

3R - 318

**GENERAL  
CORRESPONDENCE**

**YEAR(S):**

2003 - 1996



Environmental Project Services  
188 County Road 4900  
Bloomfield, NM 87413  
505-634-4956 Phone  
505-327-4577 Fax

May 5, 2003

RECEIVED

MAY 15 2003

ENVIRONMENTAL BUREAU  
OIL CONSERVATION DIVISION

Mr. William Olson  
Hydrologist  
New Mexico Oil Conservation Division  
1220 S. St. Francis Dr.  
Santa Fe, NM 87505

**RE: CASE #3R0318 FLORANCE #124 SEPARATOR/DEHY PIT SAN JUAN COUNTY**

Dear Mr. Olson:

This letter and enclosed potentiometric surface map serves as an addendum to the "FLORANCE #124 PIT REMEDIATION AND CLOSURE REPORT" previously submitted to you on January 24, 2003. This addendum is being provided in response to your March 31, 2003 request for a more recent and detailed map depicting the potentiometric surface at the site.

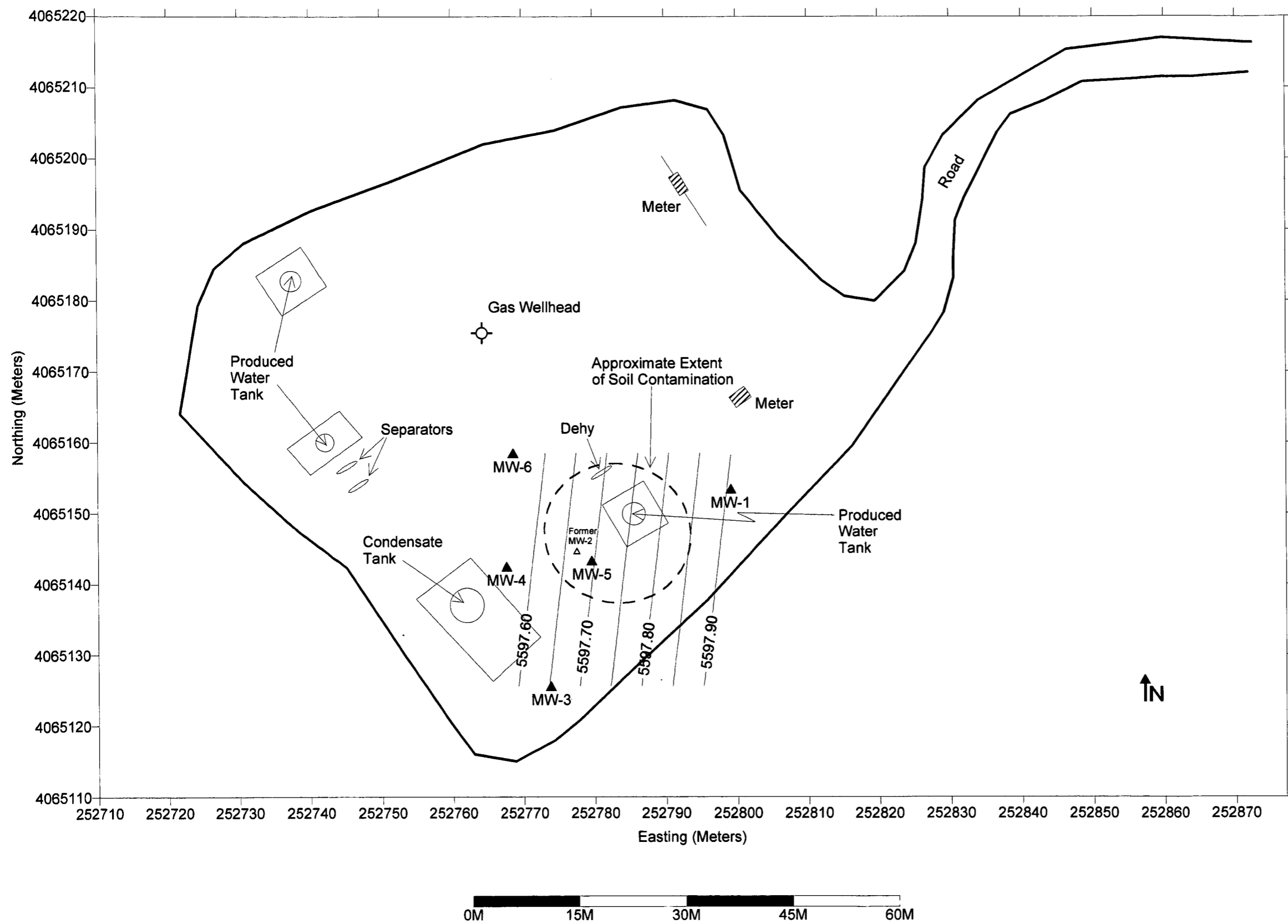
Your March 31, 2003 letter also requested clarification of a comment in the "PIT REMEDIATION AND CLOSURE REPORT" concerning elevated total dissolved solids (TDS) in site ground water. As stated in the report, Public Service Company of New Mexico (PNM) had on April 15, 1997 requested closure of this site based on the contention that area ground water had no beneficial use as demonstrated by TDS levels in BACKGROUND water quality samples exceeding 10,000 mg/l. A copy of the previously submitted PNM report is enclosed for your records. Notwithstanding, there is no historical evidence of any operating practice that would contribute to elevated dissolved solids originating at an unlined dehy impoundment. Because the observed TDS level was representative of naturally occurring or upgradient ground water quality no monitoring of TDS was conducted nor has such monitoring been required as a condition of site closure.

