



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

*Step 1, Jerry B -
When do we start
on Transwestern
2/10/97*

February 5, 1997

FEB 7 1997

Mr. Bill Kendrick
ENRON Operations Corp.
P.O. Box 1188
Houston, Texas 77251-1188

**RE: MONITOR WELL SAMPLING
ROSWELL COMPRESSOR STATION
TRANSWESTERN PIPELINE CO.**

Dear Mr. Kendrick:

Enclosed you will find the laboratory analytical results of the New Mexico Oil Conservation Division's (OCD) September 24, 1996 monitor well sampling at the ENRON Roswell Compressor Station.

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

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc w/enclosure: Tim Gum, OCD Artesia District Supervisor
George Robinson, Cypress Engineering Services
Benito Garcia, NMED Hazardous and Radioactive
Materials Bureau

American Environmental Network, Inc.

AEN I.D. 609361

September 30, 1996

NM OIL CONSERVATION DIVISION
2040 SOUTH PACHECO
SANTA FE, NM 87505

Project Name ENRON-ROSWELL
Project Number (none)

Attention: BILL OLSON

On 9/25/96 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.

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



Kimberly D. McNeill
Project Manager



H. Mitchell Rubenstein, Ph. D.
General Manager

MR: mt

Enclosure

American Environmental Network, Inc.

CLIENT	: NM OIL CONSERVATION DIVISION	AEN I.D.	: 609361
PROJECT #	: (none)	DATE RECEIVED	: 9/25/96
PROJECT NAME	: ENRON-ROSWELL	REPORT DATE	: 9/30/96
AEN			DATE
ID. #	CLIENT DESCRIPTION	MATRIX	COLLECTED
01	(MW-12) 9609241200	AQUEOUS	9/24/96
02	(MW-14) 9609241425	AQUEOUS	9/24/96
03	(MW-17) 9609241620	AQUEOUS	9/24/96
04	TRIP BLANK 9609231410	AQUEOUS	9/23/96

GAS CHROMATOGRAPHY RESULTS

TEST : PURGEABLE HALOCARBONS / AROMATICS (EPA 8010/8020)
 CLIENT : NM OIL CONSERVATION DIVISION AEN I.D.: 609361
 PROJECT # : (none)
 PROJECT NAME : ENRON-ROSWELL

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	(MW-12) 9609241200	AQUEOUS	9/24/96	NA	9/27/96	1
02	(MW-14) 9609241425	AQUEOUS	9/24/96	NA	9/27/96	1
03	(MW-17) 9609241620	AQUEOUS	9/24/96	NA	9/27/96	1

PARAMETER	DET. LIMIT	UNITS	01	02	03
BENZENE	0.5	UG/L	590 D(50)	< 0.5	< 0.5
BROMODICHLORMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
BROMOFORM	0.5	UG/L	< 0.5	< 0.5	< 0.5
BROMOMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0
CARBON TETRACHLORIDE	0.2	UG/L	< 0.2	< 0.2	< 0.2
CHLORO BENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
CHLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5
CHLOROFORM	0.5	UG/L	< 0.5	< 0.5	< 0.5
CHLOROMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0
DIBROMOCHLOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
1,2-DIBROMOETHANE (EDB)	0.2	UG/L	< 0.2	< 0.2	< 0.2
1,2-DICHLORO BENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,3-DICHLORO BENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,4-DICHLORO BENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,1-DICHLOROETHANE	0.3	UG/L	< 0.3	< 0.3	< 0.3
1,2-DICHLOROETHANE (EDC)	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,1-DICHLOROETHENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
cis-1,2-DICHLOROETHENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
trans-1,2-DICHLOROETHENE	1.0	UG/L	< 1.0	< 1.0	< 1.0
1,2-DICHLOROPROPANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
cis-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
trans-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
ETHYLBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
METHYL-t-BUTYL ETHER	2.5	UG/L	< 2.5	< 2.5	< 2.5
METHYLENE CHLORIDE	2.0	UG/L	< 2.0	< 2.0	< 2.0
1,1,2,2-TETRACHLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5
TETRACHLOROETHENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
TOLUENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,1,1-TRICHLOROETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0
1,1,2-TRICHLOROETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
TRICHLOROETHENE	0.3	UG/L	< 0.3	< 0.3	< 0.3
TRICHLOROFLUOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
VINYL CHLORIDE	0.5	UG/L	< 0.5	< 0.5	< 0.5
TOTAL XYLENES	0.5	UG/L	54	< 0.5	< 0.5

SURROGATE:
 BROMOCHLOROMETHANE (%) 88 112 97
 SURROGATE LIMITS (73 - 117)
 TRIFLUOROTOLUENE (%) 83 108 86
 SURROGATE LIMITS (69 - 117)

CHEMIST NOTES:
 D(50)=DILUTED 50X, ANALYZED 9/27/96.

