

3R - 327

REPORTS

DATE:
1999

Public Service Company
of New Mexico
Alvarado Square MS 0408
Albuquerque, NM 87158

RECEIVED

April 5, 1999

APR 07 1999

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION



Mr. William Olson
Hydrogeologist
Oil Conservation Division
2040 So. Pacheco
Santa Fe, New Mexico 87505

RE: 1999 SAN JUAN BASIN ANNUAL GROUNDWATER REPORT

Dear Bill:

PNM is pleased to submit the 1999 Annual Groundwater Report on Unlined Surface Impoundments in the San Juan Basin. Pursuant to PNM's Groundwater Management Program for Unlined Surface Impoundment Closures, the report details the ongoing investigation/remedial activities at unlined surface impoundments having groundwater contamination as identified by PNM. A list of groundwater sites reported in this document is provided below.

Blanco Wash Drip	Mangum 1E
Davis 1	McClanahan 22
Dogie East Pit	McClanahan A 2E
Dogie North Pit	McCoy Gas Com A1
Florance 124	Miles Federal 1E Drip
Florance 32A	O' Shea 1M
Florance 40	Patterson A Com A1
Florance 44	Pritchard 2
Florance M 47X	Randleman 1
Hampton 4M	Reid 16 Drip
Honolulu Drip	Turner 1A
Ice Canyon Drip	Wilmerding 1M
Jacques 2A	Zachry 18E
Jicarilla Contract 147-6	
Linda 1A	

Consistent with PNM's San Juan Basin Groundwater Management Plan, PNM will request closure of four of the above sites, the Florance 32A, Jacques 2A, Mangum 1E and the McClanahan A2E, with the submittal of the 1st Quarter 1999 Pit Closures Report. This request is based upon the analytical data collected over the last two years at each of the sites. BTEX concentrations have been consistently below WQCC standards for four consecutive quarters.

Upon approval of the groundwater closure report, PNM will plug and abandon all of the groundwater monitoring wells at each of the locations. The concrete pad and metal vault surrounding each well will be removed. The well casing will be cut to ground surface and each well will be plugged to the surface

Bill Olson
04/05/99
Page 2

with cement containing 5% bentonite. If you have any questions regarding the contents of the report, please contact me at (505) 241-2974.

Sincerely,



Maureen Gannon
Project Manager

Enclosure

cc: Colin Adams, Esq.
Ingrid Deklau, WFS
Denny Foust, OCD-Aztec Office
Ron Johnson
Mark Sikelianos
Bill VonDrehle, WFS



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APR 07 1999

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

Annual Groundwater Report 1999

Volume II

***Unlined Surface Impoundments
San Juan Basin***



Groundwater Site Summary Report

Quarter/Year: 3rd/98, 4th/98, & 1st/99

Operator: Chateau
Sec: 31 **Twn:** 27N **Rng:** 8W **Unit:** D
Canyon: Blanco

Vulnerable Class: Original
OCD Ranking: 40
Lead Agency: NEPA/USEPA

Topo Map: Previously Submitted

Well Completion Diagrams: Figure 1

Site Map with Analytical Results: Figure 2

Groundwater Contour Map: Figure 3a (October 1998) and 3b (February 1999)

Hydrograph: Figure 4

Full suite-Groundwater Sampling Results: Table 1

Analytical Results: attached

Site Hydrology:

The Linda 1A site lies on the western side of Blanco Canyon, a north-draining wash with a fairly broad alluvial plain (about one-quarter mile wide). Blanco Canyon joins Largo Canyon about seven miles from its mouth with the San Juan River. The site's elevation is about 6033 ft. amsl.

Fine to medium grained sands were found in shallow soils beneath the site. Deeper than about 5 feet, some clayey materials were encountered.

Depth to water has ranged from about 16 to 18 feet beneath the site. Groundwater flow direction is towards the north and northeast, towards the wash in Blanco Canyon (east) and parallel with the drainage direction of Blanco Canyon (north) (Figure(s) 3a & 3b). The site hydrograph shows that water levels have risen about 1 foot over the last two quarters. Future monitoring will help discern seasonal trends.

Activities for Previous Year:

PNM installed four groundwater monitoring wells at the Linda 1A well site on September 18, 1998. Figure 1 provides a typical groundwater monitoring well diagrams. On October 22, 1998, and again on February 11, 1999, PNM performed quarterly sampling of groundwater monitoring wells at the site. PNM measured water levels and conducted groundwater sampling in each well for chemical analyses of benzene, toluene, ethylbenzene, and xylenes (BTEX). In addition, MW-1 and MW-2 were sampled for Water Quality Control Commission (WQCC) dissolved metals and major cations/anions. Sampling was performed in strict compliance with EPA protocol. PNM delivered the samples to OnSite Technologies, Farmington, New Mexico. The samples were analyzed using the following methods:

- BTEX using EPA Method 8020
- major cations/anions using various EPA methods
- WQCC metals- filtered (As, Ba, Cd, Cr, Pb, Se, and Ag using inductively coupled plasma (ICP) for heavy metals and atomic absorption spectroscopy (AAS) for Hg and Se).

Results:

Figure 2 presents a site map showing BTEX for each monitoring well since groundwater contamination was discovered. Table 1 provides a summary of the full suite of analytical results collected during the October 22, 1998 sampling event. Results of the first two quarters of monitoring have shown BTEX concentrations to be below laboratory detection limits in all four wells. Water quality analysis of MW-1 and -2 revealed slightly elevated sulfate and chloride concentrations, and analysis of total dissolved solids (TDS) also showed elevated concentrations. Through literature research and discussion s with the OCD, these concentrations are not uncommon

Public Service Company of New Mexico - Gas Services

Environmental Services Division - Alvarado Square, MS-0408
 Albuquerque, NM 87158

Contact: Maureen Gannon

Telephone: 505-241-2974

to the San Juan Basin. Concentrations of iron (Fe) in MW-1 and -2 and manganese (Mn) in MW-2 were found to be above the WQCC aesthetic (non-health based) standards.

In order to meet WQCC standards for metals, Mountain States Analytical changed their reporting to include the laboratory method detection limits rather than the limit of quantitation. (See the January 26, 1999 letter, D. Cox, Onsite, to M. Sikelianos, PNM). These values are noted in italics in Table 1.

Further Action:

Consistent with PNM's San Juan Basin Groundwater Management Plan, PNM will continue to monitor the groundwater in all wells to assure concentrations are below Federal and WQCC standards for four consecutive calendar quarters.

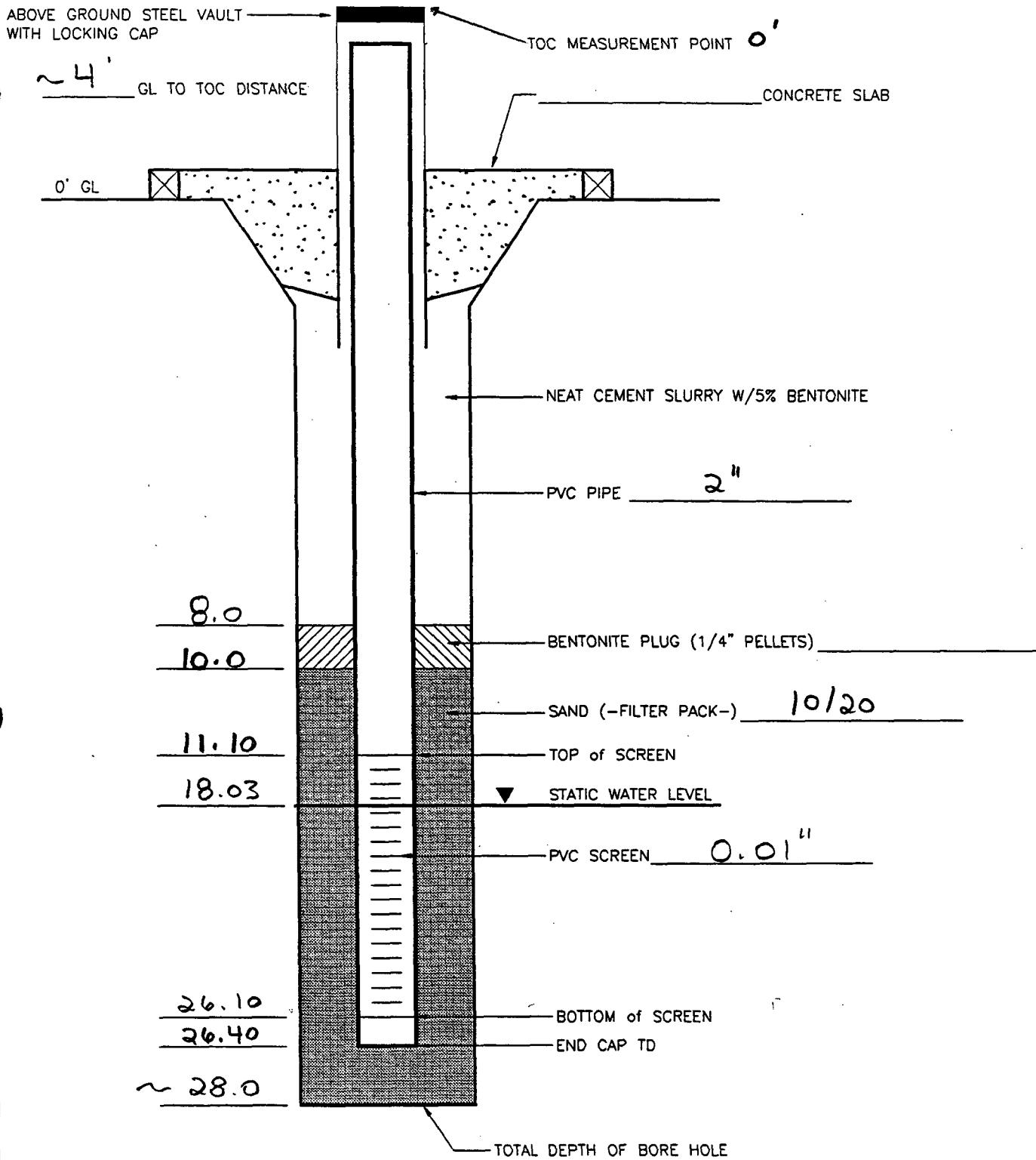
Public Service Company of New Mexico - Gas Services

Environmental Services Division - Alvarado Square, MS-0408
Albuquerque, NM 87158

Contact: Maureen Gannon

Telephone: 505-241-2974

Figure 1.



Well Completion Diagram

SITE NAME	LINDA 1A
WELL NUMBER	MW-1
DATE	9/18/98
RECORDER	M.S.

Figure 2.
Linda 1A Site Map with Analytical Results
(Concentrations in ppb)

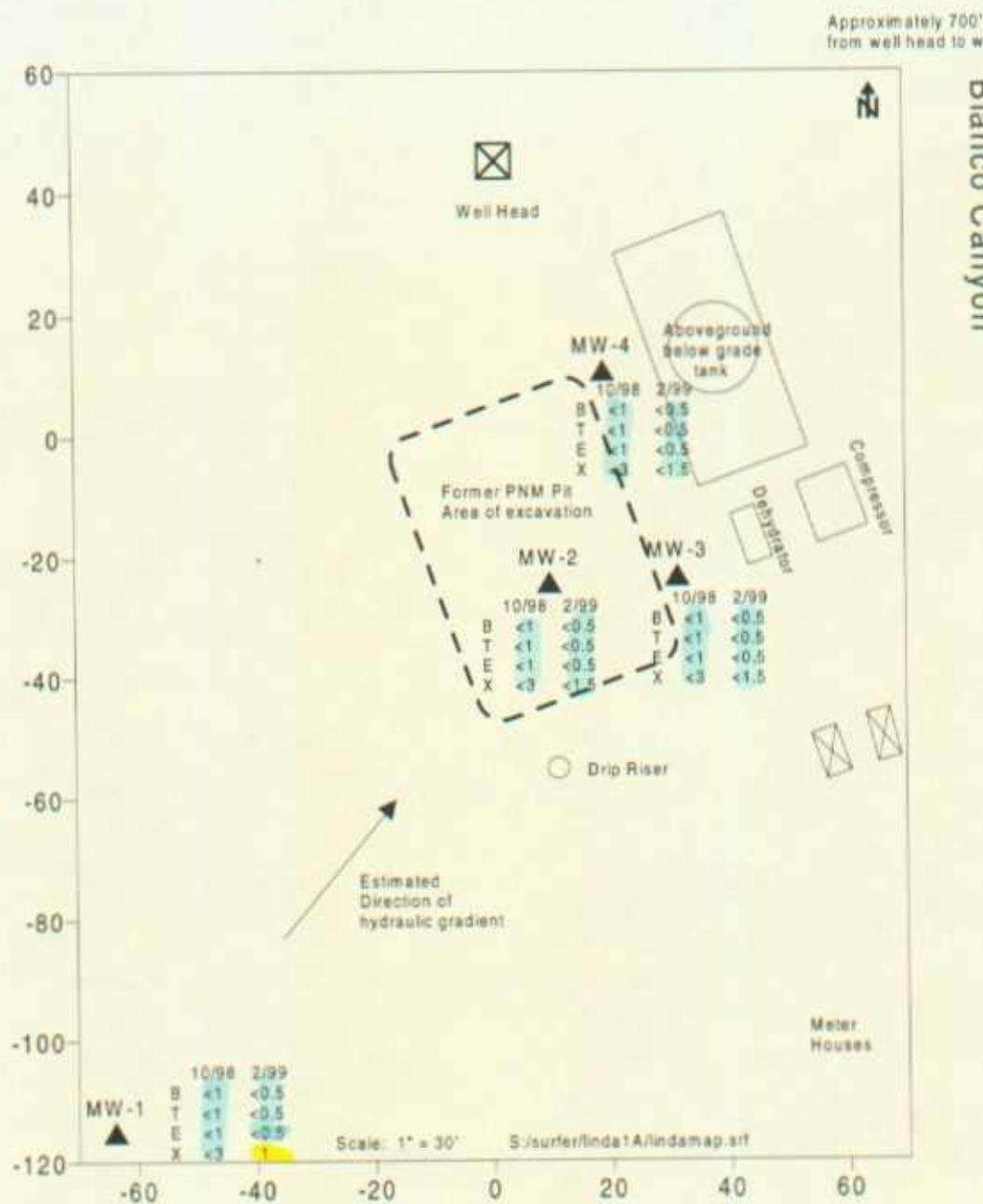


Figure 3a.
Linda 1A Groundwater Contour Map
(October 1998)