Thank you for your time to review this submittal. If you have any questions regarding this addendum, you may call me at (505) 634-4956.

Respectfully,

Mark B. Harvey  
Project Coordinator

cc: Denny Foust, OCD Aztec District Office  
Bill Liess, BLM Farmington District Office  
Enclosures (2)



**Figure 2**  
**Potentiometric**  
**Surface Map**  
**Florance #124**  
**(October 26, 2001)**

LEGEND	
MW-2 ▲	Monitoring Well
— 5585.20 —	Ground Water Elevation (ft. AMSL)

## **Groundwater Site Summary Report**

Copies: WFS(1)  
Operator (1)  
NMOCD District Office (1)  
NMOCD Santa Fe (1)

**Quarter/Year:** 4/96 & 1/97

**Operator:** Amoco  
**Sec:** 27 **Twn:** 29N **Rng:** 9 W **Unit:** M  
**Canyon:** Largo

**Vulnerable Class:** Original  
**OCD Ranking:** 30  
**Lead Agency:** NMOCD

**Topo Map:** previously submitted  
**Well Completion Diagram:** previously submitted  
**Full Suite- Groundwater Sampling:** previously submitted  
**Site Map with Groundwater Analysis:** Figure 1  
**Groundwater Contour Map:** Figure 2  
**Groundwater Elevation Graph:** Figure 3  
**Analytical Results:** attached

### **Activities for Previous Two Quarters (Oct. - Dec. 1996 & Jan. - Mar. 1997):**

On December 6, 1996, PNM performed quarterly sampling of groundwater monitoring wells at the site. No additional sampling was conducted at the site in the first quarter of 1997 due to the ongoing elevated levels of total dissolved solids (TDS). Water levels were measured at each well. PNM conducted groundwater sampling in each well for chemical analyses of benzene, toluene, ethylbenzene, and xylenes (BTEX). In addition, monitoring wells, MW-1 and MW-2, were sampled for dissolved mercury (Hg) due to a previous laboratory error. 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, and atomic absorption spectroscopy (AAS) for Hg.

### **Results:**

Figure 1 provides a site map showing benzene, toluene, ethylbenzene and xylenes (BTEX) and total dissolved solids (TDS) analytical data for each monitoring well since groundwater contamination was discovered. All wells at the site continue to show extremely high concentrations of total dissolved solids (TDS), between 18938 mg/l and 28856 mg/l. BTEX concentrations are decreasing in MW-2, the only contaminated well on location. Mercury (Hg) was non-detect in MW-1 and MW-2 (see attached analytical results).

Figure 2 provides a groundwater contour map of the site for the fourth quarter of 1996. The groundwater flow direction is southwesterly beneath the site as was previously determined in September of 1996. Figure 3 presents a groundwater hydrograph of the site since monitoring began. In each well, the groundwater level decreased between September and December of 1996.

### **Further Action:**

PNM requests closure of the Florance 124. This request is based upon the high concentrations of TDS in the groundwater at the Florance 124. We believe the elevated TDS levels are indicative of the groundwater in this local area and have chosen not to drill a new up-gradient well. MW-1 lies 75 feet up-gradient of the former pit area and serves as a good background well for the site. After two quarters of monitoring, TDS levels remain above 10,000 mg/l; therefore, PNM believes the groundwater has no beneficial use in the future. Upon completion of monitoring and remedial actions, PNM will plug and abandon the four groundwater monitoring wells at the Florance 124. The concrete pad and the 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 with cement containing 5% betonite.

### **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**



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

**Lori Wrotenbery**

Director

**Oil Conservation Division**

March 31, 2003

Mr. Mark B. Harvey  
Williams Field Services  
188 County Rd. 4900  
Bloomfield, New Mexico 87413

**RE: CASE #3R0318  
FLORANCE #124 SEPARATOR/DEHY PIT  
SAN JUAN COUNTY, NEW MEXICO**

Dear Mr. Harvey:

The New Mexico Oil Conservation Division (OCD) has reviewed Williams Field Services' (WFS) January 24, 2003 "FLORANCE #124 PIT REMEDIATION AND CLOSURE REPORT". This document contains the results of WFS's soil and ground water remediation activities for an unlined pit at the Florance #124 separator/dehy pit site located in Unit C, Sec. 27, T29N, R09W, San Juan County, New Mexico. The document requests closure approval of the site remedial actions.

