

# PENROC

NEW MEXICO  
OIL CONSERVATION  
DIVISION  
SANTA FE, NEW MEXICO 87504-2088

March 18, 1994

## ILLEGIBLE

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

Re: Application for Administrative Approval for Salt Water Disposal  
State AK Well No. 1  
Unit N. Section 10. T-11-S. R-33-E  
Lea County, New Mexico

Dear Mr. Catanach:

Penroc Oil Corporation is requesting administrative approval to convert the captioned well to salt water disposal. This well will be utilized to dispose produced water from Penroc operated Bagley properties (T-11-S, R-33-E) which are capable of producing 20-35 BOPD and 250 MCFPD.

Penroc has 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.

An early approval of this application will be greatly appreciated. Without a relative in-expensive disposal, the producing wells will have to be plugged and will result in loss of precious reserves. Thank you.

Sincerely,

PENROC OIL CORPORATION

  
M. Y. (Merch) Merchant  
President

MYM/br

Attachments

CC: Surface Owner  
Offset Operators

MAILING ADDRESS:  
PO Box 5970  
Hobbs, NM  
88241-5970

DELIVERY ADDRESS:  
5014 Carlsbad Hwy.  
Hobbs, NM  
88240-1118

(505) 397-3596 Phone  
(505) 393-7051 FAX

## APPLICATION FOR AUTHORIZATION TO INJECT

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

II. Operator: PENROC OIL CORPORATION

Address: P. O. BOX 5970 HOBBS NM 88241-5970

Contact party: M. Y. (Merch) Merchant Phone: (505) 397-3596

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: Mohammed Yamin Merchant Title: President

Signature:  Date: 3/18/94

\* 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.

N/A

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

## 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.

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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.



[illegible]



III A. WELL DATA:

1. STATE AK WELL NO. 1  
UNIT N, SECTION 10, T-11-S, R-33-E  
BAGLEY FIELD, LEA COUNTY, NEW MEXICO
2. WELL DRILLED IN AUGUST 1966.  
  
13 3/8", 48# @ 368' w/ 425 sxs. (circ.)  
8 5/8", 32 & 24# @ 3777' w/ 700sxs. (circ.)  
5 1/2", 15.5 & 17# @ 10,200' w/ 525 sxs. Top of cement by temp.  
survey: 7865'
3. WELL IS DEPLETED IN THE PRESENT PAY. NO OTHER POSSIBILITIES EXIST.  
  
WILL USE 2 7/8" PLASTIC COATED TUBING.
4. THE TUBING WILL BE SET AT APPROXIMATELY 9000 FEET IN A 5 1/2" x 2 7/8"  
NICKEL COATED PACKER.

PENROC OIL CORPORATION

APPLICATION FOR AUTHORIZATION TO INJECT

VII.

1. Average Daily Rate: 200 BW  
Maximum Daily Rate: 650 BW
2. Closed System
3. Inject on Vacuum Initially
4. Re-injected Produced Water
5. Not Applicable

VIII.

The proposed injection zone is considered to be Strawn Age. Lithologically it is a limestone of shelf origin. The approximate depth at this locale is 9400' and the thickness is +/- 600'.

