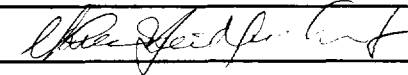


**APPLICATION FOR AUTHORIZATION TO INJECT**

- 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 processed 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 sources 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: M. Y. (MERCH) MERCHANT TITLE: PRESIDENT  
SIGNATURE:  DATE: 4/26/96
- \* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstance of the earlier submittal. \_\_\_\_\_

### 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.

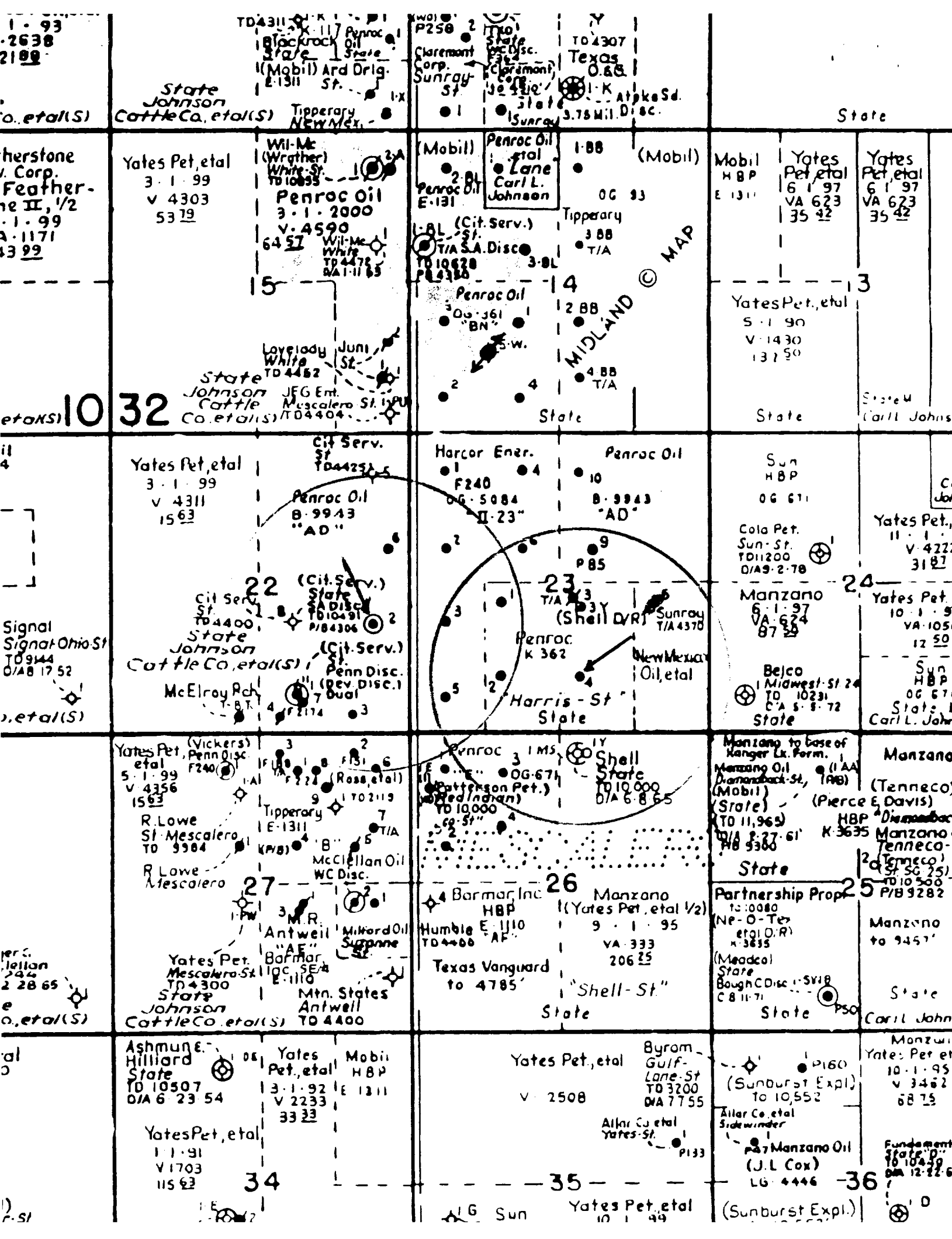
Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (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, PO Box 2088, Santa Fe, NM 87504-2088 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.



1 - 93  
2638  
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State  
Johnson  
Cattle Co. et al (S)

herstone  
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ne II, 1/2  
1 - 99  
A-1171  
13 99

et al (S)

Signal  
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O/A 17 52

per C.  
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o. et al (S)

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Blackrock Oil  
State  
(Mobil) Ard Drig.  
E-1311 St.  
State  
Johnson  
Cattle Co. et al (S)  
Tipperary  
NEW Mex.

Yates Pet. et al  
3 - 1 - 99  
V 4303  
53 19

State  
Johnson  
Cattle Co. et al (S)  
JEG Ent.  
Mescalero St.  
TO 4404

Yates Pet. et al  
3 - 1 - 99  
V 4311  
15 63

Cit. Serv.  
St.  
TO 4425  
Penrod Oil  
B-9943  
"AD"  
Cit. Serv.  
St.  
TO 4400  
State  
Johnson  
Cattle Co. et al (S)  
McElroy Pch.  
T-B.T.  
F2174

Yates Pet. (Vickers)  
et al  
5 - 1 - 99  
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R. Lowe  
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TO 9384  
R. Lowe  
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KWB)  
McClellan Oil  
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loc SE  
E-1110  
Mtn. States  
Antwell  
TO 4400  
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Johnson  
Cattle Co. et al (S)

Ashmun E.  
Hilliard  
State  
TO 10507  
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Yates Pet. et al  
1 - 1 - 91  
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Wol  
P258  
Claremont  
Corp.  
Sunray  
St.  
Penrod Oil  
et al  
Lane  
Carl L.  
Johnson  
(Mobil)  
Penrod Oil  
E-131  
(Cit. Serv.)  
Tipperary  
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T/A  
Penrod Oil  
3 61  
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S.W.  
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T/A

Lovelady  
White  
St.  
TO 4462  
JEG Ent.  
Mescalero St.  
TO 4404

Cit. Serv.  
St.  
TO 4425  
Penrod Oil  
B-9943  
"AD"  
Cit. Serv.  
St.  
TO 4400  
State  
Johnson  
Cattle Co. et al (S)  
McElroy Pch.  
T-B.T.  
F2174

Yates Pet. (Vickers)  
et al  
5 - 1 - 99  
V 4356  
15 63  
R. Lowe  
St. Mescalero  
TO 9384  
R. Lowe  
Mescalero  
Tipperary  
E-1311  
KWB)  
McClellan Oil  
WC Disc.  
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"AE"  
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loc SE  
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Mtn. States  
Antwell  
TO 4400  
State  
Johnson  
Cattle Co. et al (S)

Yates Pet. et al  
3 - 1 - 92  
V 2233  
33 33

TO 4307  
Texas  
O.B.  
Atoka St.  
3.78 Mil. Disc.  
Sunray  
St.  
Penrod Oil  
et al  
Lane  
Carl L.  
Johnson  
(Mobil)  
Penrod Oil  
E-131  
(Cit. Serv.)  
Tipperary  
3 88  
T/A  
Penrod Oil  
3 61  
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S.W.  
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4 BB  
T/A