GAS CHROMATOGRAPHY RESULTS

TEST : PURGEABLE HALOCARBONS / AROMATICS (EPA 8010/8020)
 CLIENT : NM OIL CONSERVATION DIVISION AEN I.D.: 609361
 PROJECT # : (none)
 PROJECT NAME : ENRON-ROSWELL

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
04	TRIP BLANK 9609231410	AQUEOUS	9/23/96	NA	9/27/96	1
PARAMETER	DET. LIMIT	UNITS	04			
BENZENE	0.5	UG/L	< 0.5			
BROMODICHLORMETHANE	0.2	UG/L	< 0.2			
BROMOFORM	0.5	UG/L	< 0.5			
BROMOMETHANE	1.0	UG/L	< 1.0			
CARBON TETRACHLORIDE	0.2	UG/L	< 0.2			
CHLORO BENZENE	0.5	UG/L	< 0.5			
CHLOROETHANE	0.5	UG/L	< 0.5			
CHLOROFORM	0.5	UG/L	< 0.5			
CHLOROMETHANE	1.0	UG/L	< 1.0			
DIBROMOCHLOROMETHANE	0.2	UG/L	< 0.2			
1,2-DIBROMOETHANE (EDB)	0.2	UG/L	< 0.2			
1,2-DICHLORO BENZENE	0.5	UG/L	< 0.5			
1,3-DICHLORO BENZENE	0.5	UG/L	< 0.5			
1,4-DICHLORO BENZENE	0.5	UG/L	< 0.5			
1,1-DICHLOROETHANE	0.3	UG/L	< 0.3			
1,2-DICHLOROETHANE (EDC)	0.5	UG/L	< 0.5			
1,1-DICHLOROETHENE	0.2	UG/L	< 0.2			
cis-1,2-DICHLOROETHENE	0.2	UG/L	< 0.2			
trans-1,2-DICHLOROETHENE	1.0	UG/L	< 1.0			
1,2-DICHLOROPROPANE	0.2	UG/L	< 0.2			
cis-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2			
trans-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2			
ETHYLBENZENE	0.5	UG/L	< 0.5			
METHYL-t-BUTYL ETHER	2.5	UG/L	< 2.5			
METHYLENE CHLORIDE	2.0	UG/L	< 2.0			
1,1,2,2-TETRACHLOROETHANE	0.5	UG/L	< 0.5			
TETRACHLOROETHENE	0.5	UG/L	< 0.5			
TOLUENE	0.5	UG/L	< 0.5			
1,1,1-TRICHLOROETHANE	1.0	UG/L	< 1.0			
1,1,2-TRICHLOROETHANE	0.2	UG/L	< 0.2			
TRICHLOROETHENE	0.3	UG/L	< 0.3			
TRICHLOROFLUOROMETHANE	0.2	UG/L	< 0.2			
VINYL CHLORIDE	0.5	UG/L	< 0.5			
TOTAL XYLENES	0.5	UG/L	< 0.5			

SURROGATE:
 BROMOCHLOROMETHANE (%) 102
 SURROGATE LIMITS (73 - 117)
 TRIFLUOROTOLUENE (%) 110
 SURROGATE LIMITS (69 - 117)

CHEMIST NOTES:
 N/A

GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: PURGEABLE HALOCARBONS / AROMATICS (EPA 8010/8020)		
BLANK I.D.	: 092596	AEN I.D.	: 609361
CLIENT	: NM OIL CONSERVATION DIVISION	DATE EXTRACTED	: NA
PROJECT #	: (none)	DATE ANALYZED	: 9/25/96
PROJECT NAME	: ENRON-ROSWELL	SAMPLE MATRIX	: AQUEOUS