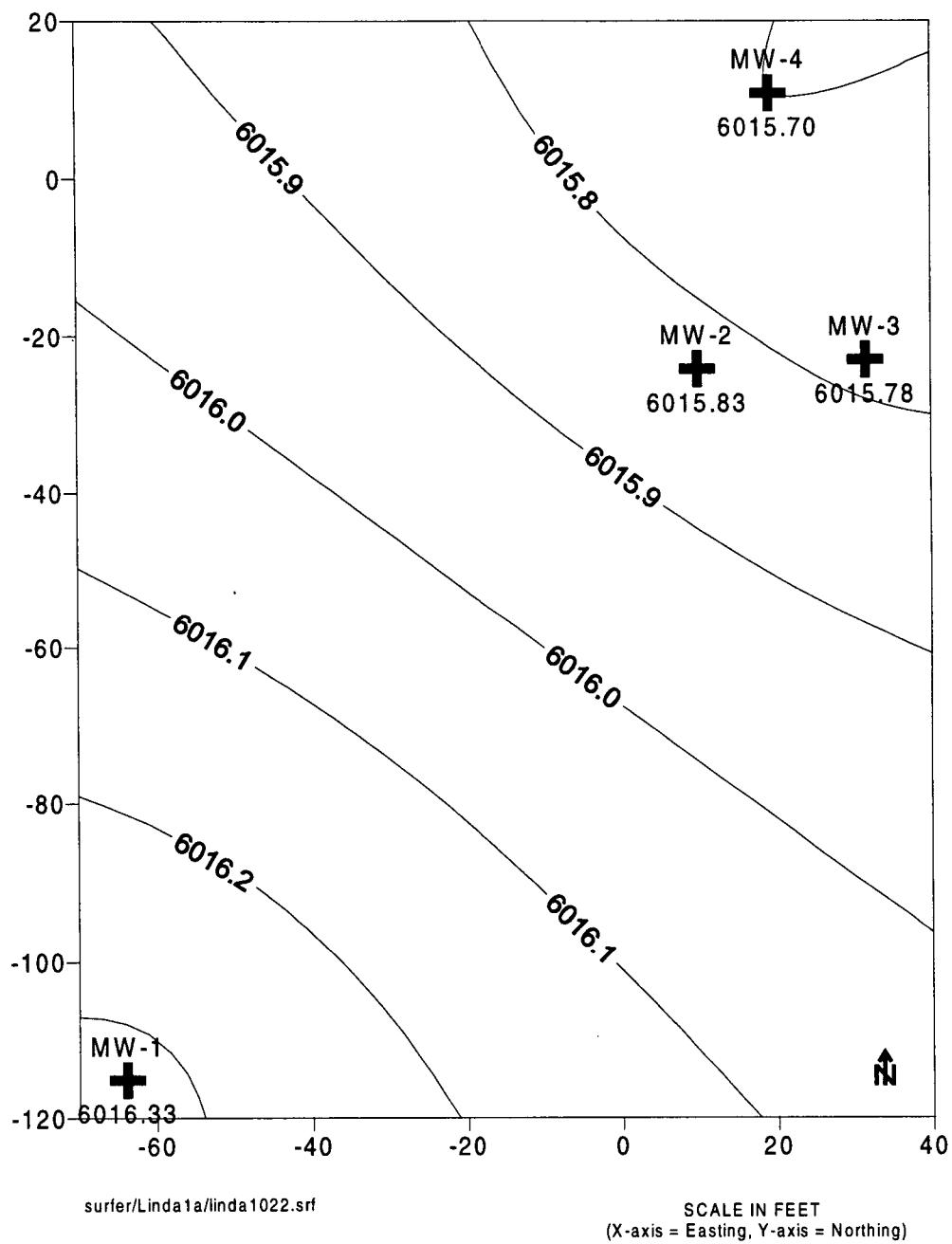


Figure 3b.
Linda 1A Groundwater Contour Map
(February 11. 1999)

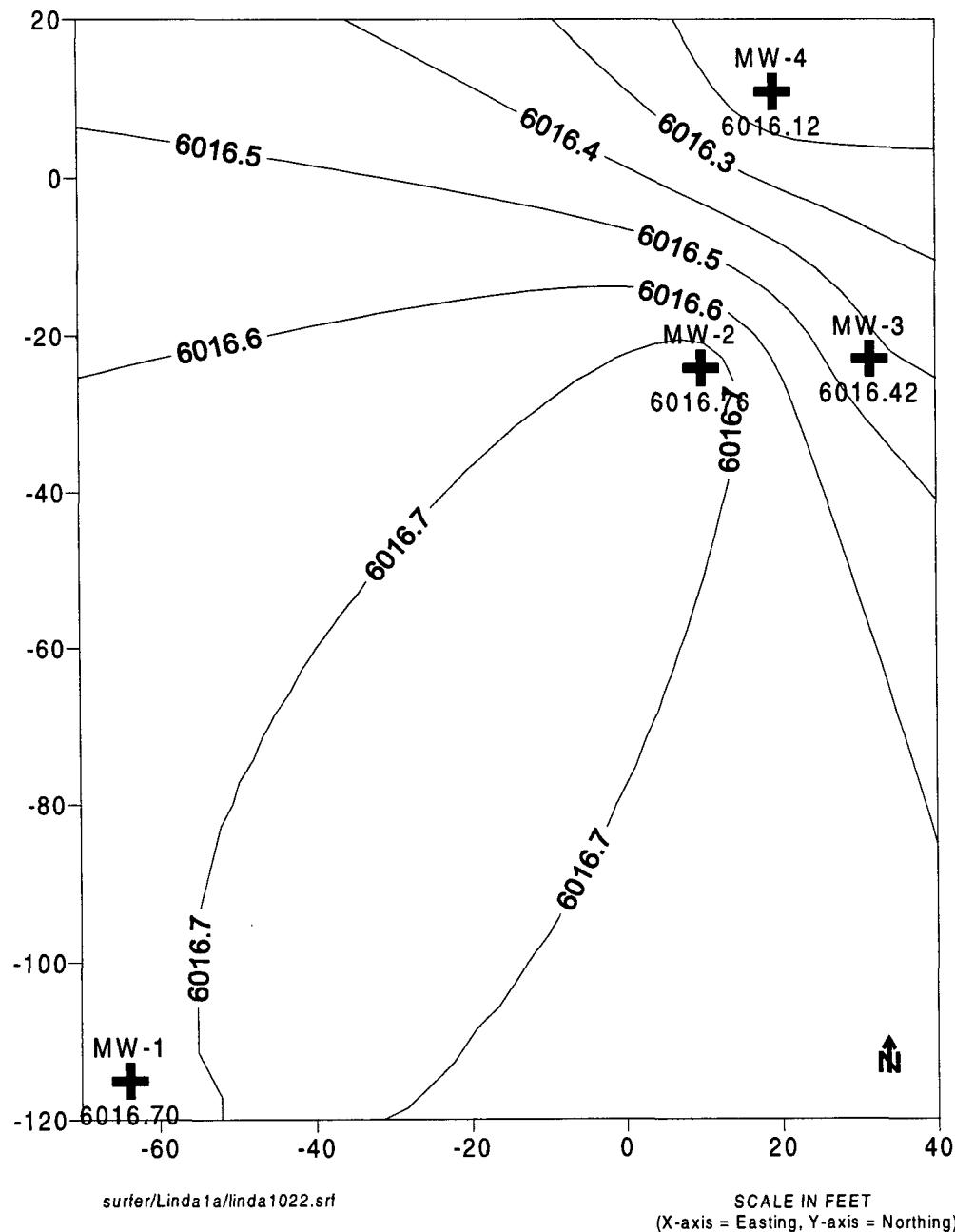


Figure 4. Linda 1A Hydrograph

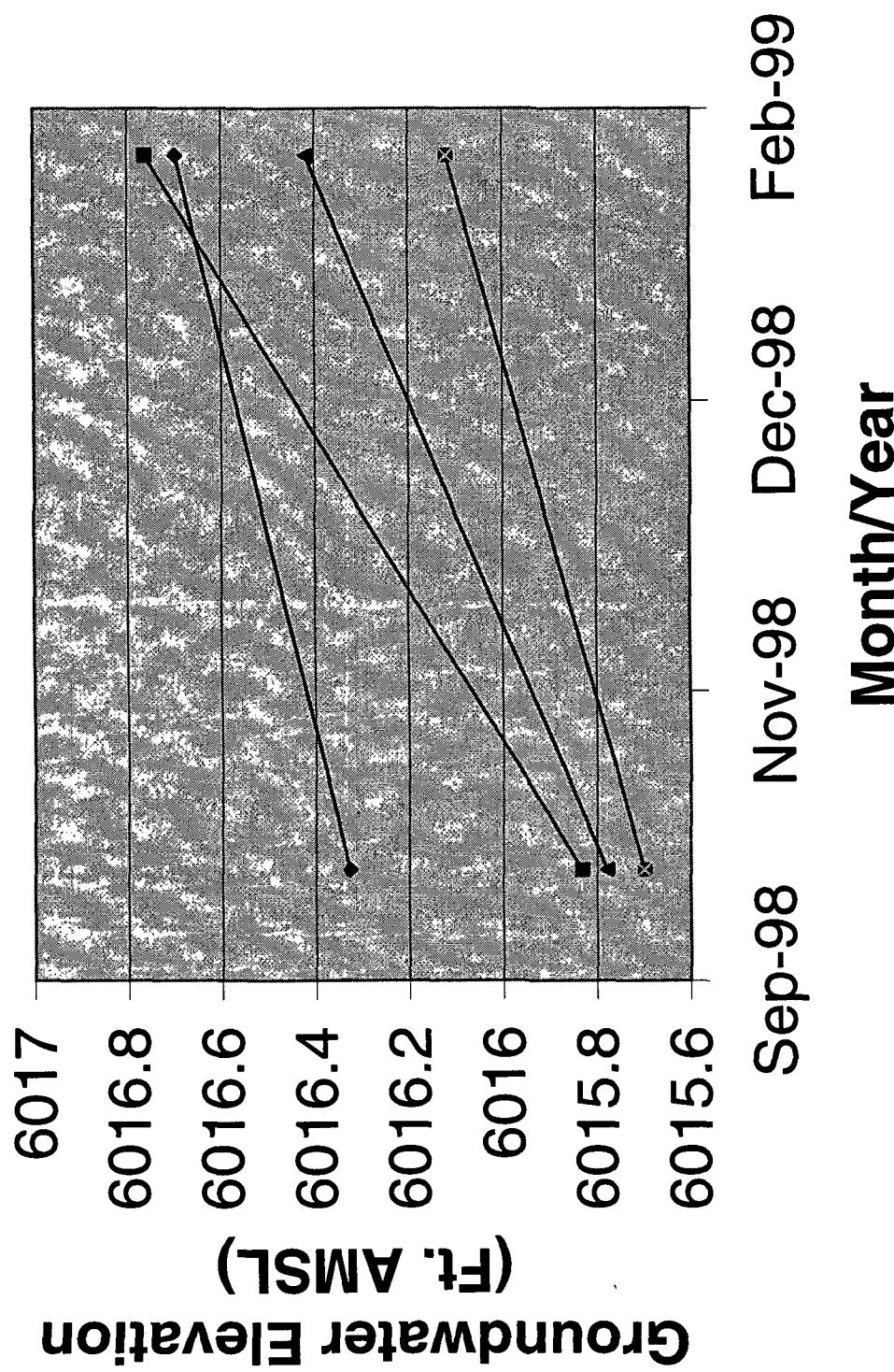


Table 1. Manda 1A Groundwater Sampling Results (mg/L)
10/22/98

Constituent	Federal MCLs	WQCC Stds.	MW-1	MW-2	MW-3	MW-4	MW-5 (Duplicate of MW-2)
Benzene	0.005	0.01	<0.001	<0.001	<0.001	<0.001	<0.001
Toluene	1	0.75	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	0.7	0.75	<0.001	<0.001	<0.001	<0.001	<0.001
Xylenes m,p,o	10	0.62	<0.003	<0.003	<0.003	<0.003	<0.003
PAHs		0.03	NA	NA	NA	NA	NA
Metals							
As	0.05	0.1	<0.035	<0.035	NS	NS	NS
Ba	2	1	0.11	0.078	NS	NS	NS
Cd	0.005	0.01	<0.004	<0.004	NS	NS	NS
Cr	0.1	0.05	<0.010	<0.010	NS	NS	NS
Fe		*1	1.42	1.49	NS	NS	NS
Pb	0.015	0.05	<0.050	<0.050	NS	NS	NS
Mn		*0.2	0.035	0.671	NS	NS	NS
Se	0.05	0.05	<0.02	<0.02	NS	NS	NS
Ag	0.05	0.05	<0.005	<0.005	NS	NS	NS
Hg	0.002	0.002	<0.00050	<0.00050	NS	NS	NS
Cations/Anions							
Ca		NA	27	74	NS	NS	NS
K		NA	3	4.5	NS	NS	NS
Mg		NA	2.5	6.8	NS	NS	NS
Na		NA	640	580	NS	NS	NS
Alkalinity							
Alkalinity, Bicarbonate (CaCO ₃)		NA	420	360	NS	NS	NS
Alkalinity, Carbonate (CaCO ₃)		NA	<5	<5	NS	NS	NS
Alkalinity, Total (CaCO ₃)		NA	420	360	NS	NS	NS
Chloride (Cl)		*250	270	260	NS	NS	NS
Specific Conductance		NA	2860 uS/cm	2840 uS/cm	NS	NS	NS
Hardness (CaCO ₃)		NA	78	200	NS	NS	NS
pH		NA	7.96 pH units	7.54 pH units	NS	NS	NS
Sulfate (SO ₄)		*600	660	740	NS	NS	NS
Total Dissolved Solids (TDS)		*1000	2000	2000	NS	NS	NS
Total Cation-Anion		NA	57.53 me/L	57.92 me/L	NS	NS	NS
Difference Cation-Anion		NA	2.4 me/L	0.59 me/L	NS	NS	NS
% Difference		NA	2.4	1	NS	NS	NS
*			Secondary Standards for Domestic Water Supply (aesthetic, non-health based)				
**			Out of Acceptable Range, % Diff. +/-5				
NA:			Not Applicable				
BDL:			Below Detection Limit				
NS:			Not Sampled				
Bold:			Concentration Above WQCC Standard				
Italic:			Method Detection Limit				

OFF: (505) 325-5667



LAB: (505) 325-1556

January 26, 1999

Mark Sikelianos
PNM Gas Services
Alverado Square, Mail Stop 0408
Albuquerque, NM 87158
TEL: (505) 241-2018

RE: Metals Reports for PNM Groundwater Sites

Dear Mark,

Enclosed please find the original reports for the groundwater sites that needed correction to meet the WQCC Standards. As we discussed before, Mountain States Analytical changed these reports to reflect their Method Detection Limit for the parameters of concern.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

A handwritten signature in black ink, appearing to read "David Cox".