Yates Pet. et al  
3 - 1 - 99  
V 4311  
15 63

Harcor Ener.  
1  
F240  
OG-5084  
"AD"  
Penrod Oil  
B-9943  
"AD"  
P85  
T/A  
33Y  
(Shell Dr)  
Sunray  
T/A 4370  
Penrod  
K 362  
Harris - St  
State

Penrod  
3 IMS  
Shell  
State  
TO 10000  
D/A 6 8 65  
Barmar Inc  
HBP  
Humble E-1110  
TO 4400  
Texas Vanguard  
to 4785  
Manzano  
(Yates Pet. et al 1/2)  
9 - 1 - 95  
VA 333  
206 25  
"Shell - St."  
State

Yates Pet. et al  
V 2508  
Byrom  
Gulf-  
Lane St  
TO 3200  
O/A 7 755  
Aller Co. et al  
Yates St.  
P133

Yates Pet. et al  
10 - 1 - 99

State  
Johnson  
Cattle Co. et al (S)  
Tipperary  
NEW Mex.

Yates Pet. et al  
3 - 1 - 99  
V 4303  
53 19

Yates Pet. et al  
3 - 1 - 99  
V 4311  
15 63

Yates Pet. et al  
3 - 1 - 99  
V 4311  
15 63

Manzano  
6 - 1 - 97  
VA 624  
87 29  
Bejco  
Midwest St 24  
TO 10231  
C/A 5 - 8 - 72  
State

Manzano to base of  
Kanger Lk. Form.  
Manzano Oil  
Diamondback St. (IAB)  
(Mobil)  
(State)  
(TO 11,969)  
to A 2-27-61  
H 9360  
State  
Partnership Prop  
TO 10080  
(NE-O-Ter  
et al O.R)  
K-3635  
(Meadco)  
State  
Bough Disc  
C 8 11-71  
State

Manzano Oil  
(J.L. Cox)  
LG 4446

(Sunburst Expl.)

State  
Johnson  
Cattle Co. et al (S)  
Tipperary  
NEW Mex.

Yates Pet. et al  
3 - 1 - 99  
V 4303  
53 19

Yates Pet. et al  
3 - 1 - 99  
V 4311  
15 63

Yates Pet. et al  
3 - 1 - 99  
V 4311  
15 63

Yates Pet. et al  
3 - 1 - 99  
V 4311  
15 63

Manzano  
(Tenneco)  
(Pierce E. Davis)  
HBP  
Diamondback  
Manzano  
Tenneco  
TO 10500  
P/B 9282  
Manzano  
to 9451  
State  
Caril John

Manzano  
Yates Pet. et al  
10 - 1 - 95  
V 3462  
68 25  
Fundament  
State  
TO 10459  
O/A 12-22-6

Manzano  
Yates Pet. et al  
10 - 1 - 99

FORM C-108 (ATTACHMENTS)

III. A. WELL DATA: (NARRATIVE)

1. State AD Well No. 2

13 3/8" @ 376' w/350 sxs.  
8 5/8" @ 3540' w/2000 sxs.  
5 1/2" @ 8630' w/600 sxs.  
Squeezed Penn Perfs: 8440 - 8450'  
C.I.B.P. @ 4306' w/5 sxs. cement on top  
TOC 3155' by TS  
San Andres Perfs: 4063, 88'; 4140-62'; 4180-4200'

Harris State No. 4  
Drilled 1965

8 5/8", 24# & 32# @ 394' w/250 sxs.  
4 1/2", 9.5# @ 4393' w/200 sxs. TOC by TS 3650'  
Perfs: 4176 - 93, 4203, 15, 31, 34, 44, 48, 53 & 60  
(ISPF)  
Acid w/5000 gal.  
May 1970, Frac'd w/38, 500 gal. SW & 29,000# sd.

B. WELL DATA:

1. Mescalero San Andres
2. 4063' - 4200' for AD No. 2 and 4176' - 4193' and 4203' - 4260' for Harris #4.
3. Both wells were drilled as producer and are marginal producers now. (< 1BOPD)
4. None
5. There are no oil and gas productive zones above the presently open zone. The lower zones are Pennsylvanian and Devonian, in some parts of the field - approximately below 8300 feet.