PARAMETER	UNITS	
BENZENE	UG/L	<0.5
BROMODICHLORMETHANE	UG/L	<0.2
BROMOFORM	UG/L	<0.5
BROMOMETHANE	UG/L	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2
CHLOROBENZENE	UG/L	<0.5
CHLOROETHANE	UG/L	<0.5
CHLOROFORM	UG/L	<0.5
CHLOROMETHANE	UG/L	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5
1,1-DICHLOROETHANE	UG/L	<0.3
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5
1,1-DICHLOROETHENE	UG/L	<0.2
cis-1,2-DICHLOROETHENE	UG/L	<0.2
trans-1,2-DICHLOROETHENE	UG/L	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2
cis-1,3-DICHLOROPROPENE	UG/L	<0.2
trans-1,3-DICHLOROPROPENE	UG/L	<0.2
ETHYLBENZENE	UG/L	<0.5
METHYL -t-BUTYL ETHER	UG/L	<2.5
METHYLENE CHLORIDE	UG/L	<2.0
1,1,2-TETRACHLOROETHANE	UG/L	<0.5
TETRACHLOROETHENE	UG/L	<0.5
TOLUENE	UG/L	<0.5
1,1,1-TRICHLOROETHANE	UG/L	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2
TRICHLOROETHENE	UG/L	<0.3
TRICHLOROFLUOROMETHANE	UG/L	<0.2
VINYL CHLORIDE	UG/L	<0.5
TOTAL XYLENES	UG/L	<0.5
SURROGATE:		
BROMOCHLOROMETHANE (%)		92
SURROGATE LIMITS	(73 - 117)	
TRIFLUOROTOLUENE (%)		95
SURROGATE LIMITS	(69 - 117)	

CHEMIST NOTES:
N/A

GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: PURGEABLE HALOCARBONS / AROMATICS (EPA 8010/8020)		
BLANK I.D.	: 092696	AEN I.D.	: 609361
CLIENT	: NM OIL CONSERVATION DIVISION	DATE EXTRACTED	: NA
PROJECT #	: (none)	DATE ANALYZED	: 9/26/96
PROJECT NAME	: ENRON-ROSWELL	SAMPLE MATRIX	: AQUEOUS

PARAMETER	UNITS	
BENZENE	UG/L	<0.5
BROMODICHLORMETHANE	UG/L	<0.2
BROMOFORM	UG/L	<0.5
BROMOMETHANE	UG/L	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2
CHLORO BENZENE	UG/L	<0.5
CHLOROETHANE	UG/L	<0.5
CHLOROFORM	UG/L	<0.5
CHLOROMETHANE	UG/L	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2
1,2-DICHLORO BENZENE	UG/L	<0.5
1,3-DICHLORO BENZENE	UG/L	<0.5
1,4-DICHLORO BENZENE	UG/L	<0.5
1,1-DICHLOROETHANE	UG/L	<0.3
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5
1,1-DICHLOROETHENE	UG/L	<0.2
cis-1,2-DICHLOROETHENE	UG/L	<0.2
trans-1,2-DICHLOROETHENE	UG/L	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2
cis-1,3-DICHLOROPROPENE	UG/L	<0.2
trans-1,3-DICHLOROPROPENE	UG/L	<0.2
ETHYLBENZENE	UG/L	<0.5
METHYL -t-BUTYL ETHER	UG/L	<2.5
METHYLENE CHLORIDE	UG/L	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.5
TETRACHLOROETHENE	UG/L	<0.5
TOLUENE	UG/L	<0.5
1,1,1-TRICHLOROETHANE	UG/L	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2
TRICHLOROETHENE	UG/L	<0.3
TRICHLOROFLUOROMETHANE	UG/L	<0.2
VINYL CHLORIDE	UG/L	<0.5
TOTAL XYLENES	UG/L	<0.5
SURROGATE:		
BROMOCHLOROMETHANE (%)		97
SURROGATE LIMITS	(73 - 117)	
TRIFLUOROTOLUENE (%)		93
SURROGATE LIMITS	(69 - 117)	

CHEMIST NOTES:
N/A

GAS CHROMATOGRAPHY RESULTS

REAGENT BLANK

TEST	: PURGEABLE HALOCARBONS / AROMATICS (EPA 8010/8020)		
BLANK I.D.	: 092796	AEN I.D.	: 609361
CLIENT	: NM OIL CONSERVATION DIVISION	DATE EXTRACTED	: NA
PROJECT #	: (none)	DATE ANALYZED	: 9/27/96
PROJECT NAME	: ENRON-ROSWELL	SAMPLE MATRIX	: AQUEOUS

PARAMETER	UNITS	
BENZENE	UG/L	<0.5
BROMODICHLORMETHANE	UG/L	<0.2
BROMOFORM	UG/L	<0.5
BROMOMETHANE	UG/L	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2
CHLOROBENZENE	UG/L	<0.5
CHLOROETHANE	UG/L	<0.5
CHLOROFORM	UG/L	<0.5
CHLOROMETHANE	UG/L	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5
1,1-DICHLOROETHANE	UG/L	<0.3
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5
1,1-DICHLOROETHENE	UG/L	<0.2
cis-1,2-DICHLOROETHENE	UG/L	<0.2
trans-1,2-DICHLOROETHENE	UG/L	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2
cis-1,3-DICHLOROPROPENE	UG/L	<0.2
trans-1,3-DICHLOROPROPENE	UG/L	<0.2
ETHYLBENZENE	UG/L	<0.5
METHYL -t-BUTYL ETHER	UG/L	<2.5
METHYLENE CHLORIDE	UG/L	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.5
TETRACHLOROETHENE	UG/L	<0.5
TOLUENE	UG/L	<0.5
1,1,1-TRICHLOROETHANE	UG/L	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2
TRICHLOROETHENE	UG/L	<0.3
TRICHLOROFLUOROMETHANE	UG/L	<0.2
VINYL CHLORIDE	UG/L	<0.5
TOTAL XYLENES	UG/L	<0.5
SURROGATE:		
BROMOCHLOROMETHANE (%)		112
SURROGATE LIMITS	(73 - 117)	
TRIFLUOROTOLUENE (%)		112
SURROGATE LIMITS	(69 - 117)	