The above-referenced report does not contain any recent ground water potentiometric maps for the site. The ground water potentiometric map provided is from a December 1996 PNM sampling event. OCD's approval of the ground water remediation and monitoring plan required a ground water potentiometric map be prepared for each sampling event. The maps are to show the monitoring well locations in relation to the former pit and the direction and magnitude of the hydraulic gradient. The report also does not contain information on the ground water monitoring of total dissolved solids (TDS) at the site, nor does the report address the high TDS concentrations in the site ground water monitoring wells. The OCD cannot complete a review of the closure request for the Florance #124 site until WFS submits the above information.

A review of WFS's last annual report on ground water sites in the San Juan Basin shows that the reports for each site also do not include the ground water potentiometric maps discussed above. In addition, some sites reference phase separated product (PSH) recovery activities, but do not contain information for each sampling event on the thickness of PSH in site ground water monitoring wells nor the amount of product recovered. Please include this information in all subsequent annual reports.

If you have any questions, please contact me at (505) 476-3491.

Sincerely,

A handwritten signature in black ink, appearing to read "William C. Olson". The signature is fluid and cursive, with the first name "William" being more prominent than the last name "Olson".

William C. Olson  
Hydrologist  
Environmental Bureau

cc: Denny Foust, OCD Aztec District Office  
Bill Liess, BLM Farmington District Office  
Mike Lane, Williams Field Services



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

2040 S. PACHECO  
SANTA FE, NEW MEXICO 87505  
(505) 827-7131

April 7, 1998

Ms. Maureen Gannon  
PNM  
Alvarado Square, MS 0408  
Albuquerque, New Mexico 87158

**RE: GROUND WATER ANALYSES  
FLORANCE 124 WELL SITE**

Dear Ms. Gannon:

Enclosed are the New Mexico Oil Conservation Division's (OCD) ground water analyses from the Florance 124 well site that the OCD split with PNM on November 19, 1997.

If you have any questions, please call me at (505) 827-7154.

Sincerely,

A handwritten signature in black ink, appearing to read "Will Olson".

William C. Olson  
Hydrologist  
Environmental Bureau

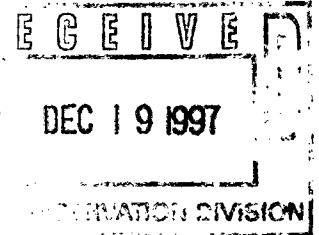
xc: Denny Foust, OCD Aztec District Office

# *American Environmental Network, Inc.*

AEN I.D. 711338

December 18, 1997

NM Oil Conservation Division  
2040 South Pacheco  
Santa Fe, NM 87505



Project Name/Number: FLORENCE 124

Attention: Bill Olson

On 11/19/97, American Environmental Network (NM) Inc., (ADHS License No. AZ0015), received a request to analyze **aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

All analyses were performed by American Environmental Network (AZ) Inc., 9830 S. 51st Street, Suite B-113, Phoenix, AZ.

If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.

  
H. Mitchell Rubenstein, Ph.D.  
General Manager

MR:jt

Enclosure

*American Environmental Network, Inc.*

CLIENT : NMOCD DATE RECEIVED : 11/19/97  
PROJECT # : FLORENCE 124  
PROJECT NAME : FLORENCE 124 REPORT DATE : 12/18/97

AEN ID: 711338

	AEN ID #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	711338-01	9711191030	AQUEOUS	11/19/97

---TOTALS---

<u>MATRIX</u>	<u>#SAMPLES</u>
AQUEOUS	1

AEN STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.'

*American Environmental Network, Inc.*

AEN I.D. 711274

December 17, 1997

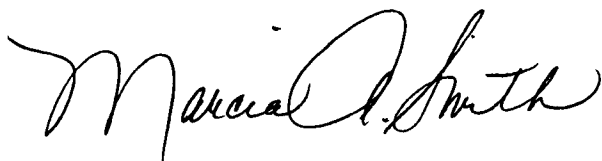
American Environmental Network-NM  
2709-D Pan American Frwy, NE  
Albuquerque, NM 87107

Project Name/Number: NMOCD/711338

Attention: Kimberly D. McNeill

On 11/20/97, American Environmental Network (Arizona), Inc., received a request to analyze aqueous sample(s). The sample(s) were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

If you have any questions or comments, please do not hesitate to contact us at (602) 496-4400.