FORM C-108 III A

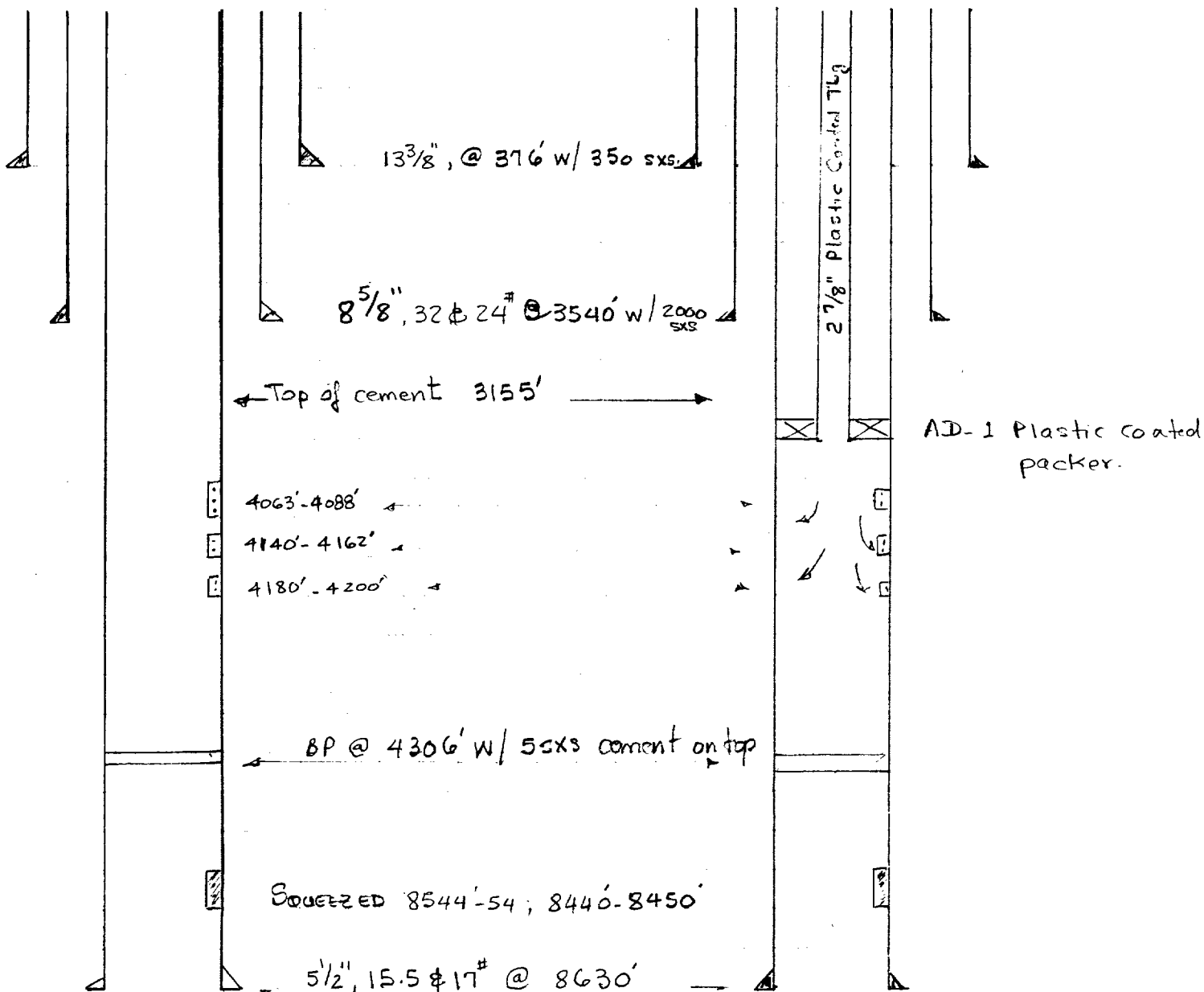
STATE AD WELL NO. 2

NE 1/4 SE 1/4, Sec. 22, T. 10 S, R. 32 E

LEA COUNTY, NEW MEXICO

CURRENT

PROPOSED

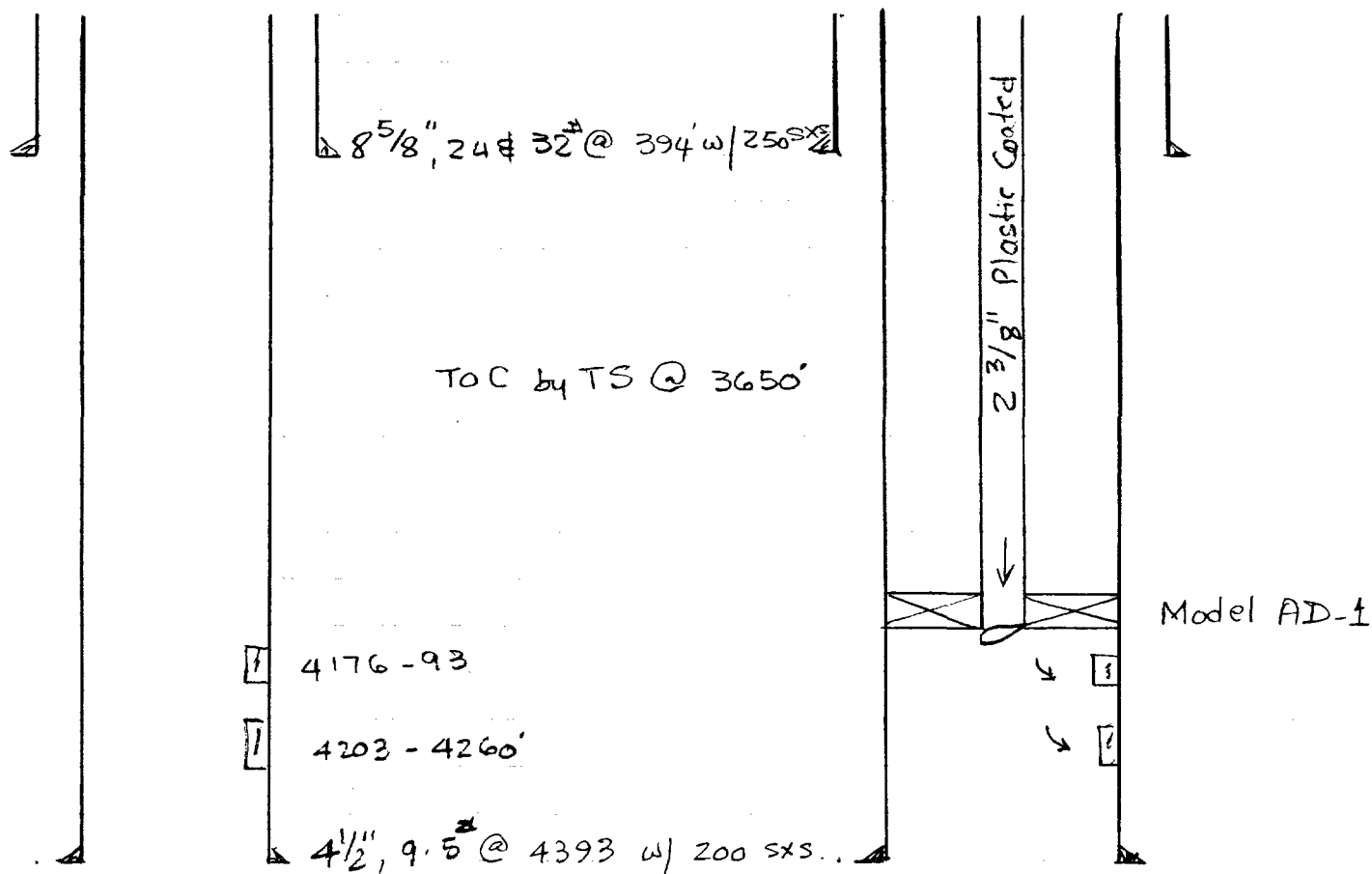


FORM C-108 - III A

HARRIS STATE WELL NO. 4  
SW/4 SE/4, Sec. 23, T10S, R32E  
LEA COUNTY, NEW MEXICO

CURRENT

PROPOSED



State II-23 #6 NW/4 Sec. 23, T10S, R32E  
 Drilled: 11-14-64 Unit Letter F  
 7 5/8, 24# @ 1574' w/450 sx.  
 4 1/2, 9.5# @ 4430' w/300 sx.  
 Perfs: 4105, 12, 16, 22, 42, 45, 60, 63, 74, 83, 89,  
 94, and 98

NM E State #3 NE/4 NE/4 Sec. 26, T10S, R32E  
Drilled: 2-4-65 Unit Letter C  
8 5/8, 20# @ 1550' w/400 sx.  
4 1/2, 9.5# @ 4260' w/400 sx.  
Perfs: 4124, 26, 28, 30, 35, 38, 41, 43, 45, 47, 49, 52,  
56, 59, 68, and 71

State AD #1 Sec. 22, T10S, R32E  
Drilled 1952 Unit Letter O  
13 3/8 48#, 54.5# @ 371' w/350 sx.  
9 5/8, 32.3 & 36# @ 3470' w/1844 sx.  
5 1/2, 15.5 & 17 & 20# @ 9910'  
Perfs: 9880 - 9900. 9908 - 9913  
500 gal. acid - 90 BOPH  
Came up to upper Devonian - Set CIBP @ 9867.  
1957 - Perf: 9820 - 9860 - Swabbed 96 BO/hr  
1961 - Hydromite to 9851' - Tested oil & water  
Hydromite to 9851 - 40' - Installed PU - Tested  
158 BO, 12 MCF, 5 BW  
1966 - Devonian "All Water" - Set CIBP 9506'  
9298, 9307, 9313, 9321, 46, 53, 60 & 76  
Swabbed 22 BO in 5 hrs - IP 253 BO in 10 hrs.  
Note in file - This is Lower Penn - Upper Penn not perf -  
Csg collapsed shortly after same year - Plug back - Cmt  
ret @ 7390' - Displaced 210 sx. below retainer - 10 sx.  
on top of retainer 7397 - 7370 - Cut & pulled 5 1/2 @  
4000' - 50 sx. in and out - 50 sx. in and out 4080 -  
3870' - Displaced 50 sx. 3495 - 3395' - 10 sx. on  
surface - 1967.

