HIP - 11

GENERAL CORRESPONDENCE

YEAR(S):

1986

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

[X] Telephone [ ] Personal | Time 10:40 | Date 8/29/86

Originating Party	Other Parties
Judy Waggoner - BLM Las Cruces	Jami Bailey

Subject: EPNG Hydrostatic Test

Discussion: The BLM position is that if all fluid is kept within the pipeline (ROW), then the test can be considered a maintenance item & BLM would have no objections. However, they do want to ensure that no oily/greasy water will be discharged to the surface. I told her that an OCD person was going to witness the process & take samples of the fluids. She may also witness the procedure.

Conclusions or Agreements:

Distribution: D. Boyer, R. Anderson

Signed: Jami Bailey

El Paso
Natural Gas Company

P. O. BOX 1492
EL PASO, TEXAS 79978
PHONE: 915-541-2600

August 13, 1986

Mr. Roger Anderson
New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87504-2088

Subject: Hydrotest of 6" Alamogordo "B" Line No. 2068
in Otero County

Dear Mr. Anderson:

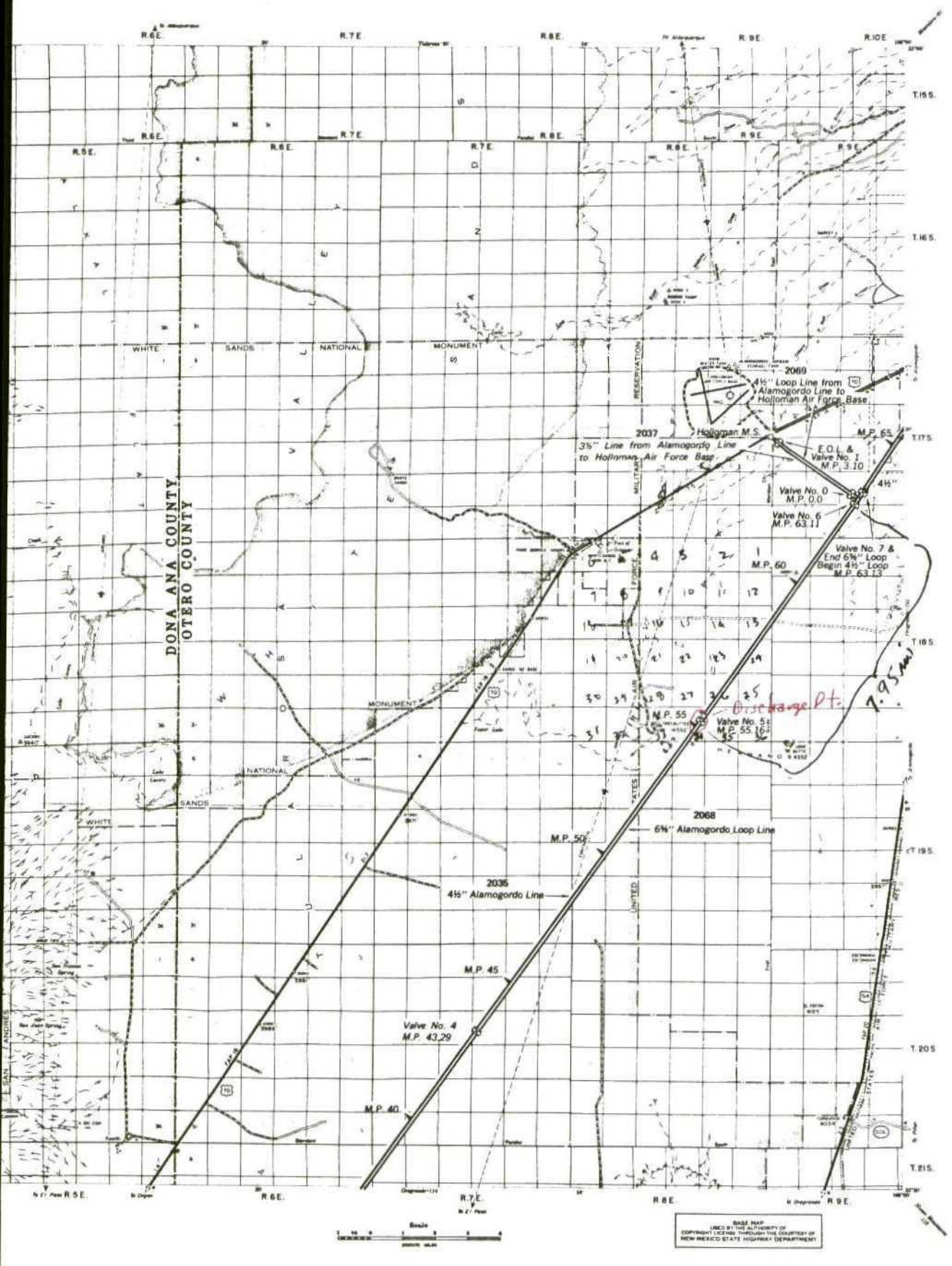
This letter is to confirm our phone conversation today and your approval to emit 67,000 gallons of hydrotest water from a 6" pipe that has been pigged and cleaned two or three times with a soapy washwater. I would like to point out, however, that this procedure may not be practical for large pipelines. The washwater will be collected in a tank truck and transported and emptied into a lined pond located at El Paso Natural Gas Company's El Paso Station in El Paso, Texas. The source water for the hydrotest will be drinking water quality and will come from either White Sands or Holloman Air Force Base. This discharge point is located in T18S-R8E-Sec. 34-222. The depth to groundwater in T17S-R9E is greater than 110 feet. To our knowledge there is no known domestic or stock wells within 1 mile of the discharge point. I have also included a topo map showing the location of the discharge point. The test is planned for the last week in August.

Per your request we also plan to test the source water, the washwater, and the hydrotest water for aromatics, halogenated hydrocarbons, cations, anions, TDS, PAH, toxicity metals, and oil and grease. If you have any further questions, please feel free to call me at 915/541-5341.

Sincerely yours,

Loren E. Gearhart, P.E.
Sr. Environmental Engineer
Environmental Affairs Department

mts
Attachment
c: Mr. Bob Alexander
Bureau of Land Management
1800 Marguess
Las Cruces, New Mexico 88005

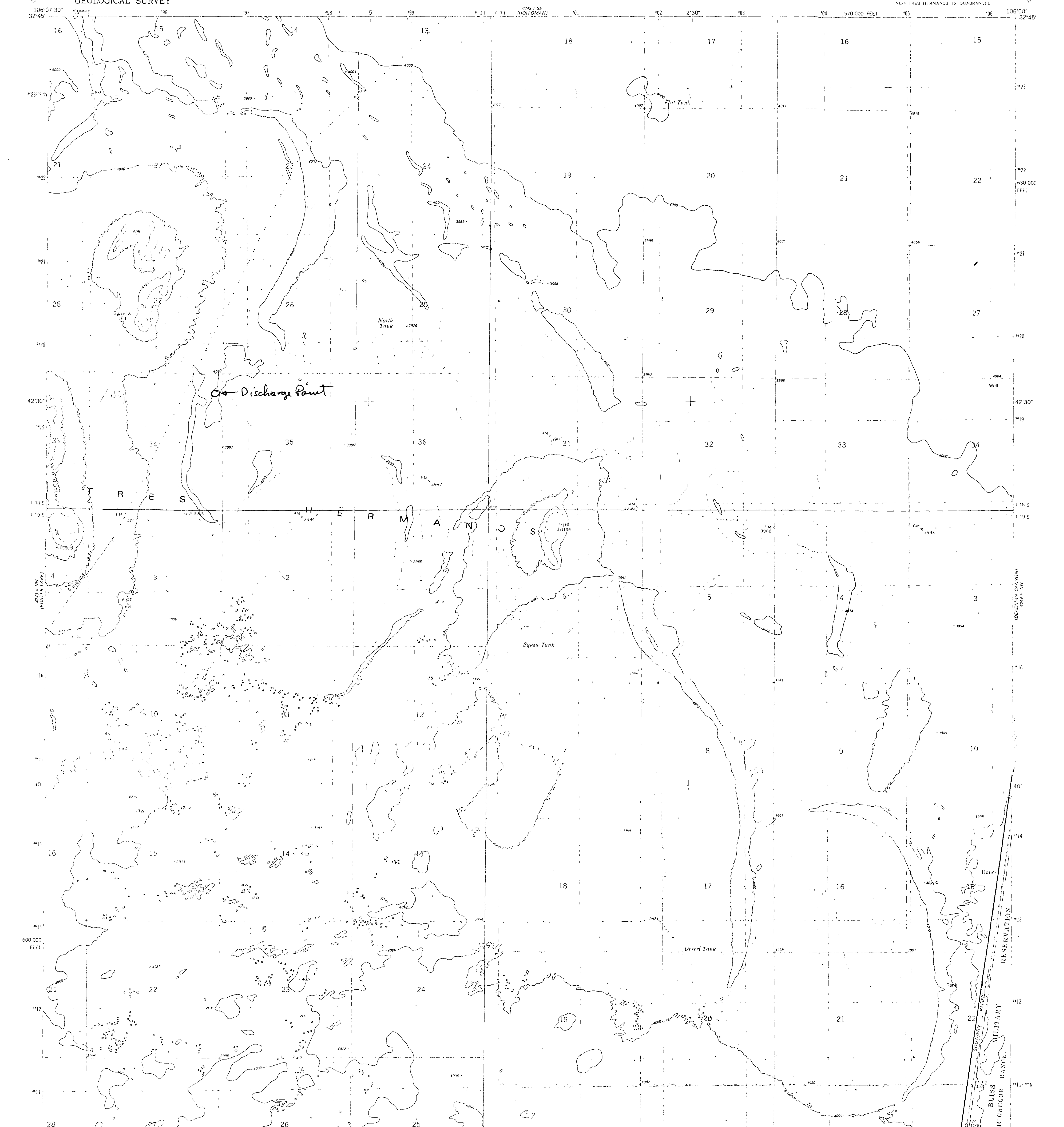


NEW MEXICO

Revised: 1-1-81

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

TRES HERMANOS QUADRANGLE
NEW MEXICO-OTERO CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
NE/4 TRES HERMANOS 15' QUADRANGLE



Mapped, edited, and published by the Geological Survey

Control by USGS AND NOS NOAA

Topography by photogrammetric methods from aerial photographs taken 1972. Field checked 1975. Map edited 1982

Projection and 10,000-foot grid ticks: New Mexico coordinate system, central zone (transverse Mercator)
1000 meter Universal Transverse Mercator grid, zone 13
1927 North American datum
To place on the predicted North American Datum 1983 move the projection lines 6 meters south and 50 meters east as shown by dashed corner ticks

Fine red dashed lines indicate selected fence lines

There may be private inholdings within the boundaries of the National or State reservations shown on this map

UTM GRID AND 1982 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET
0°34' 10 MILS — 11° 196 MILS

SCALE 1:24 000
1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 KILOMETER

CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U S GEOLOGICAL SURVEY, DENVER COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

NEW MEXICO
QUADRANGLE LOCATION

ROAD CLASSIFICATION
Primary highway hard surface — Light duty road, hard or improved surface
Secondary highway hard surface — Unimproved road
Interstate Route U. S. Route State Route

TRES HERMANOS, N. MEX.
NE/4 TRES HERMANOS 15' QUADRANGLE
N3237.5-W10600/7.5

1982

DMA 4749 II NE-SERIES V881

El Paso
Natural Gas Company

P. O. BOX 1492
EL PASO, TEXAS 79978
PHONE: 915-541-2600

August 12, 1986

Mr. Bob Alexander
Area Manager
Bureau of Land Management
1800 Marguess
Las Cruces, New Mexico 88005

Subject: Disposal of Hydrotest Water on BLM Land in Otero County

Dear Mr. Alexander:

With this letter El Paso Natural Gas Company is requesting permission to dispose of approximately 67,000 gallons of hydrotest water in T.18 S.-R.8 E.-Sec.34-222. The water will be emitted from a 6" natural gas pipeline that has been pigged and cleaned two or three times with soapy washwater. The washwater will be transported via a truck to a lined pond at EPNG's El Paso Station in El Paso, Texas. The source of water for the hydrotest will be drinking water obtained from White Sands or Holloman Air Force Base.

This test is being planned for the last week in August. If you have any questions please feel free to call me at 915/541-5341. Thank you.

Sincerely yours,

L E Gearhart

Loren E. Gearhart, P.E.
Sr. Environmental Engineer
Environmental Affairs Department

mts

cc: Mr. Roger Anderson
New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87504-2088

3 wells

Existing gas line in Cinque

10 mi. Due South of Hobbs

Sec 34, 18S 38E
N.E. N.E. N.E.

8-8-86

Roger

call: Loren Stewart
El Paso Nat. Gas
915-541 5341

re: discharge of hydrostat water

Location often 45 mph

915-541-5341

Loren Gearhart.

August.

8 mi - 6" old pipe 30 years old

5 mi SE Holloman AFB - Towards El Paso

63,000 gal

86-1077-C
86-1086-C

SCIENTIFIC LABORATORY DIVISION

700 Camino de Salud NE
Albuquerque, NM 87106 841-2570

STATE OF NEW MEXICO
HEALTH ENVIRONMENT

86-1077 A-B

REPORT TO: David Boyer
N.M. Oil Conservation Division
P. O. Box 2088
Santa Fe, N.M. 87504-2088
PHONE(S): 827-5812

S.L.D. No. OR- 86-1086 A-B
DATE REC. 9-18-86
PRIORITY
USER CODE: 82235

SUBMITTER: David Boyer
CODE: 260

SAMPLE COLLECTION CODE: (YYMMDDHHMMIII) 860904113ORCA

SAMPLE TYPE: WATER [X], SOIL [ ], FOOD [ ], OTHER: _____ CODE: ___

COUNTY: OTERO ; CITY: ALAMOGORDO CODE: ____

LOCATION CODE: (Township-Range-Section-Tracts) 18S+08E+34+222 (10N06E24342)

ANALYSES REQUESTED: Please check the appropriate box(es) below to indicate the type of analytical screens required. Whenever possible list specific compounds suspected or required.

PURGEABLE SCREENS

- [X] (753) Aliphatic Purgeables (1-3 Carbons)
- [X] (754) Aromatic & Halogenated Purgeables
- [ ] (765) Mass Spectrometer Purgeables
- [ ] (766) Trihalomethanes

Other Specific Compounds or Classes

- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____

EXTRACTABLE SCREENS

- [ ] (751) Aliphatic Hydrocarbons
- [ ] (760) Organochlorine Pesticides
- [ ] (755) Base/Neutral Extractables
- [ ] (758) Herbicides, Chlorophenoxy acid
- [ ] (759) Herbicides, Triazines
- [ ] (760) Organochlorine Pesticides
- [ ] (761) Organophosphate Pesticides
- [ ] (767) Polychlorinated Biphenyls (PCB's)
- [ ] (764) Polynuclear Aromatic Hydrocarbons
- [ ] (762) SDWA Pesticides & Herbicides

Remarks: _____

FIELD DATA:

pH=_____; Conductivity= 460 umho/cm at 27 °C; Chlorine Residual=_____mg/l

Dissolved Oxygen=_____mg/l; Alkalinity=_____mg/l; Flow Rate_____ ____/____

Depth to water _____ft.; Depth of well_____ft.; Perforation Interval _____-_____ft.; Casing:_____

Sampling Location, Methods and Remarks (i.e. odors, etc.)

LAST STAGE OF RINSE, EPNG HYDRO TEST - White Seals (Used Natural Gas Pipe)

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities.(signature collector): R. Glendenen Method of Shipment to the Lab: HAND

This form accompanies 2 Septum Vials, ____ Glass Jugs, and/or ____ _____

Samples were preserved as follows:

- [ ] NP: No Preservation; Sample stored at room temperature.
- [X] P-Ice Sample stored in an ice bath (Not Frozen).
- [ ] P-$Na_2S_2O_3$ Sample Preserved with Sodium Thiosulfate to remove chlorine residual.

CHAIN OF CUSTODY

I certify that this sample was transferred from _____ to _____

at (location) _____ on ____/____/____ - ____:____ and that

the statements in this block are correct. Evidentiary Seals: Not Sealed [ ] Seals Intact: Yes [ ] No [ ]

Signatures _____ _____

For OCD Use: Date Owner Notified _____ Phone or Letter?_____ Initials _____

ANALYSES PERFORMED

LAB. No.: OR- 1077 1086

THIS PAGE FOR LABORATORY RESULTS ONLY

This sample was tested using the analytical screening method(s) checked below:

PURGEABLE SCREENS

- [x] (753) Aliphatic Purgeables (1-3 Carbons)
- [x] (754) Aromatic & Halogenated Purgeables
- [ ] (765) Mass Spectrometer Purgeables
- [ ] (766) Trihalomethanes

Other Specific Compounds or Classes

- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____

EXTRACTABLE SCREENS

- [ ] (751) Aliphatic Hydrocarbons
- [ ] (760) Organochlorine Pesticides
- [ ] (755) Base/Neutral Extractables
- [ ] (758) Herbicides, Chlorophenoxy acid
- [ ] (759) Herbicides, Triazines
- [ ] (760) Organochlorine Pesticides
- [ ] (761) Organophosphate Pesticides
- [ ] (767) Polychlorinated Biphenyls (PCB's)
- [ ] (764) Polynuclear Aromatic Hydrocarbons
- [ ] (762) SDWA Pesticides & Herbicides

ANALYTICAL RESULTS

COMPOUND(S) DETECTED	CONC. [PPB]	COMPOUND(S) DETECTED	CONC. [PPB]
Headspace Methane	30000ppm	[Benzene]	140
Ethane	7400ppm	[Toluene]	150
Propane	760 ppm	Ethylbenzene	ND
isobutane	165 ppm	p-Xylene	ND
n-butane	720ppm	m-Xylene	ND
isopentane	185ppm	o-Xylene	ND
n-pentane	130ppm		
[Chloroform]	TR		
[Tetrachloroethene]	TR		
* DETECTION LIMIT *	*	+ DETECTION LIMIT +	+ 5 ppb

ABBREVIATIONS USED:

N D = NONE DETECTED AT OR ABOVE THE STATED DETECTION LIMIT

T R = DETECTED AT A LEVEL BELOW THE STATED DETECTION LIMIT (NOT CONFIRMED)

[RESULTS IN BRACKETS] ARE UNCONFIRMED AND/OR WITH APPROXIMATE QUANTITATION

LABORATORY REMARKS: quantities of compounds reported found in contained gas. Unable to determine quantity. Background data + efforts on Eq 1086. Twenty other compounds were detected by the aromatic screen that were not identified.