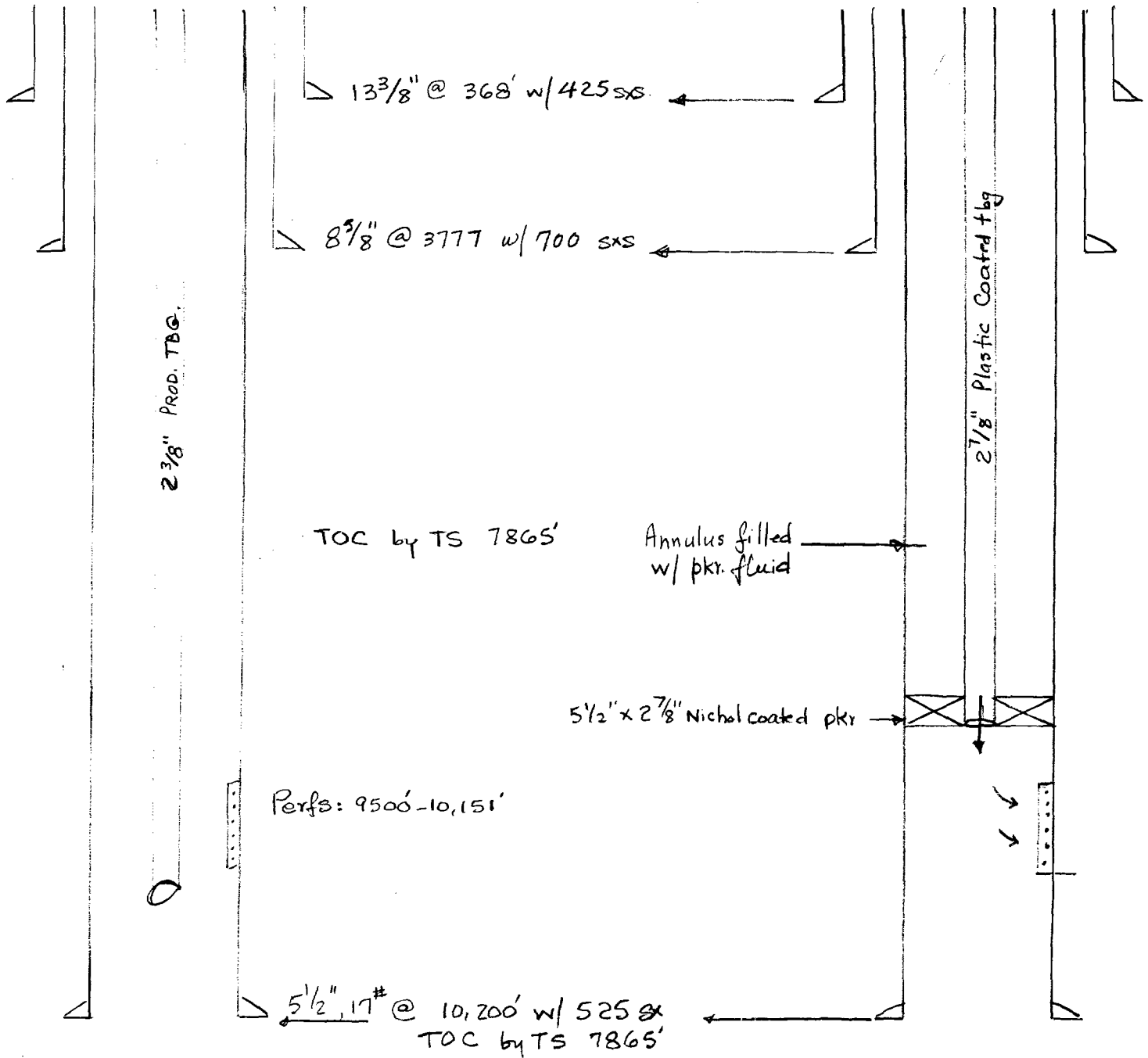
The fresh water aquifer at this site is the Oglalla found from near surface to a depth of 380'.

- IX. None at this time.
- X. Logs have been filed with OCD.
- XI. Analysis attached.
- XII. Applicant attests that a thorough examination has been made of all available geologic, engineering, and well data and that no hydrologic connection exists between the proposed injection interval and the overlying fresh water aquifer.

STATE "AK" WELL NO. 1  
Sec. 10, T11S, R33E  
Unit N  
Lea County, New Mexico

PRESENT

PROPOSED



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 \_\_\_\_\_

one \_\_\_\_\_ weeks.

Beginning with the issue dated

March 13, 19 94

and ending with the issue dated


March 13, 19 94

  
General Manager

Sworn and subscribed to before

me this 15 day of

March 19 94

  
Notary Public.

My Commission expires

March 15, 1997

(Seal)

LEGAL NOTICE

March 13, 1994

PENROC OIL CORPORATION, P.O. Box 5970, Hobbs, New Mexico 88241-5970, is filing an application to convert its State 'AK' Well No. 1 to water disposal. This well is located 660' FSL, 1980' FWL in Section 10, T-10-S, R-33-E, Lea County, New Mexico.

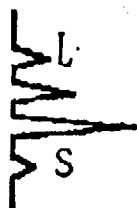
The intention of the applicant is to inject produced water from the Penn formation at its producing wells in the Bagley Field into the lower Penn formation at State 'AK' which is depleted.

Maximum injection rates will be 850 barrels of water per day at pressures not to exceed 1200 psig. The depth of the injection zone will be below 9500 feet, between 9500' and 10,151'.

All interested parties must file any objections or requests for hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87501 within 15 days of this notice. M.Y. (Merch) Merchant, President, (505) 397-3596.

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.





# Laboratory Services

1331 Tasker Drive  
Hobbs, New Mexico 88240  
(505) 397-3713

## WATER ANALYSIS

COMPANY LBO

SAMPLE Fresh Water from Windmill

SAMPLED BY KENT LEARLEY

DATE TAKEN July 13, 1993

REMARKS Located on OG State Lease

Nitrate	4.0
Barium as Ba	0
Carbonate alkalinity PPM	0
Bicarbonate alkalinity PPM	208
pH At Lab	7.14
Specific Gravity @ 60 F	1.000
Magnesium as Mg	164
Total Hardness as CaCO <sub>3</sub>	282
Chlorides as CL	70.6
Sulfate as SO <sub>4</sub>	145
Iron as Fe	0.25
Potassium	0.11
Hydrogen Sulfide	0
Conductivity mS/cm	0.78 @ 23.0° C
Total Dissolved Solids	380
Carbonate as CO <sub>3</sub> G/L	0
Calcium as CA	118

Results reported as Parts Per Million Unless Stated.