On Site Technologies Limited Partnership
David Cox
Laboratory Manager

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

Mountain States Analytical, Inc.
The Quality Solution

On Site Technologies, Ltd.
 612 E Murray Drive
 Farmington, NM 87401

Attn: Mr. David Cox
 Project: Water Analysis

Sample ID: 9810065-01

Matrix: Water

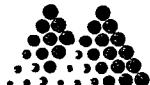
Linda 1A 9810221225; MW-1

MSAI Sample: 88731
 MSAI Group: 24619
 Date Reported: 11/13/98
 Discard Date: 12/13/98
 Date Submitted: 10/27/98
 Date Sampled: 10/22/98
 Collected by:
 Purchase Order:
 Project No.: 9810065

Test Analysis	Results as Received	Units	Method Detection Limit
02598 Mercury by CVAA, w/ww, 7470 Method: SW-846 7470	ND	mg/l	0.00010
03910 Flame/ICP Re-digest, ww, 3005A Method: SW-846 3005A	Batch. w717		
03921 Flame/ICP Prep, w/ww, 3005A Method: SW-846 3005A	Batch. w713		
03924 Mercury Prep CVAA, w/ww, 7470 Method: SW-846 7470	Batch. w257		
0401 Prep for HAA, w/ww, 7062/7742 Method: SW-846 7062/7742	Batch. w745		
13001 Metals by ICP, 6010A, w/ww Method: SW-846 6010A			
Arsenic	ND	mg/l	0.035
Barium	0.110	mg/l	0.003
Cadmium	ND	mg/l	0.004
Chromium	ND	mg/l	0.010
Iron	1.42	mg/l	0.20
Lead	ND	mg/l	0.050
Manganese	0.035	mg/l	0.003
Silver	ND	mg/l	0.005
1451 Selenium by HAA, w/ww, 7742 Method: SW-846 7742	ND	mg/l	0.02
0939 Sample Filtering, ww, MSAI Method: IN HOUSE MSAI	Complete		

Corporate Office: 1645 West 2200 South • Salt Lake City, Utah 84119
 801-973-0050 • 1-800-973-6724 (MSAI) • FAX 801-972-6278
 e-mail: service@msailabs.com





Mountain States Analytical, Inc.
The Quality Solution

Page 2

On Site Technologies, Ltd.

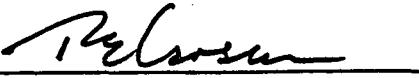
MSAI Sample: 88731
MSAI Group: 24619

Sample ID: 9810065-01

ND - Not detected at the Method Detection Limit.

This report consists of the following items: A cover letter, a signed analytical report for each sample specified on the cover letter, and if applicable, an inorganic quality control summary. Organic sample reports contain footnotes which describe any quality control anomalies which may have occurred.

Respectfully Submitted,
Reviewed and Approved by:


Rolf E. Larsen
Project Manager

Corporate Office: 1645 West 2200 South • Salt Lake City, Utah 84119
801-973-0050 • 1-800-973-6724 (MSAI) • FAX 801-972-6278
e-mail: service@msailabs.com





Mountain States Analytical, Inc.

The Quality Solution

On Site Technologies, Ltd.
612 E Murray Drive
Farmington, NM 87401

Attn: Mr. David Cox
Project: Water Analysis

Sample ID: 9810065-02

Matrix: Water

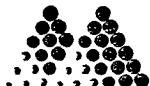
MSAI Sample: 88732
MSAI Group: 24619
Date Reported: 11/13/98
Discard Date: 12/13/98
Date Submitted: 10/27/98
Date Sampled: 10/22/98
Collected by:
Purchase Order:
Project No.: 9810065

Linda 1A 9810221255; MW-2

Test Analysis	Results as Received	Units	Method Detection Limit
02598 Mercury by CVAA, w/ww, 7470 Method: SW-846 7470	ND	mg/L	0.00010
0391D Flame/ICP Re-digest, ww, 3005A Method: SW-846 3005A	Batch. w717		
0392I Flame/ICP Prep, w/ww, 3005A Method: SW-846 3005A	Batch. w713		
0392M Mercury Prep CVAA, w/ww, 7470 Method: SW-846 7470	Batch. w257		
0401 Prep for HAA, w/ww, 7062/7742 Method: SW-846 7062/7742	Batch. w745		
13001 Metals by ICP, 6010A, w/ww Method: SW-846 6010A			
Arsenic	ND	mg/L	0.035
Barium	0.078	mg/L	0.003
Cadmium	ND	mg/L	0.004
Chromium	ND	mg/L	0.010
Iron	1.49	mg/L	0.20
Lead	ND	mg/L	0.050
Manganese	0.671	mg/L	0.003
Silver	ND	mg/L	0.005
1451 Selenium by HAA, w/ww, 7742 Method: SW-846 7742	ND	mg/L	0.02
0939 Sample Filtering, ww, MSAI Method: IN HOUSE MSAI	Complete		

Corporate Office: 1645 West 2200 South • Salt Lake City, Utah 84119
801-973-0050 • 1-800-973-6724 (MSAI) • FAX 801-972-6278
e-mail: service@msailabs.com





Mountain States Analytical, Inc.
The Quality Solution

Page 2

On Site Technologies, Ltd.

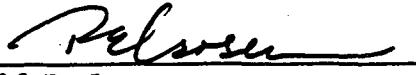
MSAI Sample: 88732
MSAI Group: 24619

Sample ID: 9810065-02

ND - Not detected at the Method Detection Limit.

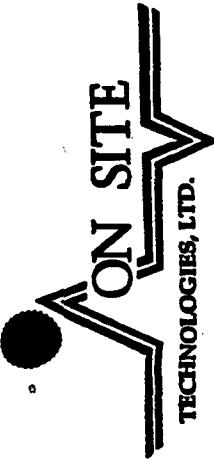
This report consists of the following items: A cover letter, a signed analytical report for each sample specified on the cover letter, and if applicable, an inorganic quality control summary. Organic sample reports contain footnotes which describe any quality control anomalies which may have occurred.

Respectfully Submitted,
Reviewed and Approved by:


Rolf E. Larsen
Project Manager

Corporate Office: 1645 West 2200 South • Salt Lake City, Utah 84119
801-973-0050 • 1-800-973-6724 (MSAI) • FAX 801-972-6278
e-mail: service@msailabs.com





CHAIN OF CUSTODY RECORD

The logo features a stylized four-pointed star shape pointing upwards. The word "ON SITE" is written vertically along the left side of the star. The word "TECHNOLOGIES, LTD." is written vertically along the right side of the star.

Date: 10
6112 E. Murphy Dr. • P.O. Box 2808 • Farmington, NM 87499
LAB: (505) 325-5887 • FAX: (505) 325-8226

Date _____

Page: 1 of 1

Distribution: White • On site
Pink • Sunburnt
Yellow • LAB
Greenish: Carr

Client Signature Page (Accountancy Requests)



OFF: (505) 325-5667

LAB: (505) 325-1556

November 30, 1998

Maureen Gannon
PNM - Public Service Company of NM
Alvarado Square Mail Stop 0408
Albuquerque, NM 87158
TEL: (505) 241-2974
FAX (505) 241-2340

4th Quarter 1998

RE: Linda 1A

Order No.: 9810065

Dear Maureen Gannon,

On Site Technologies, LTD. received 5 samples on 10/22/98 for the analyses presented in the following report.

The Samples were analyzed for the following tests:

Alkalinity, Total (M2320 B)
Arsenic, Dissolved (SW6010A)
Barium, Dissolved (SW6010A)
BTEX (SW8020A)
Cadmium, Dissolved (SW6010A)
Calcium by AA (SW7140)
Chloride (M4500-Cl C.)
Chromium, Dissolved (SW6010A)
Conductivity (E120.1)
Hardness, Total (E130.1)
Iron, Dissolved (SW6010A)
Lead, Dissolved (SW6010A)
Magnesium by AA (SW7450)
Manganese, Dissolved (SW6010A)
Mercury, Dissolved (SW7470)
pH (E150.1)
Potassium by AA (SW7610)
Selenium, Dissolved (SW7742)
Silver, Dissolved (SW6010A)
Sodium by AA (SW7770)
Sulfate (M4500-SO4 D)
Total Dissolved Solids (M2540 C.)



OFF: (505) 325-5667

LAB: (505) 325-1556

November 30, 1998

Maureen Gannon
PNM - Public Service Company of NM
Alvarado Square Mail Stop 0408
Albuquerque, NM 87158
TEL: (505) 241-2974
FAX (505) 241-2340

RE: Linda 1A

Order No.: 9810065

Dear Maureen Gannon,

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

A handwritten signature in black ink, appearing to read "David Cox".

David Cox



OFF: (505) 325-5667

LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 30-Nov-98

CLIENT: PNM - Public Service Company of NM
Project: Linda 1A
Lab Order: 9810065

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition.

Standard Methods for The Examination of Water and Wastewater, 18th Edition.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Cation-Anion Balance Linda 1A 9810221225; MW-1

Total Cation-Anion = 57.53 me/L
Difference Cation-Anion = 2.4 me/L
% Difference = 2.4%

Cation-Anion Balance Linda 1A 9810221255; MW-2

Total Cation-Anion = 57.92 me/L
Difference Cation-Anion = 0.59 me/L
% Difference = 1.0%



OFF: (505) 325-5667

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 30-Nov-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Linda 1A
Work Order:	9810065	Client Sample ID:	9810221225; MW-1
Lab ID:	9810065-01B	Matrix:	AQUEOUS
Project:	Linda 1A	Collection Date:	10/22/98 12:25:00 PM
		COC Record:	7292

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
CALCIUM BY AA		SW7140				Analyst: HR
Calcium	27	6.2		mg/L	25	10/28/98
POTASSIUM BY AA		SW7610				Analyst: HR
Potassium	3	0.25		mg/L	1	10/28/98
MAGNESIUM BY AA		SW7450				Analyst: HR
Magnesium	2.5	0.5		mg/L	2	10/28/98
SODIUM BY AA		SW7770				Analyst: HR
Sodium	640	62		mg/L	250	10/28/98
ALKALINITY, TOTAL		M2320 B				Analyst: HR
Alkalinity, Bicarbonate (As CaCO ₃)	420	5		mg/L CaCO ₃	1	10/26/98
Alkalinity, Carbonate (As CaCO ₃)	ND	5		mg/L CaCO ₃	1	10/26/98
Alkalinity, Total (As CaCO ₃)	420	5		mg/L CaCO ₃	1	10/26/98
CHLORIDE		M4500-CL C.				Analyst: HR
Chloride	270	10		mg/L	1	10/27/98
CONDUCTIVITY		E120.1				Analyst: HR
Specific Conductance	2860	2		uS/cm	1	10/23/98
HARDNESS, TOTAL		E130.1				Analyst: HR
Hardness (As CaCO ₃)	78	1		mg/L	1	10/28/98
PH		E150.1				Analyst: HR
pH	7.96	2		pH units	1	10/23/98
SULFATE		M4500-SO₄ D				Analyst: HR
Sulfate	660	5		mg/L	1	10/28/98
TOTAL DISSOLVED SOLIDS		M2540 C.				Analyst: HR
Total Dissolved Solids (Residue, Filterable)	2000	40		mg/L	1	10/28/98

Qualifiers: PQL - Practical Quantitation Limit S - Spike Recovery outside accepted recovery limits
 ND - Not Detected at Practical Quantitation Limit R - RPD outside accepted recovery limits
 J - Analyte detected below Practical Quantitation Limit E - Value above quantitation range
 B - Analyte detected in the associated Method Blank Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -



OFF: (505) 325-5667

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 30-Nov-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Linda 1A
Work Order:	9810065	Client Sample ID:	9810221255; MW-2
Lab ID:	9810065-02B	Matrix:	AQUEOUS
Project:	Linda 1A	Collection Date:	10/22/98 12:55:00 PM
		COC Record:	7292