CERTIFICATE OF ANALYTICAL PERSONNEL

Seal(s) Intact: Yes [ ] No [ ]. Seal(s) broken by: _____ date: _____

I certify that I followed standard laboratory procedures on handling and analysis of this sample unless otherwise noted and that the statements on this page accurately reflect the analytical results for this sample.

Date(s) of analysis: 9/25/86 9-22-86 Analyst's signature: C S Bruney M Tinney

I certify that I have reviewed and concur with the analytical results for this sample and with the statements in this block.

Reviewers signature: L Meyerhoff

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED: 9/18/86	LAB NO. WC-4536	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE: 86/09/04	SITE INFORMATION ►	Sample location: 18S 08E 34 22L	
Collection TIME: 1130		Collection site description: LAST OF RINSE - EPNG HYDRO TEST	
Collected by — Person/Agency: ANDERSON/OCD			

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87504-2088

Attn: David Boyer

Phone: 827-5812

RECEIVED
NOV 24 1986
OIL CONSERVATION DIVISION
SANTA FE

Station/well code:
Owner:

SAMPLING CONDITIONS

☐ Bailed ☒ Dipped ☐ Pump ☐ Tap	Water level	Discharge	Sample type: GRAB
pH (00400)	Conductivity (Uncorrected): 460 µmho	Water Temp. (00010): 27 °C	Conductivity at 25°C (00094): µmho

Field comments: SAMPLE FROM TAIL END OF RINSE WATER

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 1

☐ NF: Whole sample (Non-filtered) ☒ F: Filtered in field with 0.45 µmembrane filter ☐ A: 2 ml H_2SO_4/L added

☒ NA: No acid added ☐ Other-*specify:* ☐ A: 5ml conc. HNO_3 added ☐ A: 4ml fuming HNO_3 added

ANALYTICAL RESULTS from SAMPLES

F, NA		Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☒ Other: Lab pH	7.33		10/7
☐ Other:			
☐ Other:			

F, NA		Units	Date analyzed
☒ Calcium (00915)	104	mg/l	10/9
☒ Magnesium (00925)	36.4	mg/l	10/9
☒ Sodium (00930)	27.6	mg/l	10-13
☒ Potassium (00935)	<0.5	mg/l	10-14
☒ Bicarbonate (00440)	325	mg/l	10/7
☒ Chloride (00940)	16	mg/l	10/23
☒ Sulfate (00945)	137	mg/l	10/22
☒ Total filterable residue (dissolved) (70300)	524	mg/l	10/20
☒ Other: F	0.16		10/2
☒ Other: Br	< 0.2		10/4

NF, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst	Date Reported	Reviewed by
	11/5/86	CJ

Laboratory remarks:

SLD 726 (12/84)

FOR OCD USE -- Date Owner Notified _____ Phone or letter? _____ Initials _____

86-1078-C

86-1087-C

SCIENTIFIC LABORATORY DIVISION

700 Camino de Salud NE
Albuquerque, NM 87106 841-2570

STATE OF NEW MEXICO
HEALTH ENVIRONMENT

86-1078 A-B

REPORT TO: David Boyer
N.M. Oil Conservation Division
P. O. Box 2088
Santa Fe, N.M. 87504-2088

S.L.D. No. OR- 86-1087 A-B

DATE REC. 9-18-86

PRIORITY

PHONE(S): 827-5812

USER CODE: 8 2 2 3 5

SUBMITTER: David Boyer

CODE: 2 6 0

SAMPLE COLLECTION CODE: (YYMMDDHHMMIII) 8 6 0 9 0 3 1 2 4 0 R C A

SAMPLE TYPE: WATER [X], SOIL [ ], FOOD [ ], OTHER:_____ CODE: [ ][ ][ ]

COUNTY: OTERO ; CITY: ALAMOGORDO CODE: [ ][ ][ ][ ]

LOCATION CODE: (Township-Range-Section-Tracts) 1 8 S + 0 8 E + 3 4 + 2 2 2 (10N06E24342)

ANALYSES REQUESTED: Please check the appropriate box(es) below to indicate the type of analytical screens required. Whenever possible list specific compounds suspected or required.

PURGEABLE SCREENS

- [X] (753) Aliphatic Purgeables (1-3 Carbons)
- [X] (754) Aromatic & Halogenated Purgeables
- [ ] (765) Mass Spectrometer Purgeables
- [ ] (766) Trihalomethanes

Other Specific Compounds or Classes

- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____

EXTRACTABLE SCREENS

- [ ] (751) Aliphatic Hydrocarbons
- [ ] (760) Organochlorine Pesticides
- [ ] (755) Base/Neutral Extractables
- [ ] (758) Herbicides, Chlorophenoxy acid
- [ ] (759) Herbicides, Triazines
- [ ] (760) Organochlorine Pesticides
- [ ] (761) Organophosphate Pesticides
- [ ] (767) Polychlorinated Biphenyls (PCB's)
- [ ] (764) Polynuclear Aromatic Hydrocarbons
- [ ] (762) SDWA Pesticides & Herbicides

Remarks: _____

FIELD DATA:

pH=_____; Conductivity= 2500 umho/cm at 28 °C; Chlorine Residual=_____mg/l

Dissolved Oxygen=_____mg/l; Alkalinity=_____mg/l; Flow Rate_____ _____/_____

Depth to water _____ft.; Depth of well_____ft.; Perforation Interval _____-_____ft.; Casing:_____

Sampling Location, Methods and Remarks (i.e. odors, etc.)

WASH WATER COMPOSITE EPNG HYDRO TEST-White Sands (Used Natural Gas Pipeline)

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities.(signature collector): R. C Anderson Method of Shipment to the Lab: HAND CARRIED

This form accompanies 2 Septum Vials, _____ Glass Jugs, and/or _____ _____

Samples were preserved as follows:

- [ ] NP: No Preservation; Sample stored at room temperature.
- [X] P-Ice Sample stored in an ice bath (Not Frozen).
- [ ] P-$Na_2S_2O_3$ Sample Preserved with Sodium Thiosulfate to remove chlorine residual.

CHAIN OF CUSTODY

I certify that this sample was transferred from _____ to _____

at (location) _____ on _____/_____/_____ - _____:_____ and that

the statements in this block are correct. Evidentiary Seals: Not Sealed [ ] Seals Intact: Yes [ ] No [ ]

Signatures _____ _____

For OCD Use: Date Owner Notified _____ Phone or Letter?_____ Initials _____

ANALYSES PERFORMED

LAB. No.: OR- 1076 1087

THIS PAGE FOR LABORATORY RESULTS ONLY

This sample was tested using the analytical screening method(s) checked below:

PURGEABLE SCREENS

- [x] (753) Aliphatic Purgeables (1-3 Carbons)
- [x] (754) Aromatic & Halogenated Purgeables
- [ ] (765) Mass Spectrometer Purgeables
- [ ] (766) Trihalomethanes

Other Specific Compounds or Classes

- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____

EXTRACTABLE SCREENS

- [ ] (751) Aliphatic Hydrocarbons
- [ ] (760) Organochlorine Pesticides
- [ ] (755) Base/Neutral Extractables
- [ ] (758) Herbicides, Chlorophenoxy acid
- [ ] (759) Herbicides, Triazines
- [ ] (760) Organochlorine Pesticides
- [ ] (761) Organophosphate Pesticides
- [ ] (767) Polychlorinated Biphenyls (PCB's)
- [ ] (764) Polynuclear Aromatic Hydrocarbons
- [ ] (762) SDWA Pesticides & Herbicides

ANALYTICAL RESULTS

COMPOUND(S) DETECTED	CONC. [PPB]	COMPOUND(S) DETECTED	CONC. [PPB]
Headspace - methane	25600 ppm	benzene	ND
- Ethane	36000 ppm	Toluene	ND
- Propane	6800 ppm	ethylbenzene	ND
- isobutane	3500 ppm	p-xylene	ND
- n-butane	4100 ppm	[m-xylene]	500
- isopentane	7200 ppm	o-xylene	ND
- n-pentane	9200 ppm		
[chloroform]	TR		
[tetrachloroethene]	TR		
* DETECTION LIMIT *	*	+ DETECTION LIMIT +	+ 100 ppb

ABBREVIATIONS USED:

N D = NONE DETECTED AT OR ABOVE THE STATED DETECTION LIMIT

T R = DETECTED AT A LEVEL BELOW THE STATED DETECTION LIMIT (NOT CONFIRMED)

[RESULTS IN BRACKETS] ARE UNCONFIRMED AND/OR WITH APPROXIMATE QUANTITATION

LABORATORY REMARKS: Headspace contains a moderate quantity of organics whose chromatographic fingerprint resembles that of gasoline unable to determine quantity

Barring data + charts in Organic unit. Thirty other compounds were detected by the aromatic screen that were not identified.

CERTIFICATE OF ANALYTICAL PERSONNEL

Seal(s) Intact: Yes [ ] No [ ]. Seal(s) broken by: _____ date: _____

I certify that I followed standard laboratory procedures on handling and analysis of this sample unless otherwise noted and that the statements on this page accurately reflect the analytical results for this sample.

Date(s) of analysis: 9/22/86 9-22-86 Analyst's signature: C.K. Bowman M. Finney

I certify that I have reviewed and concur with the analytical results for this sample and with the statements in this block.

Reviewers signature: K Meyerhen

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED 9/18/86	LAB NO. WC-4538	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 86/09/03	SITE INFORM-ATION ►	Sample location 18S 08E 34 222	
Collection TIME 1240		Collection site description WASH WATER EPNG HYDRO TEST	
Collected by — Person/Agency ANDERSON /OCD			

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87504-2088

Attn: David Boyer

Phone: 827-5812

RECEIVED NOV 24 1986 OIL CONSERVATION DIVISION SANTA FE

Station/well code

Owner

SAMPLING CONDITIONS

☐ Bailed ☒ Dipped ☐ Pump ☐ Tap	Water level	Discharge	Sample type GRAB
pH (00400)	Conductivity (Uncorrected) AVE 2500 µmho	Water Temp. (00010) 28 °C	Conductivity at 25°C (00094) µmho

Field comments: COMPOSIT OF 1000 gal WASH WATER WITH SOAP THROUGH 8 mi 6' USED GAS TRANMISSION LINE

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted 1 | ☐ NF: Whole sample (Non-filtered) PRE ☐ F: Filtered in field with 0.45 µmembrane filter | ☐ A: 2 ml H_2SO_4/L added

☒ NA: No acid added ☐ Other-*specify:* ☐ A: 5ml conc. HNO_3 added ☐ A: 4ml fuming HNO_3 added

ANALYTICAL RESULTS from SAMPLES

F, NA		Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☒ Other: Lab pH	9.20		10/7
☐ Other:			
☐ Other:			

F, NA		Units	Date analyzed
☒ Calcium (00915)	interference	mg/l	
☒ Magnesium (00925)	" "	mg/l	
☒ Sodium (00930)	2200	mg/l	10-14
☒ Potassium (00935)	21.1	mg/l	10-15
☒ Bicarbonate (00440)	1,758	mg/l	10/7
☒ Chloride (00940)	5	mg/l	10/8
☒ Sulfate (00945)	438	mg/l	10/9
☒ Total filterable residue (dissolved) (70300)	7464	mg/l	10/30
☒ Other: F	0.23		10/2
☒ Bromide	< 0.2		10/4

NF, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4		
☐ Nitrate-N +, Nitrate-N dissolved (00631)	mg/l	
☐ Ammonia-N dissolved (00608)	mg/l	
☐ Total Kjeldahl-N ( )	mg/l	
☐ Other:		

Analyst	Date Reported	Reviewed by
	11/5/86	

Laboratory remarks: $[CO_3^-]$ = 1364 ppm

SLD 726 (12/84)

FOR OCD USE -- Date Owner Notified _____ Phone or letter? _____ Initials _____

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED: 9 | 18 | 86 | LAB NO. WC-4539 | USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235

Collection DATE: 8 6 | 0 9 | 0 4
Collection TIME: 0700
Collected by — Person/Agency: ANDERSON/OCD

SITE INFORMATION ►
Sample location: 18 S 08E 34 222
Collection site description: MAKE UP WATER EPNG HYDRO TEST

SEND FINAL REPORT TO ►
ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87504-2088

Attn: David Boyer

Phone: 827-5812

RECEIVED
NOV 24 1986
OIL CONSERVATION DIVISION
SANTA FE

Station/well code:
Owner:

SAMPLING CONDITIONS

☐ Bailed ☒ Dipped ☐ Pump ☐ Tap	Water level	Discharge	Sample type: GRAB
pH (00400)	Conductivity (Uncorrected): 395 µmho	Water Temp. (00010): 17.5 °C	Conductivity at 25°C (00094): µmho

Field comments:

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 1

☐ NF: Whole sample (Non-filtered) ☒ F: Filtered in field with 0.45 µmembrane filter ☐ A: 2 ml H_2SO_4/L added

☒ NA: No acid added ☐ Other-*specify:* ☐ A: 5ml conc. HNO_3 added ☐ A: 4ml fuming HNO_3 added

ANALYTICAL RESULTS from SAMPLES

F, NA		Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☒ Other: Lab pH	7.76		10/7
☐ Other:			
☐ Other:			

F, NA		Units	Date analyzed
☒ Calcium (00915)	116	mg/l	10/9
☒ Magnesium (00925)	28.1	mg/l	10/9
☒ Sodium (00930)	410	mg/l	10-14
☒ Potassium (00935)	20.5	mg/l	10-14
☒ Bicarbonate (00440)	231	mg/l	10/7
☒ Chloride (00940)	9.2	mg/l	10/8
☒ Sulfate (00945)	139	mg/l	10/9
☒ Total filterable residue (dissolved) (70300)	522	mg/l	10/20
☒ Other: F	0.19		10/2
☒ Br Bromide	0.3		10/4

NF, A-H_2SO_4			
☐ Nitrate-N + , Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4			
☐ Nitrate-N + , Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst | Date Reported: 11 | 5 | 86 | Reviewed by: CS

Laboratory remarks:

SLD 726 (12/84)

FOR OCD USE -- Date Owner Notified _____ Phone or letter? _____ Initials _____

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

850 WPN

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED 9/18/86	LAB NO. WC-4535	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 86/09/04	SITE INFORM-ATION ►	Sample location 18S 08E 34 222	
Collection TIME 1100		Collection site description COMPOSITE RINSE - EPNG HYDRO TEST	
Collected by — Person/Agency ANDERSON/OCD			

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87504-2088

Attn: David Boyer

Phone: 827-5812

RECEIVED
NOV 24 1986
OIL CONSERVATION DIVISION
SANTA FE

Station/well code
Owner

SAMPLING CONDITIONS

☐ Bailed ☒ Dipped ☐ Pump ☐ Tap	Water level	Discharge	Sample type GRAB
pH (00400)	Conductivity (Uncorrected) AVE 600 µmho	Water Temp. (00010) 28° °C	Conductivity at 25°C (00094) µmho

Field comments COMPOSIT OF 4 SAMPLES OF RINSE WATER

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted 1

☐ NF: Whole sample (Non-filtered) ☒ F: Filtered in field with 0.45 µmembrane filter ☐ A: 2 ml H_2SO_4/L added

☒ NA: No acid added ☐ Other-*specify:* ☐ A: 5ml conc. HNO_3 added ☐ A: 4ml fuming HNO_3 added

ANALYTICAL RESULTS from SAMPLES

NF, NA		Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☒ Other: Lab pH	7.25		10/7
☐ Other:			
☐ Other:			

NF, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, NA		Units	Date analyzed
☒ Calcium (00915)	120	mg/l	10/9
☒ Magnesium (00925)	24.4	mg/l	10/9
☒ Sodium (00930)	52.9	mg/l	10-14
☒ Potassium (00935)	3.9	mg/l	10-14
☒ Bicarbonate (00440)	329	mg/l	10/7
☒ Chloride (00940)	25	mg/l	10/22
☒ Sulfate (00945)	2.51	mg/l	10/22
☒ Total filterable residue (dissolved) (70300)	858	mg/l	10/20
☒ Other: F	0.18		10/2
☒ Bromide	< 0.2		10/4

F, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst	Date Reported	Reviewed by
	11 5 86	CS

Laboratory remarks

SLD 726 (12/84)

FOR OCD USE -- Date Owner Notified _____ Phone or letter? _____ Initials _____

86-1079-C

86-1088-C

SCIENTIFIC LABORATORY DIVISION

700 Camino de Salud NE
Albuquerque, NM 87106 841-2570

HEALTH ENVIRONMENT — STATE OF NEW MEXICO

86-1079 A+B

REPORT TO: David Boyer
N.M. Oil Conservation Division
P. O. Box 2088
Santa Fe, N.M. 87504-2088

S.L.D. No. OR- 86 1088 A-B

DATE REC. 9-18-86

PRIORITY

PHONE(S): 827-5812

USER CODE: 8 2 2 3 5

SUBMITTER: David Boyer

CODE: 2 6 0

SAMPLE COLLECTION CODE: (YYMMDDHHMMIII) 8 6 0 9 0 4 1 1 0 0 R C A

SAMPLE TYPE: WATER ☒, SOIL ☐, FOOD ☐, OTHER:_____ CODE: ___

COUNTY: OTERO ; CITY: ALAMOGORDO CODE: ____

LOCATION CODE: (Township-Range-Section-Tracts) 1 8 S 0 8 E 3 4 2 2 2 (10N06E24342)

ANALYSES REQUESTED: Please check the appropriate box(es) below to indicate the type of analytical screens required. Whenever possible list specific compounds suspected or required.

PURGEABLE SCREENS

- ☒ (753) Aliphatic Purgeables (1-3 Carbons)
- ☒ (754) Aromatic & Halogenated Purgeables
- ☐ (765) Mass Spectrometer Purgeables
- ☐ (766) Trihalomethanes

Other Specific Compounds or Classes

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

EXTRACTABLE SCREENS

- ☐ (751) Aliphatic Hydrocarbons
- ☐ (760) Organochlorine Pesticides
- ☐ (755) Base/Neutral Extractables
- ☐ (758) Herbicides, Chlorophenoxy acid
- ☐ (759) Herbicides, Triazines
- ☐ (760) Organochlorine Pesticides
- ☐ (761) Organophosphate Pesticides
- ☐ (767) Polychlorinated Biphenyls (PCB's)
- ☐ (764) Polynuclear Aromatic Hydrocarbons
- ☐ (762) SDWA Pesticides & Herbicides

Remarks: _____

FIELD DATA:

pH=_____; Conductivity= AVG 600 umho/cm at 28 °C; Chlorine Residual=_____mg/l

Dissolved Oxygen=_____mg/l; Alkalinity=_____mg/l; Flow Rate_____ ____/____

Depth to water _____ft.; Depth of well_____ft.; Perforation Interval ____-____ft.; Casing:_____

Sampling Location, Methods and Remarks (i.e. odors, etc.)