Langelier Saturation Index - 0.52

Analysis By: Vickie Walker  
Date: 7/14/93

PENROC OIL CORPORATION

STATE "AK" No. 1

APPLICATION FOR AUTHORIZATION TO INJECT

VI.

10-11-33

ORXX ENERGY Co.      J. P. COLLIER No. 1      UNIT F

13<sup>3</sup>/<sub>8</sub>" @ 321' w/ 300 sxs. cmt. circ.

8<sup>5</sup>/<sub>8</sub>" @ 4199' w/ 805 sxs. cmt. circ.

5<sup>1</sup>/<sub>2</sub>" @ 11,187' w/ 750 sxs TOC 8595'

PB 9900' - Perfs: 9862'-72'

well currently producing.

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HEADINGTON OIL      TP "A" STATE No. 1      UNIT J

13<sup>3</sup>/<sub>8</sub>" @ 350' w/ 375 sx. circ.

8<sup>5</sup>/<sub>8</sub>" @ 3755' w/ 300 sxs.

5<sup>1</sup>/<sub>2</sub>" @ 10,300' w/ 750 sxs. + 300 sxs. w/ DV tool @ 4696'

Perfs : 10,055 - 10,128'

9889 - 98,9495 - 9502, 9618' - 9624'

well currently producing.

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VI-Contd.

10.11.33

(FELMONT OIL) TRIPPERARY OIL CORP.

STATE "F" No.1 UNIT K

13<sup>3</sup>/<sub>8</sub>" @ 330' w/ 300 sxs. circ.

8<sup>5</sup>/<sub>8</sub>" @ 4250' w/ 1750 sxs. circ.

5<sup>1</sup>/<sub>2</sub>" @ 10,121' w/ 750 sxs. TOC 7660'

Perfs : 10,058 - 10,118

Plugged by Felmont April, 1976. (see sketch)

Re-entered by Tripperary to test Abo 8600'-8700'-  
water only - P & A'd as shown on sketch.

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HEADINGTON OIL - TP State No.2 Unit O

13<sup>3</sup>/<sub>8</sub>" @ 361' w/ 375 sxs. circ.

8<sup>5</sup>/<sub>8</sub>" @ 3740' w/ 300 sxs. •

5<sup>1</sup>/<sub>2</sub>" @ 10,221 w/ 750 sxs. + 300 sxs. @ DV tool.

Perf : 10,110-26, 10,129 7 10,126-40, 10,148-54  
9909-44' ; 9504-08, 10,032-36, 10056-64  
8564-68, 8573-84', 8782-8820'

Well shut-in (TA'd)

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15-11-33

Gulf Oil Corp. (Chevron) Lea "HP" State Unit B

13<sup>3</sup>/<sub>8</sub>" @ 375' ~~375~~ w/ 350 sxs. surface

8<sup>5</sup>/<sub>8</sub>" @ 3800' w/ 500 sxs. TOC 2185' by TS

5<sup>1</sup>/<sub>2</sub>" @ 10,200' w/ 800 sxs.

Perfs. 10,072 - 98 ; 10,124 - 138

In 1970, ran 4<sup>1</sup>/<sub>2</sub>" to 9735' to repair damage

5<sup>1</sup>/<sub>2</sub>" csg TOL 7401' w/ 150 sx.

In 1977, 4<sup>1</sup>/<sub>2</sub>" collapsed @ approx. 7800'.

Set CIBP @ 7564' w/ 47' cement on top.

Cut 4<sup>1</sup>/<sub>2</sub>" Liner @ 7010' - spotted cement plug 7054-6954'

Perf. 2 holes @ 5180' - Under retainer pumped

800 sxs. circ. cement. Perf. 5<sup>1</sup>/<sub>2</sub> 3414' - 3889'.

Tested water.

1978, pulled rods & pump. Set CIBP @ 3750'

w/ 35' cement. Gelled mud 3715-50'.

50' cement plug to surface. See sketch.

---

15.11.33

Allen K. Trobaugh      FCS Com. No. 1 Unit D

12<sup>3</sup>/<sub>4</sub>" @ 365' w/ 350 sxs.

8<sup>5</sup>/<sub>8</sub>" @ 3789' w/ 400 sxs.

5<sup>1</sup>/<sub>2</sub>" @ 10,258' w/ 500 sxs.