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
CALCIUM BY AA		SW7140				Analyst: HR
Calcium	74	6.2		mg/L	25	10/28/98
POTASSIUM BY AA		SW7610				Analyst: HR
Potassium	4.5	0.25		mg/L	1	10/28/98
MAGNESIUM BY AA		SW7450				Analyst: HR
Magnesium	6.8	1.2		mg/L	5	10/28/98
SODIUM BY AA		SW7770				Analyst: HR
Sodium	580	62		mg/L	250	10/28/98
ALKALINITY, TOTAL		M2320 B				Analyst: HR
Alkalinity, Bicarbonate (As CaCO ₃)	360	5		mg/L CaCO ₃	1	10/26/98
Alkalinity, Carbonate (As CaCO ₃)	ND	5		mg/L CaCO ₃	1	10/26/98
Alkalinity, Total (As CaCO ₃)	360	5		mg/L CaCO ₃	1	10/26/98
CHLORIDE		M4500-CL C.				Analyst: HR
Chloride	260	10		mg/L	1	10/27/98
CONDUCTIVITY		E120.1				Analyst: HR
Specific Conductance	2840	2		uS/cm	1	10/23/98
HARDNESS, TOTAL		E130.1				Analyst: HR
Hardness (As CaCO ₃)	200	1		mg/L	1	10/28/98
PH		E150.1				Analyst: HR
pH	7.64	2		pH units	1	10/23/98
SULFATE		M4500-SO₄ D				Analyst: HR
Sulfate	740	5		mg/L	1	10/28/98
TOTAL DISSOLVED SOLIDS		M2540 C.				Analyst: HR
Total Dissolved Solids (Residue, Filterable)	2000	40		mg/L	1	10/28/98

Qualifiers: PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
Sur: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -



OFF: (505) 325-5667

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 30-Nov-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Linda 1A
Work Order:	9810065	Client Sample ID:	9810221225; MW-1
Lab ID:	9810065-01A	Matrix:	AQUEOUS
Project:	Linda 1A	Collection Date:	10/22/98 12:25:00 PM
		COC Record:	7292

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX						
			SW8020A			Analyst: DC
Benzene	ND	1		µg/L	1	10/26/98
Toluene	ND	1		µg/L	1	10/26/98
Ethylbenzene	ND	1		µg/L	1	10/26/98
m,p-Xylene	ND	2		µg/L	1	10/26/98
o-Xylene	ND	1		µg/L	1	10/26/98

Qualifiers: PQL - Practical Quantitation Limit S - Spike Recovery outside accepted recovery limits
ND - Not Detected at Practical Quantitation Limit R - RPD outside accepted recovery limits
J - Analyte detected below Practical Quantitation Limit E - Value above quantitation range
B - Analyte detected in the associated Method Blank Surrt: - Surrogate

I of I

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -



OFF: (505) 325-5667

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 30-Nov-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Linda 1A
Work Order:	9810065	Client Sample ID:	9810221255; MW-2
Lab ID:	9810065-02A	Matrix:	AQUEOUS
Project:	Linda 1A	Collection Date:	10/22/98 12:55:00 PM
		COC Record:	7292

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX						
Benzene	ND	1		µg/L	1	10/26/98
Toluene	ND	1		µg/L	1	10/26/98
Ethylbenzene	ND	1		µg/L	1	10/26/98
m,p-Xylene	ND	2		µg/L	1	10/26/98
o-Xylene	ND	1		µg/L	1	10/26/98

Qualifiers: PQL - Practical Quantitation Limit S - Spike Recovery outside accepted recovery limits
ND - Not Detected at Practical Quantitation Limit R - RPD outside accepted recovery limits
J - Analyte detected below Practical Quantitation Limit E - Value above quantitation range
B - Analyte detected in the associated Method Blank Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -



OFF: (505) 325-5667

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 30-Nov-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Linda 1A
Work Order:	9810065	Client Sample ID:	9810221330; MW-3
Lab ID:	9810065-03A	Matrix:	AQUEOUS
Project:	Linda 1A	Collection Date:	10/22/98 1:30:00 PM
		COC Record:	7292

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX						
		SW8020A				Analyst: DC
Benzene	ND	1		µg/L	1	10/26/98
Toluene	ND	1		µg/L	1	10/26/98
Ethylbenzene	ND	1		µg/L	1	10/26/98
m,p-Xylene	ND	2		µg/L	1	10/26/98
o-Xylene	ND	1		µg/L	1	10/26/98

Qualifiers: PQL - Practical Quantitation Limit S - Spike Recovery outside accepted recovery limits
ND - Not Detected at Practical Quantitation Limit R - RPD outside accepted recovery limits
J - Analyte detected below Practical Quantitation Limit E - Value above quantitation range
B - Analyte detected in the associated Method Blank Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 30-Nov-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Linda 1A
Work Order:	9810065	Client Sample ID:	9810221405; MW-4
Lab ID:	9810065-04A	Matrix:	AQUEOUS
Project:	Linda 1A	Collection Date:	10/22/98 2:05:00 PM
		COC Record:	7292

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX	SW8020A					Analyst: DC
Benzene	ND	1		µg/L	1	10/26/98
Toluene	ND	1		µg/L	1	10/26/98
Ethylbenzene	ND	1		µg/L	1	10/26/98
m,p-Xylene	ND	2		µg/L	1	10/26/98
o-Xylene	ND	1		µg/L	1	10/26/98

Qualifiers: PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -



OFF: (505) 325-5667

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 30-Nov-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Linda 1A	Duplicate of
Work Order:	9810065	Client Sample ID:	9810221420; MW-2	MW-2
Lab ID:	9810065-05A	Matrix:	AQUEOUS	Collection Date: 10/22/98 2:20:00 PM
Project:	Linda 1A			COC Record: 7292

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX			SW8020A			Analyst: DC
Benzene	ND	1		µg/L	1	10/26/98
Toluene	ND	1		µg/L	1	10/26/98
Ethylbenzene	ND	1		µg/L	1	10/26/98
m,p-Xylene	ND	2		µg/L	1	10/26/98
o-Xylene	ND	1		µg/L	1	10/26/98

Qualifiers: PQL - Practical Quantitation Limit S - Spike Recovery outside accepted recovery limits
ND - Not Detected at Practical Quantitation Limit R - RPD outside accepted recovery limits
J - Analyte detected below Practical Quantitation Limit E - Value above quantitation range
B - Analyte detected in the associated Method Blank Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -



OFF: (505) 325-5667

LAB: (505) 325-1556

January 26, 1999

Mark Sikelianos
PNM Gas Services
Alverado Square, Mail Stop 0408
Albuquerque, NM 87158
TEL: (505) 241-2018

RE: Metals Reports for PNM Groundwater Sites

Dear Mark,

Enclosed please find the original reports for the groundwater sites that needed correction to meet the WQCC Standards. As we discussed before, Mountain States Analytical changed these reports to reflect their Method Detection Limit for the parameters of concern.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

A handwritten signature in black ink, appearing to read "David Cox".

On Site Technologies Limited Partnership
David Cox
Laboratory Manager



Mountain States Analytical, Inc.

The Quality Solution

On Site Technologies, Ltd.
612 E Murray Drive
Farmington, NM 87401

Attn: Mr. David Cox
Project: Water Analysis

Sample ID: 9810065-01
Matrix: Water

Linda 1A 9810221225; MW-1

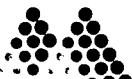
(DC)

MSAI Sample: 88731
MSAI Group: 24619
Date Reported: 11/13/98
Discard Date: 12/13/98
Date Submitted: 10/27/98
Date Sampled: 10/22/98
Collected by:
Purchase Order:
Project No.: 9810065

Test Analysis	Results as Received	Units	Method Detection Limit
0259B Mercury by CVAA, w/ww, 7470 Method: SW-846 7470	ND	mg/l	0.00010
0391D Flame/ICP Re-digest, ww, 3005A Method: SW-846 3005A	Batch. w717		
0392I Flame/ICP Prep, w/ww, 3005A Method: SW-846 3005A	Batch. w713		
0392M Mercury Prep CVAA, w/ww, 7470 Method: SW-846 7470	Batch. w257		
0401 Prep for HAA, w/ww, 7062/7742 Method: SW-846 7062/7742	Batch. w745		
13001 Metals by ICP, 6010A, w/ww Method: SW-846 6010A			
Arsenic	ND	mg/l	0.035
Barium	0.110	mg/l	0.003
Cadmium	ND	mg/l	0.004
Chromium	ND	mg/l	0.010
Iron	1.42	mg/l	0.20
Lead	ND	mg/l	0.050
Manganese	0.035	mg/l	0.003
Silver	ND	mg/l	0.005
1451 Selenium by HAA, w/ww, 7742 Method: SW-846 7742	ND	mg/l	0.02
0939 Sample Filtering, ww, MSAI Method: IN HOUSE MSAI	Complete		

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e-mail: service@msailabs.com





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Page 2

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MSAI Sample: 88731

MSAI Group: 24619

Sample ID: 9810065-01

ND - Not detected at the Method Detection Limit.

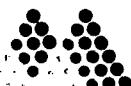
This report consists of the following items: A cover letter, a signed analytical report for each sample specified on the cover letter, and if applicable, an inorganic quality control summary. Organic sample reports contain footnotes which describe any quality control anomalies which may have occurred.

Respectfully Submitted,
Reviewed and Approved by:


Rolf E. Larsen
Project Manager

Corporate Office: 1645 West 2200 South • Salt Lake City, Utah 84119
801-973-0050 • 1-800-973-6724 (MSAI) • FAX 801-972-6278
e-mail: service@msailabs.com





Mountain States Analytical, Inc.

The Quality Solution

On Site Technologies, Ltd.
612 E Murray Drive
Farmington, NM 87401

Attn: Mr. David Cox
Project: Water Analysis

Sample ID: 9810065-02
Matrix: Water

MSAI Sample: 88732
MSAI Group: 24619
Date Reported: 11/13/98
Discard Date: 12/13/98
Date Submitted: 10/27/98
Date Sampled: 10/22/98
Collected by:
Purchase Order:
Project No.: 9810065

Linda 1A 9810221255; MW-2

Test Analysis	Results as Received	Units	Method Detection Limit
0259B Mercury by CVAA, w/ww, 7470 Method: SW-846 7470	ND	mg/l	0.00010
0391D Flame/ICP Re-digest, ww, 3005A Method: SW-846 3005A	Batch. w717		
0392I Flame/ICP Prep, w/ww, 3005A Method: SW-846 3005A	Batch. w713		
0392M Mercury Prep CVAA, w/ww, 7470 Method: SW-846 7470	Batch. w257		
0401 Prep for HAA, w/ww, 7062/7742 Method: SW-846 7062/7742	Batch. w745		
13001 Metals by ICP, 6010A, w/ww Method: SW-846 6010A			
Arsenic	ND	mg/l	0.035
Barium	0.078	mg/l	0.003
Cadmium	ND	mg/l	0.004
Chromium	ND	mg/l	0.010
Iron	1.49	mg/l	0.20
Lead	ND	mg/l	0.050
Manganese	0.671	mg/l	0.003
Silver	ND	mg/l	0.005
1451 Selenium by HAA, w/ww, 7742 Method: SW-846 7742	ND	mg/l	0.02
0939 Sample Filtering, ww, MSAI Method: IN HOUSE MSAI	Complete		

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e-mail: service@msailabs.com

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Mountain States Analytical, Inc.
The Quality Solution

Page 2

On Site Technologies, Ltd.

MSAI Sample: 88732

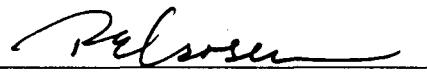
MSAI Group: 24619

Sample ID: 9810065-02

ND - Not detected at the Method Detection Limit.

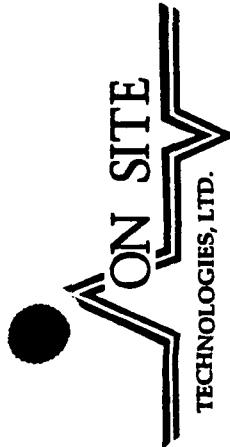
This report consists of the following items: A cover letter, a signed analytical report for each sample specified on the cover letter, and if applicable, an inorganic quality control summary. Organic sample reports contain footnotes which describe any quality control anomalies which may have occurred.

Respectfully Submitted,
Reviewed and Approved by:


Rolf E. Larsen
Project Manager

Corporate Office: 1645 West 2200 South • Salt Lake City, Utah 84119
801-973-0050 • 1-800-973-6724 (MSAI) • FAX 801-972-6278
e-mail: service@msailabs.com

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CHAIN OF CUSTODY RECORD

ON SITE
TECHNOLOGIES LTD

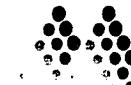
612 E. Murphy Dr. • P.O. Box 2606 • Farmington, NM 87499
AB: (505) 325-5667 • FAX: (505) 325-6256

Page: 1 of 1

Date: 10/22/98

Purchase Order No.:		Job No.	SAMPLE IDENTIFICATION			CONTAINERS			TESTS TO			Name	Maureen Gannon	Title		
Name		Denver Bearden	Company			Number of Containers			Report			Company	PNM Gas Services			
Company		PNM Gas Services	Dept.	324-3763	City, State, Zip			Mailing Address			Alverado Square, Mail Stop 0408					
Address		603 W. Elm Street							Telephone No.			Albuquerque, NM 87158				
City, State, Zip		Farmington, NM 87401										Telefax No.				
Sampling Location:		Linda 1A										ANALYSIS REQUESTED				
Sampler:		Mark Sikelianos														
Method of Shipment:		<i>Hand</i>														
Authorized by:		<i>Mark S.</i>														
(Client Signature Must Accompany Request)																
Relinquished by:		<i>Mark S.</i>							Date/Time Received:			<i>10/22/98 11:00</i>	Date/Time Received:	<i>10/22/98 11:00</i>		
Relinquished by:		<i>Mark S.</i>							Date/Time Received:			<i>10/22/98 11:00</i>	Date/Time Received:	<i>10/22/98 11:00</i>		
Relinquished by:		<i>Mark S.</i>							Date/Time Received:			<i>10/22/98 11:00</i>	Date/Time Received:	<i>10/22/98 11:00</i>		
Method of Shipment:		<i>Rush</i>							Date/Time Received:			<i>10/22/98 11:00</i>	Date/Time Received:	<i>10/22/98 11:00</i>		
Results to be sent to both parties.																

