STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

5-27-93

BRUCE KING
GOVERNOR

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

SWD-520

RE: Proposed:
MC
DHC
NSL
NSP
SWD X
WFX
PMX

Gentlemen:

I have examined the application for the:

C.W. Trainer Harris Federal #1-C 5-22-34
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OK

Yours very truly,

Jerry Sexton
Supervisor, District 1

/ed

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised 7-1-81

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage
Application qualifies for administrative approval? ☒ yes ☐ no

II. Operator: C. W. Trainer

Address: c/o Oil Reports & Gas Services, Inc., P.O. Box 755, Hobbs, NM 88241-0755

Contact party: Donna Holler Phone: (505) 393-2727

III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? ☐ yes ☒ no
If yes, give the Division order number authorizing the project _____.

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

* VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)

* XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Donna Holler Title Agent

Signature: Donna Holler Date: May 6, 1993

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal. _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;

(3) the formation name and depth with expected maximum injection rates and pressures; and

(4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

APPLICATION FOR AUTHORIZATION
To Convert to Water Disposal
C. W. Trainer
Harris Federal No. 1
Statement of Compliance

ITEM III. A. See Exhibits A & B
B. (1) Delaware Sand
(2) Perforations from 5790' to 5810' & from 6001' to 6011'
(3) Drilled by L & B Oil Company 9/15/84 as a Wildcat. L & B P&A'd the well as a dry hole in the Wolfcamp 12/13/84.
(4) Other Perforated Intervals in Bone Springs Formation from 9184 feet to 10,451 feet Protected by a CIBP set @ 9100' W/10 sx Cement plug on top
(5) No known higher oil zone, Bone Springs only known lower oil zone

ITEM V. See Exhibit C

ITEM VI. No plugged wells exist within the area of interest

ITEM VII. (1) Estimated average rate of injection is 2,000 barrels of water per day, with an estimated maximum daily rate of 5,000 barrels of water per day.
(2) System will be closed
(3) Average injection pressure: 600 psi
Maximum injection pressure: 2000 psi
(4) Source of water will be Delaware Sands
(5) Source of water and injection zone are the same, this being the Delaware formation

ITEM VIII. The Delaware Sand is unproductive in this area. The first Delaware completion attempt was made by C. W. Trainer in the Harris Federal No. 1, 10/16/89 resulting in 100% water production.

ITEM IX. No stimulation program is planned.

ITEM X. Logs have been provided by L & B Oil Company.

ITEM XI. There are two known fresh water wells within the mile radius of the subject well. One well is in the NE/4 NE/4 Section 8, T22S, R34E, the second well is in the NW/4 NE/4 Section 9, T22S R34E. Both wells are in Lea County, New Mexico, water samples have been collected. Analyses included as Exhibits D & E.

ITEM XII. All geological and engineering data available indicates there is no open fault or other hydrologic connection between the Delaware, triassic or alluvium formations.

ITEM XIII. (A) A copy to C-108 with Statement of Compliance has been furnished by certified mail as follows:

Surface Owner:
State of New Mexico Land Office
Attn: Mr. Dewayne Glidewell
P. O. Box 1148
Santa Fe, New Mexico 87504

Offset Operators:
Enron Oil and Gas Corporation
Attn: Production Operations
P. O. Box 2267
Midland, Texas 79702

Yates Petroleum Corporation
Attn: Production Operations
105 South Fourth Street
Artesia, New Mexico 88210

Meridan Oil, Inc.
Attn: Production Operations
P. O. Box 51810
Midland, Texas 79710-1810

Courtesy Notification:
Bureau of Land Management
Attn: Mr. Shannon Shaw
P. O. Box 1778
Carlsbad, New Mexico 88220

(B) Copies of certified mail receipts are identified as Exhibit F.

(C) Proof of publication in the Hobbs Daily News-Sun is identified as Exhibit G.

C. W. TRAINER
HA S FEDERAL NO. 1

Harris Fed. #1
1980' FNL & 660' FEL
Sec. 5-T22S-R34E
TD: 14,030'

Date: 11-19-90
Field: Grama Ridge
Lea County, N.M.