State AD #4 Sec. 22, T10S, R32E  
Drilled: 1954 Unit Letter O  
13 3/8, 48# @ 386' w/400 sx.  
8 5/8, 24-32# @ 3439' w/2150 sx.  
5 1/2, 15.5 & 17# @ 9392' w/400 sx.  
Perfs: 8136 - 53, 8340 - 72, 8379 - 44, 8522  
(420 holes)  
5000 gal. acid  
IP 320 BO, 9 BW in 5 hrs.  
P&A'd 1967 - 5 1/2" csg collapsed @ 8167'  
Set CIBP @ 8160' w/240 sx. 10 on top  
Cut & pulled 5 1/2" csg @ 4950'  
50 sx. plug across 4130 - 3920.  
50 sx. plug across 3510 - 3360  
10 sx. @ 8 5/8 30' @ surface.

State AD #6 Sec. 22, T10S, R32E  
Unit Letter H  
8 5/8, 24# @ 397' w/325 sx. circ.  
4 1/2, 9.5# @ 4448' w/250 sx.  
Perfs: 4077, 80, 83, 88, 91, and 94  
4113, 33, 43, and 45



State AD #7 NE/4 NE/4 Sec. 22, T10S, R32E  
Drilled: 4-5-65 Unit Letter O  
8 5/8, 24# @ 1658' w/464 sxs.  
4 1/2, 9.5# @ 4399' w/250 sxs.

State AD #8 Sec. 22, T10S, R32E  
Drilled: 1965  
8 5/8, 24# @ 1635' w/700 sxs. circ.  
4 1/2, 9.5# @ 4399' w/250 sxs.  
Perfs: 4087, 89, 91, 93, 95, and 97 Dry  
4199 - 4142 Dry  
In 1969 converted to injection - Could not take fluid  
below frac pressure.

P&A'd 1976 as follows:  
50 sxs. 4001 - 3400'  
Retained 3000' - Pumped 250 sxs. TOC 2880'  
Cut 4 1/2" csg @ 825'.  
Perf. 4 holes in 4 1/2" @ 1650'.  
Pumped 250 sxs. Class H.  
20 sxs - 62' to surface P & A'd.  
Perfs: 4051, 53, 55, 57, 60, 64, and 68

State AD #9 Sec. 22, T10S, R32E  
Drilled: 1965 Unit Letter G  
TOC by TS - 3235'  
4 1/2, 9.5# @ 4348' w/150 sxs.  
Perfs: 4285, 87, 89 - 3500 gal.  
4198, 4201, 4212, 4218, 4221, 4225,  
4229, and 4243 - 2000 gal.  
Added Perfs 1969: 4140, 41, 42, 51, 53, 58, 59, 63,  
64, 65, 68, 71, 72, 82, 83, 84, 85,  
86, and 87

Currently Active.

State AD #11 SE/4 SW/4 Sec. 22, T10S, R32E  
Drilled: 1967 Unit Letter O  
8 5/8, 3530' w/1950 sxs. cmt circ.  
5 1/2, 9590' w/680 sxs. DV tool @ 4360'  
Perfs: 9310 - 9356  
IP: 88 BOPD - TA'd in February 1969.  
Recompleted in March 1972.  
Perfs: 8319, 8343 - 8720  
IP: 13 BO, 3 BW  
Currently well TA'd with CIBP @ 8260' - TOC 8226'

New Mexico B Well No. 2 Sec. 27, T10S, R32E  
(Tipperary operated)  
Drilled: 1954 Unit Letter A  
10 3/4 @ 445' w/450 sxs.  
7 5/8 @ 4480' w/1928 sxs.  
5 1/2 @ 3640 - 4313 w/800 sxs.  
(Liner)  
Perfs: 8350 - 8454

New Mexico B Well No. 6      Sec. 27, T10S, R32E  
(Tipperary operated)      Unit Letter A  
8 5/8", 24# @ 408' w/275 sxs.  
4 1/2", 10.5# @ 4300' w/1400 sxs.  
Perfs: 4035 - 80 (19 holes)  
          4115 - 29 (8 holes) Acid w/3500 gal. 15%  
IP 128 BO, 45 MCF, 3 BW - 18.6° API

State AD No. 3      Sec. 22. T10S, R32E  
Drilled 1953      Unit Letter P  
13 3/8", 48# @ 394' w/350 sxs.  
8 5/8", 28 & 32# @ 3442' w/2212 sxs.  
5 1/2", 15.5# @ 8330 w/200 sxs.  
Perfs: 8330' - 8555'  
Acid w/5000 gal. 15%  
156 BO, 39 BW in 11 hrs.

1955 Frac'd w/10,000 gal. & 5000# sd.  
          132 BO, 72 BW  
1965 3 BO & 1BW in 24 hrs.  
          Cement retainer @ 7550' w/100 sxs.  
          25 sx. cement plug 6236 - 6000'  
Perf 2 holes @ 4700' squeezed 250 sxs.  
TOC 3655' DO 4660'  
Perf: 4100 - 4135' Tested & squeezed.  
Re-perf: 4035 - 4080' Acid w/2000 gal 15% -  
Max. Pressure 2800#, Min. 2400, 3.3 BPM, IP 106 BO, 2 BW

FORM C-108 PENROC OIL CORPORATION.

VI. Schematic of Plugged wells penetrating the proposed injection zone within the area of review:

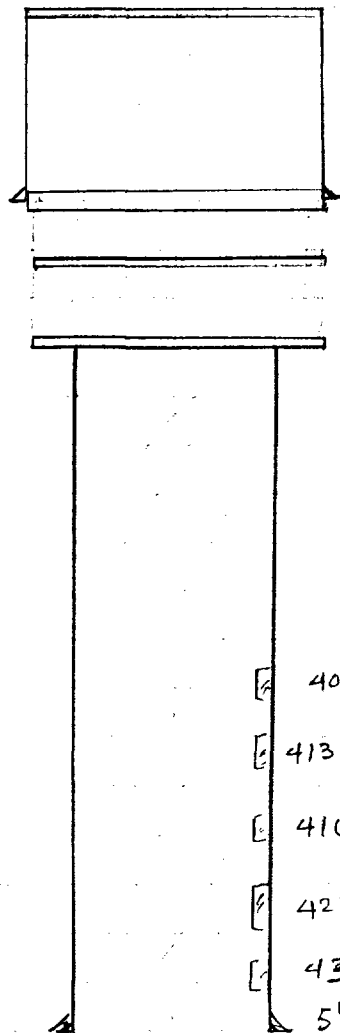
STATE AD WELL NO 5 UNIT A Sec. 22, T10S, R. 32 E

Dryd 1963 8<sup>5</sup>/<sub>8</sub>" 24" @ 390' w/ 300 SXS.

5<sup>1</sup>/<sub>2</sub>" 14" @ 4425' w/ 300 SXS.

Plugged in 1963 w/ csg. cut & pulled @ 3176

10 SXS @ surface.



25 SXS. @ 308 - 390

25 SXS. @ 1588 - 1670

3135 - 3217 - 25 SXS.