Marcia A. Smith  
Project Manager  
MS/acc  
Enclosure

ADHS License No. AZ0061  
Alan Kleinschmidt, Regional General Manager

*American Environmental Network, Inc.*

CLIENT : AMERICAN ENV. NETWORK OF NM, INC. DATE RECEIVED : 11/20/97  
PROJECT # : 711338  
PROJECT NAME : NMOCD REPORT DATE : 12/17/97  
ATI I.D. : 711274

ATI #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	711338-01	AQUEOUS	11/19/97

----- TOTALS -----

MATRIX	# SAMPLES
AQUEOUS	1

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

*American Environmental Network, Inc.*

GENERAL CHEMISTRY RESULTS

ATI I.D. : 711274

CLIENT : AMERICAN ENV. NETWORK OF NM, INC.  
PROJECT # : 711338  
PROJECT NAME : NMOCD

DATE RECEIVED : 11/20/97

REPORT DATE : 12/17/97

PARAMETER	UNITS	01
CARBONATE (CACO3)	MG/L	<1
BICARBONATE (CACO3)	MG/L	359
HYDROXIDE (CACO3)	MG/L	<1
TOTAL ALKALINITY (AS CACO3)	MG/L	359
BROMIDE (EPA 300.0)	MG/L	<0.6
CHLORIDE (EPA 325.2)	MG/L	24
CONDUCTIVITY, (UMHOS/CM)		5180
FLUORIDE (EPA 340.2)	MG/L	2.00
PH (EPA 150.1)	UNITS	7.5
SULFATE (EPA 375.2)	MG/L	2900
T. DISSOLVED SOLIDS (160.1)	MG/L	4130

*American Environmental Network, Inc.*

GENERAL CHEMISTRY - QUALITY CONTROL

CLIENT : AMERICAN ENV. NETWORK OF NM, INC.

PROJECT # : 711338

PROJECT NAME : NMOCD

ATI I.D. : 711274

PARAMETER	UNITS	ATI I.D.	SAMPLE RESULT	DUP. RESULT	RPD	SPIKED SAMPLE	SPIKE CONC	% REC
CARBONATE	MG/L	71138901	<1	<1	NA	NA	NA	NA
BICARBONATE	MG/L		132	130	2	NA	NA	NA
HYDROXIDE	MG/L		<1	<1	NA	NA	NA	NA
TOTAL ALKALINITY	MG/L		132	130	2	NA	NA	NA
BROMIDE	MG/L	71117001	<0.3	<0.3	NA	1.3	1.0	130
CHLORIDE	MG/L	71114601	290	290	0	550	250	104
CONDUCTIVITY (UMHOS/CM)		71140003	1060	1060	0	NA	NA	NA
FLUORIDE	MG/L	71299902	3.85	4.00	4	9.13	5.00	106
PH	UNITS	71124301	7.4	7.4	0	NA	NA	NA
SULFATE	MG/L	71124402	660	680	3	980	400	80
TOTAL DISSOLVED SOLIDS	MG/L	71131502	1050	1080	3	NA	NA	NA

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

*American Environmental Network, Inc.*

METALS RESULTS

ATI I.D. : 711274

CLIENT : AMERICAN ENV. NETWORK OF NM, INC.  
PROJECT # : 711338  
PROJECT NAME : NMOCD

DATE RECEIVED : 11/20/97

REPORT DATE : 12/17/97

PARAMETER	UNITS	01
CALCIUM (EPA 200.7/6010)	MG/L	223
POTASSIUM (EPA 200.7/6010)	MG/L	4.9
MAGNESIUM (EPA 200.7/6010)	MG/L	20.5
SODIUM (EPA 200.7/6010)	MG/L	1090

*American Environmental Network, Inc.*

METALS - QUALITY CONTROL

CLIENT : AMERICAN ENV. NETWORK OF NM, INC.  
PROJECT # : 711338  
PROJECT NAME : NMOCD

ATI I.D. : 711274

PARAMETER	UNITS	ATI I.D.	SAMPLE RESULT	DUP. RESULT	RPD	SPIKED SAMPLE	SPIKE CONC	% REC
CALCIUM	MG/L	71299911	69.5	68.8	1	117	50.0	95
POTASSIUM	MG/L	71299911	1.3	1.2	8	53.6	50.0	105
MAGNESIUM	MG/L	71299911	21.4	21.5	0.5	46.0	25.0	98
SODIUM	MG/L	71299911	529	526	0.6	1730	1250	96

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

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**DATE OF ANALYSIS REPORT**

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**AEN ID: 711274***17-Dec-97*

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METHOD	SAMPLE #	DATE	ANALYST
ALKALINITY (EPA 310.1)	01	12/01/97	MARLA WILSON
BROMIDE (EPA 300.0)	01	12/02/97	MARLA WILSON
CALCIUM (EPA 200.7/6010)	01	12/09/97	JACKIE L. CLEMENT
CHLORIDE (EPA 325.2)	01	11/26/97	CARLENE MCCUTCHEON
CONDUCTIVITY, (UMHOS/CM)	01	12/01/97	PAUL STRICKLER
FLUORIDE (EPA 340.2)	01	11/25/97	DIPTI A. SHAH
MAGNESIUM (EPA 200.7/6010)	01	12/09/97	JACKIE L. CLEMENT
PH (EPA 150.1)	01	11/20/97	DIPTI A. SHAH
POTASSIUM (EPA 200.7/6010)	01	12/09/97	JACKIE L. CLEMENT
SODIUM (EPA 200.7/6010)	01	12/09/97	JACKIE L. CLEMENT
SULFATE (EPA 375.2)	01	12/06/97	CARLENE MCCUTCHEON
T. DISSOLVED SOLIDS (160.1)	01	11/24/97	DIPTI A. SHAH