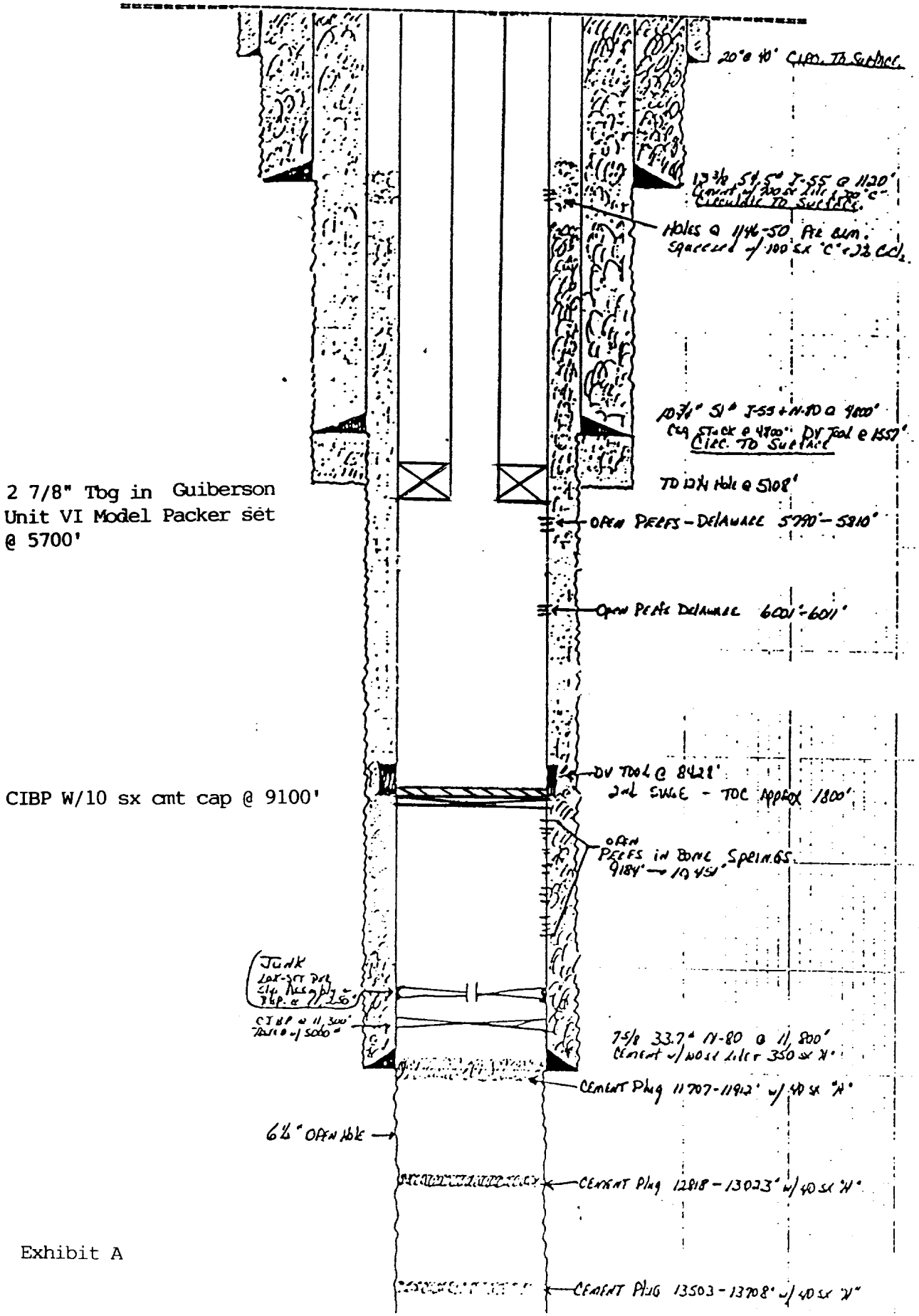


Exhibit A

C. W. TRAINER
HARRIS FEDERAL NO. 1
SALTWATER DISPOSAL APPLICATION

TABULAR DOCUMENTATION

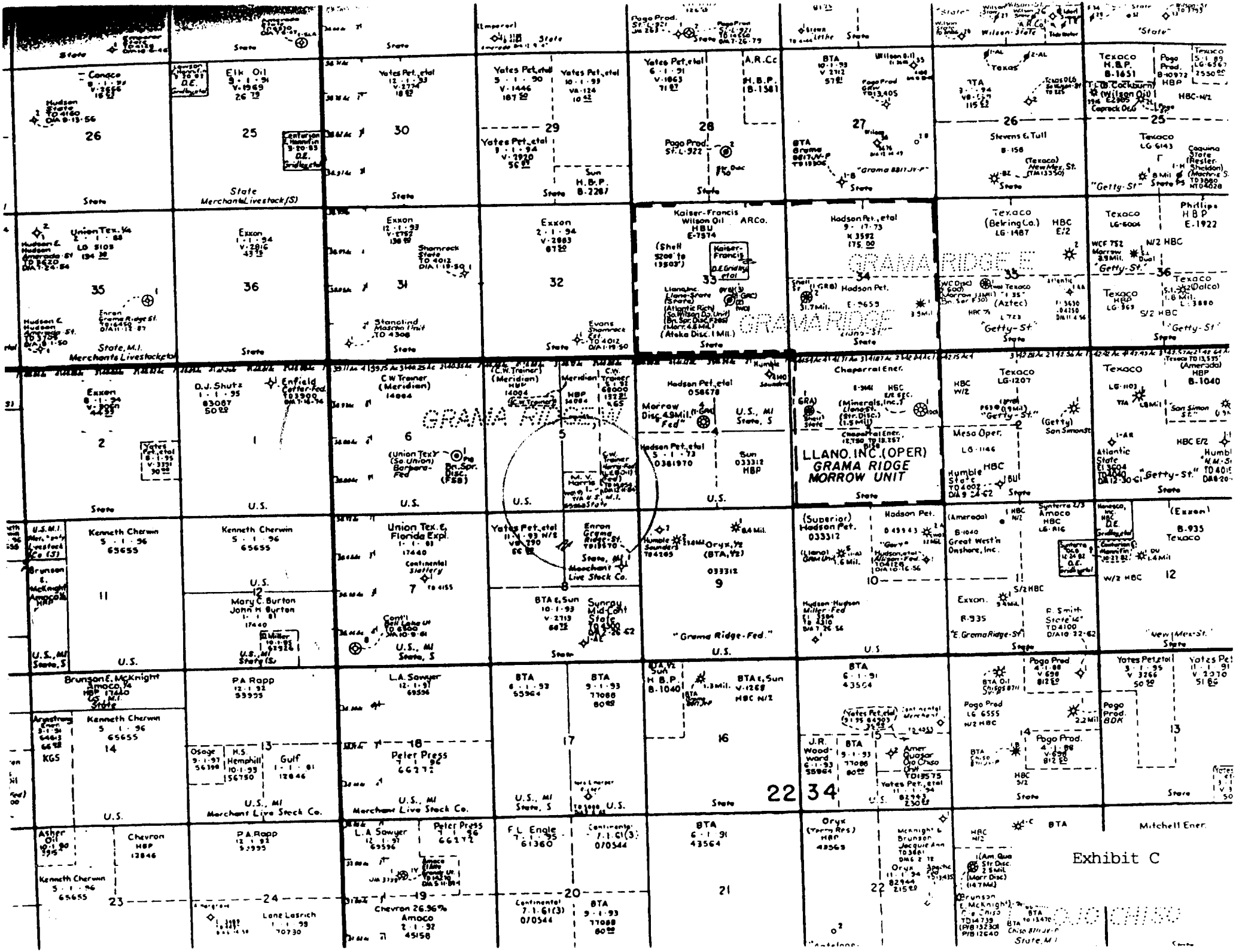
ITEM III. (A) 1. Harris Federal No. 1, 660' FSL & 1980' FEL, Section 5, Township 22 South, Range 34 East, Lea County, New Mexico.

2. 13 3/8" 54.5# J-55 @ 1120' W/700 sx; circ
10 3/4" 51# J-55 & N-80 @ 4800' w/1400 sx; circ
Sqz 100 sx thru perfs @ 1146'-50' per BLM
12 1/2" Hole TD @ 5108'
7 5/8" 33.7# N-80 @ 11,800' w/350 sx 1st stage; 750 sx thru DV tool @ 8428' 2nd stage
6 1/2" OH to TD @ 14,054'

3. 2 7/8" Tbg w/ pkr @ 5700'

4. Guiberson Unit VI Model packer set @ 5700'

Exhibit B


GRAMA RIDGE
GRAMA RIDGE
LLANO, INC. (OPER)
GRAMA RIDGE
MORROW UNIT
Exhibit C

WATER ANALYSIS REPORT

Company : PEAK CONSULTING SER
Address : HOBBS, NEW MEXICO
Lease : SECT 9 - T22 -R34
Well : NE 1/4
Sample Pt. : WINDMILL