RINSE COMPOSIT EPNG HYDRO TEST - White Seals from used Natural gas pipe)

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities.(signature collector): R C Anderson Method of Shipment to the Lab: HAND CAR.

This form accompanies 2 Septum Vials, ____ Glass Jugs, and/or ____ _____

Samples were preserved as follows:

- ☐ NP: No Preservation; Sample stored at room temperature.
- ☒ P-Ice Sample stored in an ice bath (Not Frozen).
- ☐ P-$Na_2S_2O_3$ Sample Preserved with Sodium Thiosulfate to remove chlorine residual.

CHAIN OF CUSTODY

I certify that this sample was transferred from _____ to _____

at (location) _____ on ____/____/____ - ____:____ and that

the statements in this block are correct. Evidentiary Seals: Not Sealed ☐ Seals Intact: Yes ☐ No ☐

Signatures _____ _____

For OCD Use: Date Owner Notified _____ Phone or Letter?_____ Initials _____

ANALYSES PERFORMED

LAB. No.: OR- 1079 1088

THIS PAGE FOR LABORATORY RESULTS ONLY

This sample was tested using the analytical screening method(s) checked below:

PURGEABLE SCREENS

- [x] (753) Aliphatic Purgeables (1-3 Carbons)
- [x] (754) Aromatic & Halogenated Purgeables
- [ ] (765) Mass Spectrometer Purgeables
- [ ] (766) Trihalomethanes

Other Specific Compounds or Classes

- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____

EXTRACTABLE SCREENS

- [ ] (751) Aliphatic Hydrocarbons
- [ ] (760) Organochlorine Pesticides
- [ ] (755) Base/Neutral Extractables
- [ ] (758) Herbicides, Chlorophenoxy acid
- [ ] (759) Herbicides, Triazines
- [ ] (760) Organochlorine Pesticides
- [ ] (761) Organophosphate Pesticides
- [ ] (767) Polychlorinated Biphenyls (PCB's)
- [ ] (764) Polynuclear Aromatic Hydrocarbons
- [ ] (762) SDWA Pesticides & Herbicides

ANALYTICAL RESULTS

COMPOUND(S) DETECTED	CONC. [PPB]	COMPOUND(S) DETECTED	CONC. [PPB]
Headspace Methane *	28000ppb	[benzene]	72
Ethane	4400ppb	[toluene]	140
Propane	815ppb	ethylbenzene	ND
isobutane	220ppb	p-Xylene	ND
n-butane	330ppb	m-Xylene	ND
isopentane	350 ppb	o-Xylene	ND
n-pentane	515ppb		
[chloroform]	TR		
[tetrachloroethene]	TR		
* DETECTION LIMIT *	5	+ DETECTION LIMIT +	10ppb

ABBREVIATIONS USED:

N D = NONE DETECTED AT OR ABOVE THE STATED DETECTION LIMIT
T R = DETECTED AT A LEVEL BELOW THE STATED DETECTION LIMIT (NOT CONFIRMED)
[RESULTS IN BRACKETS] ARE UNCONFIRMED AND/OR WITH APPROXIMATE QUANTITATION

LABORATORY REMARKS: moderate amount of organics whose chromatographic fingerprint is resemble that of gasoline.

Back up data & chails in Org 1000. Twenty-two other compounds were detected by the aromatic screen that were not identified.

CERTIFICATE OF ANALYTICAL PERSONNEL

Seal(s) Intact: Yes [ ] No [ ]. Seal(s) broken by: _____ date: _____

I certify that I followed standard laboratory procedures on handling and analysis of this sample unless otherwise noted and that the statements on this page accurately reflect the analytical results for this sample.

Date(s) of analysis: 9/25/86 9-22-86. Analyst's signature: C.S. Brumley H. Turney

I certify that I have reviewed and concur with the analytical results for this sample and with the statements in this block.

Reviewers signature: K. Meyerhen

86-1080-C

86-1089-C

SCIENTIFIC LABORATORY DIVISION

700 Camino de Salud NE
Albuquerque, NM 87106 841-2570

STATE OF NEW MEXICO
ENVIRONMENT

OCT - 9 1986

86-1080 A·B
S.L.D. No. OR- 86 1089 A·B

REPORT TO: David Boyer
N.M. Oil Conservation Division
P. O. Box 2088
Santa Fe, N.M. 87504-2088

DATE REC. 9-18-86

PRIORITY

PHONE(S): 827-5812

USER CODE: 8 2 2 3 5

SUBMITTER: David Boyer

CODE: 2 6 0

SAMPLE COLLECTION CODE: (YYMMDDHHMMIII) 8 6 0 9 1 1 1 1 0 0 R C A

SAMPLE TYPE: WATER ☐, SOIL ☐, FOOD ☐, OTHER:_____ CODE: ___

COUNTY: OTERO ; CITY: ALAMOGORDO CODE: ____

LOCATION CODE: (Township-Range-Section-Tracts) 1 8 S + 0 8 E + 3 4 + 2 2 2 (10N06E24342)

ANALYSES REQUESTED: Please check the appropriate box(es) below to indicate the type of analytical screens required. Whenever possible list specific compounds suspected or required.

PURGEABLE SCREENS

- ☒ (753) Aliphatic Purgeables (1-3 Carbons)
- ☒ (754) Aromatic & Halogenated Purgeables
- ☐ (765) Mass Spectrometer Purgeables
- ☐ (766) Trihalomethanes

Other Specific Compounds or Classes

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

EXTRACTABLE SCREENS

- ☐ (751) Aliphatic Hydrocarbons
- ☐ (760) Organochlorine Pesticides
- ☐ (755) Base/Neutral Extractables
- ☐ (758) Herbicides, Chlorophenoxy acid
- ☐ (759) Herbicides, Triazines
- ☐ (760) Organochlorine Pesticides
- ☐ (761) Organophosphate Pesticides
- ☐ (767) Polychlorinated Biphenyls (PCB's)
- ☐ (764) Polynuclear Aromatic Hydrocarbons
- ☐ (762) SDWA Pesticides & Herbicides

Remarks: _____

FIELD DATA:

pH=_____; Conductivity= 440 umho/cm at 26 °C; Chlorine Residual=_____mg/l

Dissolved Oxygen=_____mg/l; Alkalinity=_____mg/l; Flow Rate_____ ____/____

Depth to water _____ft.; Depth of well_____ft.; Perforation Interval _____-_____ft.; Casing:_____

Sampling Location, Methods and Remarks (i.e. odors, etc.)

INITIAL DEWATER EPNG HYDRO TEST - White Sands (From used EPNG Gas Pipeline)

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities.(signature collector): R. Anderson Method of Shipment to the Lab: HAND

This form accompanies 2 Septum Vials, ____ Glass Jugs, and/or ____ _____

Samples were preserved as follows:

- ☐ NP: No Preservation; Sample stored at room temperature.
- ☒ P-Ice Sample stored in an ice bath (Not Frozen).
- ☐ P-$Na_2S_2O_3$ Sample Preserved with Sodium Thiosulfate to remove chlorine residual.

CHAIN OF CUSTODY

I certify that this sample was transferred from _____ to _____

at (location) _____ on ____/____/____ - ____:____ and that

the statements in this block are correct. Evidentiary Seals: Not Sealed ☐ Seals Intact: Yes ☐ No ☐

Signatures _____ _____

For OCD Use: Date Owner Notified _____ Phone or Letter?_____ Initials _____

ANALYSES PERFORMED

LAB. No.: OR- 1080 1089

THIS PAGE FOR LABORATORY RESULTS ONLY

This sample was tested using the analytical screening method(s) checked below:

PURGEABLE SCREENS

- [x] (753) Aliphatic Purgeables (1-3 Carbons)
- [x] (754) Aromatic & Halogenated Purgeables
- [ ] (765) Mass Spectrometer Purgeables
- [ ] (766) Trihalomethanes

Other Specific Compounds or Classes

- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____

EXTRACTABLE SCREENS

- [ ] (751) Aliphatic Hydrocarbons
- [ ] (760) Organochlorine Pesticides
- [ ] (755) Base/Neutral Extractables
- [ ] (758) Herbicides, Chlorophenoxy acid
- [ ] (759) Herbicides, Triazines
- [ ] (760) Organochlorine Pesticides
- [ ] (761) Organophosphate Pesticides
- [ ] (767) Polychlorinated Biphenyls (PCB's)
- [ ] (764) Polynuclear Aromatic Hydrocarbons
- [ ] (762) SDWA Pesticides & Herbicides

ANALYTICAL RESULTS

COMPOUND(S) DETECTED	CONC. [PPB]	COMPOUND(S) DETECTED	CONC. [PPB]
Headspace - Methane	ND < 5ppb*	benzene	ND
chloroform	< 5	toluene	ND
bromodichloromethane	< 5	ethylbenzene	ND
dibromochloromethane	< 5	p-xylene	ND
bromoform	< 5	m-xylene	ND
		o-xylene	ND.
* DETECTION LIMIT * *		+ DETECTION LIMIT + +	5ppb

ABBREVIATIONS USED:

N D = NONE DETECTED AT OR ABOVE THE STATED DETECTION LIMIT
T R = DETECTED AT A LEVEL BELOW THE STATED DETECTION LIMIT (NOT CONFIRMED)
[RESULTS IN BRACKETS] ARE UNCONFIRMED AND/OR WITH APPROXIMATE QUANTITATION

LABORATORY REMARKS: No other organics detected
There is a possible trace of some hydrocarbons
< 5ppb, as detected by the aromatic screen.

CERTIFICATE OF ANALYTICAL PERSONNEL

Seal(s) Intact: Yes [ ] No [ ]. Seal(s) broken by: _____ date: _____

I certify that I followed standard laboratory procedures on handling and analysis of this sample unless otherwise noted and that the statements on this page accurately reflect the analytical results for this sample.

Date(s) of analysis: 9/25/86 9-22-86. Analyst's signature: C.S. Becraft J.T. Tierney

I certify that I have reviewed and concur with the analytical results for this sample and with the statements in this block.

Reviewers signature: K Meyerhofer

86-1081-C

86-1090-C

SCIENTIFIC LABORATORY DIVISION

700 Camino de Salud NE
Albuquerque, NM 87106 841-2570

HEALTH ENVIRONMENT — STATE OF NEW MEXICO

OCT - 9 1986
OIL CONSERVATION DIVISION
SANTA FE

86-1081 A-B
S.L.D. No. OR- 86-1090 A-B

REPORT TO: David Boyer
N.M. Oil Conservation Division
P. O. Box 2088
Santa Fe, N.M. 87504-2088

DATE REC. 9-18-86

PRIORITY _____

PHONE(S): 827-5812

USER CODE: 8 2 2 3 5

SUBMITTER: David Boyer

CODE: 2 6 0

SAMPLE COLLECTION CODE: (YYMMDDHHMMIII) 8 6 0 9 1 1 1 2 0 0 R C A

SAMPLE TYPE: WATER [X], SOIL [ ], FOOD [ ], OTHER: _____ CODE: _____

COUNTY: OTERO ; CITY: ALAMOGORDO CODE: _____

LOCATION CODE: (Township-Range-Section-Tracts) 1 8 S + 0 8 E + 3 4 + 2 2 2 (10N06E24342)

ANALYSES REQUESTED: Please check the appropriate box(es) below to indicate the type of analytical screens required. Whenever possible list specific compounds suspected or required.

PURGEABLE SCREENS

- [X] (753) Aliphatic Purgeables (1-3 Carbons)
- [X] (754) Aromatic & Halogenated Purgeables
- [ ] (765) Mass Spectrometer Purgeables
- [ ] (766) Trihalomethanes

Other Specific Compounds or Classes

- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____

EXTRACTABLE SCREENS

- [ ] (751) Aliphatic Hydrocarbons
- [ ] (760) Organochlorine Pesticides
- [ ] (755) Base/Neutral Extractables
- [ ] (758) Herbicides, Chlorophenoxy acid
- [ ] (759) Herbicides, Triazines
- [ ] (760) Organochlorine Pesticides
- [ ] (761) Organophosphate Pesticides
- [ ] (767) Polychlorinated Biphenyls (PCB's)
- [ ] (764) Polynuclear Aromatic Hydrocarbons
- [ ] (762) SDWA Pesticides & Herbicides

Remarks: _____

FIELD DATA:

pH= _____; Conductivity= 440 umho/cm at 27 °C; Chlorine Residual= _____ mg/l

Dissolved Oxygen= _____ mg/l; Alkalinity= _____ mg/l; Flow Rate _____ _____/_____

Depth to water _____ ft.; Depth of well _____ ft.; Perforation Interval _____-_____ ft.; Casing: _____

Sampling Location, Methods and Remarks (i.e. odors, etc.)

DEWATER 1HOUR EPNG HYDRO TEST - White Sands

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities.(signature collector): R. Cinderson Method of Shipment to the Lab: HAND

This form accompanies 2 Septum Vials, _____ Glass Jugs, and/or _____ _____

Samples were preserved as follows:

- [ ] NP: No Preservation; Sample stored at room temperature.
- [X] P-Ice Sample stored in an ice bath (Not Frozen).
- [ ] P-$Na_2S_2O_3$ Sample Preserved with Sodium Thiosulfate to remove chlorine residual.

CHAIN OF CUSTODY

I certify that this sample was transferred from _____ to _____

at (location) _____ on _____/_____/_____ - _____:_____ and that

the statements in this block are correct. Evidentiary Seals: Not Sealed [ ] Seals Intact: Yes [ ] No [ ]

Signatures _____ _____

For OCD Use: Date Owner Notified _____ Phone or Letter? _____ Initials _____

ANALYSES PERFORMED

LAB. No.: OR- 1081 / 1090

THIS PAGE FOR LABORATORY RESULTS ONLY

This sample was tested using the analytical screening method(s) checked below:

PURGEABLE SCREENS

- [x] (753) Aliphatic Purgeables (1-3 Carbons)
- [x] (754) Aromatic & Halogenated Purgeables
- [ ] (765) Mass Spectrometer Purgeables
- [ ] (766) Trihalomethanes

Other Specific Compounds or Classes

- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____

EXTRACTABLE SCREENS

- [ ] (751) Aliphatic Hydrocarbons
- [ ] (760) Organochlorine Pesticides
- [ ] (755) Base/Neutral Extractables
- [ ] (758) Herbicides, Chlorophenoxy acid
- [ ] (759) Herbicides, Triazines
- [ ] (760) Organochlorine Pesticides
- [ ] (761) Organophosphate Pesticides
- [ ] (767) Polychlorinated Biphenyls (PCB's)
- [ ] (764) Polynuclear Aromatic Hydrocarbons
- [ ] (762) SDWA Pesticides & Herbicides

ANALYTICAL RESULTS

COMPOUND(S) DETECTED	CONC. [PPB]	COMPOUND(S) DETECTED	CONC. [PPB]
Headspace - methane	13 ppm	benzene	ND
Ethane	3 ppm	toluene	ND
		ethylbenzene	ND
chloroform	6	p-xylene	ND
bromodichloromethane	<5	m-xylene	ND
dibromochloromethane	<5	o-xylene	ND
bromoform	<5		
* DETECTION LIMIT * *		+ DETECTION LIMIT + +	5 ppb

ABBREVIATIONS USED:

N D = NONE DETECTED AT OR ABOVE THE STATED DETECTION LIMIT
T R = DETECTED AT A LEVEL BELOW THE STATED DETECTION LIMIT (NOT CONFIRMED)
[RESULTS IN BRACKETS] ARE UNCONFIRMED AND/OR WITH APPROXIMATE QUANTITATION

LABORATORY REMARKS: no other organics detected, There is a possible trace of hydrocarbons <5 ppb, as detected by the aromatic screen.

CERTIFICATE OF ANALYTICAL PERSONNEL

Seal(s) Intact: Yes [ ] No [ ]. Seal(s) broken by: _____ date: _____

I certify that I followed standard laboratory procedures on handling and analysis of this sample unless otherwise noted and that the statements on this page accurately reflect the analytical results for this sample.

Date(s) of analysis: 9/25/86 9-22-86. Analyst's signature: C S Barney G M Tinney

I certify that I have reviewed and concur with the analytical results for this sample and with the statements in this block.

Reviewers signature: K Meyerhen

86-1074-C

86-1083-C

SCIENTIFIC LABORATORY DIVISION

700 Camino de Salud NE
Albuquerque, NM 87106 841-2570

HEALTH ENVIRONMENT — STATE OF NEW MEXICO

86-1074 A·B
S.L.D. No. OR- 86-1083 A·B

REPORT TO: David Boyer
N.M. Oil Conservation Division
P. O. Box 2088
Santa Fe, N.M. 87504-2088

RECEIVED OCT 9 1986 OIL CONSERVATION DIVISION

DATE REC. 9-18-86

PRIORITY

PHONE(S): 827-5812 USER CODE: 8 2 2 3 5

SUBMITTER: David Boyer CODE: 2 6 0

SAMPLE COLLECTION CODE: (YYMMDDHHMMIII) 8 6 0 9 1 1 1 5 2 0 R C A

SAMPLE TYPE: WATER [X], SOIL [ ], FOOD [ ], OTHER:_____ CODE: ___

COUNTY: OTERO ; CITY: ALAMOGORDO CODE: ____

LOCATION CODE: (Township-Range-Section-Tracts) 1 8 S 0 8 E 3 4 2 2 2 (10N06E24342)

ANALYSES REQUESTED: Please check the appropriate box(es) below to indicate the type of analytical screens required. Whenever possible list specific compounds suspected or required.

PURGEABLE SCREENS

- [X] (753) Aliphatic Purgeables (1-3 Carbons)
- [X] (754) Aromatic & Halogenated Purgeables
- [ ] (765) Mass Spectrometer Purgeables
- [ ] (766) Trihalomethanes

Other Specific Compounds or Classes

- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____

EXTRACTABLE SCREENS

- [ ] (751) Aliphatic Hydrocarbons
- [ ] (760) Organochlorine Pesticides
- [ ] (755) Base/Neutral Extractables
- [ ] (758) Herbicides, Chlorophenoxy acid
- [ ] (759) Herbicides, Triazines
- [ ] (760) Organochlorine Pesticides
- [ ] (761) Organophosphate Pesticides
- [ ] (767) Polychlorinated Biphenyls (PCB's)
- [ ] (764) Polynuclear Aromatic Hydrocarbons
- [ ] (762) SDWA Pesticides & Herbicides

Remarks: _____

FIELD DATA:

pH=_____; Conductivity= 470 umho/cm at 29 °C; Chlorine Residual=_____mg/l

Dissolved Oxygen=_____mg/l; Alkalinity=_____mg/l; Flow Rate_____ ____/____

Depth to water _____ft.; Depth of well_____ft.; Perforation Interval _____-_____ft.; Casing:_____

Sampling Location, Methods and Remarks (i.e. odors, etc.)