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Methods for Chemical Analysis of Water and Wastes, EPA-600 4-79-020, March 1983

Methods for the Determination of Inorganic Substances in Environmental Samples, EPA-600-R-93/100

*American Environmental Network, Inc.*

DATE: 12-17-97

ION BALANCE

AEN ACCESSION NUMBER: 71127401  
SAMPLE IDENTIFICATION: 711338-01  
CLIENT: AMERICAN ENVIRONMENTAL NETWORK OF NM

ANIONS	RESULT MG/L	FACTOR ME/L	TOTAL
ALKALINITY (AS $\text{CaCO}_3$ )	359.000	0.02000	7.18000
CHLORIDE	24.000	0.02821	0.67704
FLUORIDE	2.000	0.05264	0.10528
NITRATE AS N ( $\text{NO}_3(\text{NO}_3\text{-N} \times 4.43)$ )	NA	0.01613	0.00000
$\text{SiO}_3$ (SILICON $\times 2.71$ )	NA	0.02629	0.00000
SULFATE	2900.000	0.02082	60.37800

TOTAL ANIONS 68.34032

CATIONS	RESULT	FACTOR	TOTAL
CALCIUM	223.000	0.04990	11.1277
POTASSIUM	4.900	0.02558	0.12534
MAGNESIUM	20.500	0.08229	1.68695
SODIUM	1090.000	0.04350	47.41500

TOTAL CATIONS 60.35499

		%RPD (<10%)*	12.41
TOTAL ANIONS/CATIONS	(CALCULATED)	4479.800	
TOTAL DISSOLVED SOLIDS	(ANALYZED)	4130	%RPD (<15%)* 8.13
ELECTRICAL COND.		5180	TDS/EC RATIO (0.65+/-0.10) 0.80

\* If either Total Cations or Total Anions <10, then the %RPD Limit is not applicable.



American Environmental Network  
Albuquerque, New Mexico

# Interlab Chain of Custody

DATE: 11-19-97 PAGE: 1 OF 1

NETWORK PROJECT MANAGER: KIMBERLY D. McNEILL					ANALYSIS REQUEST																										
COMPANY: American Environmental Network ADDRESS: 2709-D Pan American Freeway, NE Albuquerque, NM 87107					Metals - TAL	Metals - PP List	Metals - RCRA	RCRA Metals by TCLP (1311)	Cations: Ca, K, Mg, Na, Ni, Pb, Zn	Anions: F, Cl, Br, Alk Hg, Cl	TOX	504, TDS, E. Coli, pH	TOC	Gen Chemistry			Oil and Grease	BOD	COD	Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Polynuclear Aromatics (610/8310)	8240 (TCLP 1311) ZHE	8270 (TCLP 1311)		TO-14	Gross Alpha/Beta		NUMBER OF CONTAINERS
CLIENT PROJECT MANAGER:  Kim McNeill																															
SAMPLE ID	DATE	TIME	MATRIX	LAB ID																											
711338-01	11-19-97	10:30	AQ	1																									2		

PROJECT INFORMATION		SAMPLE RECEIPT		SAMPLES SENT TO:		RELINQUISHED BY: 1.		RELINQUISHED BY: 2.	
PROJECT NUMBER: 711338	TOTAL NUMBER OF CONTAINERS: 2	CHAIN OF CUSTODY SEALS: NA	SAN DIEGO	Signature: Brian Price	Time: 1700	Signature:	Time:	Signature:	Time:
PROJECT NAME: N.M. - O.C.D.	INTACT?: Y	RECEIVED GOOD COND/COLD: ICE	Paragon	Printed Name: Brian Price	Date: 11-19-97	Printed Name:	Date:	Printed Name:	Date:
QC LEVEL: STD. IV	LAB NUMBER: 711274		RENTON	Albuquerque	NM	Company:		Company:	
QC REQUIRED: MS MSD BLANK			PENSACOLA	RECEIVED BY: 1.		RECEIVED BY: (LAB) 2.			
TAT: STANDARD RUSH!			PORTLAND	Signature:	Time:	Signature: Sharon D. Cochran	Time: 1030	Signature:	Time:
			PHOENIX	Printed Name:	Date:	Printed Name: Heather Lorschger	Date: 11/20/97	Printed Name:	Date:
				Company:		Company: ARN-Phx		Company:	
DUE DATE: 12-2-97									
RUSH SURCHARGE: _____									
CLIENT DISCOUNT: _____									
SPECIAL CERTIFICATION REQUIRED: <input type="checkbox"/> YES <input type="checkbox"/> NO									

# CHAIN OF CUSTODY

DATE: 11-19-97 PAGE: OF

AEN LAB ID: 711358

PROJECT MANAGER: B. H. Olson

COMPANY: NM Oil Conservation Division

ADDRESS: 2040 South Pacheco

State Fr NM 87505

PHONE: (505) 827-7154

FAX: (505) 827-8177

BILL TO: Same

COMPANY:

ADDRESS:

## ANALYSIS REQUEST

SAMPLE ID DATE TIME MATRIX LAB I.D.