Date : 05-03-93
Date Sampled : 04-21-93
Analysis No. : 465

	ANALYSIS		mg/L		* meq/L
1.	pH	7.3			
2.	H2S	NEGATIVE			
3.	Specific Gravity	1.000			
4.	Total Dissolved Solids		591.3		
5.	Suspended Solids		NR		
6.	Dissolved Oxygen		NR		
7.	Dissolved CO2		NR		
8.	Oil In Water		NR		
9.	Phenolphthalein Alkalinity (CaCO3)				
10.	Methyl Orange Alkalinity (CaCO3)		245.0		
11.	Bicarbonate	HCO3	298.9	HCO3	4.9
12.	Chloride	Cl	22.0	Cl	0.6
13.	Sulfate	SO4	145.0	SO4	3.0
14.	Calcium	Ca	110.2	Ca	5.5
15.	Magnesium	Mg	61.5	Mg	5.1
16.	Sodium (calculated)	Na	-46.4	Na	-2.0
17.	Iron	Fe	0.0		
18.	Barium	Ba	0.0		
19.	Strontium	Sr	0.0		
20.	Total Hardness (CaCO3)		528.5		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter

5	*Ca <----- *HCO3	5
	/------->	
5	*Mg -----> *SO4	3
	<---------/	
-2	*Na -----> *Cl	1

Saturation Values Dist. Water 20 C
CaCO3 13 mg/L
CaSO4 * 2H2O 2090 mg/L
BaSO4 2.4 mg/L

Compound	Equiv wt	X meq/L	= mg/L
Ca(HCO3)2	81.0	4.9	397
CaSO4	68.1	0.6	41
CaCl2	55.5		
Mg(HCO3)2	73.2		
MgSO4	60.2	2.4	146
MgCl2	47.6	0.6	30
NaHCO3	84.0		
Na2SO4	71.0		
NaCl	58.4		

REMARKS:
EDDIE SEAY

Respectfully submitted,
ROZANNE JOHNSON

Exhibit D

WATER ANALYSIS REPORT

Company	: PEAK CONSULTING SER	Date	: 05-03-93
Address	: HOBBS, NEW MEXICO	Date Sampled	: 04-21-93
Lease	: SECT 8 - T22 - R34E	Analysis No.	: 466
Well	: NE 1/4		
Sample Pt.	: WINDMILL		

	ANALYSIS		mg/L		* meq/L
1.	pH	7.2			
2.	H2S	NEGATIVE			
3.	Specific Gravity	1.000			
4.	Total Dissolved Solids		774.4		
5.	Suspended Solids		NR		
6.	Dissolved Oxygen		NR		
7.	Dissolved CO2		NR		
8.	Oil In Water		NR		
9.	Phenolphthalein Alkalinity (CaCO3)				
10.	Methyl Orange Alkalinity (CaCO3)		120.0		
11.	Bicarbonate	HCO3	146.4	HCO3	2.4
12.	Chloride	Cl	280.0	Cl	7.9
13.	Sulfate	SO4	155.0	SO4	3.2
14.	Calcium	Ca	143.9	Ca	7.2
15.	Magnesium	Mg	109.6	Mg	9.0
16.	Sodium (calculated)	Na	-61.5	Na	-2.7
17.	Iron	Fe	0.8		
18.	Barium	Ba	0.0		
19.	Strontium	Sr	0.0		
20.	Total Hardness (CaCO3)		810.7		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter

7	*Ca <----- *HCO3	2
	/------->	
9	*Mg -----> *SO4	3
	<---------/	
-3	*Na -----> *Cl	8

Saturation Values Dist. Water 20 C

CaCO3	13 mg/L
CaSO4 * 2H2O	2090 mg/L
BaSO4	2.4 mg/L

Compound	Equiv wt	X meq/L	= mg/L
Ca(HCO3)2	81.0	2.4	194
CaSO4	68.1	3.2	220
CaCl2	55.5	1.6	86
Mg(HCO3)2	73.2		
MgSO4	60.2		
MgCl2	47.6	6.3	302
NaHCO3	84.0		
Na2SO4	71.0		
NaCl	58.4		

REMARKS:
-------- EDDIE SEAY

Respectfully submitted,
ROZANNE JOHNSON

Exhibit E

P 243 010 503

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO
PNM
STREET AND NO.
P.O. Box 1778
P.O. STATE AND ZIP CODE
Carlsbad 88220

POSTAGE $

CERTIFIED FEE ¢
SPECIAL DELIVERY ¢
RESTRICTED DELIVERY ¢
SHOW TO WHOM AND DATE DELIVERED ¢
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY ¢
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY ¢
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY ¢