CHEMIST NOTES:
N/A

GAS CHROMATOGRAPHY QUALITY CONTROL
MSMSD

TEST	: PURGEABLE HALOCARBONS / AROMATICS (EPA 8010/8020)		
MSMSD #	: 609349-01	AEN I.D.	: 609361
CLIENT	: NM OIL CONSERVATION DIVISION	DATE EXTRACTED	: NA
PROJECT #	: (none)	DATE ANALYZED	: 9/25-26/96
PROJECT NAME	: ENRON-ROSWELL	SAMPLE MATRIX	: AQUEOUS
		UNITS	: UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
BENZENE	<0.5	10.0	9.6	96	10.5	105	9	(82 - 128)	20
TOLUENE	<0.5	10.0	9.8	98	10.9	109	11	(87 - 128)	20
1,1-DICHLOROETHENE	<0.2	10.0	9.6	96	9.0	90	6	(44 - 99)	20
TRICHLOROETHENE	<0.3	10.0	12.1	121	11.7	117	3	(89 - 127)	20
CHLOROBENZENE	<0.5	10.0	10.7	107	11.2	112	5	(87 - 124)	20

CHEMIST NOTES:
N/A

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

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

SHADED AREAS ARE FOR LAB USE ONLY.

PROJECT MANAGER: Bill Olson

COMPANY: NM. Oil Conservation Div.

ADDRESS: 2040 S. Pacheco
Santa Fe, NM 87505

PHONE: (505) 827-7154

FAX: (505) 827-8177

BILL TO: Same

COMPANY:

ADDRESS:

ANALYSIS REQUEST

Petroleum Hydrocarbons (418.1) TRPH (MOD.8015) Diesel/Direct/Inject.	(M8015) Gas/Purge & Trap	Gasoline/BTEX & MTBE (M8015/8020)	BTEX/MTBE (8020)	BTEX & Chlorinated Aromatics (602/8020)	BTEX/MTBE/EDC & EDB (8020/8010/Short)	Chlorinated Hydrocarbons (601/8010)	504 EDB <input type="checkbox"/> / DBCP <input type="checkbox"/>	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:	Priority Pollutant Metals (13)	Target Analyte List Metals (23)	RCRA Metals (8)	RCRA Metals by TCLP (Method 1311) Metals:	NUMBER OF CONTAINERS
				3	3														7
				3	3														3
				3	3														4
				1	1														1

SAMPLE ID	DATE	TIME	MATRIX	LAB I.D.
MW-12	960924	1200	Water	-01
MW-14	960924	1425	Water	-02
MW-17	960924	1620	Water	-03
Trip Blank	960923	1410	Water	-04

PLEASE FILL THIS FORM IN COMPLETELY.

PROJECT INFORMATION		PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS		RELINQUISHED BY: 1.		RELINQUISHED BY: 2.	
PROJ. NO.:	ENRON-Rowell	(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: 1645	Signature:	Time:
PROJ. NAME:	ENRON-Rowell	CERTIFICATION REQUIRED: <input type="checkbox"/> NM <input type="checkbox"/> SDWA <input type="checkbox"/> OTHER		Printed Name:	Date: 9/25/96	Printed Name:	Date:
P.O. NO.:		METHANOL PRESERVATION <input type="checkbox"/>		Company:	NM OGD	Company:	
SHIPPED VIA:		COMMENTS: FIXED FEE <input type="checkbox"/>		RECEIVED BY: 1.		RECEIVED BY: (LAB) 2.	
SAMPLE RECEIPT				Signature:	Time:	Signature:	Time:
NO. CONTAINERS	10			Printed Name:	Date:	Printed Name:	Date:
CUSTODY SEALS	Y/N (NA)			Company:		Company:	
RECEIVED INTACT	Yes			American Environmental Network (NM), Inc.			
BLUE ICE <input checked="" type="checkbox"/>	6° Field						