Perf. 9500' - 22 ; 9587-9785'

RTTS & RBP @ 9248' & 9294' - csg. collapsed @ 3030'

Put 1200' cement on top of RTTS (9248')

CIBP @ 8700' w/ 35' cement on top.

Shot & pulled 6016' of 5<sup>1</sup>/<sub>2</sub>" - left 4241' in hole.

335 sxs. cement plug 4155 - 3000'

Shot 8<sup>5</sup>/<sub>8</sub>" @ 1052' and pulled 1037'. Left  
2753' in the hole.

Set 65 sxs. plug @ 775 - 1052'.

75 sxs. plug @ 314 - 415'

10 sxs. @ surface.

See sketch.

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15-11-33

Felmont Oil Corp. Hissom State No.1 Unit F

13<sup>3</sup>/<sub>8</sub>" @ 323 w/ 300 sxs.

8<sup>5</sup>/<sub>8</sub>" @ 3770 w/ 500 sxs.

5<sup>1</sup>/<sub>2</sub>" @ 10,224 w/ 800 sxs.

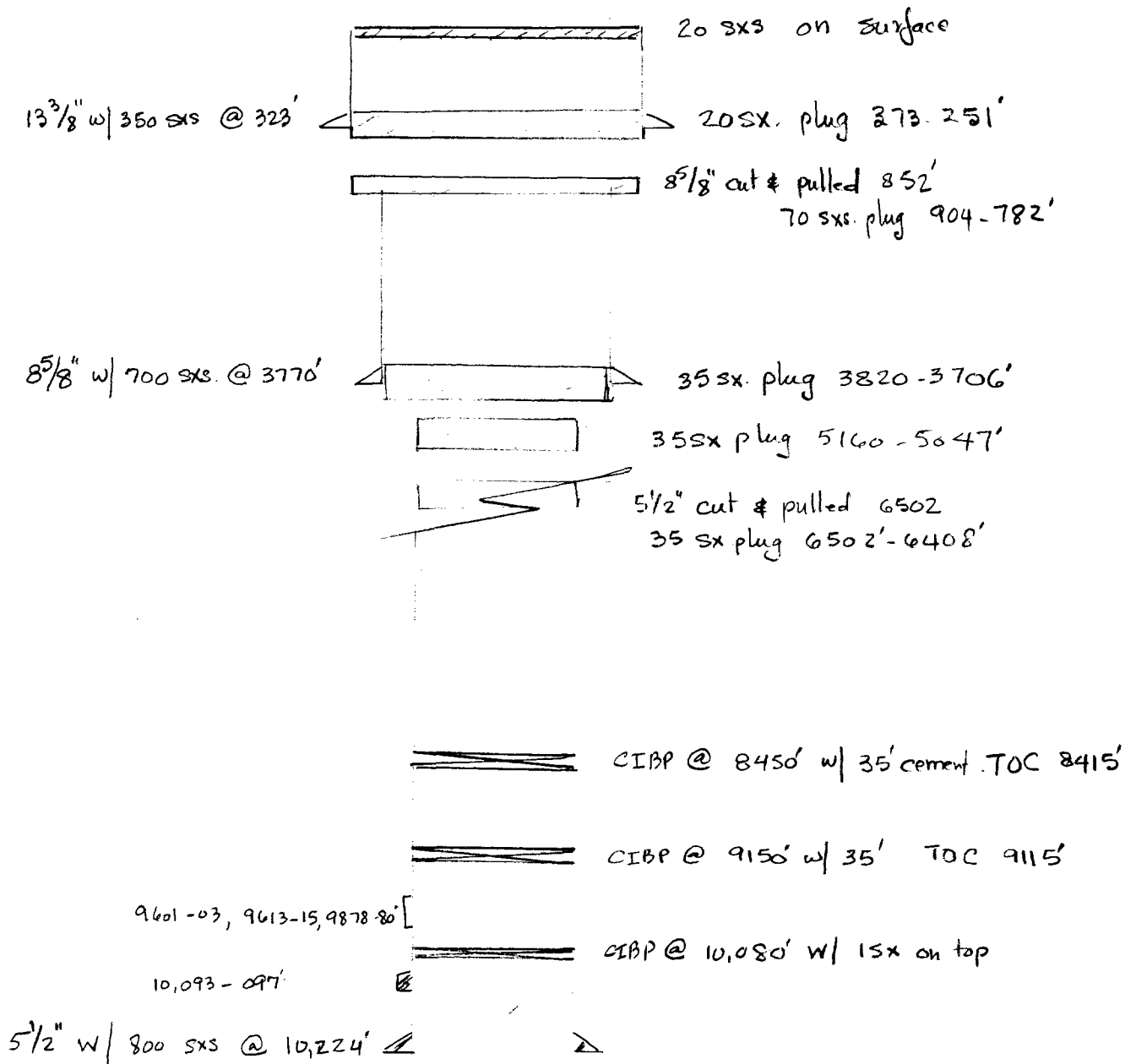
well was plugged in 1976 - sketch attached.