[ 4084-86, 4092-4103, 4108-10

[ 4130-34, 44-52,

[ 4169-4214

[ 4232-36, 43-45, 50-54, 58-60, 66-68, 71, 73, 82

[ 4326-36, 4339-41, 4354-56, 4367-69, 79-83

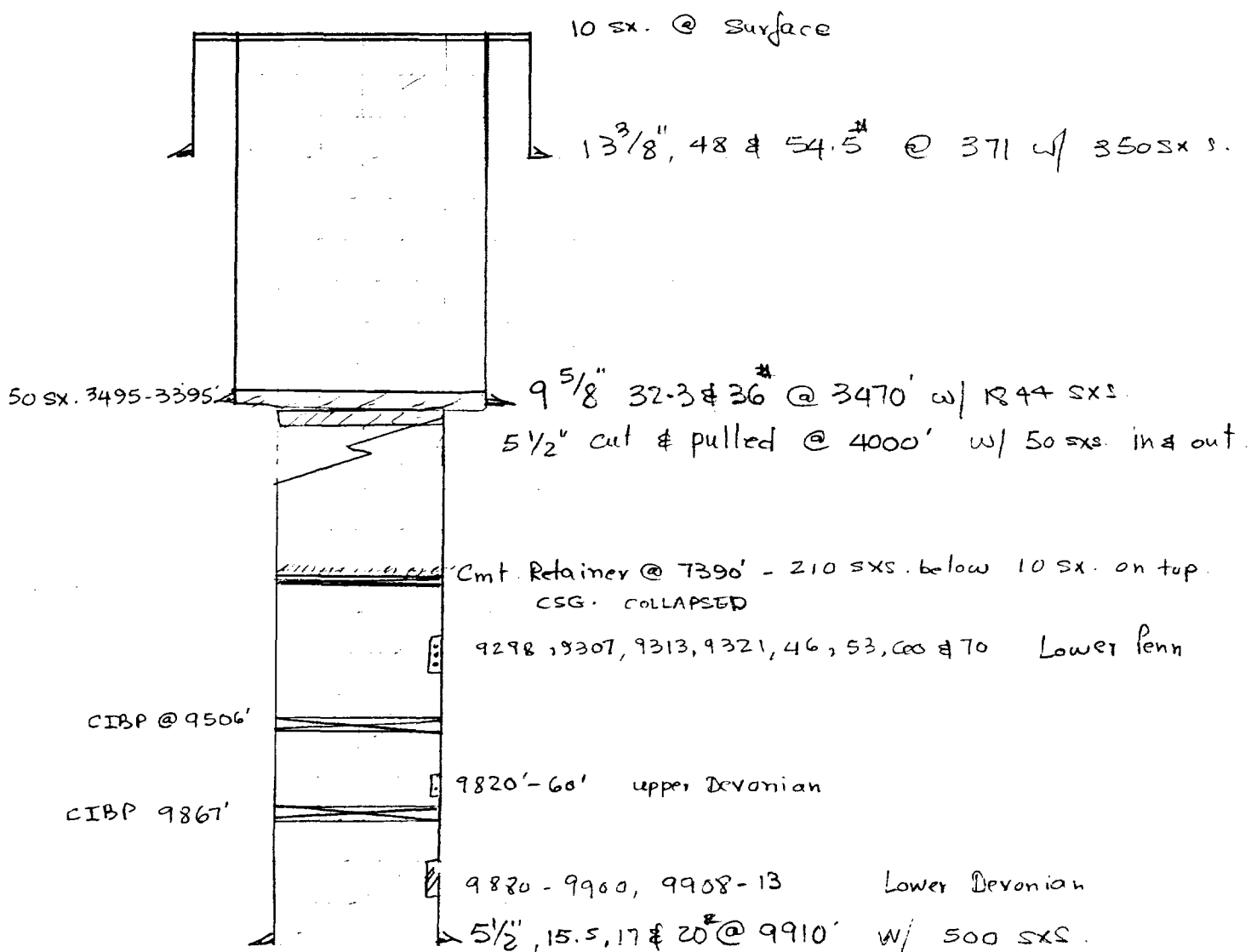
[ 5<sup>1</sup>/<sub>2</sub>" 14" @ 4425' w/ 300 SXS. 86-89

All squeezed  
after testing  
0.5 to 1.5 BD  
& 24-30 BW

FORM C-108 PENROC OIL CORPORATION

VI. Schematic of plugged wells penetrating the proposed injection zone within the area of review.

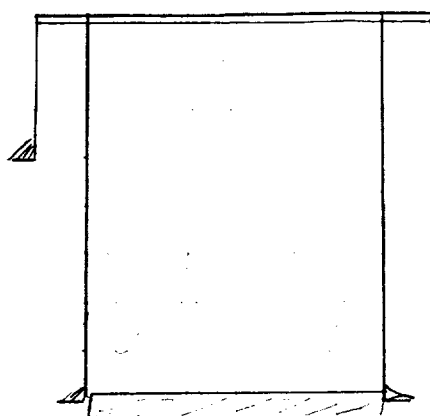
STATE AD WELL NO 1 Unit O 22-10-32



FORM C-108 PENROC OIL CORPORATION

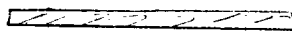
VII. STATE AD WELL NO. 4 UNIT O 22-10-32

Drid 1954. P&A'd 1967. Casing collapsed @ 8167'



13 <sup>3</sup>/<sub>8</sub>" 48" @ 386' w/ 400 SXS.

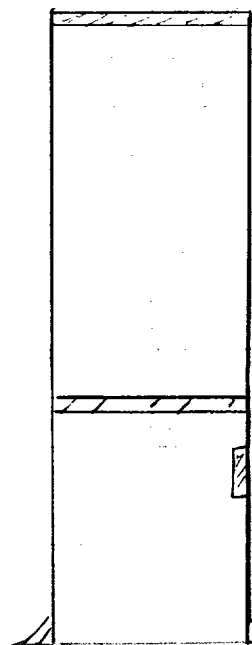
8 <sup>5</sup>/<sub>8</sub>" 24-32" @ 3439' w/ 2150 SXS  
50 SXS. 3510'-3360'



50 SXS. 4130'-3920'

csg. cut & pull-d @ 4950'

50 SXS. in & out



CIBP @ 8160'

Perfs: 8336'-53', 8340'-72', 79'-44' & 8522'  
IP 320 BO, 980 u Shrs

5 <sup>1</sup>/<sub>2</sub>" 15.5 @ 17" @ 9392' w/ 400 SXS.