9711191030 11/19/97 1030 water -01

Petroleum Hydrocarbons (418.1) TRPH

(MOD.8015) Diesel/Direct/Inject

(M8015) Gas/Purge & Trap

Gasoline/BTEX & MTBE (M8015/8020)

BTXE/MTBE (8020)

BTEX & Chlorinated Aromatics (602/8020)

BTEX/MTBE/EDC & EDB (8020/8010/Short)

Chlorinated Hydrocarbons (601/8010)

504 EDB / DBCP

Polynuclear Aromatics (610/8310)

Volatile Organics (624/8240) GC/MS

Volatile Organics (8260) GC/MS

Pesticides/PCB (608/8080)

Herbicides (615/8150)

Base/Neutral/Acid Compounds GC/MS (625/8270)

General Chemistry: cation/anion

Priority Pollutant Metals (13)

Target Analyte List Metals (23)

RCRA Metals (8)

RCRA Metals by TCLP (Method 1311)

Metals:

2

## PROJECT INFORMATION

PROJ. NO.: Florence 124

PROJ. NAME: Florence 124

P.O. NO.:

SHIPPED VIA:

## PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK (NORMAL) ☒

CERTIFICATION REQUIRED: ☐ NM ☐ SDWA ☐ OTHER

METHANOL PRESERVATION ☐

COMMENTS: FIXED FEE ☐

## RELINQUISHED BY:

Signature: Time: 1545

Printed Name: Date: 11/19/97

Company: NMOC

Signature: Time:

Printed Name: Date:

Company:

## RELINQUISHED BY:

Signature: Time:

Printed Name: Date:

Company:

Signature: Time:

Printed Name: Date:

Company:

PLEASE FILL THIS FORM IN COMPLETELY.

## DATE: \_\_\_\_\_ PAGE: \_\_\_\_ OF \_\_\_\_

711-2

**PLEASE FILL THIS FORM IN COMPLETELY.**

[illegible]

<b>PROJECT INFORMATION</b>		<b>PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS</b>		<b>RELINQUISHED BY: 1.</b>		<b>RELINQUISHED BY: 2.</b>	
PROJ. NO.: 101		(RUSH) <input type="checkbox"/> 24hr <input type="checkbox"/> 48hr <input type="checkbox"/> 72hr <input type="checkbox"/> 1 WEEK (NORMAL) <input checked="" type="checkbox"/>		Signature: Time:		Signature: Time:	
PROJ. NAME:		CERTIFICATION REQUIRED: <input type="checkbox"/> NM <input type="checkbox"/> SDWA <input type="checkbox"/> OTHER		Printed Name: Date:		Printed Name: Date:	
P.O. NO.:		METHANOL PRESERVATION <input type="checkbox"/>		Company:		Company:	
SHIPPED VIA:		COMMENTS: FIXED FEE <input type="checkbox"/>		<b>RECEIVED BY: 1.</b>		<b>RECEIVED BY: (LAB) 2.</b>	
<b>SAMPLE RECEIPT</b>				Signature: Time:		Signature: Time:	
NO. CONTAINERS	2			Printed Name: Date:		Printed Name: Date:	
CUSTODY SEALS:	Y/N/NA			Company:		American Enviromental Network (NM), Inc.	
RECEIVED INTACT	yes						
BLUE ICE/ICE	6						

## COMMONLY REQUESTED GENERAL CHEMISTRY

<u>ABV.</u>	<u>ANALYSES</u>
ALK	Alkalinity (Bicarbonate+Carbonate)
NH4	Ammonia
BOD	Biochemical Oxygen Demand
BR	Bromide
Cl	Chloride
COD	Chemical Oxygen Demand
E.C.	Conductivity
CN	Cyanide, Total
F	Fluoride
N03	Nitrate
N02/N03	Nitrite/Nitrate
N02	Nitrite
TKN	Total Kjaidahl Nitrogen
O-G	Oil-Grease
PH	PH
TDS	Total Dissolved Solids
TSS	Total Suspended Solids
S04	Sulfate
S-2	Sulfide
TOC	Total Organic Carbon
TOX	Total Organic Halide

## METALS COMMONLY ANALYZED

PRIORITY POLLUTANT LIST (PP) • RCRA •  
TARGET ANALYTE LIST (TAL)

<u>NAME</u>	<u>SYMBOL</u>	<u>LIST</u>
Aluminum	Al	TAL
Antimony	Sb	PP,TAL
Arsenic	As	RCRA, PP, TAL
Barium	Ba	RCRA, TAL
Beryllium	Be	PP,TAL
Bismuth	Bi	
Boron	B	
Cadmium	Cd	RCRA, PP, TAL
Calcium	Ca	TAL
Chromium	Cr	RCRA, PP, TAL
Cobalt	Co	TAL
Copper	Cu	PP, TAL
Gold	Au	
Iron	Fe	TAL
Lead	Pb	RCRA, PP, TAL
Lithium	Li	
Magnesium	Mg	TAL
Manganese	Mn	TAL
Mercury	Hg	RCRA, PP, TAL
Molybdenum	Mo	
Nickel	Ni	PP, TAL
Potassium	K	TAL
Selenium	Se	RCRA, PP, TAL
Silicon	Si	
Silver	Ag	RCRA, PP, TAL
Sodium	Na	TAL
Strontium	Sr	
Sulfur	S	
Thallium	Tl	PP, TAL
Tin	Sn	
Titanium	Ti	
Uranium	U	
Vanadium	V	TAL
Zinc	Zn	PP, TAL