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# PLUGGED WELLS

FELMONT OIL CORP

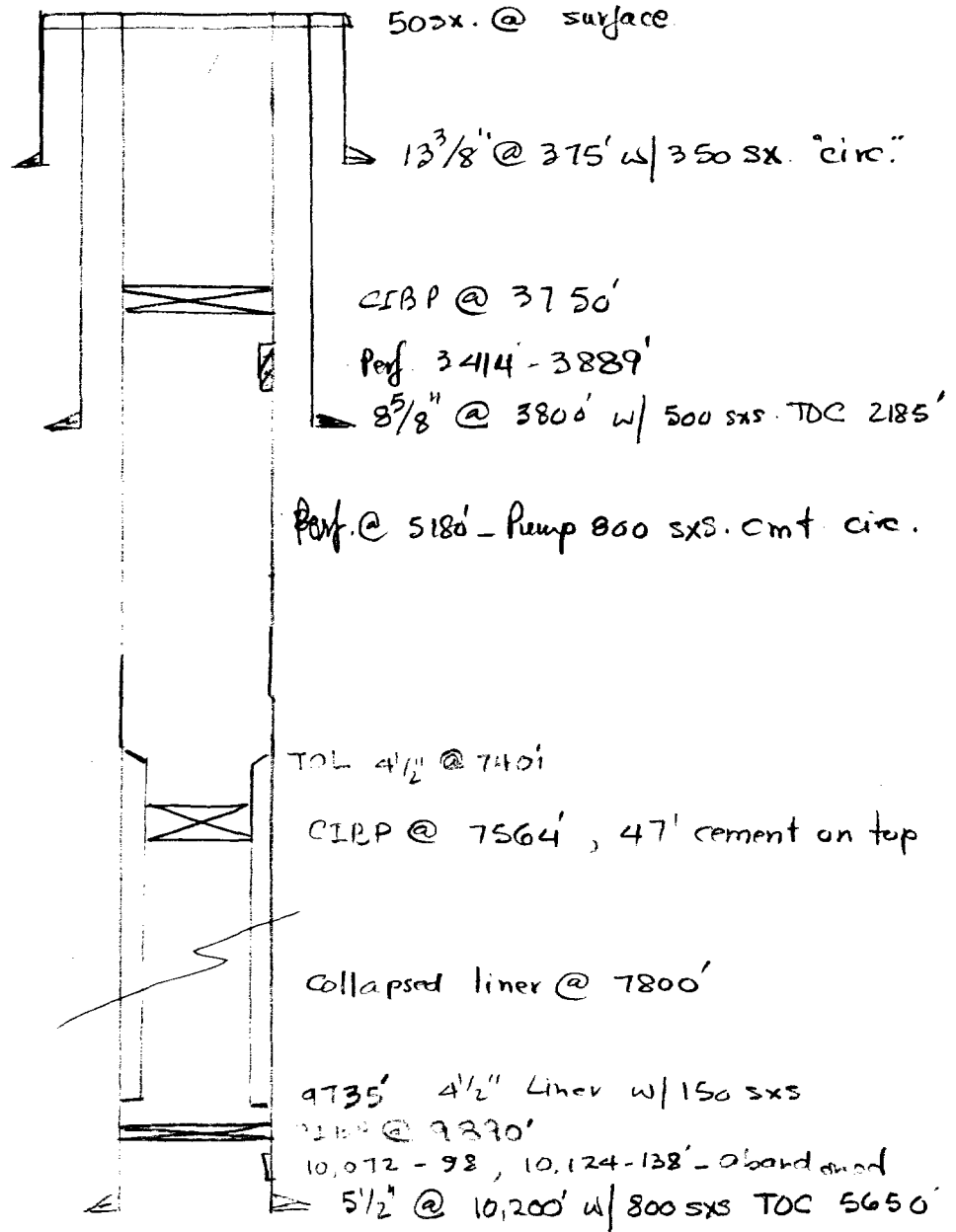
HISDOM STATE No. 1  
UNIT F, Sec. 15, T11S, R23E  
Lea County, New Mexico