DEWATER - HALF WAY - ERNG HYDRO TEST with Sands
(From used Natural Gas Pipe)

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities.(signature collector): R.C. Anderson Method of Shipment to the Lab: HAND

This form accompanies 2 Septum Vials, ____ Glass Jugs, and/or ____ _____

Samples were preserved as follows:

- [ ] NP: No Preservation; Sample stored at room temperature.
- [X] P-Ice Sample stored in an ice bath (Not Frozen).
- [ ] P-$Na_2S_2O_3$ Sample Preserved with Sodium Thiosulfate to remove chlorine residual.

CHAIN OF CUSTODY

I certify that this sample was transferred from _____ to _____

at (location) _____ on ____/____/____ - ____:____ and that

the statements in this block are correct. Evidentiary Seals: Not Sealed [ ] Seals Intact: Yes [ ] No [ ]

Signatures _____ _____

For OCD Use: Date Owner Notified _____ Phone or Letter?_____ Initials _____

ANALYSES PERFORMED

LAB. No.: OR- 1074/1083

THIS PAGE FOR LABORATORY RESULTS ONLY

This sample was tested using the analytical screening method(s) checked below:

PURGEABLE SCREENS

- [x] (753) Aliphatic Purgeables (1-3 Carbons)
- [x] (754) Aromatic & Halogenated Purgeables
- [ ] (765) Mass Spectrometer Purgeables
- [ ] (766) Trihalomethanes

Other Specific Compounds or Classes

- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____

EXTRACTABLE SCREENS

- [ ] (751) Aliphatic Hydrocarbons
- [ ] (760) Organochlorine Pesticides
- [ ] (755) Base/Neutral Extractables
- [ ] (758) Herbicides, Chlorophenoxy acid
- [ ] (759) Herbicides, Triazines
- [ ] (760) Organochlorine Pesticides
- [ ] (761) Organophosphate Pesticides
- [ ] (767) Polychlorinated Biphenyls (PCB's)
- [ ] (764) Polynuclear Aromatic Hydrocarbons
- [ ] (762) SDWA Pesticides & Herbicides

ANALYTICAL RESULTS

COMPOUND(S) DETECTED	CONC. [PPB]	COMPOUND(S) DETECTED	CONC. [PPB]
Headspace - Hexane	ND <5ppm	benzene	ND
[chloroform]	4	toluene	ND
bromodichloromethane	TR	ethylbenzene	ND
dibromochloromethane	TR	p-xylene	ND
bromoform	TR	m-xylene	ND
		o-xylene	ND
* DETECTION LIMIT *	5ppm	+ DETECTION LIMIT +	2ppb

ABBREVIATIONS USED:

N D = NONE DETECTED AT OR ABOVE THE STATED DETECTION LIMIT

T R = DETECTED AT A LEVEL BELOW THE STATED DETECTION LIMIT (NOT CONFIRMED)

[RESULTS IN BRACKETS] ARE UNCONFIRMED AND/OR WITH APPROXIMATE QUANTITATION

LABORATORY REMARKS: no other organics detected

Back up data & charts in Org 1070

Fifteen other compounds were detected by the aromatic screen that were not identified.

CERTIFICATE OF ANALYTICAL PERSONNEL

Seal(s) Intact: Yes [ ] No [ ]. Seal(s) broken by: _____ date: _____

I certify that I followed standard laboratory procedures on handling and analysis of this sample unless otherwise noted and that the statements on this page accurately reflect the analytical results for this sample.

Date(s) of analysis: 9/25/86 7-22-86. Analyst's signature: CS Bursey JH Zinney

I certify that I have reviewed and concur with the analytical results for this sample and with the statements in this block.

Reviewers signature: K Meyerhen

86-1073-C

86-1082-C

SCIENTIFIC LABORATORY DIVISION

700 Camino de Salud NE
Albuquerque, NM 87106 841-2570

STATE OF NEW MEXICO
HEALTH ENVIRONMENT

86-1073-AB

REPORT TO: David Boyer
N.M. Oil Conservation Division
P. O. Box 2088
Santa Fe, N.M. 87504-2088

S.L.D. No. OR- 86-1082 AB

DATE REC. 9-18-86

PRIORITY

PHONE(S): 827-5812

USER CODE: 8 2 2 3 5

SUBMITTER: David Boyer

CODE: 2 6 0

SAMPLE COLLECTION CODE: (YYMMDDHHMMIII) 8 6 0 9 0 4 0 7 0 0 R C A

SAMPLE TYPE: WATER [X], SOIL [ ], FOOD [ ], OTHER: _____ CODE: _____

COUNTY: OTERO ; CITY: ALAMOGORDO CODE: _____

LOCATION CODE: (Township-Range-Section-Tracts) 1 6 S 0 9 E + 3 4 + 2 2 2 (10N06E24342)

ANALYSES REQUESTED: Please check the appropriate box(es) below to indicate the type of analytical screens required. Whenever possible list specific compounds suspected or required.

PURGEABLE SCREENS

- [X] (753) Aliphatic Purgeables (1-3 Carbons)
- [X] (754) Aromatic & Halogenated Purgeables
- [ ] (765) Mass Spectrometer Purgeables
- [ ] (766) Trihalomethanes

Other Specific Compounds or Classes

- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____

EXTRACTABLE SCREENS

- [ ] (751) Aliphatic Hydrocarbons
- [ ] (760) Organochlorine Pesticides
- [ ] (755) Base/Neutral Extractables
- [ ] (758) Herbicides, Chlorophenoxy acid
- [ ] (759) Herbicides, Triazines
- [ ] (760) Organochlorine Pesticides
- [ ] (761) Organophosphate Pesticides
- [ ] (767) Polychlorinated Biphenyls (PCB's)
- [ ] (764) Polynuclear Aromatic Hydrocarbons
- [ ] (762) SDWA Pesticides & Herbicides

Remarks: _____

FIELD DATA:

pH= _____; Conductivity= 395 umho/cm at 17.5 °C; Chlorine Residual= _____ mg/l

Dissolved Oxygen= _____ mg/l; Alkalinity= _____ mg/l; Flow Rate _____ _____/_____

Depth to water _____ ft.; Depth of well _____ ft.; Perforation Interval _____ - _____ ft.; Casing: _____

Sampling Location, Methods and Remarks (i.e. odors, etc.)

MAKE-UP WATER - EPNG HYDRO TEST - Well #5 (City of Alamogordo)

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities.(signature collector): _____ Method of Shipment to the Lab: _____

This form accompanies 2 Septum Vials, _____ Glass Jugs, and/or _____ _____

Samples were preserved as follows:

- [ ] NP: No Preservation; Sample stored at room temperature.
- [X] P-Ice Sample stored in an ice bath (Not Frozen).
- [ ] P-$Na_2S_2O_3$ Sample Preserved with Sodium Thiosulfate to remove chlorine residual.

CHAIN OF CUSTODY

I certify that this sample was transferred from _____ to _____

at (location) _____ on _____/_____/_____ - _____:_____ and that

the statements in this block are correct. Evidentiary Seals: Not Sealed [ ] Seals Intact: Yes [ ] No [ ]

Signatures _____ _____

For OCD Use: Date Owner Notified _____ Phone or Letter? _____ Initials _____

ANALYSES PERFORMED

LAB. No.: OR- 1073 1082

THIS PAGE FOR LABORATORY RESULTS ONLY

This sample was tested using the analytical screening method(s) checked below:

PURGEABLE SCREENS

- [X] (753) Aliphatic Purgeables (1-3 Carbons)
- [X] (754) Aromatic & Halogenated Purgeables
- [ ] (765) Mass Spectrometer Purgeables
- [ ] (766) Trihalomethanes

Other Specific Compounds or Classes

- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____

EXTRACTABLE SCREENS

- [ ] (751) Aliphatic Hydrocarbons
- [ ] (760) Organochlorine Pesticides
- [ ] (755) Base/Neutral Extractables
- [ ] (758) Herbicides, Chlorophenoxy acid
- [ ] (759) Herbicides, Triazines
- [ ] (760) Organochlorine Pesticides
- [ ] (761) Organophosphate Pesticides
- [ ] (767) Polychlorinated Biphenyls (PCB's)
- [ ] (764) Polynuclear Aromatic Hydrocarbons
- [ ] (762) SDWA Pesticides & Herbicides

ANALYTICAL RESULTS

COMPOUND(S) DETECTED	CONC. [PPB]	COMPOUND(S) DETECTED	CONC. [PPB]
Headspace - Methane	ND <5ppm		
aromatic purgeables+	ND		
chloroform	14		
bromodichloromethane	5		
dibromochloromethane	4		
bromoform	<1		
* DETECTION LIMIT * *	5ppm	+ DETECTION LIMIT + +	1 ppb

ABBREVIATIONS USED:

N D = NONE DETECTED AT OR ABOVE THE STATED DETECTION LIMIT

T R = DETECTED AT A LEVEL BELOW THE STATED DETECTION LIMIT (NOT CONFIRMED)

[RESULTS IN BRACKETS] ARE UNCONFIRMED AND/OR WITH APPROXIMATE QUANTITATION

LABORATORY REMARKS: no other organics detected

Backup data & charts in Organic 1076

CERTIFICATE OF ANALYTICAL PERSONNEL

Seal(s) Intact: Yes [ ] No [ ]. Seal(s) broken by: _____ date: _____

I certify that I followed standard laboratory procedures on handling and analysis of this sample unless otherwise noted and that the statements on this page accurately reflect the analytical results for this sample.

Date(s) of analysis: 9/25/86 9-22-86. Analyst's signature: C.S. Barney J.K. Finney

I certify that I have reviewed and concur with the analytical results for this sample and with the statements in this block.

Reviewers signature: K Meyerhen

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED 9 / 18 / 86	LAB NO. WC-4537	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235		
Collection DATE 86/09/11	SITE INFORM-ATION ►	Sample location 18S 08E 34 222		
Collection TIME 1615		Collection site description DEWATER EPNG HYDRO TEST		
Collected by — Person/Agency ANDERSON /OCD				

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87504-2088

Attn: David Boyer

Phone: 827-5812

RECEIVED
NOV 24 1986
OIL CONSERVATION DIVISION
SANTA FE

Station/well code

Owner

SAMPLING CONDITIONS

☐ Bailed ☒ Dipped ☐ Pump ☐ Tap	Water level	Discharge	Sample type GRAB
pH (00400)	Conductivity (Uncorrected) 435 µmho	Water Temp. (00010) 27 °C	Conductivity at 25°C (00094) µmho

Field comments END OF DEWATER

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted 1 | ☐ NF: Whole sample (Non-filtered) | ☒ F: Filtered in field with 0.45 µmembrane filter | ☐ A: 2 ml H_2SO_4/L added

☒ NA: No acid added | ☐ Other-*specify:* | ☐ A: 5ml conc. HNO_3 added | ☐ A: 4ml fuming HNO_3 added

ANALYTICAL RESULTS from SAMPLES

NF, NA		Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☒ Other: Lab pH	7.50		10/7
☐ Other:			
☐ Other:			

F, NA		Units	Date analyzed
☒ Calcium (00915)	84.6	mg/l	10/9
☒ Magnesium (00925)	23.4	mg/l	10/9
☒ Sodium (00930)	18.4	mg/l	10/13
☒ Potassium (00935)	6.05	mg/l	10/14
☒ Bicarbonate (00440)	277	mg/l	10/7
☒ Chloride (00940)	14	mg/l	10/23
☒ Sulfate (00945)	117	mg/l	10/22
☒ Total filterable residue (dissolved) (70300)	362	mg/l	10/20
☒ Other:	0.13		10/7
x Br	< 0.2		10/4

NF, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst	Date Reported	Reviewed by
	11 / 5 / 86	CS

Laboratory remarks

SLD 726 (12/84)

FOR OCD USE -- Date Owner Notified _____ Phone or letter? _____ Initials _____

ANALYSES PERFORMED

LAB. No.: OR- 1076 1085

THIS PAGE FOR LABORATORY RESULTS ONLY

This sample was tested using the analytical screening method(s) checked below:

PURGEABLE SCREENS

- [x] (753) Aliphatic Purgeables (1-3 Carbons)
- [x] (754) Aromatic & Halogenated Purgeables
- [ ] (765) Mass Spectrometer Purgeables
- [ ] (766) Trihalomethanes

Other Specific Compounds or Classes

- [ ] ____
- [ ] ____
- [ ] ____
- [ ] ____
- [ ] ____

EXTRACTABLE SCREENS

- [ ] (751) Aliphatic Hydrocarbons
- [ ] (760) Organochlorine Pesticides
- [ ] (755) Base/Neutral Extractables
- [ ] (758) Herbicides, Chlorophenoxy acid
- [ ] (759) Herbicides, Triazines
- [ ] (760) Organochlorine Pesticides
- [ ] (761) Organophosphate Pesticides
- [ ] (767) Polychlorinated Biphenyls (PCB's)
- [ ] (764) Polynuclear Aromatic Hydrocarbons
- [ ] (762) SDWA Pesticides & Herbicides

ANALYTICAL RESULTS

COMPOUND(S) DETECTED	CONC. [PPB]	COMPOUND(S) DETECTED	CONC. [PPB]
Headspace - Methane	32 ppm	benzene	ND
- Ethane	2 ppm	toluene	ND
- Propane	16 ppm	ethylbenzene	ND
- isobutane	< 2 ppm	p-xylene	ND
- n-butane	16 ppm	m-xylene	ND
- isopentane	15 ppm	O-xylene	ND
- n-pentane	15 ppm		
[chloroform]	3		
* DETECTION LIMIT *	*	+ DETECTION LIMIT +	2 ppb

ABBREVIATIONS USED:

N D = NONE DETECTED AT OR ABOVE THE STATED DETECTION LIMIT
T R = DETECTED AT A LEVEL BELOW THE STATED DETECTION LIMIT (NOT CONFIRMED)
[RESULTS IN BRACKETS] ARE UNCONFIRMED AND/OR WITH APPROXIMATE QUANTITATION

LABORATORY REMARKS: traces of organics normally found in natural gas. Unable to determine quantity.
Back up data & charts in Organic 1070
Twenty-two other peaks were identified by the aromatic screen that were not identified.

CERTIFICATE OF ANALYTICAL PERSONNEL

Seal(s) Intact: Yes [ ] No [ ]. Seal(s) broken by: ____ date: ____

I certify that I followed standard laboratory procedures on handling and analysis of this sample unless otherwise noted and that the statements on this page accurately reflect the analytical results for this sample.

Date(s) of analysis: 9/25/86 9-22-86. Analyst's signature: CS Beeney JP Furney

I certify that I have reviewed and concur with the analytical results for this sample and with the statements in this block.

Reviewers signature: K Meyerhen

86-1076-C
86-1085-C

SCIENTIFIC LABORATORY DIVISION

700 Camino de Salud NE
Albuquerque, NM 87106 841-2570

STATE OF NEW MEXICO
HEALTH ENVIRONMENT

RECEIVED
OCT - 9 1986
OIL CONSERVATION DIVISION
SANTA FE

86-1076 A+B

REPORT TO: David Boyer
N.M. Oil Conservation Division
P. O. Box 2088
Santa Fe, N.M. 87504-2088

S.L.D. No. OR- 86-1085 A+B
DATE REC. 9-18-86
PRIORITY

PHONE(S): 827-5812
USER CODE: 82235
SUBMITTER: David Boyer
CODE: 260

SAMPLE COLLECTION CODE: (YYMMDDHHMMIII) B60911116152CA

SAMPLE TYPE: WATER [X], SOIL [ ], FOOD [ ], OTHER: _____ CODE: _____

COUNTY: OTERO ; CITY: ALAMOGORDO CODE: _____

LOCATION CODE: (Township-Range-Section-Tracts) 18S+08E+34+222 (10N06E24342)

ANALYSES REQUESTED: Please check the appropriate box(es) below to indicate the type of analytical screens required. Whenever possible list specific compounds suspected or required.

PURGEABLE SCREENS

- [X] (753) Aliphatic Purgeables (1-3 Carbons)
- [X] (754) Aromatic & Halogenated Purgeables
- [ ] (765) Mass Spectrometer Purgeables
- [ ] (766) Trihalomethanes

Other Specific Compounds or Classes

- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____

EXTRACTABLE SCREENS

- [ ] (751) Aliphatic Hydrocarbons
- [ ] (760) Organochlorine Pesticides
- [ ] (755) Base/Neutral Extractables
- [ ] (758) Herbicides, Chlorophenoxy acid
- [ ] (759) Herbicides, Triazines
- [ ] (760) Organochlorine Pesticides
- [ ] (761) Organophosphate Pesticides
- [ ] (767) Polychlorinated Biphenyls (PCB's)
- [ ] (764) Polynuclear Aromatic Hydrocarbons
- [ ] (762) SDWA Pesticides & Herbicides

Remarks: _____

FIELD DATA:

pH=_____; Conductivity= 435 umho/cm at 27 °C; Chlorine Residual=_____mg/l

Dissolved Oxygen=_____mg/l; Alkalinity=_____mg/l; Flow Rate_____ _____/_____

Depth to water _____ft.; Depth of well_____ft.; Perforation Interval _____-_____ft.; Casing:_____

Sampling Location, Methods and Remarks (i.e. odors, etc.)

DE WATER - NEAR END - EPNG HYDRO TEST White Sands
(used Natural Gas Pipeline)

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities.(signature collector): R. Anderson Method of Shipment to the Lab: HAND

This form accompanies 2 Septum Vials, _____ Glass Jugs, and/or _____ _____

Samples were preserved as follows:

- [ ] NP: No Preservation; Sample stored at room temperature.
- [X] P-Ice Sample stored in an ice bath (Not Frozen).
- [ ] P-$Na_2S_2O_3$ Sample Preserved with Sodium Thiosulfate to remove chlorine residual.