RECEIVED NOV 30 1998

 Mountain States Analytical, Inc.

The Quality Standard

November 23, 1998

Mr. David Cox
On Site Technologies, Ltd.
612 E Murray Drive
Farmington, NM 87401

Reference:

Project: Water Analysis
Project No.: 9810065
MSAI Group: 24619

Dear Mr. Cox:

Enclosed are the analytical results for your project referenced above. The following samples are included in the report.

9810065-01

9810065-02

All holding times were met for the tests performed on these samples.

Thank you for selecting Mountain States Analytical, Inc. to serve as your analytical laboratory on this project. If you have any questions concerning these results, please feel free to contact me at any time.

We look forward to working with you on future projects.

With Regards,



Rolf E. Larsen
Project Manager



Mountain States Analytical, Inc.

The Quality Solution

On Site Technologies, Ltd.
612 E Murray Drive
Farmington, NM 87401

Attn: Mr. David Cox
Project: Water Analysis

Sample ID: 9810065-01

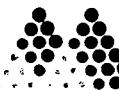
Matrix: Water Linda 1A 9810221225; MW-1

MSAI Sample: 88731
MSAI Group: 24619
Date Reported: 11/13/98
Discard Date: 12/13/98
Date Submitted: 10/27/98
Date Sampled: 10/22/98
Collected by:
Purchase Order:
Project No.: 9810065

Test Analysis	Results as Received	Units	Limit of Quantitation
0259B Mercury by CVAA, w/ww, 7470 Method: SW-846 7470	ND	mg/l	0.00050
0391D Flame/ICP Re-digest, ww, 3005A Method: SW-846 3005A	Batch. w717		
0392I Flame/ICP Prep, w/ww, 3005A Method: SW-846 3005A	Batch. w713		
0392M Mercury Prep CVAA, w/ww, 7470 Method: SW-846 7470	Batch. w257		
0401 Prep for HAA, w/ww, 7062/7742 Method: SW-846 7062/7742	Batch. w745		
13001 Metals by ICP, 6010A, w/ww Method: SW-846 6010A			
Arsenic	ND	mg/l	0.180
Barium	0.110	mg/l	0.015
Cadmium	ND	mg/l	0.020
Chromium	ND	mg/l	0.050
Iron	1.42	mg/l	1.00
Lead	ND	mg/l	0.250
Manganese	0.035	mg/l	0.015
Silver	ND	mg/l	0.020
1451 Selenium by HAA, w/ww, 7742 Method: SW-846 7742	ND	mg/l	0.12
0939 Sample Filtering, ww, MSAI Method: IN HOUSE MSAI	Complete		

Corporate Office: 1645 West 2200 South • Salt Lake City, Utah 84119
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e-mail: service@msailabs.com



**Mountain States Analytical, Inc.***The Quality Solution*

Page 2

On Site Technologies, Ltd.

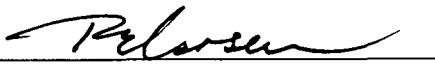
MSAI Sample: 88731
MSAI Group: 24619

Sample ID: 9810065-01

ND - Not detected at the Limit of Quantitation.

This report consists of the following items: A cover letter, a signed analytical report for each sample specified on the cover letter, and if applicable, an inorganic quality control summary. Organic sample reports contain footnotes which describe any quality control anomalies which may have occurred.

Respectfully Submitted,
Reviewed and Approved by:


Rolf E. Larsen
Project Manager

Corporate Office: 1645 West 2200 South • Salt Lake City, Utah 84119
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e-mail: service@msailabs.com

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Mountain States Analytical, Inc.

The Quality Solution

On Site Technologies, Ltd.
612 E Murray Drive
Farmington, NM 87401

Attn: Mr. David Cox
Project: Water Analysis

Sample ID: 9810065-02

Matrix: Water Linda 1A 9810221255; MW-2

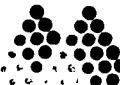
MSAI Sample: 88732
MSAI Group: 24619
Date Reported: 11/13/98
Discard Date: 12/13/98
Date Submitted: 10/27/98
Date Sampled: 10/22/98
Collected by:
Purchase Order:
Project No.: 9810065

(b)

Test Analysis	Results as Received	Units	Limit of Quantitation
0259B Mercury by CVAA, w/ww, 7470 Method: SW-846 7470	ND	mg/l	0.00050
0391D Flame/ICP Re-digest, ww, 3005A Method: SW-846 3005A	Batch. w717		
0392I Flame/ICP Prep, w/ww, 3005A Method: SW-846 3005A	Batch. w713		
0392M Mercury Prep CVAA, w/ww, 7470 Method: SW-846 7470	Batch. w257		
0401 Prep for HAA, w/ww, 7062/7742 Method: SW-846 7062/7742	Batch. w745		
13001 Metals by ICP, 6010A, w/ww Method: SW-846 6010A			
Arsenic	ND	mg/l	0.180
Barium	0.078	mg/l	0.015
Cadmium	ND	mg/l	0.020
Chromium	ND	mg/l	0.050
Iron	1.49	mg/l	1.00
Lead	ND	mg/l	0.250
Manganese	0.671	mg/l	0.015
Silver	ND	mg/l	0.020
1451 Selenium by HAA, w/ww, 7742 Method: SW-846 7742	ND	mg/l	0.12
0939 Sample Filtering, ww, MSAI Method: IN HOUSE MSAI	Complete		

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e-mail: service@msailabs.com

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Mountain States Analytical, Inc.

The Quality Solution

Page 2

On Site Technologies, Ltd.

MSAI Sample: 88732

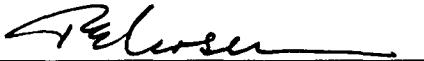
MSAI Group: 24619

Sample ID: 9810065-02

ND - Not detected at the Limit of Quantitation.

This report consists of the following items: A cover letter, a signed analytical report for each sample specified on the cover letter, and if applicable, an inorganic quality control summary. Organic sample reports contain footnotes which describe any quality control anomalies which may have occurred.

Respectfully Submitted,
Reviewed and Approved by:


Rolf E. Larsen
Project Manager

Corporate Office: 1645 West 2200 South • Salt Lake City, Utah 84119
801-973-0050 • 1-800-973-6724 (MSAI) • FAX 801-972-6278
e-mail: service@msailabs.com



Analysis Batch Number: 1451 -11/16/98-061 -1

Identification : 1451 -Selenium by HAA, w/ww, 7742

Sequence : DAAB322

Number of Samples : 1

Batch Data-Date/Time : 11/20/98 / 17:55:03

<u>BLANK#</u>	<u>ANALYTE</u>	<u>CONC FOUND #</u>	<u>CONC LIMIT</u>
PBW1-745	Selenium	0.0017	0.0060
PBW2-745-2	Selenium	0.0011	0.0060

Spike						<u>QC LIMITS</u>	
<u>SAMPLE#</u>	<u>ANALYTE</u>	<u>CONC ADDED</u>	<u>CONC SAMPLE</u>	<u>CONC SPIKE</u>	<u>% REC #</u>	<u>LOWER</u>	<u>UPPER</u>
24708-89073	Selenium	0.0800	-0.0018	0.0152	21.2(8a)	75.0	125.0

MSD						<u>QC LIMITS</u>			
<u>SAMPLE#</u>	<u>ANALYTE</u>	<u>CONC ADDED</u>	<u>CONC SAMPLE</u>	<u>RESULT 2</u>	<u>%REC2 #</u>	<u>LOWER</u>	<u>UPPER</u>	<u>RPD #</u>	<u>LIMIT</u>
24708-89073	Selenium	0.0800	-0.0018	0.0559	72.1(8a)	75.0	125.0	114.6(8a)	20.0

DUPLICATE						<u>QC LIMITS</u>
<u>SAMPLE#</u>	<u>ANALYTE</u>	<u>RESULT 1</u>	<u>RESULT 2</u>	<u>RPD #</u>	<u>LIMIT</u>	<u>DILUTION</u>
24708-89073	Selenium	-0.0018	0.0024	1348.4(11)	20.0	2.00

CONTROL						<u>QC LIMITS</u>	
<u>SAMPLE#</u>	<u>ANALYTE</u>	<u>CONC FOUND</u>	<u>CONC KNOWN</u>	<u>% REC #</u>	<u>LOWER</u>	<u>UPPER</u>	
LCSW-745	Selenium	0.0385	0.0400	96.3	75.0	125.0	

						<u>QC LIMITS</u>	
<u>#</u>	<u>ANALYTE</u>	<u>TRUE VALUE</u>	<u>BATCH READ</u>	<u>% REC #</u>	<u>LOWER</u>	<u>UPPER</u>	
ICV-	Selenium	0.0500	0.0510	102.0	80.0	120.0	
CCV1--2	Selenium	0.0500	0.0484	96.8	80.0	120.0	

<u>CCB#</u>	<u>ANALYTE</u>	<u>CONC FOUND #</u>	<u>CONC LIMIT</u>
ICB-	Selenium	ND	0.0060
CCB1-	Selenium	ND	0.0060

----- Result Footnotes -----

(8a) - See comments below.

(11) - The duplicate results cannot be evaluated because both results are <MDL.

Groups & Samples

24619-88731	24619-88732	24708-89071	24708-89072	24708-89073	24708-89073	24736-88183	24736-88184
24736-88185	24754-89216	24754-89217	24754-89218	24754-89219			

Analysis Batch Number: 8259 -10/29/98-107 -1

Test Identification : 8259 -Mercury by CVAA, w/ww, EPA 245.1

Sequence : 8259 -1

Number of Samples : 16

Batch Data-Date/Time : 10/29/98 / 12:54:55

<u>BLANK#</u>	<u>ANALYTE</u>	<u>CONC FOUND #</u>	<u>CONC LIMIT</u>
PBW1-257	Mercury	-0.0310	0.1000
PBW2-257-2	Mercury	-0.0540	0.1000

<u>SPIKE</u>	<u>ANALYTE</u>	<u>CONC ADDED</u>	<u>CONC SAMPLE</u>	<u>CONC SPIKE</u>	<u>% REC #</u>	<u>QC LIMITS</u>	
<u>SAMPLE#</u>	<u>ANALYTE</u>	<u>CONC ADDED</u>	<u>CONC SAMPLE</u>	<u>RESULT 2</u>	<u>%REC2 #</u>	<u>LOWER</u>	<u>UPPER</u>
24630-88772	Mercury	2.5000	0.3430	2.6390	91.8	80.0	115.0

<u>MSD</u>	<u>ANALYTE</u>	<u>CONC ADDED</u>	<u>CONC SAMPLE</u>	<u>RESULT 2</u>	<u>%REC2 #</u>	<u>QC LIMITS</u>			
<u>SAMPLE#</u>	<u>ANALYTE</u>	<u>CONC ADDED</u>	<u>CONC SAMPLE</u>	<u>RESULT 2</u>	<u>%REC2 #</u>	<u>LOWER</u>	<u>UPPER</u>	<u>RPD #</u>	<u>LIMIT</u>
24630-88772	Mercury	2.5000	0.3430	2.6420	92.0	80.0	115.0	0.1	20.0

<u>DUPLICATE</u>	<u>ANALYTE</u>	<u>RESULT 1</u>	<u>RESULT 2</u>	<u>RPD #</u>	<u>LIMIT</u>	<u>DILUTION</u>
<u>SAMPLE#</u>	<u>ANALYTE</u>	<u>RESULT 1</u>	<u>RESULT 2</u>	<u>RPD #</u>	<u>LIMIT</u>	<u>DILUTION</u>
24630-88772	Mercury	0.3430	0.3080	10.8	20.0	1.00

<u>CONTROL</u>	<u>ANALYTE</u>	<u>CONC FOUND</u>	<u>CONC KNOWN</u>	<u>% REC #</u>	<u>QC LIMITS</u>	
<u>SAMPLE#</u>	<u>ANALYTE</u>	<u>CONC FOUND</u>	<u>CONC KNOWN</u>	<u>% REC #</u>	<u>LOWER</u>	<u>UPPER</u>
LCSW-257	Mercury	2.6060	2.5000	104.2	80.0	120.0

<u>#</u>	<u>ANALYTE</u>	<u>TRUE VALUE</u>	<u>BATCH READ</u>	<u>% REC #</u>	<u>QC LIMITS</u>	
<u>#</u>	<u>ANALYTE</u>	<u>TRUE VALUE</u>	<u>BATCH READ</u>	<u>% REC #</u>	<u>LOWER</u>	<u>UPPER</u>
ICV-	Mercury	3.0000	2.9740	99.1	90.0	110.0
CCV--2	Mercury	5.0000	5.2380	104.8	80.0	120.0
CCV--3	Mercury	5.0000	5.2030	104.1	80.0	120.0
CCV--4	Mercury	5.0000	5.1990	104.0	80.0	120.0
CCV--5	Mercury	5.0000	5.2120	104.2	80.0	120.0

<u>CCB#</u>	<u>ANALYTE</u>	<u>CONC FOUND #</u>	<u>CONC LIMIT</u>
<u>CCB#</u>	<u>ANALYTE</u>	<u>CONC FOUND #</u>	<u>CONC LIMIT</u>
ICB-	Mercury	-0.0260	0.1000
CCB-	Mercury	-0.0970	0.1000
CCB-	Mercury	-0.1280(1b)	0.1000
CCB-	Mercury	-0.1220(1b)	0.1000
CCB-	Mercury	-0.1420(1b)	0.1000

----- Result Footnotes -----

(1b) - Blank is less than 2 times the MDL

Groups & Samples

24485-88223	24488-88234	24488-88235	24488-88236	24488-88237	24488-88238	24543-88438	24557-88490
24605-88681	24617-88726	24619-88731	24619-88732	24630-88772	24630-88773	24630-88774	24630-88775

ysis Batch Number: ICPHR-10/31/98-061 -1
t Identification : ICPHR-*IRIS QC parameters
Number of Samples : 3
Batch Data-Date/Time : 11/01/98 / 16:33:14