# PLUGGED WELLS

GULF OIL CORP

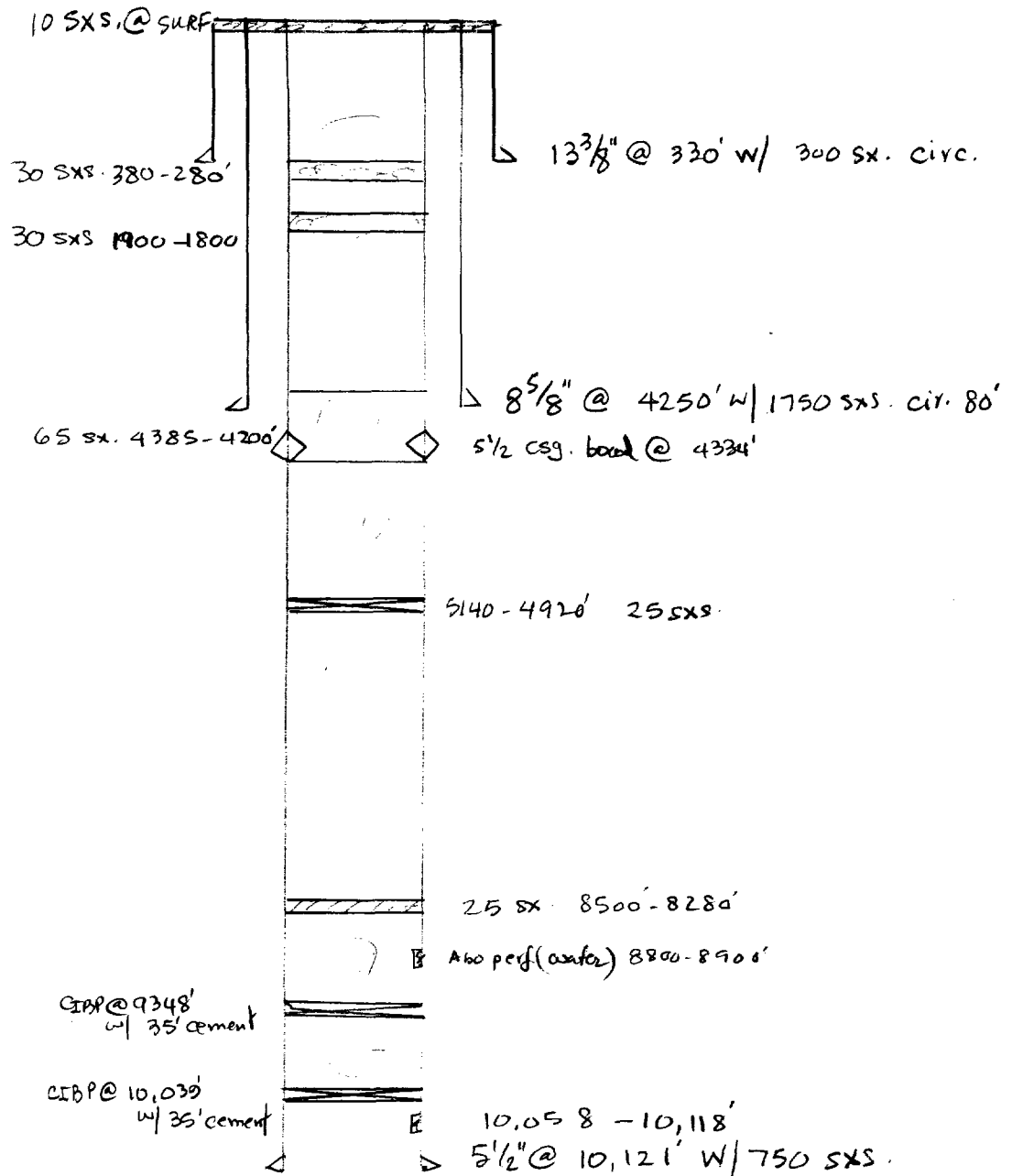
LEA "HP" STATE  
UNIT B, SEC 15, T11 S, R33 E



Plugged wells

Tripperary Oil (Felmont)