CHAIN OF CUSTODY

I certify that this sample was transferred from _____ to _____

at (location) _____ on ____/____/____ - ____:____ and that

the statements in this block are correct. Evidentiary Seals: Not Sealed [ ] Seals Intact: Yes [ ] No [ ]

Signatures _____ _____

For OCD Use: Date Owner Notified _____ Phone or Letter?_____ Initials _____

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

HEAVY METALS
~~GENERAL WATER CHEMISTRY~~ and ~~NITROGEN ANALYSIS~~

DATE RECEIVED 9 18 86	LAB NO. HM-1909	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 8609 11	SITE INFORM-ATION ►	Sample location 18S 08E 34 222	
Collection TIME 1615		Collection site description DEWATER BPNG HYDRO TEST	
Collected by — Person/Agency ANDERSON /OCD			

SEND FINAL REPORT TO ►
ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87504-2088

Attn: David Boyer

Phone: 827-5812

Station/ well code

Owner

SAMPLING CONDITIONS

☐ Bailed ☐ Pump ☒ Dipped ☐ Tap	Water level	Discharge	Sample type GRAB
pH (00400)	Conductivity (Uncorrected) 435 µmho	Water Temp. (00010) 27 °C	Conductivity at 25°C (00094) µmho

Field comments END OF DEWATER

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted 1

☐ **NF:** Whole sample (Non-filtered) ☒ **F:** Filtered in field with 0.45 µmembrane filter ☐ **A:** 2 ml H_2SO_4/L added

☐ **NA:** No acid added ☐ Other-*specify:* ☐ A: 5ml conc. HNO_3 added ☒ A: 4ml fuming HNO_3 added

ANALYTICAL RESULTS from SAMPLES

~~NF, NA~~ F, A-HNO_3	Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)	µmho	
☐ Total non-filterable residue (suspended) (00530)	mg/l	
☒ Other: ICAP SCAN		
☒ Other: As		
☒ Other: Hg		

F, NA	Units	Date analyzed
☐ Calcium (00915)	mg/l	
☐ Magnesium (00925)	mg/l	
☐ Sodium (00930)	mg/l	
☐ Potassium (00935)	mg/l	
☐ Bicarbonate (00440)	mg/l	
☐ Chloride (00940)	mg/l	
☐ Sulfate (00945)	mg/l	
☐ Total filterable residue (dissolved) (70300)	mg/l	
☐ Other:		

NF, A-H_2SO_4		
☐ Nitrate-N +, Nitrate-N total (00630)	mg/l	
☐ Ammonia-N total (00610)	mg/l	
☐ Total Kjeldahl-N ( )	mg/l	
☐ Chemical oxygen demand (00340)	mg/l	
☐ Total organic carbon ( )	mg/l	
☐ Other:		
☐ Other:		

F, A-H_2SO_4		
☐ Nitrate-N +, Nitrate-N dissolved (00631)	mg/l	
☐ Ammonia-N dissolved (00608)	mg/l	
☐ Total Kjeldahl-N ( )	mg/l	
☐ Other:		

Analyst	Date Reported	Reviewed by
	11 17 86	Jim Ashley

Laboratory remarks

Sample Digested

SLD 726 (12/84)

FOR OCD USE -- Date Owner Notified _____ Phone or letter? _____ Initials _____

Lab Number: HM1909 Sample Code: End of DE Water

Date Submitted: 9/18/86 Date Analyzed: 10/8/86

By: Anderson/Boyer Reviewed By: Jim Ashley

Date Reported: 11/17/86

Element	ICAP VALUE(MG/L)	AA VALUE(MG/L)
Aluminum	<0.1	
Barium	<0.1	
Berylium	<0.1	
Boron	<0.1	
Cadmium	<0.1	
Calcium	88.	
Chromium	<0.1	
Cobalt	<0.1	
Copper	<0.1	
Iron	<0.1	
Lead	<0.1	
Magnesium	20.	
Manganese	0.19	
Molybdenum	<0.1	
Nickel	<0.1	
Silicon	2.1	
Silver	<0.1	
Strontium	0.5	
Tin	<0.1	
Vanadium	<0.1	
Zinc	<0.1	
Arsenic		<0.005
Selenium		
Mercury		<0.0005

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

~~GENERAL WATER CHEMISTRY~~ HEAVY METALS
~~and NITROGEN ANALYSIS~~

DATE RECEIVED 9 18 86	LAB NO. HM-1908	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 86 09 11	SITE INFORM-ATION ►	Sample location 18S 08E 34 222	
Collection TIME 1100		Collection site description DEWATER - EPNG HYDRO TEST	
Collected by — Person/Agency ANDERSON /OCD			

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87504-2088

Attn: David Boyer

Phone: 827-5812

RECEIVED
NOV 24 1986
OIL CONSERVATION DIVISION
SANTA FE

Station/ well code

Owner

SAMPLING CONDITIONS

☐ Bailed ☒ Dipped ☐ Pump ☐ Tap	Water level	Discharge	Sample type GRAB
pH (00400)	Conductivity (Uncorrected) 440 µmho	Water Temp. (00010) 26 °C	Conductivity at 25°C (00094) µmho

Field comments INITIAL DISCHARGE OF DEWATER

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted 1

☐ **NF:** Whole sample (Non-filtered) ☒ **F:** Filtered in field with 0.45 µmembrane filter ☐ **A:** 2 ml H_2SO_4/L added

☐ **NA:** No acid added ☐ Other-*specify:* ☐ A: 5ml conc. HNO_3 added ☒ A: 4ml fuming HNO_3 added

ANALYTICAL RESULTS from SAMPLES

~~NF~~ F, A-HNO3	Units	Date analyzed	F, NA	Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)	µmho		☐ Calcium (00915)	mg/l	
☐ Total non-filterable residue (suspended) (00530)	mg/l		☐ Magnesium (00925)	mg/l	
☒ Other: ICAP SCAN			☐ Sodium (00930)	mg/l	
☒ Other: As			☐ Potassium (00935)	mg/l	
☒ Other: Hg			☐ Bicarbonate (00440)	mg/l	
			☐ Chloride (00940)	mg/l	
			☐ Sulfate (00945)	mg/l	
			☐ Total filterable residue (dissolved) (70300)	mg/l	
			☐ Other:		
NF, A-H_2SO_4			**F, A-H_2SO_4**		
☐ Nitrate-N +, Nitrate-N total (00630)	mg/l		☐ Nitrate-N +, Nitrate-N dissolved (00631)	mg/l	
☐ Ammonia-N total (00610)	mg/l		☐ Ammonia-N dissolved (00608)	mg/l	
☐ Total Kjeldahl-N ( )	mg/l		☐ Total Kjeldahl-N ( )	mg/l	
☐ Chemical oxygen demand (00340)	mg/l		☐ Other:		
☐ Total organic carbon ( )	mg/l				
☐ Other:					
☐ Other:					

Analyst | Date Reported 11 14 86 | Reviewed by Jim Ashby

Laboratory remarks

Sample Digested

SLD 726 (12/84)

FOR OCD USE -- Date Owner Notified _____ Phone or letter? _____ Initials _____

Lab Number: HM 1908

Sample Code: Discharge Water

Date Submitted: 8/18/86

Date Analyzed: 10/8/86

By: Anderson / Boyer

Reviewed By: Jim Ashby

Date Reported: 11/14/86

Element	ICAP VALUE(MG/L)	AA VALUE(MG/L)
Aluminum	<0.1	
Barium	<0.1	
Berylium	<0.1	
Boron	0.1	
Cadmium	<0.1	
Calcium	93.	
Chromium	<0.1	
Cobalt	<0.1	
Copper	<0.1	
Iron	<0.1	
Lead	<0.1	
Magnesium	20.	
Manganese	0.15	
Molybdenum	<0.1	
Nickel	<0.1	
Silicon	2.0	
Silver	<0.1	
Strontium	0.6	
Tin	<0.1	
Vanadium	<0.1	
Zinc	<0.1	
Arsenic		<0.005
Selenium		
Mercury		<0.0005

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

~~GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS~~ HEAVY METALS

DATE RECEIVED 9 / 18 / 86	LAB NO. HM-1912	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 86 / 09 / 04	SITE INFORM-ATION ►	Sample location 18S 08E 34 222	
Collection TIME 1100		Collection site description COMPOSITE RINSE - EPNG HYDRO TEST	
Collected by — Person/Agency ANDERSON / OCD			

SEND FINAL REPORT TO ►
ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87504-2088
Attn: David Boyer
Phone: 827-5812

RECEIVED
NOV 24 1986
OIL CONSERVATION DIVISION
SANTA FE

Station/ well code
Owner

SAMPLING CONDITIONS

☐ Bailed ☒ Dipped ☐ Pump ☐ Tap	Water level	Discharge	Sample type GRAB
pH (00400)	Conductivity (Uncorrected) AVE 600 µmho	Water Temp. (00010) 28° °C	Conductivity at 25°C (00094) µmho

Field comments COMPOSIT OF 4 SAMPLES OF RINSE WATER

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted 1

☐ NF: Whole sample (Non-filtered) ☒ F: Filtered in field with 0.45 µmembrane filter ☐ A: 2 ml H_2SO_4/L added

☐ NA: No acid added ☐ Other-*specify:* ☐ A: 5ml conc. HNO_3 added ☒ A: 4ml fuming HNO_3 added

ANALYTICAL RESULTS from SAMPLES

~~NF, NA~~ AHNO3	Units	Date analyzed	F, NA	Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)	µmho		☐ Calcium (00915)	mg/l	
☐ Total non-filterable residue (suspended) (00530)	mg/l		☐ Magnesium (00925)	mg/l	
☒ Other: ICAP SCAN			☐ Sodium (00930)	mg/l	
☐ Other:			☐ Potassium (00935)	mg/l	
☐ Other:			☐ Bicarbonate (00440)	mg/l	
			☐ Chloride (00940)	mg/l	
			☐ Sulfate (00945)	mg/l	
			☐ Total filterable residue (dissolved) (70300)	mg/l	
			☐ Other:		

NF, A-H_2SO_4	Units	Date analyzed	F, A-H_2SO_4	Units	Date analyzed
☐ Nitrate-N +, Nitrate-N total (00630)	mg/l		☐ Nitrate-N +, Nitrate-N dissolved (00631)	mg/l	
☐ Ammonia-N total (00610)	mg/l		☐ Ammonia-N dissolved (00608)	mg/l	
☐ Total Kjeldahl-N ( )	mg/l		☐ Total Kjeldahl-N ( )	mg/l	
☐ Chemical oxygen demand (00340)	mg/l		☐ Other:		
☐ Total organic carbon ( )	mg/l				
☐ Other:					
☐ Other:					

Analyst | Date Reported 11 / 14 / 86 | Reviewed by JJA

Laboratory remarks

Sample Digested

SLD 726 (12/84)

FOR OCD USE -- Date Owner Notified _____ Phone or letter? _____ Initials _____

Lab Number: HM1912

Sample Code: Composite Rinse

Date Submitted: 9/18/86

Date Analyzed: 10/3/86

By: Anderson/Bayer

Reviewed By: Jim Ashley

Date Reported: 11/14/86

Element	ICAP VALUE (MG/L)	AA VALUE (MG/L)
Aluminum	<0.1	
Barium	<0.1	
Berylium	<0.1	
Boron	0.7	
Cadmium	<0.1	
Calcium	110.	
Chromium	<0.1	
Cobalt	<0.1	
Copper	<0.1	
Iron	<0.1	
Lead	<0.1	
Magnesium	20.	
Manganese	0.33	
Molybdenum	<0.1	
Nickel	0.1	
Silicon	2.3	
Silver	<0.1	
Strontium	0.6	
Tin	<0.1	
Vanadium	<0.1	
Zinc	<0.1	
Arsenic		
Selenium		
Mercury		

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

RECEIVED OCT 14 1986

HEAVY METALS
~~GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS~~

DATE RECEIVED 9 18 86	LAB NO. HM-1911	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 86 09 04	SITE INFORM-ATION ►	Sample location 18 S 08E 34 222	
Collection TIME 0700		Collection site description MAKE UP WATER EPNG HYDRO TEST	
Collected by — Person/Agency ANDERSON/OCD			

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87504-2088

Attn: David Boyer

Phone: 827-5812

Station/ well code

Owner

SAMPLING CONDITIONS

☐ Bailed ☒ Dipped ☐ Pump ☐ Tap	Water level	Discharge	Sample type GRAB
pH (00400)	Conductivity (Uncorrected) 395 µmho	Water Temp. (00010) 17.5 °C	Conductivity at 25°C (00094) µmho

Field comments

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted 1

☐ NF: Whole sample (Non-filtered) ☒ F: Filtered in field with 0.45 µmembrane filter ☐ A: 2 ml H_2SO_4/L added

☐ NA: No acid added ☐ Other-*specify:* ☐ A: 5ml conc. HNO_3 added ☒ A: 4ml fuming HNO_3 added

ANALYTICAL RESULTS from SAMPLES

~~NF, NA~~ F, AHNO3	Units	Date analyzed	F, NA	Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)	µmho		☐ Calcium (00915)	mg/l	
☐ Total non-filterable residue (suspended) (00530)	mg/l		☐ Magnesium (00925)	mg/l	
☒ Other: ICAP SCAN			☐ Sodium (00930)	mg/l	
☐ Other:			☐ Potassium (00935)	mg/l	
☐ Other:			☐ Bicarbonate (00440)	mg/l	
			☐ Chloride (00940)	mg/l	
			☐ Sulfate (00945)	mg/l	
			☐ Total filterable residue (dissolved) (70300)	mg/l	
			☐ Other:		

NF, A-H_2SO_4			F, A-H_2SO_4		
☐ Nitrate-N +, Nitrate-N total (00630)	mg/l		☐ Nitrate-N +, Nitrate-N dissolved (00631)	mg/l	
☐ Ammonia-N total (00610)	mg/l		☐ Ammonia-N dissolved (00608)	mg/l	
☐ Total Kjeldahl-N ( )	mg/l		☐ Total Kjeldahl-N ( )	mg/l	
☐ Chemical oxygen demand (00340)	mg/l		☐ Other:		
☐ Total organic carbon ( )	mg/l				
☐ Other:					
☐ Other:					

Analyst | Date Reported 10 9 86 | Reviewed by Jim Ashby

Laboratory remarks

Sample Digested

SLD 726 (12/84)

FOR OCD USE -- Date Owner Notified _____ Phone or letter? _____ Initials _____

Lab Number: HM 1911

Date Submitted: 9/18/86

By: Anderson/Boyer

Sample Code: Makeup water Hydro Test

Date Analyzed: 10/8/86

Reviewed By: Jim Ashley

Date Reported: 10/9/86

Element	ICAP VALUE(MG/L)	AA VALUE(MG/L)
Aluminum	<0.1	
Barium	<0.1	
Berylium	<0.1	
Boron	0.1	
Cadmium	<0.1	
Calcium	130.	
Chromium	<0.1	
Cobalt	<0.1	
Copper	<0.1	
Iron	0.1	
Lead	<0.1	
Magnesium	20.	
Manganese	<0.05	
Molybdenum	<0.1	
Nickel	<0.1	
Silicon	3.7	
Silver	<0.1	
Strontium	0.7	
Tin	<0.1	
Vanadium	<0.1	
Zinc	<0.1	
Arsenic		
Selenium		
Mercury		

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

HEAVY METALS
~~GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS~~

DATE RECEIVED 9/18/86 | LAB NO. HM-1910 | USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235

Collection DATE 860903
Collection TIME 1340
Collected by — Person/Agency ANDERSON /OCD

SITE INFORMATION ►

Sample location 18S 08E 34 222

Collection site description WASH WATER EPNG HYDRO TEST

SEND FINAL REPORT TO ►
ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87504-2088

Attn: David Boyer

Phone: 827-5812

Station/well code

Owner

SAMPLING CONDITIONS

☐ Bailed ☒ Dipped ☐ Pump ☐ Tap	Water level	Discharge	Sample type: GRAB
pH (00400)	Conductivity (Uncorrected): AVE 2500 µmho	Water Temp. (00010): 28 °C	Conductivity at 25°C (00094) µmho

Field comments: COMPOSIT OF 1000 gal WASH WATER WITH SOAP THROUGH 8 mi 6" USED GAS TRANMISSION LINE

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 1

☐ NF: Whole sample (Non-filtered) ☒ F: Filtered in field with 0.45 µmembrane filter ☐ A: 2 ml H_2SO_4/L added

☐ NA: No acid added ☐ Other-*specify:* ☐ A: 5ml conc. HNO_3 added ☒ A: 4ml fuming HNO_3 added

ANALYTICAL RESULTS from SAMPLES

~~NF, A-H_2SO_4~~ F, A-HNO_3

	Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)	µmho	
☐ Total non-filterable residue (suspended) (00530)	mg/l	
☒ Other: ICAP SCAN		
☒ Other: As		
☒ Other: Hg		

F, NA		Units	Date analyzed
☐ Calcium (00915)		mg/l	
☐ Magnesium (00925)		mg/l	
☐ Sodium (00930)		mg/l	
☐ Potassium (00935)		mg/l	
☐ Bicarbonate (00440)		mg/l	
☐ Chloride (00940)		mg/l	
☐ Sulfate (00945)		mg/l	
☐ Total filterable residue (dissolved) (70300)		mg/l	
☐ Other:			

NF, A-H_2SO_4

☐ Nitrate-N + , Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4

☐ Nitrate-N + , Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst	Date Reported	Reviewed by

Laboratory remarks: 10ml HNO_3 added @ SLD.