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

RECEIVED

AUG 19 1996

August 15, 1996

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

Environmental Bureau  
Oil Conservation Division



RE: NOTIFICATION OF GROUNDWATER CONTAMINATION AT THE FLORENCE 124 WELL SITE

Dear Bill:

Pursuant to New Mexico Water Quality Control Commission (WQCC) Regulations, section 1-203, PNM hereby provides written notification of groundwater contamination at the Florence 124 well site, located section 27, township 9 W, range 29 North, unit letter C. A topographic map showing the location of the site is provided as an attachment. The operator is Amoco Oil Company. This letter follows verbal notification provided to you on Monday, August 12, 1996 (M. Gannon, PNM to B. Olson. OCD, 8/12/96).

On August 2, 1996, field personnel collected a sample from groundwater in an excavation approximately 12 feet below ground surface. The groundwater sample was delivered to OnSite Technologies, Ltd., in Farmington, New Mexico, for laboratory analysis. A hardcopy of the analytical results are attached. Analytical results are provided below:

Component	Units	WQCC Stds.	Pit Excavation Water Sample
Benzene	ppb	10	<b>2214.6</b>
Toluene	ppb	750	<b>7397.7</b>
Ethylbenzene	ppb	750	297.1
Xylenes	ppb	620	<b>4033.8</b>

**Boldtype** indicates a WQCC exceedance.

This letter serves as written notification of groundwater impact at the Florence 124. PNM will conduct future activities at the site pursuant to PNM's Groundwater Management Plan. If you have any questions, please call me at 241-2974. Thank you.