State F No 1  
Unit K, Sec. 10, T11S, R33E  
Lea County, New Mexico

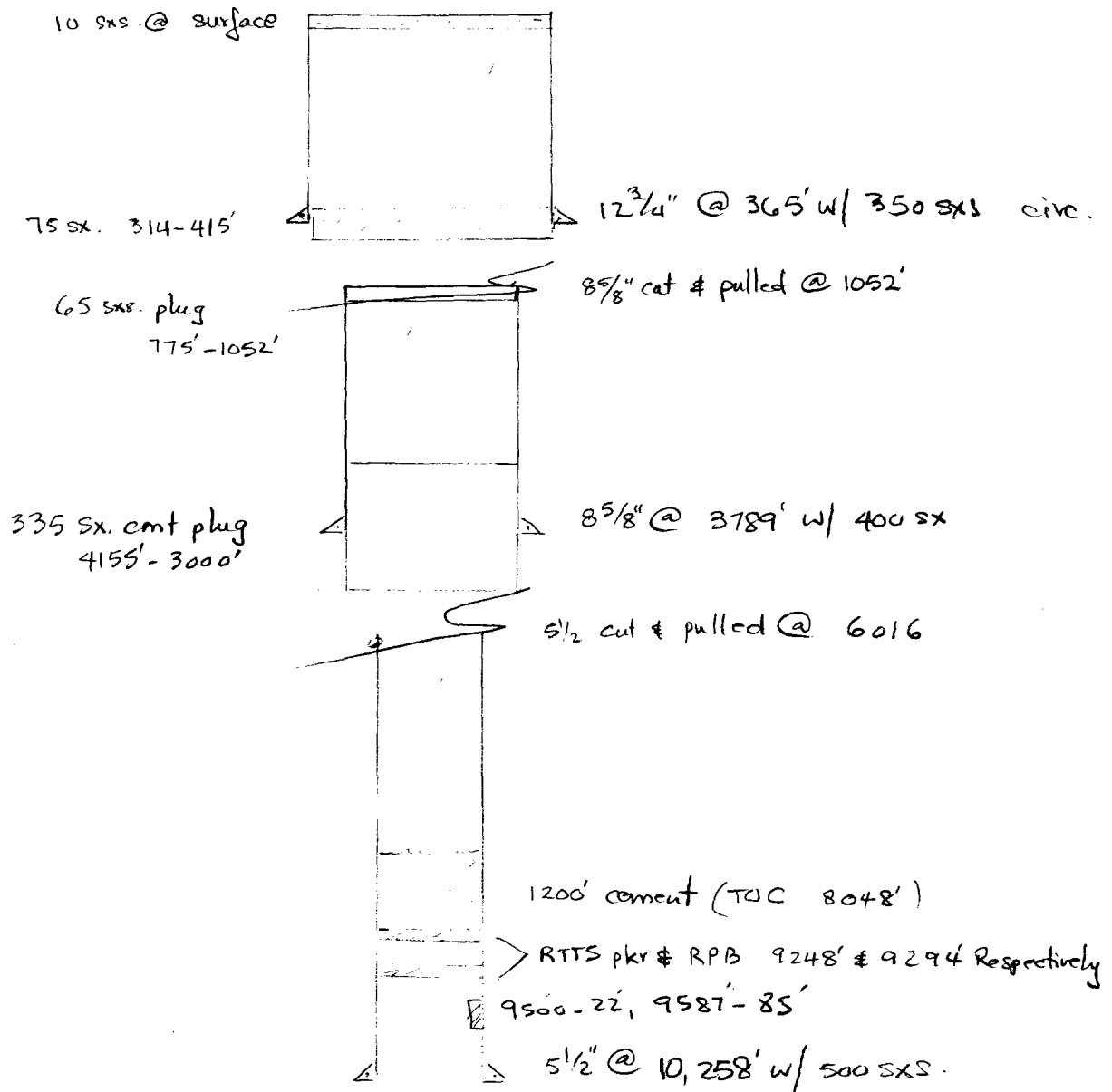


# Plugged wells

Allen K. Trobaugh

FCS Com. No. 1

Unit D, Sec. 15-11-33





OFFSET OPERATORS:

Oryx Energy Company  
P. O. Box 2880  
Dallas, TX 75221-2880

Samson Resources Co.,  
Samson Plaza  
Two West Second Street  
Tulsa OK 74103

Chevron U.S.A.  
P. O. Box 1150  
Midland TX 79702

Fasken Oil & Ranch Interests  
303 W. Wall Avenue  
Suite 1900  
Midland TX 79701

LBO New Mexico  
28202 Cabot Lane  
Suite 250  
Laquala Miguel CA 92677

A. K. Trobaugh  
4305 N. Garfield  
Suite 233  
Midland TX 79705

Headington Oil  
7557 Rambler Road  
Suite 1150  
Dallas TX 75231

American Exploration  
1331 Lamar Street  
Suite 900  
Houston TX 77010-3088

LAND OWNERS:

New Mexico State Land Office  
P. O. Box 1148  
Santa Fe, NM 87504-1148

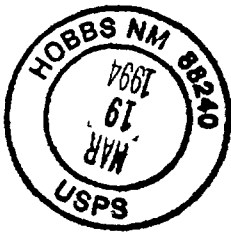
P-562 874 407

Fasken Oil & Ranch Interest  
303 W. Wall Ste 1900

Midland TX 79701

.29

1.00



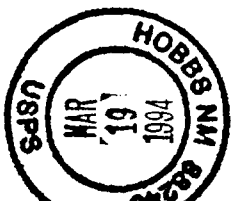
1.29

P-562 874 403

A.K. Trobaugh  
4305 N. Garfield Ste 233  
Midland TX 79705

.29

1.00



1.29

P-562 874 405

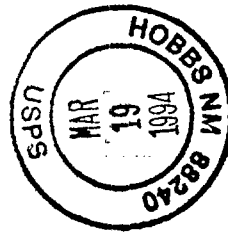
Chevron U.S.A.