Submit 3 Copies  
to Appropriate  
District Office

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico  
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

PENROC OIL CORPORATION

Form C-103  
Revised 1-1-89

WELL API NO.  
30-025-21338

5. Indicate Type of Lease  
STATE ☒ FEE ☐

6. State Oil & Gas Lease No.  
VA-0333

7. Lease Name or Unit Agreement Name

Shell State

8. Well No.  
1

9. Pool name or Wildcat  
Wildcat *Guerno Largo P-*

Unit Letter B : 330 Feet From The North Line and 2310 Feet From The East Line

Section 26 Township 10 South Range 32 East NMPM Lea County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)  
4297' GL

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input checked="" type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>		CASING TEST AND CEMENT JOB <input type="checkbox"/>	
OTHER: <input type="checkbox"/>		OTHER: <input type="checkbox"/>	

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

1. Set 100' plug 5200' back up to 5100'. Tag.
2. Set 100' plug base of 8-5/8" shoe from 4550' back up to 4450'. Tag.
3. Set 100' plug above San Andres perms from 4200' back up to 4100'. Tag.
4. Set 100' plug @ 8-5/8" csg stub @ 2250' (from 2300' back up to 2200'). Tag.
5. Pull 8-5/8" csg stuck @ 1415' & put 100' plug @ 11-3/4" shoe from 490' back to 390'.
6. Set 10 sx surface plug. Install dry hole marker.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Allison Hernandez

TYPE OR PRINT NAME Allison Hernandez

(This space for Stamp Use)  
ORIGINAL SIGNED BY JERRY SEXTON  
DISTRICT I SUPERVISOR

APPROVED BY \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

Technician \_\_\_\_\_ DATE 12/8/95

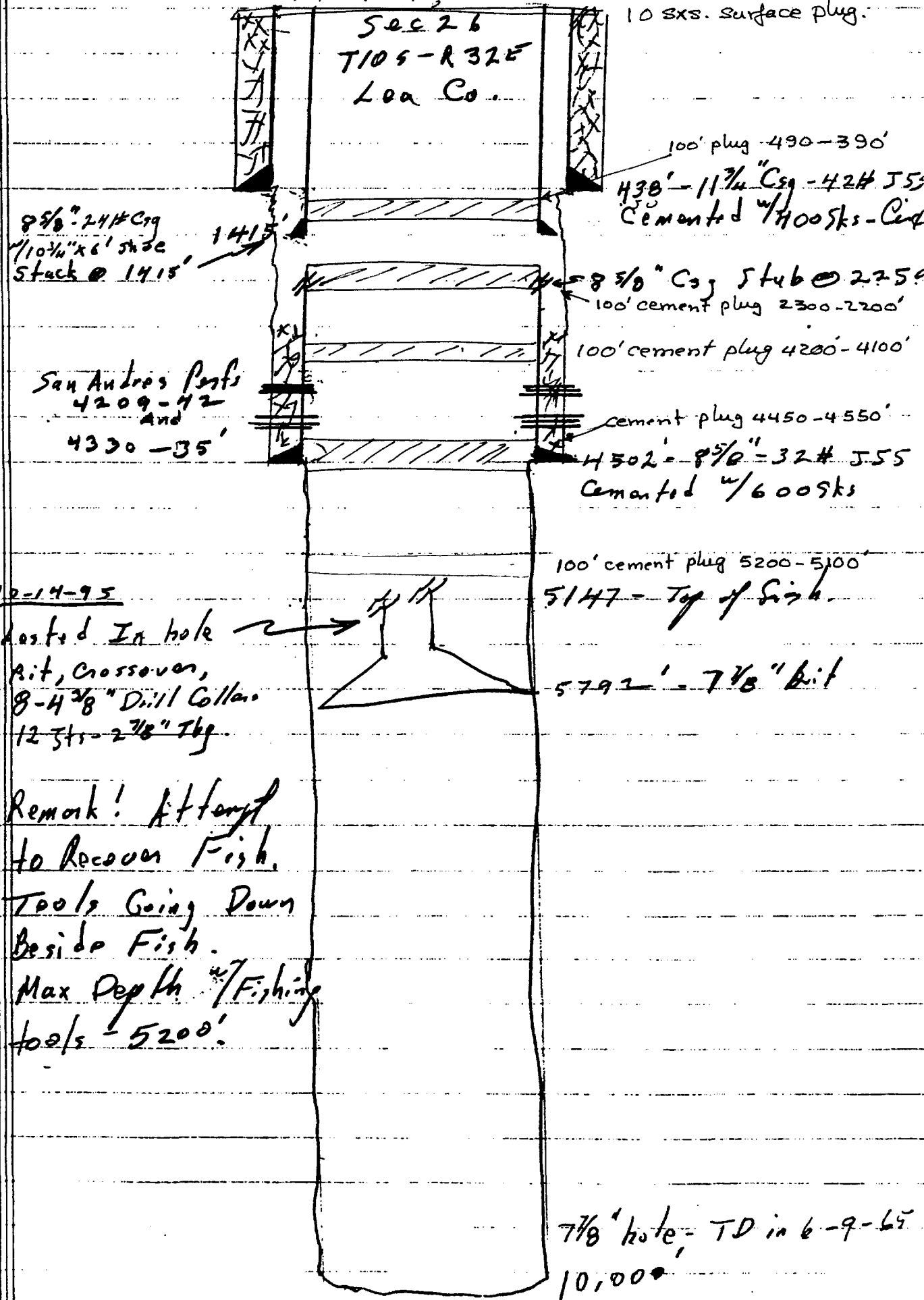
TELEPHONE NO. 623-1996

DEC 12 1995

DATE \_\_\_\_\_

*Any prod  
to be moved/  
sold from  
this work ??  
No - per Allison  
1-18-96*

MANZANO WELL  
330' FNL & 2310' FEL



- VII.
1. Average Daily Rate: 300 BW  
Maximum Daily Rate: 500 BW
  2. Closed System
  3. 300 - 810#.
  4. Produced water from Mescalero San Andres Field.
  5. N/A.

VIII. Penroc Oil Corporation

The proposed injection zone is the San Andres formation. In the Mescalero field, the San Andres is a fractured dolomite. The top of the San Andres is found at an approximate depth of 3420' (930' above sea level). The San Andres is 1400' thick and typically includes 50' of net pay. The local underground source of water is the Ogallala formation and its base is at a depth of 150'.

IX. None at this time.

X. Previously submitted. Also on cross-section.

XI. Fresh water analysis attached.

XII. Applicant attests that all available geological, engineering, and well data has been examined and that no hydrologic connection exists between the proposed injection interval and the underlying fresh water aquifer.

XIII. Off-Set Operators and Surface Owners for PENROC Operated State AD Well No. 2 and Harris State Well No. 4

Surface Owner: Mr. Carl Lane Johnson  
P.O. Box 916  
Tatum, New Mexico 88267

Off-Set Operators: New Mexico State Land Office  
P.O. Box 1148  
Santa Fe, New Mexico 87504-1148

Exxon Company, USA  
P.O. Box 1600  
Midland, Texas 79702

Tipperary Oil & Gas Corporation  
633 17th St., Suite 1550  
Denver, Colorado 80202



Off-Set Operators:

Yates Petroleum Corporation  
105 S. Fourth St.  
Artesia, New Mexico 88210

Manzano Oil Corporation  
P.O. Box 2107  
Roswell, New Mexico 88202



**Champion**  
Technologies, Inc.  
*Committed To Improvement*

## Water Analysis Report

**Customer:** Penroc Oil Corporation

4/26/96

**Address:** P.O. Box 5970

**City:** Hobbs

**State:** NM

**Zip:** 88240-

**Attention:** Merch Merchant

**Date Sampled:** 4/25/96

**CC1:**

**Date Received:** 4/26/96

**CC2:**

**SALESMAN NAME:** Mike Edwards

**LEASE:** Fresh Water

**SAMPLE POINT:** Windmill

**WELL:** Windmill

**REMARKS:**

**CHLORIDE:** 600

**SULFATE:** 200

**BICARBONATE:** 170

**CALCIUM:** 180

**MAGNESIUM:** 60

**IRON:** 0

**BARIUM:**

**STRONTIUM:**

**MEASURED pH:** 7.91

**TEMPERATURE:** 86

**DISSOLVED CO2:** 0

**MOLE PERCENT CO2 IN GAS:**

**DISSOLVED H2S:** 0.0

**PRESSURE (PSIA):** 100

**SODIUM (PPM):** 229

**IONIC STRENGTH:** 0.02

**CALCITE (CaCO3) SI:** #Error

**CALCITE PTB:** #Error

**GYPSUM (CaSO4) SI:** -1.79

**GYPSUM PTB:** N/A

**BARITE (BaSO4) SI:** N/A

**BARITE PTB:** N/A

**CELESTITE (SrSO4) SI:** N/A

**CELESTITE PTB:** #Error

**SI calculations based on Tonnin-Odds**



**Champion**  
Technologies, Inc.  
*Committed To Improvement*

## Water Analysis Report

**Customer:** Penroc Oil Corporation

4/26/96

**Address:** P.O. Box 5970

**City:** Hobbs

**State:** NM

**Zip:** 88240-

**Attention:** Merch Merchant

**Date Sampled:** 4/25/96

**CC1:**

**Date Received:** 4/26/96

**CC2:**

**SALESMAN NAME:** Mike Edwards

**LEASE:** AD

**SAMPLE POINT:** AD #6

**WELL:** AD #6

**REMARKS:**

**CHLORIDE:** 142000

**SULFATE:** 4918

**BICARBONATE:** 231

**CALCIUM:** 2566

**MAGNESIUM:** 777

**IRON:** 0

**BARIUM:**

**STRONTIUM:**

**MEASURED pH:** 7.07

**TEMPERATURE:** 86

**DISSOLVED CO2:** 395

**MOLE PERCENT CO2 IN GAS:**

**DISSOLVED H2S:** 32.0

**PRESSURE (PSIA):** 100

**SODIUM (PPM):** 90117

**IONIC STRENGTH:** 4.11

**CALCITE (CaCO3) SI:** -0.85

**CALCITE PTB:** N/A

**GYPSUM (CaSO4) SI:** 0.01

**GYPSUM PTB:** 46.6

**BARITE (BaSO4) SI:** N/A

**BARITE PTB:** N/A

**CELESTITE (SrSO4) SI:** N/A

**CELESTITE PTB:** N/A

SI calculations based on Tomson-Ordo



## Water Analysis Report

**Customer:** Penroc Oil Corporation

4/26/96

**Address:** P.O. Box 5970

**City:** Hobbs

**State:** NM

**Zip:** 88240-

**Attention:** Merch Merchant

**Date Sampled:** 4/25/96

**CC1:**

**Date Received:** 4/26/96

**CC2:**

**SALESMAN NAME:** Mike Edwards

**LEASE:** AD

**SAMPLE POINT:** AD #3

**WELL:** AD #3

**REMARKS:**

**CHLORIDE:** 136000

**SULFATE:** 4666

**BICARBONATE:** 219

**CALCIUM:** 3007

**MAGNESIUM:** 1749

**IRON:** 0

**BARIUM:**

**STRONTIUM:**

**MEASURED pH:** 6.79

**TEMPERATURE:** 86

**DISSOLVED CO2:** 526

**MOLE PERCENT CO2 IN GAS:**

**DISSOLVED H2S:** 53.0

**PRESSURE (PSIA):** 100

**SODIUM (PPM):** 83756

**IONIC STRENGTH:** 3.94

**CALCITE (CaCO3) SI:** -1.04

**CALCITE PTB:** N/A

**GYP SUM (CaSO4) SI:** 0.04

**GYP SUM PTB:** 151.8

**BARITE (BaSO4) SI:** N/A

**BARITE PTB:** N/A

**CELESTITE (SrSO4) SI:** N/A

**CELESTITE PTB:** N/A

SI calculations based on Tomson-Oddo

## Water Analysis Report

**Customer:** Penroc Oil Corporation

4/26/96

**Address:** P.O. Box 5970

**City:** Hobbs

**State:** NM

**Zip:** 88240-

**Attention:** Merch Merchant

**Date Sampled:** 4/25/96

**CC1:**

**Date Received:** 4/26/96

**CC2:**

**SALESMAN NAME:** Mike Edwards

**LEASE:** AD

**SAMPLE POINT:** AD #2

**WELL:** AD #2

**REMARKS:**

**CHLORIDE:** 137000

**SULFATE:** 5299

**BICARBONATE:** 280

**CALCIUM:** 2446

**MAGNESIUM:** 850

**IRON:** 0

**BARIUM:**

**STRONTIUM:**

**MEASURED pH:** 6.83

**TEMPERATURE:** 86

**DISSOLVED CO2:** 482

**MOLE PERCENT CO2 IN GAS:**

**DISSOLVED H2S:** 30.0

**PRESSURE (PSIA):** 100

**SODIUM (PPM):** 87075

**IONIC STRENGTH:** 3.98

**CALCITE (CaCO3) SI:** -0.86

**CALCITE PTB:** N/A

**GYPSUM (CaSO4) SI:** 0.02

**GYPSUM PTB:** 75.3

**BARITE (BaSO4) SI:** N/A

**BARITE PTB:** N/A

**CELESTITE (SrSO4) SI:** N/A

**CELESTITE PTB:** N/A

**SI calculations based on Tomson-Oddo**



**Champion**  
Technologies, Inc.

*Committed To Improvement*

## Water Analysis Report

**Customer:** Penroc Oil Corporation

4/26/96

**Address:** P.O. Box 5970

**City:** Hobbs

**State:** NM

**Zip:** 88240-

**Attention:** Merch Merchant

**Date Sampled:** 4/25/96

**CC1:**

**Date Received:** 4/26/96

**CC2:**

**SALESMAN NAME:** Mike Edwards

**LEASE:** Harris

**SAMPLE POINT:** Harris #3

**WELL:** Harris #3

**REMARKS:**

**CHLORIDE:** 145000

**SULFATE:** 5209

**BICARBONATE:** 268

**CALCIUM:** 2165

**MAGNESIUM:** 631

**IRON:** 0

**BARIUM:**

**STRONTIUM:**

**MEASURED pH:** 6.94

**TEMPERATURE:** 86

**DISSOLVED CO2:** 439

**MOLE PERCENT CO2 IN GAS:**

**DISSOLVED H2S:** 143.0

**PRESSURE (PSIA):** 100

**SODIUM (PPM):** 92952

**IONIC STRENGTH:** 4.20

**CALCITE (CaCO3) SI:** -0.80

**CALCITE PTB:** N/A

**GYPSUM (CaSO4) SI:** -0.03

**GYPSUM PTB:** N/A

**BARITE (BaSO4) SI:** N/A

**BARITE PTB:** N/A

**CELESTITE (SrSO4) SI:** N/A

**CELESTITE PTB:** N/A

**SI calculations based on Tomson-Oddo**

## Water Analysis Report

**Customer:** Penroc Oil Corporation

4/26/96

**Address:** P.O. Box 5970

**City:** Hobbs

**State:** NM

**Zip:** 88240-

**Attention:** Merch Merchant

**Date Sampled:** 4/25/96

**CC1:**

**Date Received:** 4/26/96

**CC2:**

**SALESMAN NAME:** Mike Edwards

**LEASE:** BL

**SAMPLE POINT:** BL #14

**WELL:** BL #14

**REMARKS:**

**CHLORIDE:** 149000

**SULFATE:** 4342

**BICARBONATE:** 268

**CALCIUM:** 2566

**MAGNESIUM:** 753

**IRON:** 0

**BARIUM:**

**STRONTIUM:**

**MEASURED pH:** 6.48

**TEMPERATURE:** 86

**DISSOLVED CO2:** 370

**MOLE PERCENT CO2 IN GAS:**

**DISSOLVED H2S:** 297.0

**PRESSURE (PSIA):** 100

**SODIUM (PPM):** 94440

**IONIC STRENGTH:** 4.30

**CALCITE (CaCO3) SI:** -0.78

**CALCITE PTB:** N/A

**GYPSUM (CaSO4) SI:** -0.03

**GYPSUM PTB:** N/A

**BARITE (BaSO4) SI:** N/A

**BARITE PTB:** N/A

**CELESTITE (SrSO4) SI:** N/A

**CELESTITE PTB:** N/A

**SI calculations based on Tomson-Oddo**

**KELLAHIN AND KELLAHIN**

ATTORNEYS AT LAW