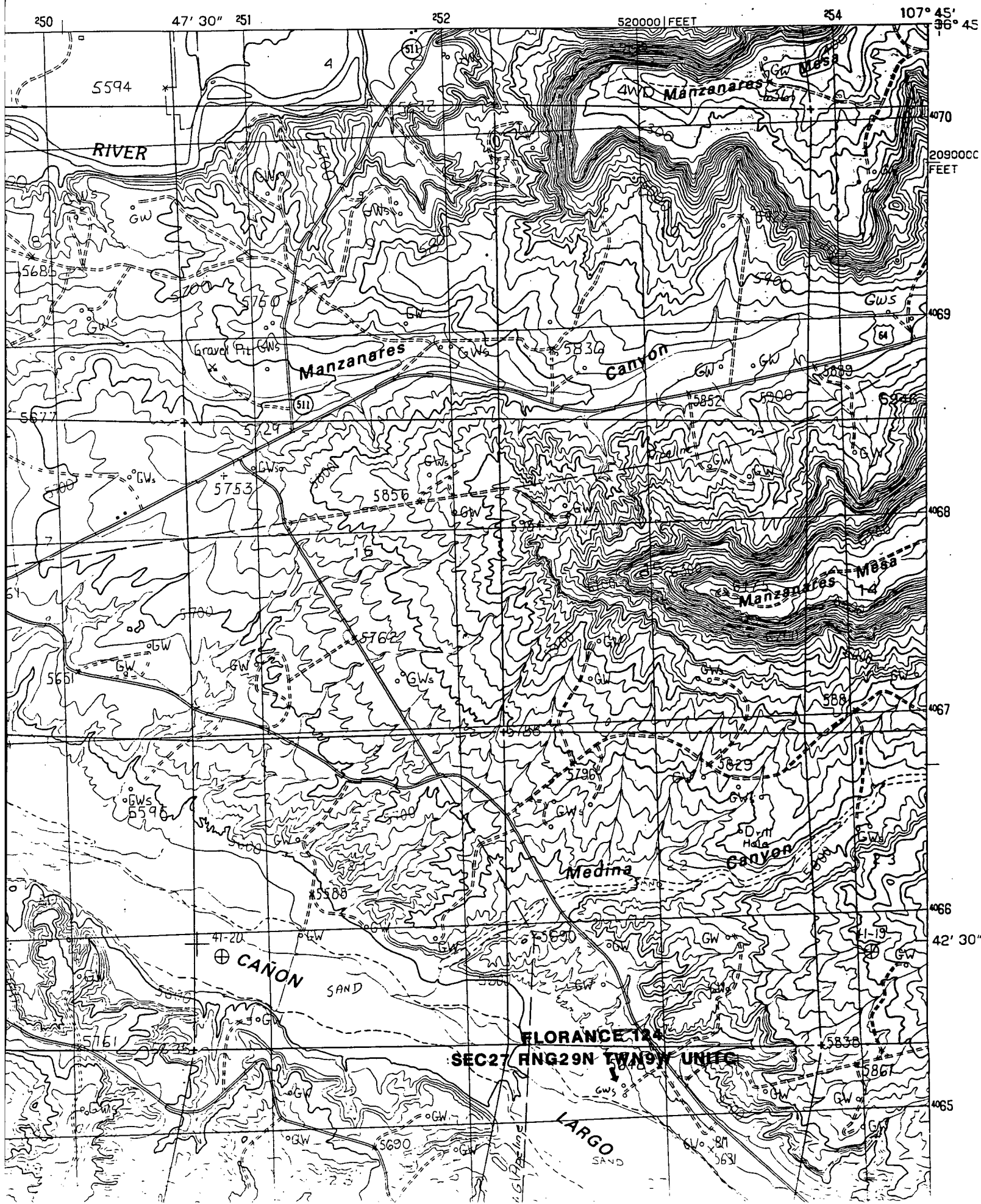
Sincerely,  
PNM

A handwritten signature in cursive script that reads "Maureen Gannon".

Maureen Gannon  
Project Manager

MDG/FLOR124.LTR  
Attachment

cc: Colin Adams, PNM  
Denver Bearden, PNMGS  
Denny Foust, OCD-Aztec Office  
Leigh Gooding, WFS  
Toni Ristau, PNM  
Buddy Shaw, Amoco



OFF: (505) 325-5667



LAB: (505) 325-1556

**AROMATIC VOLATILE ORGANICS**

Attn: **Maureen Gannon**  
Company: **PNM Gas Services**  
Address: **Alevardo Square, Mail Stop 0408**  
City, State: **Albuquerque, NM 87158**

Date: **2-Aug-96**  
COC No.: **4936**  
Sample No. **11681**  
Job No. **2-1000**

Project Name: **PNM Gas Services - Florance 124**  
Project Location: **9608020930**  
Sampled by: **GC**  
Analyzed by: **DC**  
Sample Matrix: **Water**

Date: **2-Aug-96** Time: **9:30**  
Date: **2-Aug-96**

**Laboratory Analysis**

<i>Parameter</i>	<i>Result</i>	<i>Unit of Measure</i>	<i>Detection Limit</i>	<i>Unit of Measure</i>
<i>Benzene</i>	2214.6	ug/L	0.2	ug/L
<i>Toluene</i>	7397.7	ug/L	0.2	ug/L
<i>Ethylbenzene</i>	297.1	ug/L	0.2	ug/L
<i>m,p-Xylene</i>	3082.0	ug/L	0.2	ug/L
<i>o-Xylene</i>	951.8	ug/L	0.2	ug/L
	<b>TOTAL</b>	<b>13943.1</b>		<b>ug/L</b>

**Method** - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *Da G*  
Date: *8/5/96*

P.O. BOX 2606 • FARMINGTON, NM 87499

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**QUALITY ASSURANCE REPORT**  
for EPA Method 8020

Date Analyzed: 2-Aug-96

Internal QC No.: 0486-QC

Surrogate QC No.: 0488-QC

Reference Standard QC No.: 0417-QC

**Method Blank**

Parameter	Result	Unit of Measure
Average Amount of All Analytes In Blank	<0.2	ppb

**Calibration Check**

Parameter	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Benzene	ppb	20.0	18.9	6	15%
Toluene	ppb	20.0	19.4	3	15%
Ethylbenzene	ppb	20.0	19.7	1	15%
m,p-Xylene	ppb	40.0	39.1	2	15%
o-Xylene	ppb	20.0	19.3	3	15%

**Matrix Spike**

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Benzene	108	109	(39-150)	0	20%
Toluene	115	114	(46-148)	1	20%
Ethylbenzene	115	114	(32-160)	1	20%
m,p-Xylene	112	111	(35-145)	0	20%
o-Xylene	108	109	(35-145)	1	20%

**Surrogate Recoveries**

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovered	(70-130)	
11681-4936	100	

S1: Fluorobenzene

4936

Date: 8-2-96

Page 1 of 1

**TECHNOLOGIES, LTD.**

657 W. Maple • P. O. Box 2606 • Farmington NM 87499

LAB: (505) 325-5667 • FAX: (505) 325-6256

[illegible]

Distribution: White - On Site    Yellow -- LAB    Pink    Sampler    Goldenrod    Client



State of New Mexico  
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT  
Santa Fe, New Mexico 87505

STATE OF  
NEW MEXICO  
OIL  
CONSERVATION  
DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal

Time 1548

Date 8/12/96

Originating Party

Maureen Gannon - PNM

Other Parties

Bill Olson - voice mail

Subject

Florence #124

Discussion

Called to report ground water contamination at  
dry pit on Amos Florence #124  
unit C, sec 27, T29N, R09W

PTW = 10-12'

Conclusions or Agreements

Distribution

File  
Denny Forst - OCD After

Signed

Bill Olson