Sample Digested

SLD 726 (12/84)

FOR OCD USE — Date Owner Notified _____ Phone or letter? _____ Initials _____

Preliminary Report JA

Lab Number: #M 1910 Sample Code: Wash Water

Date Submitted: 9/18/86 Date Analyzed: 10/8/86

By: Anderson/Boyes Reviewed By: _____

Date Reported: _____

Element	ICAP VALUE (MG/L)	AA VALUE (MG/L)
Aluminum	4.6	
Barium	0.1	
Beryllium	<0.1	
Boron	340.	
Cadmium	<0.1	
Calcium	190.	
Chromium	<0.1	
Cobalt	<0.1	
Copper	1.8 checking result	
Iron	40.	
Lead	Possible interference. checking result.	flame 10/15 <0.5
Magnesium	24.	
Manganese	1.3	
Molybdenum	<0.1	
Nickel	0.5 checking result.	
Silicon	34	
Silver	<0.1	
Strontium	0.8	
Tin	<0.1	
Vanadium	<0.1	
Zinc	0.3	
Arsenic		
Selenium		
Mercury		

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

HEAVY METALS
~~GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS~~

DATE RECEIVED 9/18/86	LAB NO. HM-1910	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 86 09 03	SITE INFORM-ATION ►	Sample location 18S 08E 34 222	
Collection TIME 1240		Collection site description WASH WATER EPNG HYDRO TEST	
Collected by — Person/Agency ANDERSON /OCD			

SEND FINAL REPORT TO ►
ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87504-2088
Attn: David Boyer
Phone: 827-5812

Station/ well code
Owner

SAMPLING CONDITIONS

☐ Bailed ☒ Dipped ☐ Pump ☐ Tap	Water level	Discharge	Sample type GRAB
pH (00400)	Conductivity (Uncorrected) AVE 2500 µmho	Water Temp. (00010) 28 °C	Conductivity at 25°C (00094) µmho

Field comments: COMPOSIT OF 1000 gal WASH WATER WITH SOAP THROUGH 8 mi 6' USED GAS TRANMISSION LINE

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted 1

☐ NF: Whole sample (Non-filtered) ☒ F: Filtered in field with 0.45 µmembrane filter ☐ A: 2 ml H_2SO_4/L added

☐ NA: No acid added ☐ Other-*specify:* ☐ A: 5ml conc. HNO_3 added ☒ A: 4ml fuming HNO_3 added

ANALYTICAL RESULTS from SAMPLES

~~NF, A-HNO3~~ F, A-HNO3	Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)	µmho	
☐ Total non-filterable residue (suspended) (00530)	mg/l	
☒ Other: ICAP SCAN		
☒ Other: As		
☒ Other: Hg		

F, NA	Units	Date analyzed
☐ Calcium (00915)	mg/l	
☐ Magnesium (00925)	mg/l	
☐ Sodium (00930)	mg/l	
☐ Potassium (00935)	mg/l	
☐ Bicarbonate (00440)	mg/l	
☐ Chloride (00940)	mg/l	
☐ Sulfate (00945)	mg/l	
☐ Total filterable residue (dissolved) (70300)	mg/l	
☐ Other:		

NF, A-H_2SO_4

☐ Nitrate-N +, Nitrate-N total (00630)	mg/l	
☐ Ammonia-N total (00610)	mg/l	
☐ Total Kjeldahl-N ( )	mg/l	
☐ Chemical oxygen demand (00340)	mg/l	
☐ Total organic carbon ( )	mg/l	
☐ Other:		
☐ Other:		

F, A-H_2SO_4

☐ Nitrate-N +, Nitrate-N dissolved (00631)	mg/l	
☐ Ammonia-N dissolved (00608)	mg/l	
☐ Total Kjeldahl-N ( )	mg/l	
☐ Other:		

Analyst | Date Reported 12/2/86 | Reviewed by Jim Ashby

Laboratory remarks: 10ml HNO_3 added @ SLD.

Sample Digested

SLD 726 (12/84)

FOR OCD USE -- Date Owner Notified _____ Phone or letter? _____ Initials _____

Lab Number: HM 1910

Sample Code: Wash Water

Date Submitted: 9/18/86

Date Analyzed: 10/8/86

By: Anderson/Boyer

Reviewed By: Jim Ashley

Date Reported: 12/2/86

Element	ICAP VALUE(MG/L)	AA VALUE(MG/L)
Aluminum	4.6	
Barium	0.1	
Berylium	<0.1	
Boron	340.	
Cadmium	<0.1	
Calcium	190.	
Chromium	<0.1	
Cobalt	<0.1	
Copper	1.8	
Iron	40.	
Lead	<0.1	
Magnesium	24.	
Manganese	1.3	
Molybdenum	<0.1	
Nickel	0.5	
Silicon	34.	
Silver	<0.1	
Strontium	0.8	
Tin	<0.1	
Vanadium	<0.1	
Zinc	0.3	
Arsenic		0.010
Selenium		
Mercury		0.029

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

HEAVY METALS ~~GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS~~

DATE RECEIVED 9 18 86	LAB NO. HM-1907	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 86 09 04	SITE INFORM-ATION ►	Sample location 18S 08E 34 222	
Collection TIME 1130		Collection site description LAST OF RINSE - EPNG HYDRO TEST	
Collected by — Person/Agency ANDERSON/OCD			

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87504-2088

Attn: David Boyer

Phone: 827-5812

Station/ well code

Owner

SAMPLING CONDITIONS

☐ Bailed ☒ Dipped ☐ Pump ☐ Tap	Water level	Discharge	Sample type GRAB
pH (00400)	Conductivity (Uncorrected) 460 µmho	Water Temp. (00010) 27 °C	Conductivity at 25°C (00094) µmho

Field comments SAMPLE FROM TAIL END OF RINSE WATER

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted 1

☐ **NF:** Whole sample (Non-filtered) ☒ **F:** Filtered in field with 0.45 µmembrane filter ☐ **A:** 2 ml H_2SO_4/L added

☐ **NA:** No acid added ☐ Other-*specify:* ☐ A: 5ml conc. HNO_3 added ☒ A: 4ml fuming HNO_3 added

ANALYTICAL RESULTS from SAMPLES

NF, ~~NA~~ A-HNO_3	Units	Date analyzed	F, NA	Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)	µmho		☐ Calcium (00915)	mg/l	
☐ Total non-filterable residue (suspended) (00530)	mg/l		☐ Magnesium (00925)	mg/l	
☒ Other: ICAP SCAN			☐ Sodium (00930)	mg/l	
☒ Other: Ag			☐ Potassium (00935)	mg/l	
☒ Other: Mg			☐ Bicarbonate (00440)	mg/l	
			☐ Chloride (00940)	mg/l	
			☐ Sulfate (00945)	mg/l	
			☐ Total filterable residue (dissolved) (70300)	mg/l	
			☐ Other:		

NF, A-H_2SO_4	Units	Date analyzed	F, A-H_2SO_4	Units	Date analyzed
☐ Nitrate-N +, Nitrate-N total (00630)	mg/l		☐ Nitrate-N +, Nitrate-N dissolved (00631)	mg/l	
☐ Ammonia-N total (00610)	mg/l		☐ Ammonia-N dissolved (00608)	mg/l	
☐ Total Kjeldahl-N ( )	mg/l		☐ Total Kjeldahl-N ( )	mg/l	
☐ Chemical oxygen demand (00340)	mg/l		☐ Other:		
☐ Total organic carbon ( )	mg/l				
☐ Other:					
☐ Other:					

Analyst	Date Reported	Reviewed by
	11 14 86	Jim Ashby

Laboratory remarks

Sample Digested

SLD 726 (12/84)

FOR OCD USE -- Date Owner Notified _____ Phone or letter? _____ Initials _____

Lab Number: HM 1907

Date Submitted: 9/18/86

By: Anderson/Boyer

Sample Code: last of rinse Epong Hydro Test

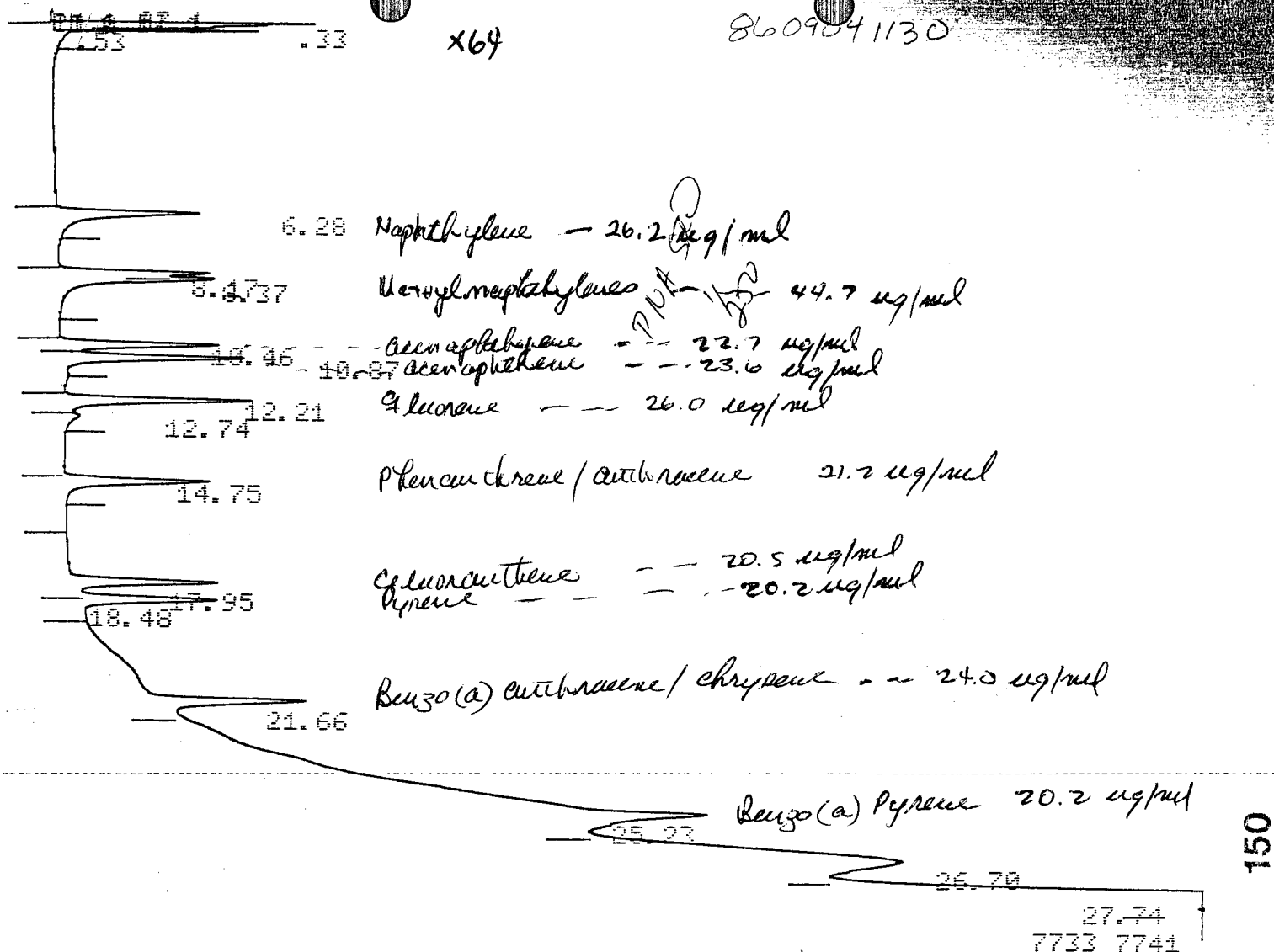
Date Analyzed: 10/8/86

Reviewed By: Jim Ashley

Date Reported: 11/14/86

Element	ICAP VALUE(MG/L)	AA VALUE(MG/L)
Aluminum	<0.1	
Barium	<0.1	
Berylium	<0.1	
Boron	<0.1	
Cadmium	<0.1	
Calcium	120.	
Chromium	<0.1	
Cobalt	<0.1	
Copper	<0.1	
Iron	<0.1	
Lead	<0.1	
Magnesium	22.	
Manganese	0.14	
Molybdenum	<0.1	
Nickel	<0.1	
Silicon	3.2	
Silver	<0.1	
Strontium	0.7	
Tin	<0.1	
Vanadium	<0.1	
Zinc	<0.1	
Arsenic		0.015
Selenium		
Mercury		<0.0005

951 951 1012 1005 1001 1001 995
CHANNEL A INJECT 09/23/86 14:34:27



150

HEADSPACE CPAK 09/23/86 14:34:27 CH= "A" PS= 1.

FILE 1. METHOD 0. RUN 29 INDEX 1

ANALYST: A S BURNEY

PEAK#	AREA%	RT	AREA BC
1	5.033	0.33	175451 02
2	2.393	0.53	83435 03
3	6.554	6.28	228484 01
4	4.544	8.17	158414 02
5	7.426	8.37	258871 03
6	5.433	10.46	189409 02
7	6.687	10.87	233125 03
8	7.102	12.21	247561 02
9	0.74	12.74	25788 03
10	5.665	14.75	197498 01
11	3.825	17.95	133349 02
12	5.02	18.48	174994 02
13	2.332	21.66	81290 02
14	3.574	25.23	124579 02
15	16.321	26.7	568939 02
16	17.349	27.74	604798 03

86-1093-B

SCIENTIFIC LABORATORY DIVISION

700 Camino de Salud NE
Albuquerque, NM 87106 841-2570

STATE OF NEW MEXICO
HEALTH ENVIRONMENT

REPORT TO: David Boyer
N.M. Oil Conservation Division
P. O. Box 2088
Santa Fe, N.M. 87504-2088

S.L.D. No. OR-86-1093-A
DATE REC. 9-18-86
PRIORITY

PHONE(S): 827-5812
USER CODE: 8 2 2 3 5
SUBMITTER: David Boyer
CODE: 2 6 0

SAMPLE COLLECTION CODE: (YYMMDDHHMMIII) 8 6 0 9 0 4 1 1 0 0 R C A

SAMPLE TYPE: WATER [X], SOIL [ ], FOOD [ ], OTHER: _____ CODE: _____

COUNTY: OTERO ; CITY: ALAMOGORDO CODE: _____

LOCATION CODE: (Township-Range-Section-Tracts) 1 8 S + 0 8 E + 3 4 + 2 2 2 (10N06E24342)

ANALYSES REQUESTED: Please check the appropriate box(es) below to indicate the type of analytical screens required. Whenever possible list specific compounds suspected or required.

PURGEABLE SCREENS

- [ ] (753) Aliphatic Purgeables (1-3 Carbons)
- [ ] (754) Aromatic & Halogenated Purgeables
- [ ] (765) Mass Spectrometer Purgeables
- [ ] (766) Trihalomethanes

Other Specific Compounds or Classes

- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____

EXTRACTABLE SCREENS

- [ ] (751) Aliphatic Hydrocarbons
- [ ] (760) Organochlorine Pesticides
- [ ] (755) Base/Neutral Extractables
- [ ] (758) Herbicides, Chlorophenoxy acid
- [ ] (759) Herbicides, Triazines
- [ ] (760) Organochlorine Pesticides
- [ ] (761) Organophosphate Pesticides
- [ ] (767) Polychlorinated Biphenyls (PCB's)
- [X] (764) Polynuclear Aromatic Hydrocarbons
- [ ] (762) SDWA Pesticides & Herbicides

Remarks: _____

FIELD DATA:

pH= _____; Conductivity= AVG 600 umho/cm at 28 °C; Chlorine Residual= _____ mg/l

Dissolved Oxygen= _____ mg/l; Alkalinity= _____ mg/l; Flow Rate _____ _____/_____

Depth to water _____ ft.; Depth of well _____ ft.; Perforation Interval _____-_____ ft.; Casing: _____

Sampling Location, Methods and Remarks (i.e. odors, etc.)

RINSE COMPOSIT EPNG HYDRO TEST - White Sands
(From used EPNG Gas Line)

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities.(signature collector): R.C. Anderson Method of Shipment to the Lab: HAND CAR.

This form accompanies 4 Septum Vials, 1 Glass Jugs, and/or _____ _____

Samples were preserved as follows:

- [ ] NP: No Preservation; Sample stored at room temperature.
- [X] P-Ice Sample stored in an ice bath (Not Frozen).
- [ ] P-$Na_2S_2O_3$ Sample Preserved with Sodium Thiosulfate to remove chlorine residual.

CHAIN OF CUSTODY

I certify that this sample was transferred from _____ to _____

at (location) _____ on _____/_____/_____ - _____:_____ and that

the statements in this block are correct. Evidentiary Seals: Not Sealed [ ] Seals Intact: Yes [ ] No [ ]

Signatures _____ _____

For OCD Use: Date Owner Notified _____ Phone or Letter? _____ Initials _____

ANALYSES PERFORMED

LAB. No.: OR- 1094

THIS PAGE FOR LABORATORY RESULTS ONLY

This sample was tested using the analytical screening method(s) checked below:

PURGEABLE SCREENS

- ☐ (753) Aliphatic Purgeables (1-3 Carbons)
- ☐ (754) Aromatic & Halogenated Purgeables
- ☐ (765) Mass Spectrometer Purgeables
- ☐ (766) Trihalomethanes

Other Specific Compounds or Classes

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

EXTRACTABLE SCREENS

- ☐ (751) Aliphatic Hydrocarbons
- ☐ (760) Organochlorine Pesticides
- ☐ (755) Base/Neutral Extractables
- ☐ (758) Herbicides, Chlorophenoxy acid
- ☐ (759) Herbicides, Triazines
- ☐ (760) Organochlorine Pesticides
- ☐ (761) Organophosphate Pesticides
- ☐ (767) Polychlorinated Biphenyls (PCB's)
- ☑ (764) Polynuclear Aromatic Hydrocarbons
- ☐ (762) SDWA Pesticides & Herbicides

ANALYTICAL RESULTS

COMPOUND(S) DETECTED	CONC. [PPB]	COMPOUND(S) DETECTED	CONC. [PPB]
METHYLENE CHLORIDE EXTRACT - UNABLE			
TO DETERMINE QUANTITY.			
* DETECTION LIMIT * ✳		+ DETECTION LIMIT + +	

ABBREVIATIONS USED:

N D = NONE DETECTED AT OR ABOVE THE STATED DETECTION LIMIT

T R = DETECTED AT A LEVEL BELOW THE STATED DETECTION LIMIT (NOT CONFIRMED)

[RESULTS IN BRACKETS] ARE UNCONFIRMED AND/OR WITH APPROXIMATE QUANTITATION

LABORATORY REMARKS: EXTRACT DAMAGED GC COLUMN DURING THE ATTEMPT TO ANALYZE.