CONSULT POSTMASTER FOR FEES
OPTIONAL SERVICES
RETURN RECEIPT SERVICE

TOTAL POSTAGE AND FEES $

POSTMARK OR DATE
HOBBS NM 88240 MAY 25 1988 USPS

PS Form 3800, Apr. 1976

P 243 010 502

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO
NM Land Office
STREET AND NO.
P.O. Box 1148
P.O. STATE AND ZIP CODE
Santa Fe 87504

POSTAGE $

CERTIFIED FEE ¢
SPECIAL DELIVERY ¢
RESTRICTED DELIVERY ¢
SHOW TO WHOM AND DATE DELIVERED ¢
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY ¢
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY ¢
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY ¢

CONSULT POSTMASTER FOR FEES
OPTIONAL SERVICES
RETURN RECEIPT SERVICE

TOTAL POSTAGE AND FEES $

POSTMARK OR DATE
HOBBS NM 88240 MAY 25 1988 USPS

PS Form 3800, Apr. 1976

P 243 010 501

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO
Yates Pet
STREET AND NO.
105 So 4th
P.O. STATE AND ZIP CODE
Artesia 87504

POSTAGE $

CERTIFIED FEE ¢
SPECIAL DELIVERY ¢
RESTRICTED DELIVERY ¢
SHOW TO WHOM AND DATE DELIVERED ¢
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY ¢
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY ¢
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY ¢

CONSULT POSTMASTER FOR FEES
OPTIONAL SERVICES
RETURN RECEIPT SERVICE

TOTAL POSTAGE AND FEES $

POSTMARK OR DATE
HOBBS NM 88240 MAY 25 1988 USPS

PS Form 3800, Apr. 1976

P 243 010 500

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO
Enron
STREET AND NO.
P.O. Box 2267
P.O. STATE AND ZIP CODE
Midland 79702

POSTAGE $

CERTIFIED FEE ¢
SPECIAL DELIVERY ¢
RESTRICTED DELIVERY ¢
SHOW TO WHOM AND DATE DELIVERED ¢
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY ¢
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY ¢
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY ¢

CONSULT POSTMASTER FOR FEES
OPTIONAL SERVICES
RETURN RECEIPT SERVICE

TOTAL POSTAGE AND FEES $

POSTMARK OR DATE
HOBBS NM 88240 MAY 25 1988 USPS

PS Form 3800, Apr. 1976

P 243 010 499

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO
Mcadean
STREET AND NO.
P.O. Box 3810
P.O. STATE AND ZIP CODE
Midland 79710-1810

POSTAGE $

CERTIFIED FEE ¢
SPECIAL DELIVERY ¢
RESTRICTED DELIVERY ¢
SHOW TO WHOM AND DATE DELIVERED ¢
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY ¢
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY ¢
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY ¢

CONSULT POSTMASTER FOR FEES
OPTIONAL SERVICES
RETURN RECEIPT SERVICE

TOTAL POSTAGE AND FEES $

POSTMARK OR DATE
HOBBS NM 88240 MAY 25 1988 USPS

PS Form 3800, Apr. 1976

CASH RECEIPT

Received From

Amount (In Numbers) $ 1375

Amount (Written Out) /100 Dollars

Purpose

Date

By (Signature and Title)

HOBBS NM 88240 MAY 25 1988 USPS

PS Form **1096**, November 1987

U.S. GPO : 1992 0 - 308-616

EXHIBIT 2

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, Kathi Bearden

General Manager

of the Hobbs Daily News-Sun, a daily newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not a supplement thereof for a period.

of

three weeks.

Beginning with the issue dated

May 4, 1993

and ending with the issue dated

May 18, 1993

Kathi Bearden
General Manager

Sworn and subscribed to before

me this 19 day of

May, 1993

Charlene Herrin
Notary Public.

My Commission expires
March 15, 1997
(Seal)

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

LEGAL NOTICE
May 4, 11, 18, 1993

C.W. Trainer will file an application with the New Mexico Oil Conservation Division for a salt water disposal installation into the Delaware Sands Formation through perforations at 5790' through 5810' and at 6001' through 6011' in the Harris Federal No. 1, located 660'FSL & 1980' FEL Section 5, T22S, R34E, Lea County, New Mexico. All interested parties may file an objection or request for hearing within 15 days to the New Mexico Oil Conservation Division, P.O. Box 2068, Santa Fe, New Mexico 87501. Local contact party for C.W. Trainer is Donna Holler, Oil Reports & Gas Services, Inc. P.O. Box 755, Hobbs, New Mexico 88241, telephone (505) 393-2727.

Exhibit G