Sequence : DATP304

<u>BLANK#</u>	<u>ANALYTE</u>	<u>CONC FOUND #</u>	<u>CONC LIMIT</u>
PBW-717	Boron	0.2841(8a)	0.0300
	Tin	0.0056	0.0100

<u>QC LIMITS</u>						
<u>SAMPLE#</u>	<u>ANALYTE</u>	<u>CONC ADDED</u>	<u>CONC SAMPLE</u>	<u>CONC SPIKE</u>	<u>% REC #</u>	<u>LOWER</u> <u>UPPER</u>
24619-88732	Boron	0.5000	0.5916	1.7340	228.5(8a)	80.0 120.0
	Tin	1.0000	0.0113	1.0277	101.6	80.0 120.0

<u>QC LIMITS</u>						
<u>SAMPLE#</u>	<u>ANALYTE</u>	<u>CONC ADDED</u>	<u>CONC SAMPLE</u>	<u>RESULT 2</u>	<u>%REC2 #</u>	<u>LOWER</u> <u>UPPER</u> <u>RPD #</u> <u>LIMIT</u>
24619-88732	Boron	0.5000	0.5916	1.6452	210.7(8a)	80.0 120.0 5.3 20.0
	Tin	1.0000	0.0113	1.0324	102.1	80.0 120.0 0.5 20.0

<u>DUPLICATE</u>						
<u>SAMPLE#</u>	<u>ANALYTE</u>	<u>RESULT 1</u>	<u>RESULT 2</u>	<u>RPD #</u>	<u>LIMIT</u>	<u>DILUTION</u>
24619-88732	Boron	0.5916	0.4638	24.2(8a)	20.0	1.00
	Tin	0.0113	0.0001	195.8(5a)	20.0	1.00

<u>CONTROL</u>						
<u>SAMPLE#</u>	<u>ANALYTE</u>	<u>CONC FOUND</u>	<u>CONC KNOWN</u>	<u>% REC #</u>	<u>LOWER</u> <u>UPPER</u>	
-717	Boron	1.6457	0.5000	329.1(8a)	80.0 120.0	
	Tin	1.0446	1.0000	104.5	80.0 120.0	

<u>QC LIMITS</u>						
<u>CCV #</u>	<u>ANALYTE</u>	<u>TRUE VALUE</u>	<u>BATCH READ</u>	<u>% REC #</u>	<u>LOWER</u> <u>UPPER</u>	
ICV-	Boron	0.2000	0.2076	103.8	90.0 110.0	
	Tin	1.0000	0.9929	99.3	90.0 110.0	
CCV1--2	Boron	0.2000	0.2073	103.6	90.0 110.0	
	Tin	1.0000	0.9934	99.3	90.0 110.0	
CCV2--3	Boron	0.2000	0.2123	106.2	90.0 110.0	
	Tin	1.0000	1.0048	100.5	90.0 110.0	
CCV3--4	Boron	0.2000	0.2080	104.0	90.0 110.0	
	Tin	1.0000	1.0061	100.6	90.0 110.0	

<u>CCB#</u>	<u>ANALYTE</u>	<u>CONC FOUND #</u>	<u>CONC LIMIT</u>
ICB-	Boron	ND	0.0300
	Tin	ND	0.0100
CCB1-	Boron	ND	0.0300
	Tin	ND	0.0100
CCB2-	Boron	0.0012	0.0300
	Tin	ND	0.0100
CCB3-	Boron	0.0005	0.0300
	Tin	ND	0.0100

----- Result Footnotes -----

- See comments below.

) - Duplicates not evaluated: Results are <10x detection limit

Page 2

Mountain States Analytical, Inc.
Daily QC Batching Data
Data Released for Reporting

11/23/98
15:38:12
Group: 24619

ysis Batch Number: ICPHR-10/31/98-061 -1
Identification : ICPHR-*IRIS QC parameters
Number of Samples : 3
Batch Data-Date/Time : 11/01/98 / 16:33:14

Sequence : DATP304

----- Batch Notes -----

Samples digested in borosilicate glassware.
iti

Groups & Samples

24619-88732 24673-88914

Analysis Batch Number: ICPWA-10/31/98-061 -1
Test Identification : ICPWA-*Metals by ICP
Number of Samples : 8
Batch Data-Date/Time : 10/31/98 / 21:59:24

Sequence : DATA304

BLANK#	ANALYTE	CONC FOUND #	CONC LIMIT
PBW-717	Silver	ND	0.0050
	Aluminum	ND	0.0300
	Arsenic	0.0058	0.0350
	Barium	0.0007	0.0030
	Beryllium	ND	0.0003
	Cadmium	0.0000	0.0040
	Cobalt	0.0017	0.0050
	Chromium	ND	0.0100
	Copper	0.0016	0.0100
	Iron	ND	0.2000
	Manganese	0.0007	0.0030
	Nickel	0.0032	0.0200
	Lead	0.0081	0.0500
	Antimony	ND	0.1000
	Selenium	ND	0.0600
	Thallium	0.0408	0.1000
	Vanadium	0.0008	0.0030
	Zinc	0.0160	0.0250

SAMPLE#	ANALYTE	QC LIMITS					
		CONC ADDED	CONC SAMPLE	CONC SPIKE	% REC #	LOWER	UPPER
24619-88732	Silver	0.0500	-0.0008	0.0511	103.7	80.0	120.0
	Aluminum	2.0000	2.9242	5.4979	128.7(2c)	80.0	120.0
	Arsenic	2.0000	0.0024	2.0836	104.1	80.0	120.0
	Barium	2.0000	0.0780	2.0677	99.5	80.0	120.0
	Beryllium	0.0500	0.0001	0.0514	102.6	80.0	120.0
	Cadmium	0.0500	-0.0006	0.0486	98.4	80.0	120.0
	Cobalt	0.5000	0.0029	0.5144	102.3	80.0	120.0
	Chromium	0.2000	0.0010	0.2054	102.2	80.0	120.0
	Copper	0.2500	0.0059	0.2617	102.3	80.0	120.0
	Iron	1.0000	1.4872	2.6385	115.1	80.0	120.0
	Manganese	0.5000	0.6712	1.1706	99.9	80.0	120.0
	Nickel	0.5000	-0.0042	0.5206	105.0	80.0	120.0
	Lead	0.5000	0.0019	0.5290	105.4	80.0	120.0
	Antimony	1.0000	-0.0224	1.0767	109.9	80.0	120.0
	Selenium	2.0000	-0.0294	2.0158	102.3	80.0	120.0
	Thallium	2.0000	0.0115	1.9869	98.8	80.0	120.0
	Vanadium	0.5000	0.0049	0.5244	103.9	80.0	120.0
	Zinc	0.5000	0.0178	0.5635	109.1	80.0	120.0

SAMPLE#	ANALYTE	QC LIMITS						LIMIT	
		CONC ADDED	CONC SAMPLE	RESULT 2	%REC2 #	LOWER	UPPER		
24619-88732	Silver	0.0500	-0.0008	0.0491	99.7	80.0	120.0	4.0	20.0
	Aluminum	2.0000	2.9242	5.5690	132.2(2c)	80.0	120.0	1.3	20.0
	Arsenic	2.0000	0.0024	2.0824	104.0	80.0	120.0	0.1	20.0
	Barium	2.0000	0.0780	2.0830	100.3	80.0	120.0	0.7	20.0
	Beryllium	0.0500	0.0001	0.0518	103.6	80.0	120.0	0.9	20.0
	Cadmium	0.0500	-0.0006	0.0504	102.0	80.0	120.0	3.6	20.0
	Cobalt	0.5000	0.0029	0.5175	102.9	80.0	120.0	0.6	20.0
	Chromium	0.2000	0.0010	0.2075	103.2	80.0	120.0	1.0	20.0

Analysis Batch Number: ICPWA-10/31/98-061 -1
Instrument Identification : ICPWA-*Metals by ICP
Number of Samples : 8
Batch Data-Date/Time : 10/31/98 / 21:59:24

Sequence : DATA304

MSD

SAMPLE#	ANALYTE	QC LIMITS							
		CONC ADDED	CONC SAMPLE	RESULT 2	%REC2 #	LOWER	UPPER	RPD #	LIMIT
24619-88732	Copper	0.2500	0.0059	0.2551	99.7	80.0	120.0	2.5	20.0
	Iron	1.0000	1.4872	2.6275	114.0	80.0	120.0	0.4	20.0
	Manganese	0.5000	0.6712	1.1819	102.1	80.0	120.0	1.0	20.0
	Nickel	0.5000	-0.0042	0.5201	104.9	80.0	120.0	0.1	20.0
	Lead	0.5000	0.0019	0.5213	103.9	80.0	120.0	1.5	20.0
	Antimony	1.0000	-0.0224	1.0583	108.1	80.0	120.0	1.7	20.0
	Selenium	2.0000	-0.0294	2.0513	104.0	80.0	120.0	1.7	20.0
	Thallium	2.0000	0.0115	1.9751	98.2	80.0	120.0	0.6	20.0
	Vanadium	0.5000	0.0049	0.5262	104.3	80.0	120.0	0.3	20.0
	Zinc	0.5000	0.0178	0.5611	108.7	80.0	120.0	0.4	20.0

DUPLICATE

SAMPLE#	ANALYTE	RESULT 1	RESULT 2	RPD #	LIMIT	DILUTION
24619-88732	Silver	-0.0008	0.0006	1635.3(11)	20.0	1.00
	Aluminum	2.9242	2.8638	2.1	20.0	1.00
	Arsenic	0.0024	0.0097	121.1(11)	20.0	1.00
	Barium	0.0780	0.0781	0.1	20.0	1.00
	Beryllium	0.0001	0.0000	50.0(11)	20.0	1.00
	Cadmium	-0.0006	0.0000	200.0(11)	20.0	1.00
	Cobalt	0.0029	0.0018	45.0(11)	20.0	1.00
	Chromium	0.0010	0.0008	21.7(11)	20.0	1.00
	Copper	0.0059	0.0030	64.9(11)	20.0	1.00
	Iron	1.4872	1.4929	0.4	20.0	1.00
	Manganese	0.6712	0.6811	1.5	20.0	1.00
	Nickel	-0.0042	0.0002	219.0(11)	20.0	1.00
	Lead	0.0019	0.0005	112.6(11)	20.0	1.00
	Antimony	-0.0224	0.0000	200.0(11)	20.0	1.00
	Selenium	-0.0294	0.0000	200.0(11)	20.0	1.00
	Thallium	0.0115	0.0247	73.1(11)	20.0	1.00
	Vanadium	0.0049	0.0061	20.6(5a)	20.0	1.00
	Zinc	0.0178	0.0190	6.3	20.0	1.00

CONTROL

SAMPLE#	ANALYTE	CONC FOUND	CONC KNOWN	% REC #	LOWER	UPPER	QC LIMITS
LCSW-717	Silver	0.0534	0.0500	106.9	80.0	120.0	
	Aluminum	2.1858	2.0000	109.3	80.0	120.0	
	Arsenic	2.0857	2.0000	104.3	80.0	120.0	
	Barium	2.0631	2.0000	103.2	80.0	120.0	
	Beryllium	0.0523	0.0500	104.7	80.0	120.0	
	Cadmium	0.0536	0.0500	107.3	80.0	120.0	
	Cobalt	0.5319	0.5000	106.4	80.0	120.0	
	Chromium	0.2149	0.2000	107.4	80.0	120.0	
	Copper	0.2623	0.2500	104.9	80.0	120.0	
	Iron	1.0729	1.0000	107.3	80.0	120.0	
	Manganese	0.5209	0.5000	104.2	80.0	120.0	
	Nickel	0.5465	0.5000	109.3	80.0	120.0	
	Lead	0.5493	0.5000	109.9	80.0	120.0	
	Antimony	1.0951	1.0000	109.5	80.0	120.0	
	Selenium	2.0424	2.0000	102.1	80.0	120.0	

ysis Batch Number: ICPWA-10/31/98-061 -1
Test Identification : ICPWA-*Metals by ICP
Number of Samples : 8
Batch Data-Date/Time : 10/31/98 / 21:59:24

Sequence : DATA304

CONTROL

<u>SAMPLE#</u>	<u>ANALYTE</u>	<u>CONC FOUND</u>	<u>CONC KNOWN</u>	<u>% REC #</u>	QC LIMITS	
LCSW-717	Thallium	2.0770	2.0000	103.8	80.0	120.0
	Vanadium	0.5294	0.5000	105.9	80.0	120.0
	Zinc	0.5503	0.5000	110.1	80.0	120.0