CERTIFICATE OF ANALYTICAL PERSONNEL

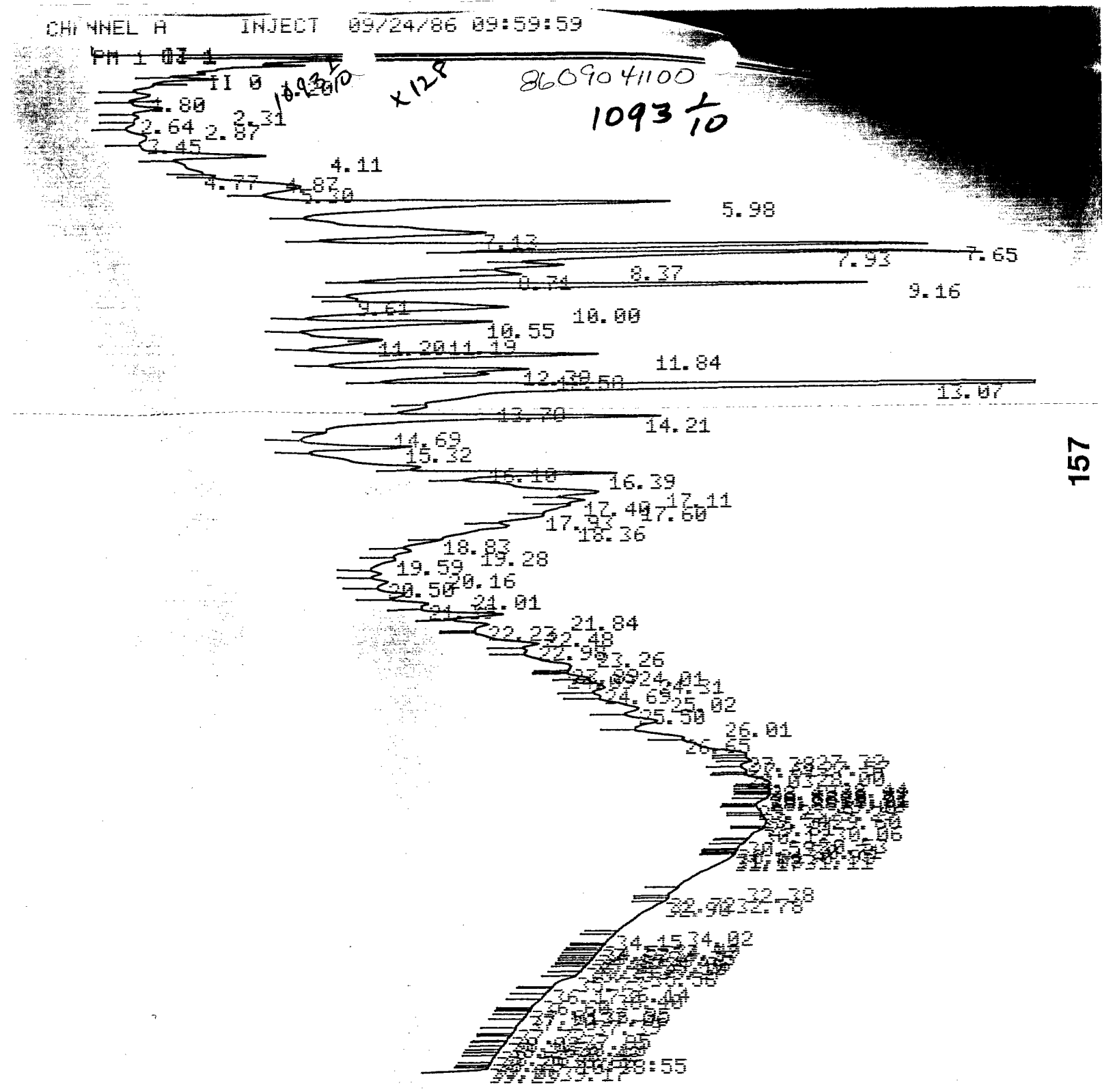
Seal(s) Intact: Yes ☐ No ☐. Seal(s) broken by: _____ date: _____

I certify that I followed standard laboratory procedures on handling and analysis of this sample unless otherwise noted and that the statements on this page accurately reflect the analytical results for this sample.

Date(s) of analysis: 9/26/86. Analyst's signature: [signature]

I certify that I have reviewed and concur with the analytical results for this sample and with the statements in this block.

Reviewers signature: [signature]



157

INPUT OVERRANGE AT RT= 0.33

PNA DEXSIL 300 09/24/86 09:59:59 CH= "A" PS= 1.

FILE 1. METHOD 0. RUN 33 INDEX 1

ANALYST: A S BURNEY

PEAK#	AREA%	RT	AREA	BC
1	0.071	1.2	83596	01
2	0.046	1.8	54044	01
3	0.086	2.31	101199	02
4	0.031	2.64	36707	02
5	0.019	2.87	22861	02
6	0.068	3.45	80451	02
7	0.4	4.11	471553	02
8	0.313	4.77	368364	02
9	0.103	4.87	121819	02
10	1.098	5.3	1293626	02
11	2.762	5.98	3255034	02
12	2.549	7.13	3003397	02
13	2.67	7.65	3145677	02
14	2.601	7.93	3064535	02
15	1.431	8.37	1685898	02
16	1.477	8.71	1740496	02
17	2.439	9.16	2873923	02
18	0.39	9.61	459910	02
19	1.926	10.	2269956	02
20	1.246	10.55	1468200	02
21	0.544	11.19	641204	02
22	0.626	11.2	737857	02
23	1.62	11.84	1908628	02
24	1.043	12.39	1229111	02
25	0.891	12.58	1050168	02
26	4.601	13.07	5421379	02
27	0.726	13.78	854863	02
28	1.735	14.21	2044688	02
29	0.355	14.69	417851	02
30	0.599	15.32	705904	02
31	0.945	16.1	1113319	02
32	1.458	16.39	1717414	02
33	2.317	17.11	2730492	02
34	1.053	17.4	1240851	02

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35	1.378	17.6	1623707	02
36	1.145	17.93	1349423	02
37	1.459	18.36	1719465	02
38	0.65	18.83	766321	02
39	0.497	19.28	585535	02
40	0.588	19.59	693207	02
41	0.336	20.16	395585	02
42	0.43	20.5	506357	02
43	0.493	21.01	580922	02
44	0.549	21.39	647313	02
45	0.918	21.84	1082123	02
46	0.859	22.23	1011751	02
47	0.123	22.48	145238	02
48	1.529	22.98	1801264	02
49	0.615	23.26	725197	02
50	1.746	23.89	2057342	02
51	0.306	24.01	360275	02
52	0.091	24.09	107324	02
53	0.741	24.31	873517	02
54	1.779	24.69	2096623	02
55	0.732	25.02	862064	02
56	2.336	25.5	2752005	02
57	2.106	26.01	2481778	02
58	1.722	26.65	2028803	02
59	2.837	27.32	3342689	02
60	0.349	27.38	410772	02
61	0.799	27.57	940949	02
62	0.969	27.61	1142360	02
63	1.138	28.	1341392	02
64	0.456	28.03	536949	02

159

65	1.811	28.44	2133820	02
66	0.393	28.49	462928	02
67	0.443	28.62	522309	02
68	0.188	28.68	221041	02
69	0.307	28.71	362022	02
70	0.256	28.76	301359	02
71	0.357	28.81	421040	02
72	0.66	28.88	778031	02
73	1.176	29.	1385163	02
74	0.195	29.23	229869	02
75	0.227	29.29	267685	02
76	1.186	29.54	1397250	02
77	0.44	29.6	518061	02
78	1.976	29.81	2328128	02
79	0.357	30.06	420169	02
80	1.871	30.12	2204778	02
81	0.26	30.53	306508	02
82	0.561	30.59	661161	02
83	0.95	30.71	1119875	02
84	0.132	30.91	155229	02
85	0.452	30.95	532637	02
86	0.232	31.08	273438	02
87	0.304	31.11	357656	02
88	4.657	31.17	5487749	02
89	1.018	32.38	1199376	02
90	0.323	32.72	380583	02
91	0.373	32.78	439235	02
92	3.077	32.9	3625663	02
93	0.315	34.02	371710	02
94	0.757	34.15	892210	02
95	0.072	34.49	84825	02
96	0.1	34.55	118253	02
97	0.197	34.57	232611	02
98	0.159	34.67	187838	02
99	0.211	34.75	249129	02
100	0.226	34.85	266768	02
101	0.118	34.96	138549	02
102	0.174	35.02	205101	02
103	0.208	35.1	244841	02
104	0.099	35.21	116710	02
105	0.158	35.27	186339	02
106	0.34	35.35	400321	02
107	0.305	35.56	359718	02
108	0.574	35.73	675873	02
109	0.05	36.14	59291	02
110	0.267	36.17	314420	02
111	0.223	36.4	262945	02
112	0.318	36.6	374822	02
113	0.07	36.95	82922	02
114	0.037	37.01	43819	02
115	0.124	37.06	145536	02
116	0.139	37.2	163296	02
117	0.207	37.39	243698	02
118	0.131	37.72	153978	02
119	0.036	37.95	42326	02
120	0.07	38.02	82877	02
121	0.033	38.18	39121	02
122	0.049	38.26	58022	02
123	0.048	38.42	56793	02
124	0.024	38.56	28839	02
125	0.023	38.66	27013	02
126	0.031	38.79	36210	02
127	0.007	39.06	8013	03

86-1092-B

SCIENTIFIC LABORATORY DIVISION

700 Camino de Salud NE
Albuquerque, NM 87106 841-2570

STATE OF NEW MEXICO
HEALTH ENVIRONMENT

REPORT TO: David Boyer
N.M. Oil Conservation Division
P. O. Box 2088
Santa Fe, N.M. 87504-2088

S.L.D. No. OR- 86-1092-A
DATE REC. 9-18-86
PRIORITY

PHONE(S): 827-5812
USER CODE: 8 2 2 3 5

SUBMITTER: David Boyer
CODE: 2 6 0

SAMPLE COLLECTION CODE: (YYMMDDHHMMIII) 8 6 0 9 0 3 1 2 4 0 R C A

SAMPLE TYPE: WATER [X], SOIL [ ], FOOD [ ], OTHER: _____ CODE: _____

COUNTY: OTERO; CITY: ALAMOGORDO CODE: _____

LOCATION CODE: (Township-Range-Section-Tracts) 1 8 S + 0 8 E + 3 4 + 2 2 2 (10N06E24342)

ANALYSES REQUESTED: Please check the appropriate box(es) below to indicate the type of analytical screens required. Whenever possible list specific compounds suspected or required.

PURGEABLE SCREENS

- [ ] (753) Aliphatic Purgeables (1-3 Carbons)
- [ ] (754) Aromatic & Halogenated Purgeables
- [ ] (765) Mass Spectrometer Purgeables
- [ ] (766) Trihalomethanes

Other Specific Compounds or Classes

- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____

EXTRACTABLE SCREENS

- [ ] (751) Aliphatic Hydrocarbons
- [ ] (760) Organochlorine Pesticides
- [ ] (755) Base/Neutral Extractables
- [ ] (758) Herbicides, Chlorophenoxy acid
- [ ] (759) Herbicides, Triazines
- [ ] (760) Organochlorine Pesticides
- [ ] (761) Organophosphate Pesticides
- [ ] (767) Polychlorinated Biphenyls (PCB's)
- [X] (764) Polynuclear Aromatic Hydrocarbons
- [ ] (762) SDWA Pesticides & Herbicides

Remarks: _____

FIELD DATA:

pH=_____; Conductivity= 2500 umho/cm at 28 °C; Chlorine Residual=_____mg/l

Dissolved Oxygen=_____mg/l; Alkalinity=_____mg/l; Flow Rate_____ ____/____

Depth to water _____ft.; Depth of well_____ft.; Perforation Interval _____-_____ft.; Casing:_____

Sampling Location, Methods and Remarks (i.e. odors, etc.)

WASH WATER COMPOSITE EPNG HYDRO TEST - White Sands (Used Natural Gas Pipeline)

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities.(signature collector): R C Anderson Method of Shipment to the Lab: HAND CARRIED

This form accompanies 4 Septum Vials, 1 Glass Jugs, and/or _____ _____

Samples were preserved as follows:

- [ ] NP: No Preservation; Sample stored at room temperature.
- [X] P-Ice Sample stored in an ice bath (Not Frozen).
- [ ] P-$Na_2S_2O_3$ Sample Preserved with Sodium Thiosulfate to remove chlorine residual.

CHAIN OF CUSTODY

I certify that this sample was transferred from _____ to _____

at (location) _____ on ____/____/____ - ____:____ and that

the statements in this block are correct. Evidentiary Seals: Not Sealed [ ] Seals Intact: Yes [ ] No [ ]

Signatures _____ _____

For OCD Use: Date Owner Notified _____ Phone or Letter?_____ Initials _____

ANALYSES PERFORMED

LAB. No.: OR- 1092

THIS PAGE FOR LABORATORY RESULTS ONLY

This sample was tested using the analytical screening method(s) checked below:

PURGEABLE SCREENS

- ☐ (753) Aliphatic Purgeables (1-3 Carbons)
- ☐ (754) Aromatic & Halogenated Purgeables
- ☐ (765) Mass Spectrometer Purgeables
- ☐ (766) Trihalomethanes

Other Specific Compounds or Classes

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

EXTRACTABLE SCREENS

- ☐ (751) Aliphatic Hydrocarbons
- ☐ (760) Organochlorine Pesticides
- ☐ (755) Base/Neutral Extractables
- ☐ (758) Herbicides, Chlorophenoxy acid
- ☐ (759) Herbicides, Triazines
- ☐ (760) Organochlorine Pesticides
- ☐ (761) Organophosphate Pesticides
- ☐ (767) Polychlorinated Biphenyls (PCB's)
- ☑ (764) Polynuclear Aromatic Hydrocarbons
- ☐ (762) SDWA Pesticides & Herbicides

ANALYTICAL RESULTS

COMPOUND(S) DETECTED	CONC. [PPB]	COMPOUND(S) DETECTED	CONC. [PPB]
Methylene chloride extract	1.4 %		
* DETECTION LIMIT * ✳		+ DETECTION LIMIT + +	

ABBREVIATIONS USED:

N D = NONE DETECTED AT OR ABOVE THE STATED DETECTION LIMIT
T R = DETECTED AT A LEVEL BELOW THE STATED DETECTION LIMIT (NOT CONFIRMED)
[RESULTS IN BRACKETS] ARE UNCONFIRMED AND/OR WITH APPROXIMATE QUANTITATION

LABORATORY REMARKS: Extract damaged GC column during attempt to analyze.

CERTIFICATE OF ANALYTICAL PERSONNEL

Seal(s) Intact: Yes ☐ No ☐. Seal(s) broken by: _____ date: _____

I certify that I followed standard laboratory procedures on handling and analysis of this sample unless otherwise noted and that the statements on this page accurately reflect the analytical results for this sample.

Date(s) of analysis: 9/26/86. Analyst's signature: A S Burney

I certify that I have reviewed and concur with the analytical results for this sample and with the statements in this block.

Reviewers signature: K Meyer hen

86-1094-B

SCIENTIFIC LABORATORY DIVISION

700 Camino de Salud NE
Albuquerque, NM 87106 841-2570

STATE OF NEW MEXICO
HEALTH ENVIRONMENT

REPORT TO: David Boyer
N.M. Oil Conservation Division
P. O. Box 2088
Santa Fe, N.M. 87504-2088

S.L.D. No. OR- 86-1094-A
DATE REC. 9-18-86
PRIORITY

PHONE(S): 827-5812
USER CODE: 8 2 2 3 5
SUBMITTER: David Boyer
CODE: 2 6 0

SAMPLE COLLECTION CODE: (YYMMDDHHMMIII) 8 6 0 9 0 4 1 1 3 0 R C A

SAMPLE TYPE: WATER [X], SOIL [ ], FOOD [ ], OTHER: _____ CODE: _____

COUNTY: OTERO; CITY: ALAMOGORDO CODE: _____

LOCATION CODE: (Township-Range-Section-Tracts) 2 1 8 S + 0 9 E + 3 4 + 2 2 2 (10N06E24342)

ANALYSES REQUESTED: Please check the appropriate box(es) below to indicate the type of analytical screens required. Whenever possible list specific compounds suspected or required.

PURGEABLE SCREENS

- [ ] (753) Aliphatic Purgeables (1-3 Carbons)
- [ ] (754) Aromatic & Halogenated Purgeables
- [ ] (765) Mass Spectrometer Purgeables
- [ ] (766) Trihalomethanes

Other Specific Compounds or Classes

- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____

EXTRACTABLE SCREENS

- [ ] (751) Aliphatic Hydrocarbons
- [ ] (760) Organochlorine Pesticides
- [ ] (755) Base/Neutral Extractables
- [ ] (758) Herbicides, Chlorophenoxy acid
- [ ] (759) Herbicides, Triazines
- [ ] (760) Organochlorine Pesticides
- [ ] (761) Organophosphate Pesticides
- [ ] (767) Polychlorinated Biphenyls (PCB's)
- [X] (764) Polynuclear Aromatic Hydrocarbons
- [ ] (762) SDWA Pesticides & Herbicides

Remarks: _____

FIELD DATA:

pH=_____; Conductivity= 460 umho/cm at 21.3 °C; Chlorine Residual=_____mg/l

Dissolved Oxygen=_____mg/l; Alkalinity=_____mg/l; Flow Rate_____ ____/____

Depth to water _____ft.; Depth of well_____ft.; Perforation Interval _____-_____ft.; Casing:_____

Sampling Location, Methods and Remarks (i.e. odors, etc.)

LAST STAGE OF RINSE, EPNG HYDRO TEST - white Sands
(used Natural gas pipe)

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities.(signature collector): R. Chavez Method of Shipment to the Lab: HAND

This form accompanies 2 Septum Vials, 1 Glass Jugs, and/or _____ _____

Samples were preserved as follows:

- [ ] NP: No Preservation; Sample stored at room temperature.
- [X] P-Ice Sample stored in an ice bath (Not Frozen).
- [ ] P-$Na_2S_2O_3$ Sample Preserved with Sodium Thiosulfate to remove chlorine residual.

CHAIN OF CUSTODY

I certify that this sample was transferred from _____ to _____

at (location) _____ on ____/____/____ - ____:____ and that

the statements in this block are correct. Evidentiary Seals: Not Sealed [ ] Seals Intact: Yes [ ] No [ ]

Signatures _____ _____

For OCD Use: Date Owner Notified _____ Phone or Letter?_____ Initials _____

ANALYSES PERFORMED

LAB. No.: OR- 1093

THIS PAGE FOR LABORATORY RESULTS ONLY

This sample was tested using the analytical screening method(s) checked below:

PURGEABLE SCREENS

- ☐ (753) Aliphatic Purgeables (1-3 Carbons)
- ☐ (754) Aromatic & Halogenated Purgeables
- ☐ (765) Mass Spectrometer Purgeables
- ☐ (766) Trihalomethanes

Other Specific Compounds or Classes

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

EXTRACTABLE SCREENS

- ☐ (751) Aliphatic Hydrocarbons
- ☐ (760) Organochlorine Pesticides
- ☐ (755) Base/Neutral Extractables
- ☐ (758) Herbicides, Chlorophenoxy acid
- ☐ (759) Herbicides, Triazines
- ☐ (760) Organochlorine Pesticides
- ☐ (761) Organophosphate Pesticides
- ☐ (767) Polychlorinated Biphenyls (PCB's)
- ☒ (764) Polynuclear Aromatic Hydrocarbons
- ☐ (762) SDWA Pesticides & Herbicides

ANALYTICAL RESULTS

COMPOUND(S) DETECTED	CONC. [PPB]	COMPOUND(S) DETECTED	CONC. [PPB]
METHYLENE CHLORIDE EXTRACT - UNABLE TO DETERMINE QUANTITY			
* DETECTION LIMIT * ✳		+ DETECTION LIMIT + +	

ABBREVIATIONS USED:

N D = NONE DETECTED AT OR ABOVE THE STATED DETECTION LIMIT
T R = DETECTED AT A LEVEL BELOW THE STATED DETECTION LIMIT (NOT CONFIRMED)
[RESULTS IN BRACKETS] ARE UNCONFIRMED AND/OR WITH APPROXIMATE QUANTITATION

LABORATORY REMARKS: EXTRACT DAMAGED GC COLUMN DURING THE ATTEMPT TO ANALYZE.

