobenzene	93		XG.1998.227 - 6	
	X98139-006	Toluene-D8	99		XG.1998.227 - 6	

JENV Environmental Laboratory
667-0105

Route To: Dusty Stephens

Mail Stop: K498

SWSC WAC REPORT FORM

SAMPLE INFORMATION

MICROTOX ANALYSIS #	COLLECTION DATE	TIME	ANALYST	LOCATION TA-BLD-RM	DESCRIPTION/COMMENTS	FLOW (GAL/DAY) ≤100	FLOW (GAL/DAY) > 100
80313WAC(5-6)	3/11/98	—	DS	TA-11	98DS262		
80313WAC (7-8)	—	—	DS	—(K-43)	98DS269		
80313WAC (9-12)	—	—	DS	— (16-385)	98DS276		
80313WAC (13-14)	—	—	DS	—(16-175)	~~98283~~ 98DS283		

ANALYTICAL RESULTS

MICROTOX ANALYSIS #	pH (SU)	COD (mg/L)	MTX[1] SCREEN (%)	MTX[2] EC50 (%)	TSS (mg/L)	COMMENTS
80313WAC (5-6)	7.9	239	36%		34.4	TDS= 370 (98DS 262)
80313WAC (7-8)	6.9	>1500	94%		4278	TDS= 550 (98DS 269) - Fails SWSC/WAC toxicity and COD&TSS
80313WAC (9-10)	8.2	63	31%		35.0	TDS= 136 (98DS276)
80313WAC (13-14)	7.5	42	35%		14.0	TDS= 76 (98DS288)
80313WAC (11-12)	7.4(adj)	—	34%		—	(98DS283 - pH adjusted to 7.4)
80313WC2 (1-2)	—	—	6.4%			(98DS269 - tested supernatant after centrifuging) Fails SWSC/WAC Toxicity

[1] The Microtox Screen test is the preliminary toxicity test. Samples with a Screen result of less than 55% (for ≤100 gal/day) or less than 50% (for >100 gal/day) are not toxic and the EC_{50} test is not required.
[2] The Microtox EC_{50} test is the confirming toxicity test. The toxicity of samples with a Screen result of greater than 50% is confirmed by the EC_{50} test. A sample with an EC_{50} less than 20% (for ≤100 gal/day) or less than 25% (for >100 gal/day) exceeds the SWSC WAC toxicity limit.