QC LIMITS

<u>CCV #</u>	<u>ANALYTE</u>	<u>TRUE VALUE</u>	<u>BATCH READ</u>	<u>% REC #</u>	<u>LOWER</u>	<u>UPPER</u>
ICV-	Silver	0.4000	0.4075	101.9	90.0	110.0
	Aluminum	20.0000	19.9589	99.8	90.0	110.0
	Arsenic	1.6000	1.5851	99.1	90.0	110.0
	Barium	4.0000	3.8524	96.3	90.0	110.0
	Beryllium	0.4000	0.3900	97.5	90.0	110.0
	Cadmium	4.0000	3.9372	98.4	90.0	110.0
	Cobalt	0.8000	0.7868	98.3	90.0	110.0
	Chromium	4.0000	3.9089	97.7	90.0	110.0
	Copper	4.0000	3.8672	96.7	90.0	110.0
	Iron	4.0000	3.9072	97.7	90.0	110.0
	Manganese	4.0000	3.8667	96.7	90.0	110.0
	Nickel	8.0000	7.9159	98.9	90.0	110.0
	Lead	20.0000	19.9604	99.8	90.0	110.0
	Antimony	4.0000	3.9928	99.8	90.0	110.0
	Selenium	1.6000	1.5443	96.5	90.0	110.0
	Thallium	4.0000	3.7544	93.9	90.0	110.0
	Vanadium	1.6000	1.5735	98.3	90.0	110.0
	Zinc	4.0000	3.9898	99.7	90.0	110.0
CCV1--2	Silver	0.4000	0.4040	101.0	90.0	110.0
	Aluminum	20.0000	20.1466	100.7	90.0	110.0
	Arsenic	1.6000	1.5893	99.3	90.0	110.0
	Barium	4.0000	3.8645	96.6	90.0	110.0
	Beryllium	0.4000	0.3899	97.5	90.0	110.0
	Cadmium	4.0000	3.8949	97.4	90.0	110.0
	Cobalt	0.8000	0.7826	97.8	90.0	110.0
	Chromium	4.0000	3.8877	97.2	90.0	110.0
	Copper	4.0000	3.8746	96.9	90.0	110.0
	Iron	4.0000	3.9707	99.3	90.0	110.0
	Manganese	4.0000	3.8484	96.2	90.0	110.0
	Nickel	8.0000	7.8508	98.1	90.0	110.0
	Lead	20.0000	19.8102	99.1	90.0	110.0
	Antimony	4.0000	3.9888	99.7	90.0	110.0
	Selenium	1.6000	1.5220	95.1	90.0	110.0
	Thallium	4.0000	3.8080	95.2	90.0	110.0
	Vanadium	1.6000	1.5711	98.2	90.0	110.0
	Zinc	4.0000	3.9591	99.0	90.0	110.0
CCV2--3	Silver	0.4000	0.4076	101.9	90.0	110.0
	Aluminum	20.0000	20.1591	100.8	90.0	110.0
	Arsenic	1.6000	1.5885	99.3	90.0	110.0
	Barium	4.0000	3.8578	96.4	90.0	110.0
	Beryllium	0.4000	0.3930	98.3	90.0	110.0
	Cadmium	4.0000	3.9516	98.8	90.0	110.0
	Cobalt	0.8000	0.7875	98.4	90.0	110.0

Analysis Batch Number: ICPWA-10/31/98-061 -1

Test Identification : ICPWA-*Metals by ICP

Number of Samples : 8

Batch Data-Date/Time : 10/31/98 / 21:59:24

Sequence : DATA304

QC LIMITS

CCV #	ANALYTE	TRUE VALUE	BATCH READ	% REC #	LOWER	UPPER
CCV2--3	Chromium	4.0000	3.9102	97.8	90.0	110.0
	Copper	4.0000	3.8790	97.0	90.0	110.0
	Iron	4.0000	3.9971	99.9	90.0	110.0
	Manganese	4.0000	3.8701	96.8	90.0	110.0
	Nickel	8.0000	7.9404	99.3	90.0	110.0
	Lead	20.0000	20.0473	100.2	90.0	110.0
	Antimony	4.0000	3.9854	99.6	90.0	110.0
	Selenium	1.6000	1.5444	96.5	90.0	110.0
	Thallium	4.0000	3.7918	94.8	90.0	110.0
	Vanadium	1.6000	1.5775	98.6	90.0	110.0
	Zinc	4.0000	4.0021	100.1	90.0	110.0
CCV3--4	Silver	0.4000	0.3983	99.6	90.0	110.0
	Aluminum	20.0000	19.8537	99.3	90.0	110.0
	Arsenic	1.6000	1.5829	98.9	90.0	110.0
	Barium	4.0000	3.8322	95.8	90.0	110.0
	Beryllium	0.4000	0.3936	98.4	90.0	110.0
	Cadmium	4.0000	3.9629	99.1	90.0	110.0
	Cobalt	0.8000	0.7896	98.7	90.0	110.0
	Chromium	4.0000	3.9185	98.0	90.0	110.0
	Copper	4.0000	3.8289	95.7	90.0	110.0
	Iron	4.0000	3.9743	99.4	90.0	110.0
	Manganese	4.0000	3.8649	96.6	90.0	110.0
	Nickel	8.0000	7.9540	99.4	90.0	110.0
	Lead	20.0000	19.9743	99.9	90.0	110.0
	Antimony	4.0000	4.0097	100.2	90.0	110.0
	Selenium	1.6000	1.5484	96.8	90.0	110.0
	Thallium	4.0000	3.7594	94.0	90.0	110.0
	Vanadium	1.6000	1.5702	98.1	90.0	110.0
	Zinc	4.0000	3.9680	99.2	90.0	110.0

CCB#	ANALYTE	CONC FOUND #	CONC LIMIT
ICB-	Silver	ND	0.0050
	Aluminum	ND	0.0300
	Arsenic	ND	0.0350
	Barium	0.0005	0.0030
	Beryllium	ND	0.0003
	Cadmium	ND	0.0040
	Cobalt	0.0014	0.0050
	Chromium	ND	0.0100
	Copper	0.0017	0.0100
	Iron	ND	0.2000
	Manganese	0.0002	0.0030
	Nickel	0.0021	0.0200
	Lead	0.0034	0.0500
	Antimony	ND	0.1000
	Selenium	ND	0.0600
	Thallium	0.0168	0.1000
	Vanadium	0.0011	0.0030
	Zinc	ND	0.0250

Analysis Batch Number: ICPWA-10/31/98-061 -1

Test Identification : ICPWA-*Metals by ICP

Sequence : DATA304

Number of Samples : 8

Batch Data-Date/Time : 10/31/98 / 21:59:24

CCB#	ANALYTE	CONC FOUND #	CONC LIMIT
CCB1-	Silver	ND	0.0050
	Aluminum	0.0009	0.0300
	Arsenic	0.0030	0.0350
	Barium	0.0006	0.0030
	Beryllium	0.0000	0.0003
	Cadmium	ND	0.0040
	Cobalt	0.0008	0.0050
	Chromium	0.0008	0.0100
	Copper	0.0016	0.0100
	Iron	ND	0.2000
	Manganese	0.0005	0.0030
	Nickel	ND	0.0200
	Lead	0.0184	0.0500
	Antimony	ND	0.1000
	Selenium	ND	0.0600
	Thallium	ND	0.1000
	Vanadium	0.0010	0.0030
	Zinc	0.0013	0.0250
CCB2-	Silver	ND	0.0050
	Aluminum	ND	0.0300
	Arsenic	ND	0.0350
	Barium	0.0008	0.0030
	Beryllium	ND	0.0003
	Cadmium	ND	0.0040
	Cobalt	0.0014	0.0050
	Chromium	0.0005	0.0100
	Copper	0.0024	0.0100
	Iron	ND	0.2000
	Manganese	0.0001	0.0030
	Nickel	ND	0.0200
	Lead	0.0077	0.0500
	Antimony	ND	0.1000
	Selenium	ND	0.0600
	Thallium	0.0096	0.1000
	Vanadium	0.0010	0.0030
	Zinc	ND	0.0250
CCB3-	Silver	ND	0.0050
	Aluminum	ND	0.0300
	Arsenic	0.0101	0.0350
	Barium	0.0008	0.0030
	Beryllium	ND	0.0003
	Cadmium	0.0006	0.0040
	Cobalt	0.0012	0.0050
	Chromium	0.0017	0.0100
	Copper	0.0012	0.0100
	Iron	ND	0.2000
	Manganese	0.0007	0.0030
	Nickel	ND	0.0200
	Lead	0.0015	0.0500
	Antimony	ND	0.1000

Mountain States Analytical, Inc.
Daily QC Batching Data
Data Released for Reporting

11/23/98
15:38:17
Group: 24619

Analysis Batch Number: ICPWA-10/31/98-061 -1
Test Identification : ICPWA-*Metals by ICP
Number of Samples : 8
Batch Data-Date/Time : 10/31/98 / 21:59:24

Sequence : DATA304

CCB#	ANALYTE	CONC FOUND #	CONC LIMIT
CCB3-	Selenium	ND	0.0600
	Thallium	ND	0.1000
	Vanadium	0.0008	0.0030
	Zinc	0.0004	0.0250

----- Result Footnotes -----

- (2c) - MS/MSD are outside acceptance limits. RPD and PDS are within acceptance limits.
(11) - The duplicate results cannot be evaluated because both results are <MDL.
(5a) - Duplicates not evaluated: Results are <10x detection limit

Groups & Samples

24619-88731 24619-88732 24623-88744 24623-88745 24623-88746 24623-88747 24662-88889 24673-88914

On Site Technologies, LTD.

CLIENT: PNM - Public Service Company of NM
Work Order: 9810065
Project: Linda 1A

Date: 29-Oct-98

QC SUMMARY REPORT

Method Blank

Sample ID: MBlank	Batch ID: API H2O_981	Test Code: SW7140	Units: mg/L	Analysis Date 10/28/98				Prep Date:		
Client ID:	Run ID: API H2O_981028A	SeqNo: 8100		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte										
Calcium	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Potassium	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Magnesium	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Sodium	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Alkalinity, Bicarbonate (As CaCO3)	ND	5								
Alkalinity, Carbonate (As CaCO3)	ND	5								
Alkalinity, Total (As CaCO3)	1	5								

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

1 of 2

CLIENT: PNM - Public Service Company of NM
Work Order: 9810065
Project: Linda 1A

QC SUMMARY REPORT

Method Blank

Sample ID: MBlank	Batch ID: API H2O_981	Test Code: M4500-CI C.	Units: mg/L	Analysis Date 10/27/98				Prep Date:		
Client ID:	Run ID:	API H2O_981028A		SeqNo:	8129			%RPD	RPDLimit	Qual
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		J
Chloride	1.1	10								
Sample ID: MBlank	Batch ID: API H2O_981	Test Code: E120.1	Units: uS/cm	Analysis Date 10/23/98				Prep Date:		
Client ID:	Run ID:	API H2O_981028A		SeqNo:	8134			%RPD	RPDLimit	Qual
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		
Specific Conductance	ND	2								
Sample ID: MBlank	Batch ID: API H2O_981	Test Code: M4500-SO4 D	Units: mg/L	Analysis Date 10/28/98				Prep Date:		
Client ID:	Run ID:	API H2O_981028A		SeqNo:	8143			%RPD	RPDLimit	Qual
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		
Sulfate	ND	5								

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 29-Oct-98

CLIENT: PNM - Public Service Company of NM
Work Order: 9810065
Project: Linda 1A

QC SUMMARY REPORT

Sample Duplicate

Sample ID: 9810065-01BD	Batch ID: API H2O_981	Test Code: M2320 B	Units: mg/l	Caco3	Analysis Date	10/26/98	Prep Date:				
Client ID: 9810221225; MW-	Run ID: 9810065	API H2O_981028A			SeqNo:	8127					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	424	5	0	0	0.0%	0	0	420	0.9%	3	
Alkalinity, Carbonate (As CaCO3)	ND	5	0	0	0.0%	0	0	0	0.0%	3	
Alkalinity, Total (As CaCO3)	424	5	0	0	0.0%	0	0	420	0.9%	3	
Sample ID: 9810065-01BD	Batch ID: API H2O_981	Test Code: M4500-CI C.	Units: mg/l		Analysis Date	10/27/98	Prep Date:				
Client ID: 9810221225; MW-	Run ID: 9810065	API H2O_981028A			SeqNo:	8132					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	260	10	0	0	0.0%	0	0	266	2.3%	7	
Sample ID: 9810065-02BD	Batch ID: API H2O_981	Test Code: M4500-SO4 D	Units: mg/l		Analysis Date	10/28/98	Prep Date:				
Client ID: 9810221225; MW-	Run ID: 9810065	API H2O_981028A			SeqNo:	8147					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	738	5	0	0	0.0%	0	0	737	0.1%	6	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

CLIENT: PNM - Public Service Company of NM
Work Order: 9810065
Project: Linda 1A

Date: 29-Oct-98

QC SUMMARY REPORT
 Sample Matrix Spike

Sample ID:	9810065-01BMS	Batch ID:	API H2O_981	Test Code:	SW7610	Units:	mg/L			Analysis Date	10/28/98	Prep Date:
Client ID:	9810221225; MW-	Run ID:	9810065	Run ID:	API H2O_981028A					SeqNo:	8110	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium		4.38	0.25	1	2.98	140.0%	67	157				
Sample ID:	9810065-02BMS	Batch ID:	API H2O_981	Test Code:	SW7140	Units:	mg/L			Analysis Date	10/28/98	Prep Date:
Client ID:	9810221255; MW-	Run ID:	9810065	Run ID:	API H2O_981028A					SeqNo:	8104	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium		100	0.25	25	74.25	103.0%	69	159				
Sample ID:	9810065-02BMS	Batch ID:	API H2O_981	Test Code:	SW7450	Units:	mg/L			Analysis Date	10/28/98	Prep Date:
Client ID:	9810221255; MW-	Run ID:	9810065	Run ID:	API H2O_981028A					SeqNo:	8116	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium		12.2	0.25	5	6.85	107.0%	78	126				
Sample ID:	9810065-02BMS	Batch ID:	API H2O_981	Test Code:	SW7770	Units:	mg/L			Analysis Date	10/28/98	Prep Date:
Client ID:	9810221255; MW-	Run ID:	9810065	Run ID:	API H2O_981028A					SeqNo:	8122	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium		800	0.25	250	580	88.0%	81	135				