P.O. Box 1150

Midland TX 79702

.29

1.00



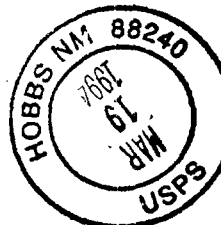
1.29

P-562 874 408

American Exploration  
1331 Lamar Street  
Houston TX 77010-3088

.29

1.00



1.29

P-562 874 406

U.S. POST OFFICE  
FOR CERTIFIED MAIL  
See Reverse

U.S. P.O. 115-506  
PS Form 3800 June 1985

Headington Oil  
1557 Rambler Rd Ste 1150  
Dallas TX 75231

Postage	.29
Certified Fee	1.00
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	<del>1.00</del>
Return Receipt Fee	1.29
TOTAL	2.29

HOBBBS NM 88240  
MAR 19 1994  
USPS

P-562 874 401

U.S. POST OFFICE  
FOR CERTIFIED MAIL  
See Reverse

U.S. P.O. 115-506  
PS Form 3800 June 1985

LBO New Mexico  
28202 Cabot Lane Suite 250  
Bernalillo NM 87001

Postage	.29
Certified Fee	1.00
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	<del>1.00</del>
Return Receipt Fee	1.29
TOTAL	2.29

HOBBBS NM 88240  
MAR 19 1994  
USPS

P-562 874 409

U.S. POST OFFICE  
FOR CERTIFIED MAIL  
See Reverse

U.S. P.O. 115-506  
PS Form 3800 June 1985

Nm St Land Office  
POB 1148  
Santa Fe NM 87504-1148

Postage	.29
Certified Fee	1.00
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	<del>1.00</del>
Return Receipt Fee	1.29
TOTAL	2.29

HOBBBS NM 88240  
MAR 19 1994  
USPS

P-562 874 402

U.S. POST OFFICE  
FOR CERTIFIED MAIL  
See Reverse

U.S. P.O. 115-506  
PS Form 3800 June 1985

Samson Resources Co  
Samson Plaza  
2nd West 2nd St  
Tulsa OK 74103

Postage	.29
Certified Fee	1.00
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	<del>1.00</del>
Return Receipt Fee	1.29
TOTAL	2.29

HOBBBS NM 88240  
MAR 19 1994  
USPS

P-562 874 401

U.S. POST OFFICE  
FOR CERTIFIED MAIL  
See Reverse

U.S. P.O. 115-506  
PS Form 3800 June 1985

Orbit Energy C  
PO Box 2880  
Dallas TX 75201

Postage	.29
Certified Fee	1.00
Special Delivery Fee	
Restricted Delivery Fee	
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HOBBBS NM 88240  
MAR 19 1994  
USPS

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 \_\_\_\_\_

one \_\_\_\_\_ weeks.

Beginning with the issue dated

April 10, 19 94

and ending with the issue dated

April 10, 19 94



General Manager

Sworn and subscribed to before

me this 11 day of

April, 19 94



Notary Public.

My Commission expires  
March 15, 1997

(Seal)

OIL CONSERVATION DIVISION  
RECEIVED

'94 APR 19 AM 8 50

LEGAL NOTICE

April 10, 1994

PENROC OIL CORPORATION, P.O. Box 5970, Hobbs, New Mexico 88241-5970, is filing an application to convert its State "AK" Well No. 1 to water disposal. This well is located 660' FSL, 1980' FWL in Section 10, T-11-S, R-33-E, Lea County, New Mexico.

The intention of the applicant is to inject produced water from the Penn formation at its producing wells in the Bagley Field into the lower Penn formation at State "AK" which is depleted.

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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.



VISION  
ENERGY MINERALS AND NATURAL RESOURCES DEPARTMENT

STATE OF NEW MEXICO

OIL CONSERVATION DIVISION  
HOBBS DISTRICT OFFICE

BRUCE KING  
GOVERNOR

4-8-94

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

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

RE: Proposed:

MC	_____
DHC	_____
NSL	_____
NSP	_____
SWD	<u>X</u> _____
WFX	_____
PMX	_____

Gentlemen:

I have examined the application for the:

<u>Pensac Oil Corp</u>	<u>State AK</u>	<u>#1-N</u>	<u>10-11-33</u>
Operator	Lease & Well No.	Unit	S-T-R

and my recommendations are as follows:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Yours very truly,

Jerry Sexton  
Supervisor, District 1

/ed