CERTIFICATE OF ANALYTICAL PERSONNEL

Seal(s) Intact: Yes ☐ No ☐. Seal(s) broken by: _____ date: _____

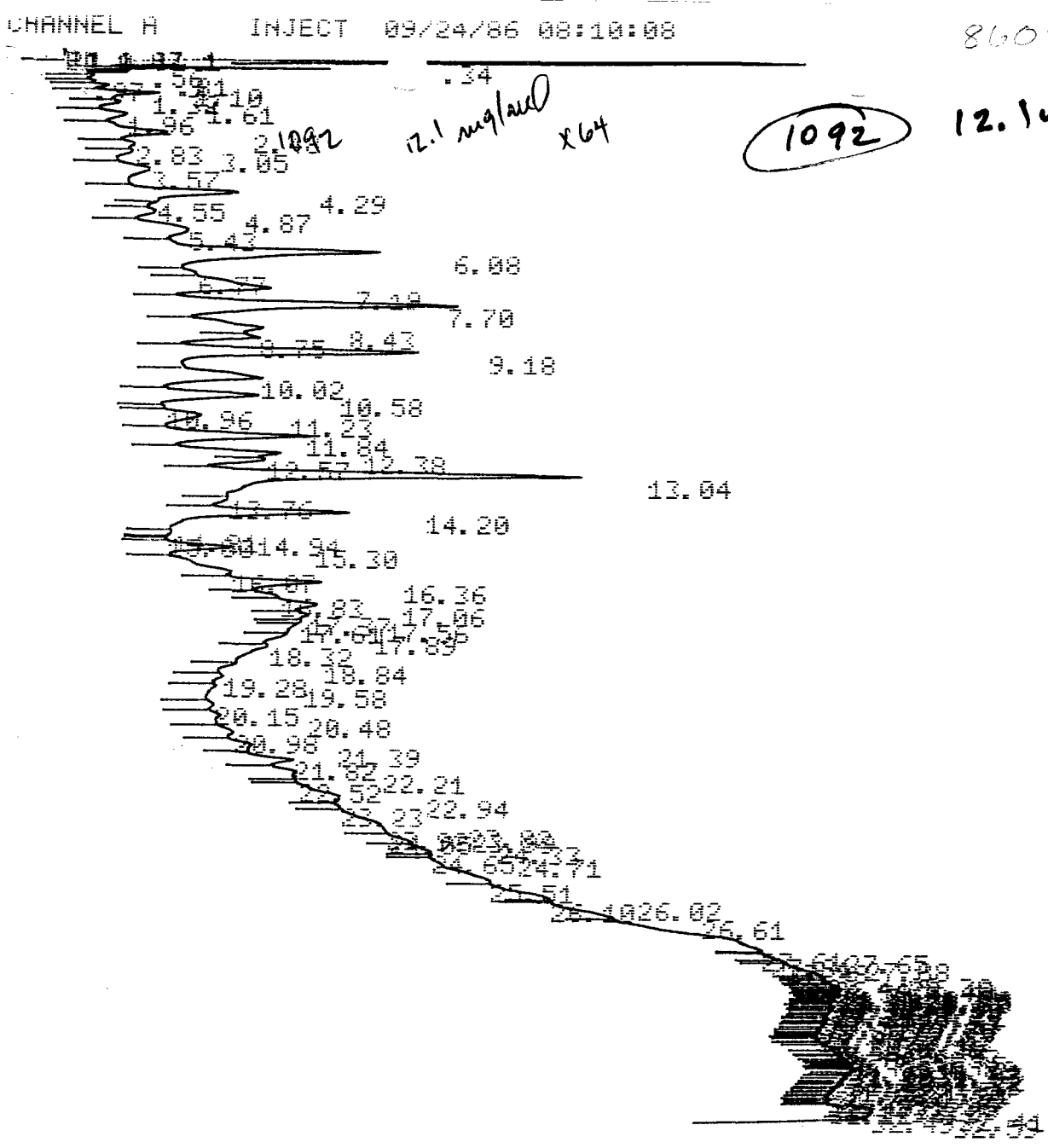
I certify that I followed standard laboratory procedures on handling and analysis of this sample unless otherwise noted and that the statements on this page accurately reflect the analytical results for this sample.

Date(s) of analysis: 9/26/86. Analyst's signature: QS Burma

I certify that I have reviewed and concur with the analytical results for this sample and with the statements in this block.

Reviewers signature: K Meyerhen

8609031240



1092 12.1 mg/ml

12.1 mg/ml x64

1092

HEADSPACE CPAK 09/24/86 08:10:08 CH= "A" PS= 1.

FILE 1. METHOD 0. RUN 30 INDEX 1

ANALYST: A S BURNEY

PEAK#	AREA%	RT	AREA BC
1	2.027	0.34	278205 08
2	[illegible]	0.56	51913 05
3	[illegible]	1.32	[illegible]
4	0.274	1.61	[illegible]
5	0.384	1.96	52714 02
6	0.884	2.48	121315 02
7	0.421	2.83	57755 02
8	0.398	3.05	54647 02
9	0.947	3.57	130025 02
10	1.786	4.29	245200 02
11	0.374	4.55	51340 02
12	0.652	4.87	89485 02
13	1.659	5.43	227775 02
14	4.784	6.08	656645 02
15	0.742	6.77	101780 02
16	2.901	7.19	398191 02
17	4.771	7.7	654887 02
18	2.241	8.43	307628 02
19	1.83	8.75	251197 02
20	3.289	9.18	451483 02
21	2.613	10.02	358638 02
22	1.488	10.58	204270 02
23	0.919	11.23	126206 02
24	2.01	11.84	275922 02
25	1.342	12.38	184183 02
26	1.235	12.57	169448 02
27	6.188	13.04	849421 02
28	0.969	13.76	132981 02
29	2.198	14.2	301760 02
30	0.509	15.3	69861 02
31	0.848	16.07	116388 02
32	1.953	16.36	268068 02
33	1.004	16.83	137741 02
34	2.163	17.06	296883 02
35	1.299	17.37	178248 02
36	0.501	17.56	68699 02
37	1.289	17.61	176987 02
38	1.462	17.89	200730 02
39	1.525	18.32	209360 02
40	0.416	18.84	57117 02
41	0.266	19.28	36530 02
42	0.262	21.82	35939 02
43	0.25	22.94	34286 02
44	0.213	23.82	29300 02
45	0.209	24.33	28702 02
46	0.292	24.65	40074 02
47	0.77	25.51	105738 02
48	1.154	26.02	158347 02
49	0.186	26.1	25572 02
50	1.689	26.61	231831 02
51	6.852	27.61	940432 02
52	0.422	27.65	57930 02
53	0.985	27.81	135179 02
54	0.856	27.88	117434 02
55	0.786	27.98	107849 02
56	3.604	28.38	494705 02
57	0.624	28.44	85676 02
58	0.557	28.48	76491 02
59	0.919	28.58	126103 02
60	0.367	28.64	50339 02
61	0.702	28.71	96365 02
62	0.642	28.78	88154 02
63	0.335	28.81	45913 02
64	0.39	28.85	53499 02
65	0.292	28.94	40123 02
66	0.494	28.97	67804 02
67	0.43	29.02	59081 02
68	0.334	29.06	45793 02
69	0.327	29.12	44909 02
70	0.35	29.15	48024 02
71	0.369	29.2	50591 02
72	0.257	29.24	35260 02
73	0.279	29.28	38317 02
74	0.202	29.31	27769 02
75	0.376	29.35	51641 02
76	0.467	29.41	64162 02
77	0.527	29.45	72336 02
78	0.484	29.53	66399 02
79	0.42	29.59	57656 02
80	0.237	29.66	32565 02
81	0.404	29.71	55444 02
82	0.186	29.75	25517 02
83	0.342	29.8	46909 02
84	0.581	29.89	79740 02
85	0.459	29.98	63063 02
86	0.4	30.03	54950 02
87	0.268	30.1	36784 02
88	0.21	30.16	28843 02
89	0.23	30.19	31533 02
90	0.208	30.26	28548 02
91	0.339	30.34	46506 02
92	0.394	30.46	54105 02
93	0.205	30.53	28074 02
94	0.481	30.6	66051 02
95	0.549	30.75	75392 02
96	0.41	30.89	56268 02
97	0.239	30.95	32742 02
98	0.251	31.06	34409 02
99	0.32	31.22	43870 02
100	0.204	31.28	27954 02
101	0.224	31.33	30779 02
102	0.285	31.4	39143 02
103	0.183	31.5	25076 02
104	0.271	32.41	37153 03
TOTAL	100.		13725822

153

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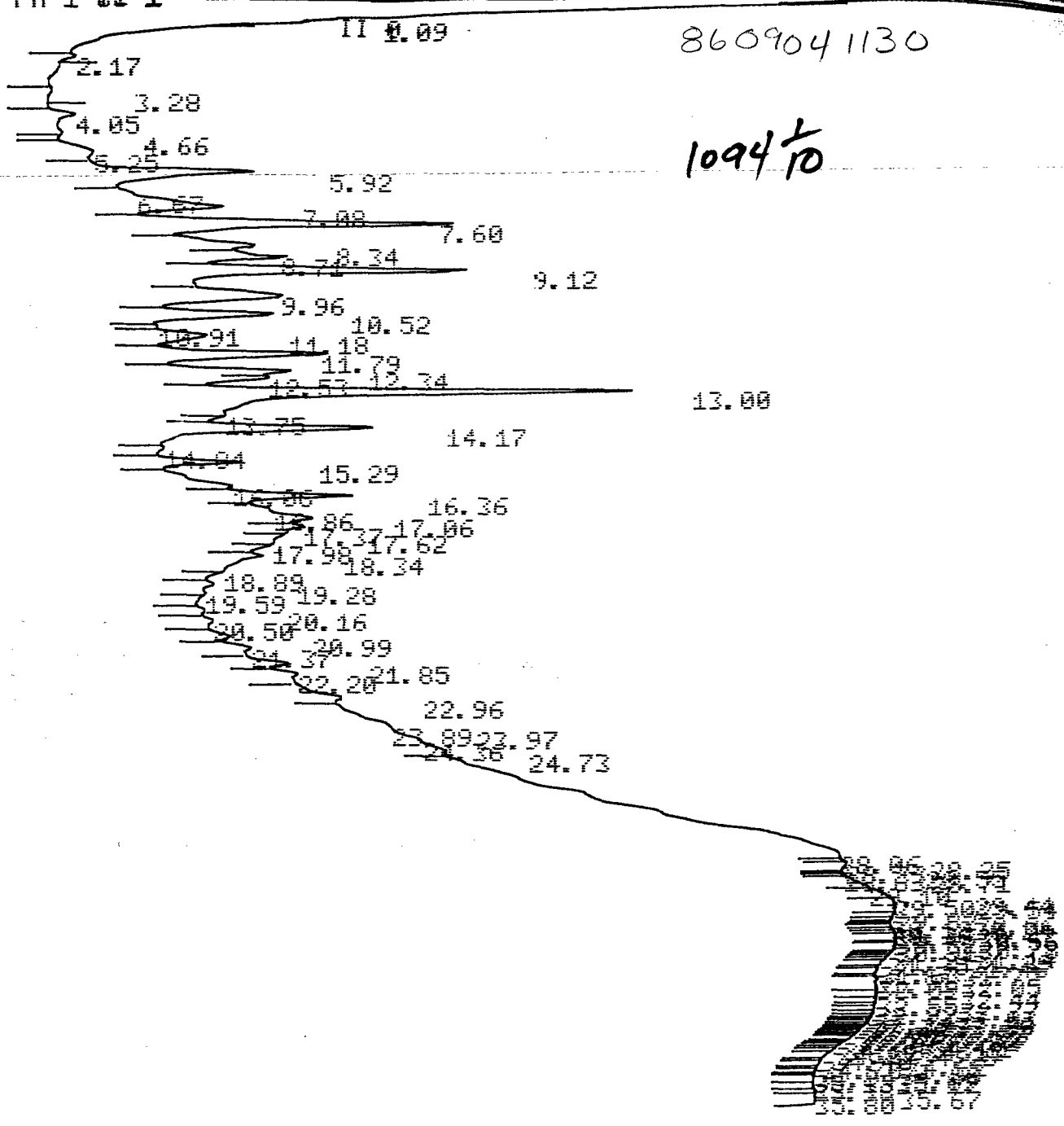
CHANNEL A 9/24/86 13:04:00
PM 1 1

8609041130

1094 1/10



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INPUT OVERRANGE AT RT= 0.33

PNA DEXSIL 300 09/24/86 13:04:00 CH= "A" PS= 1.

FILE 1. METHOD 0. RUN 37 INDEX 1

ANALYST: A S BURNEY

PEAK#	AREA%	RT	AREA BC
1	0.06	1.09	15465 01
2	0.038	2.17	9613 01
3	0.03	3.28	7571 01
4	0.173	4.05	44388 02
5	0.049	4.66	12539 02
6	0.335	5.25	85841 02
7	1.921	5.92	492064 02
8	0.336	6.67	86122 02
9	1.601	7.08	410231 02
10	3.108	7.6	796277 02
11	1.611	8.34	412710 02
12	1.6	8.71	409969 02
13	2.833	9.12	725793 02
14	2.39	9.96	612134 02
15	1.266	10.52	324264 02
16	0.19	10.91	48651 02
17	0.909	11.18	232839 02
18	1.551	11.79	397219 02
19	0.987	12.34	252802 02
20	0.895	12.53	229305 02
21	4.301	13.	1101775 02
22	0.62	13.75	158860 02
23	1.611	14.17	412607 02
24	0.107	14.84	27364 02
25	0.463	15.29	118671 02
26	0.644	16.06	165011 02
27	1.424	16.36	364877 02
28	0.601	16.86	153959 02
29	1.237	17.06	316799 02
30	1.152	17.37	295077 02
31	0.931	17.62	238526 02
32	0.492	17.98	125911 02
33	0.999	18.34	255817 02
34	0.168	18.89	43013 02
35	0.161	19.28	41161 02
36	0.095	19.59	24458 02
37	0.026	20.16	6738 02
38	0.039	20.5	9867 02
39	0.057	20.99	14705 02
40	0.108	21.37	27740 02
41	0.241	21.85	61791 02
42	0.215	22.2	54985 02
43	0.574	22.96	147132 02
44	0.904	23.89	231660 02
45	0.126	23.97	32174 02
46	0.642	24.36	164457 02
47	0.85	24.73	217664 02
48	18.013	28.06	4614392 02
49	0.986	28.25	252616 02
50	2.226	28.33	570248 02
51	0.472	28.55	120799 02
52	0.523	28.63	134096 02
53	0.714	28.71	183026 02
54	3.253	29.1	833323 02
55	2.822	29.44	722780 02
56	0.402	29.5	103100 02
57	2.639	29.54	676149 02
58	1.895	29.82	485540 02
59	0.456	30.06	116734 02
60	1.057	30.18	270734 02
61	0.208	30.24	53290 02
62	1.161	30.36	297404 02
63	0.358	30.43	91799 02
64	0.408	30.48	104642 02
65	0.686	30.56	175768 02
66	0.681	30.62	174386 02
67	1.483	30.78	379915 02
68	1.273	30.91	326227 02
69	0.982	31.14	251567 02
70	0.524	31.21	134189 02
71	0.358	31.29	91800 02
72	0.746	31.35	190973 02
73	1.116	31.46	285952 02
74	0.388	31.63	99341 02
75	1.224	31.72	313601 02
76	0.249	31.91	63753 02
77	0.624	32.05	159900 02
78	0.782	32.09	200447 02
79	1.554	32.44	398183 02
80	0.975	32.55	249683 02
81	1.173	32.77	300562 02
82	0.499	32.92	127870 02
83	0.381	33.03	97520 02
84	0.665	33.14	170335 02
85	0.243	33.28	62173 02
86	0.266	33.32	68149 02
87	0.367	33.39	94034 02
88	0.212	33.48	54271 02
89	0.245	33.53	62802 02
90	0.138	33.58	35436 02
91	0.16	33.62	40953 02
92	0.145	33.67	37058 02
93	0.223	33.72	57108 02
94	0.194	33.77	49705 02
95	0.231	33.82	59282 02
96	0.374	33.89	95711 02
97	0.194	34.01	49818 02
98	0.102	34.08	26209 02
99	0.247	34.13	63235 02
100	0.197	34.22	50407 02
101	0.251	34.29	64210 02
102	0.393	34.4	100642 02
103	0.141	34.62	36053 02
104	0.284	34.7	72780 02
105	0.065	34.88	16551 02
106	0.187	34.94	47799 02
107	0.04	35.09	10137 02
108	0.038	35.13	9704 02
109	0.03	35.17	7778 02
110	0.29	35.38	74321 02
111	0.055	35.67	14194 02
112	0.058	35.8	14861 03
TOTAL	**100.**		**25616621**

CHANNEL NO. 1
VIAL NO. 00

TRACOR MODEL 540
GAS CHROMATOGRAPH

METHOD 1

DETECTORS
LEFT 100 DEG
RIGHT 300 DEG

INJECTORS
LEFT 100 DEG
RIGHT 250 DEG

OVEN 60 DEG HOLD 2.00 MIN
10.0 DEG/MIN TO 325 DEG HOLD 2.00 MIN

MAX OVEN TEMP 320 DEG

FLOW CNT 40 DEG

RUN TIME 30.50 MIN

PRE-READY DURATION 2.00 MIN

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STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal | Time 9:34 | Date 1/23/86

Originating Party	Other Parties
Mary Alice Black OCD Deming 546-7559	Dave Boyer OCD

Subject: Discharge of Turbine Oil From EPNG Compressor Station

Discussion: EPNG's Deming compressor station discharged oil into a 20 x 40 x 15ft deep pit (142 bbl capacity) Pit has 3" oil, the rest water from some source Approx 35 barrels oil needs disposal. Land Farming may be OK - source of water and discharge frequency needs to be looked at

Tom Taylor of 546-3634 - Grady Part, in EPNG Deming Compressor Stat

Conclusions or Agreements: Jami Bailey will visit site Monday PM or Wednesday as part of Animas Valley Trip.

Distribution: EPNG Pipeline File
Jami Bailey

Signed D. J. Boyer