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

CLIENT: PNM - Public Service Company of NM
Work Order: 9810065
Project: Linda 1A

Date: 29-Oct-98

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: CCV1	Batch ID: QCO610	Batch ID: API H2O_981	Test Code: SW7610	Units: mg/L				Analysis Date 10/28/98	Prep Date:				
Client ID:	9810065	Run ID: API H2O_981028A	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium		2.65	0.25	2.68	0	98.9%	84	114					
Sample ID: LCS	Batch ID: API H2O_981	Test Code: M2320_B	Units: mg/L CaCO3										Prep Date:
Client ID:	9810065	Run ID: API H2O_981028A	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	120	5	116	1	102.6%	91	116						
Sample ID: LCS	Batch ID: API H2O_981	Test Code: M4300-Cl C.	Units: mg/L										Prep Date:
Client ID:	9810065	Run ID: API H2O_981028A	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	126	10	122	1.1	102.4%	90	114						
Sample ID: LCS	Batch ID: API H2O_981	Test Code: E120.1	Units: uS/cm										Prep Date:
Client ID:	9810065	Run ID: API H2O_981028A	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Specific Conductance	1065	2	1040	0	102.4%	97	103						
Sample ID: LCS	Batch ID: API H2O_981	Test Code: E150.1	Units: pH units										Prep Date:
Client ID:	9810065	Run ID: API H2O_981028A	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	8.905	2	9.07	0	98.2%	98	102						

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: PNM - Public Service Company of NM
Work Order: 9810065
Project: Linda 1A

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID: LCS	Batch ID: API H2O_981	Test Code: M4500-SO4 D	Units: mg/L	Analysis Date 10/28/98			Prep Date:		
Client ID:	Run ID: 9810065	Run ID: API H2O_981028A		SeqNo:	8144		%RPD	RPDLimit	Qual
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	
Sulfate	117	5	122	0	95.9%	83	113		
Sample ID: LCS	Batch ID: API H2O_981	Test Code: M2540 C.	Units: mg/L	Analysis Date 10/28/98			Prep Date:		
Client ID:	Run ID: 9810065	Run ID: API H2O_981028A		SeqNo:	8148		%RPD	RPDLimit	Qual
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	
Total Dissolved Solids (Residue, Filtera	732	40	750	0	97.6%	92	104		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

CLIENT: PNM - Public Service Company of NM
Work Order: 9810065
Project: Linda 1A

Date: 29-Oct-98

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID:	Batch ID:	Test Code:	Units:	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	Prep Date:
Sample ID: CCV1 QC0610	Batch ID: API H2O_981	Test Code: SW7450	Units: mg/L								Analysis Date 10/28/98
Client ID: 9810065	Run ID: API H2O_981028A										SeqNo: 8113
Analyte	Result	PQL	SPK value	SPK Ref Val							
Magnesium	1.59	0.25	1.58	0	100.6%	96	114				
Sample ID: CCV1 QC0610	Batch ID: API H2O_981	Test Code: SW7770	Units: mg/L								Analysis Date 10/28/98
Client ID: 9810065	Run ID: API H2O_981028A										SeqNo: 8119
Analyte	Result	PQL	SPK value	SPK Ref Val							
Sodium	2.7	0.25	2.64	0	102.3%	87	111				
Sample ID: CCV1 QC0611	Batch ID: API H2O_981	Test Code: SW7140	Units: mg/L								Analysis Date 10/28/98
Client ID: 9810065	Run ID: API H2O_981028A										SeqNo: 8101
Analyte	Result	PQL	SPK value	SPK Ref Val							
Calcium	1.91	0.25	1.95	0	97.9%	89	107				
Sample ID: CCV2 QC0610	Batch ID: API H2O_981	Test Code: SW7610	Units: mg/L								Analysis Date 10/28/98
Client ID: 9810065	Run ID: API H2O_981028A										SeqNo: 8111
Analyte	Result	PQL	SPK value	SPK Ref Val							
Potassium	2.6	0.25	2.68	0	97.0%	84	114				
Sample ID: CCV2 QC0610	Batch ID: API H2O_981	Test Code: SW7450	Units: mg/L								Analysis Date 10/28/98
Client ID: 9810065	Run ID: API H2O_981028A										SeqNo: 8117
Analyte	Result	PQL	SPK value	SPK Ref Val							
Magnesium	1.55	0.25	1.58	0	98.1%	96	114				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: PNM - Public Service Company of NM
Work Order: 9810065
Project: Linda 1A

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID:	CCV2 QC0610	Batch ID:	API H2O_981	Test Code:	SW7770	Units:	mg/L	Analysis Date:	10/28/98	Prep Date:	
Client ID:	9810065	Run ID:	API H2O_981028A	SeqNo:	8123						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium	2.72	0.25	2.64	0	103.0%	87	111				
Sample ID:	CCV2 QC0611	Batch ID:	API H2O_981	Test Code:	SW7140	Units:	mg/L	Analysis Date:	10/28/98	Prep Date:	
Client ID:	9810065	Run ID:	API H2O_981028A	SeqNo:	8105						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	1.92	0.25	1.95	0	98.5%	89	107				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

CLIENT: PNM - Public Service Company of NM
Work Order: 9810065
Project: Linda 1A

Date: 30-Nov-98

QC SUMMARY REPORT
Method Blank

Sample ID: MB1	Batch ID: GC-1_981026	Test Code: SW8020A	Units: µg/L	Analysis Date	10/26/98	Prep Date:					
Client ID:	Run ID:	GC-1_981026A		SeqNo:	8037						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	.0461	ND	1								J
Ethylbenzene		ND	1								
m,p-Xylene		ND	2								
Methyl tert-Butyl Ether		ND	1								
o-Xylene		.2056	1								
Toluene		.1356	1								J

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

I of 1

On Site Technologies, LTD.

CLIENT: PNM - Public Service Company of NM
Work Order: 9810065
Project: Linda 1A

Date: 30-Nov-98

QC SUMMARY REPORT
Sample Matrix Spike

Sample ID: 9810050-02AMS		Batch ID: GC-1_981026	Test Code: SW8020A	Units: µg/L	Analysis Date 10/26/98		Prep Date:					
Client ID:	9810065	Run ID: GC-1_981026A			SeqNo:	8038						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene		360.6	10	400	2.174	89.6%	56	128				
Ethylbenzene		383.4	10	400	10.63	93.2%	78	107				
m,p-Xylene		761.4	20	800	24.54	92.1%	67	118				
Methyl tert-Butyl Ether		370.8	10	400	0	92.7%	70	130				
o-Xylene		388.4	10	400	9.975	94.6%	78	107				
Toluene		373.2	10	400	5.001	92.1%	74	116				
Sample ID: 9810050-02AMSD		Batch ID: GC-1_981026	Test Code: SW8020A	Units: µg/L	Analysis Date 10/26/98		Prep Date:					
Client ID:	9810065	Run ID: GC-1_981026A			SeqNo:	8039						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene		359.7	10	400	2.174	89.4%	56	128	360.6	0.2%	12	
Ethylbenzene		382.9	10	400	10.63	93.1%	78	107	383.4	0.1%	11	
m,p-Xylene		760.4	20	800	24.54	92.0%	67	118	761.4	0.1%	10	
Methyl tert-Butyl Ether		376.4	10	400	0	94.1%	70	130	370.8	1.5%	15	
o-Xylene		385.5	10	400	9.975	93.9%	78	107	388.4	0.7%	14	
Toluene		372.3	10	400	5.001	91.8%	74	116	373.2	0.2%	14	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

CLIENT: PNM - Public Service Company of NM
Work Order: 9810065
Project: Linda 1A

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID: LCS WATER	Batch ID: GC-1_981026	Test Code: SW8020A	Units: ug/L	Analysis Date 10/26/98				Prep Date:			
Client ID:	9810065	Run ID: GC-1_981026A		SeqNo:	8036						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	35.87	1	40	0.0461	89.6%	56	128				
Ethylbenzene	37.44	1	40	0	93.6%	78	107				
m,p-Xylene	74.04	2	80	0	92.6%	67	118				
Methyl tert-Butyl Ether	38.08	1	40	0	95.2%	70	130				
o-Xylene	38.45	1	40	0.2056	95.6%	78	107				
Toluene	37.02	1	40	0.1356	92.2%	74	116				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

CLIENT: PNM - Public Service Company of NJM
Work Order: 9810065
Project: Linda 1A

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Date: 30-Nov-98

Sample ID: CCV1 QC0606/07	Batch ID: GC-1_981026	Test Code: SW8020A	Units: µg/L	Analysis Date 10/26/98			Prep Date:			
Client ID:	Run ID:	GC-1_981026A		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte	Result	PQL	SPK value	SPK Ref Val						
Benzene	19.6	1	20	0	98.0%	85	115			
Ethylbenzene	21.02	1	20	0	105.1%	85	115			
m,p-Xylene	41.34	2	40	0	103.4%	85	115			
Methyl tert-Butyl Ether	20.43	1	20	0	102.1%	85	115			
o-Xylene	21.06	1	20	0	105.3%	85	115			
Toluene	20.31	1	20	0	101.6%	85	115			
1,4-Difluorobenzene	90.14	0	100	0	90.1%	70	130			
4-Bromochlorobenzene	100.5	0	100	0	100.5%	70	130			
Fluorobenzene	89.56	0	100	0	89.6%	70	130			
Sample ID: CCV2 QC0606/07	Batch ID: GC-1_981026	Test Code: SW8020A	Units: µg/L	Analysis Date 10/26/98			Prep Date:			
Client ID:	Run ID:	GC-1_981026A		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte	Result	PQL	SPK value	SPK Ref Val						
Benzene	18.74	1	20	0	93.7%	85	115			
Ethylbenzene	19.64	1	20	0	98.2%	85	115			
m,p-Xylene	38.66	2	40	0	96.6%	85	115			
Methyl tert-Butyl Ether	19.83	1	20	0	99.1%	85	115			
o-Xylene	20.14	1	20	0	100.7%	85	115			
Toluene	19.33	1	20	0	96.7%	85	115			
1,4-Difluorobenzene	90.56	0	100	0	90.6%	70	130			
4-Bromochlorobenzene	100.7	0	100	0	100.7%	70	130			
Fluorobenzene	89.76	0	100	0	89.8%	70	130			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank
I of 2

CLIENT: PNM - Public Service Company of NM
Work Order: 9810065
Project: Linda 1A

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: CCV3 QC060607	Batch ID: GC-1_981026	Test Code: SW8020A	Units: µg/L	Analysis Date 10/26/98				Prep Date:		
Client ID:	Run ID:	GC-1_981026A		SeqNo:	8035			%RPD	RPDLimit	Qual
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		
Benzene	36.65	1	40	0	91.6%	85	115			
Ethylbenzene	38.13	1	40	0	95.3%	85	115			
m,p-Xylene	75.25	2	80	0	94.1%	85	115			
Methyl tert-Butyl Ether	37.66	1	40	0	94.2%	85	115			
o-Xylene	38.89	1	40	0	97.2%	85	115			
Toluene	37.72	1	40	0	94.3%	85	115			
1,4-Difluorobenzene	90.17	0	100	0	90.2%	70	130			
4-Bromochlorobenzene	99.3	0	100	0	99.3%	70	130			
Fluorobenzene	89.4	0	100	0	89.4%	70	130			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 30-Nov-98

CLIENT: PNM - Public Service Company of NM
Work Order: 9810065
Project: Linda 1A
Test No: SW8020A

QC SUMMARY REPORT
SURROGATE RECOVERIES

BTEX

Sample ID	14FBZ	4BCBZ	FLBZ						
9810040-05A	90.7	98.9	89.6						
9810050-01A	89	98	88.3						
9810050-02A	88.6	98.2	88.2						
9810050-02AMS	89.4	98.1	89						
9810050-02AMSD	89.7	99	89						
9810062-01A	90.8	100	89.6						
9810062-02A	90.2	100	89.8						
9810062-03A	90.6	100	89.3						
9810062-04A	89.7	101	89.9						
9810064-01A	90.2	101	89.8						
9810064-02A	90.9	100	89.9						
9810065-01A	90.4	101	89.9						
9810065-02A	90.7	102	89.6						
9810065-03A	90.7	100	89.7						
9810065-04A	91.3	99.4	89.8						
9810065-05A	90.4	100	90.1						
CCV1 QC0606/07	90.1	100	89.6						
CCV2 QC0606/07	90.6	101	89.8						
CCV3 QC0606/07	90.2	99.3	89.4						
LCS WATER	89.9	100	89.5						
MB1	90.7	101	89.5						

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	70-130
4BCBZ	= 4-Bromochlorobenzene	70-130
FLBZ	= Fluorobenzene	70-130

* Surrogate recovery outside acceptance limits

On Site Technologies, LTD.

612 E. Murray Drive
Farmington, NM 87401
(505) 325-2432

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Relinquished by:

Mountain States Analytical, Inc.
1645 West 2200 South

Salt Lake City, UT 84119

27-Oct-98

Subcontractor:
TEL: (800) 973-6724
FAX: (801) 972-6278

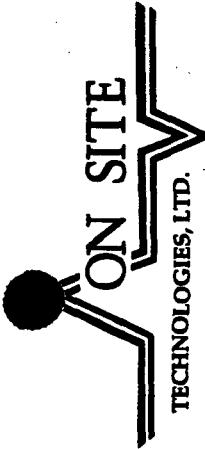
Acct #:

Sample ID	Matrix	Collection Date	Bottle Type	SW6010A	SW7470	SW7742	Requested Tests
9810065-01C	Aqueous	10/22/98 12:25:00 PM	1LCU	8	1	1	
9810065-02C	Aqueous	10/22/98 12:55:00 PM	1LCU	8	1	1	

Comments:

Please analyze (2) unfiltered water samples for dissolved metals per WQCC Format.

Date/Time	Received by:	Date/Time
10/27/98 1700	<i>Patti A. Anderson</i>	10/27/98 1000 am
	Received by:	



CHAIN OF CUSTODY RECORD

TECHNOLOGIES LTD.

Date: 10
612 E. Murphy Dr. • P.O. Box 2606 • Farmington, NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Date: 10

Page: _____ of _____

Date: 10/22/93

CHAIN OF CUSTODY RECORD

The logo consists of a large, hollow five-pointed star shape. The word "ON SITE" is written vertically along the left side of the star's outline. To the left of the star, there is a small circular icon with a horizontal bar extending from its bottom, resembling a stylized antenna or a lightning bolt.