EL PATIO BUILDING

117 NORTH GUADALUPE

POST OFFICE BOX 2265

SANTA FE, NEW MEXICO 87504-2265

W. THOMAS KELLAHIN\*

\*NEW MEXICO BOARD OF LEGAL SPECIALIZATION  
RECOGNIZED SPECIALIST IN THE AREA OF  
NATURAL RESOURCES-OIL AND GAS LAW

JASON KELLAHIN (RETIRED 1991)

TELEPHONE (505) 982-4285  
TELEFAX (505) 982-2047

May 6, 1996

Commissioner of Public Lands  
State of New Mexico  
310 Old Santa Fe Trail  
Santa Fe, New Mexico  
Attn: Mr. Pete Martinez  
Unitization Manager

**HAND DELIVERED**

**Re: Co-operative Leasehold Waterflood Project  
Penroc Oil Corporation, Operator  
Section 22: SE/4; SE/4NE/4  
Section 23: SW/4; SW/4NW/4 & W/2SE/4  
T10S, R32E Lea County, New Mexico**

Dear Mr. Martinez:

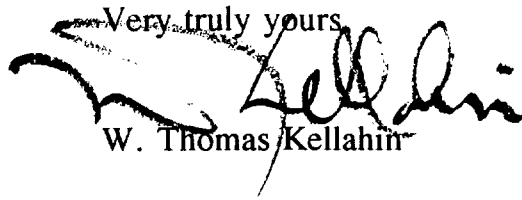
Our firm represents Penroc Oil Corporation concerning the referenced proposed cooperative leasehold waterflood project consisting of parts of three (3) State of New Mexico oil & gas leases to be utilized for the purpose of secondary recovery.

Penroc is requesting permission to institute a waterflood project on a "co-operative" leasehold basis rather than being required to form unit containing portions of these state oil and gas leases. We believe such a request to be appropriate in this case because 100% of the working interest is held by Penroc Oil Corporation and there are no overriding royalty interests on any of these three leases.

We have enclosed a copy of our NMOCD application and C-108 which have been filed this afternoon and are to be heard at the NMOCD Examiner hearing now scheduled for May 30, 1996.

If you have any questions, please call either me or Mr. M. Y. (Merch) Merchant at Penroc Oil Corporation-Hobbs (505) 397-3596.

Very truly yours,

  
W. Thomas Kellahin

fxc: Penroc Oil Corporation



**STATE OF NEW MEXICO**  
~~**ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT**~~  
**OIL CONSERVATION DIVISION**  
*AND GAS*

IN THE MATTER OF THE HEARING CALLED  
BY THE OIL CONSERVATION DIVISION  
FOR THE PURPOSE OF CONSIDERING:

**CASE NO. 11543**

Application of Penroc  
Oil Corporation for  
Waterflood Project and EOR  
Lea County, New Mexico.

**CERTIFICATE OF MAILING AND COMPLIANCE WITH ORDER R-8054**

W. THOMAS KELLAHIN, attorney in fact and authorized representative of Penroc Oil Corporation, states that the notice provisions of Division Rule 1207 (Order R-8054) have been complied with, that Applicant has caused to be conducted a good faith diligent effort to find the correct addresses of all interested parties entitled to receive notice, that on the 7th day of May, 1996 I caused to be sent, by certified mail return receipt requested, notice of this hearing and a copy of the application for the referenced case along with the cover letter, at least twenty days prior to the hearing set for May 30, 1996, to the parties shown in the application as evidenced by the attached copies of receipt cards, and that pursuant to Division Rule 1207, notice has been given at the correct addresses provided by such rule.

  
W. Thomas Kellahin

SUBSCRIBED AND SWORN to before me on this 30th day of May, 1996.

  
Notary Public

My Commission Expires: June 15th, 1998

**BEFORE THE**  
**OIL CONSERVATION DIVISION**  
Case No. 11543 Exhibit No. *11*  
Submitted By:  
**Penroc Oil Corporation**  
Hearing Date: May 30, 1996

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**  
• Complete items 1 and/or 2 for additional services.  
• Complete items 3, 4a, and 4b.  
• Print your name and address on the reverse of this form so that we can return this card to you.  
• Attach this form to the front of the mailpiece, or on the back if space does not permit.

Penroc Oil Corp. 5/30/96  
May 7, 1996

Article number and the date

I also wish to receive the following services (for an extra fee):  
1. ☐ Addressee's Address  
2. ☐ Restricted Delivery  
Consult postmaster for fee.

3. Article Addressed to:  
Mr. Carl Lane Johnson  
PO Box 916  
Tatum, New Mexico 88267

4a. Article Number  
P 334 798 529

4b. Service Type  
☐ Registered ☐ Certified  
☐ Express Mail ☐ Insured  
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery  
5-13-96

5. Received By: (Print Name)

6. Signature: (Addressee or Agent)  
Barbara W. Johnson

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1994 Domestic Return Receipt

Thank you for using Return Receipt Service.

P 334 798 529

Mr. Carl Lane Johnson  
PO Box 916  
Tatum, New Mexico 88267

Post Office, State, & ZIP Code

Postage \$

Certified Fee

Special Delivery Fee

Restricted Delivery Fee

Return Receipt Showing to Whom & Date Delivered

Return Receipt Showing to Whom, Date, & Addressee's Address

TOTAL Postage & Fees \$

Postmark or Date

3800 April 1995

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**  
• Complete items 1 and/or 2 for additional services.  
• Complete items 3, 4a, and 4b.  
• Print your name and address on the reverse of this form so that we can return this card to you.

Penroc Oil Corp. 5/30/96  
May 7, 1996

Article number and the date

I also wish to receive the following services (for an extra fee):  
1. ☐ Addressee's Address  
2. ☐ Restricted Delivery  
Consult postmaster for fee.

3. Article Addressed to:  
Mantano Oil Corporation  
P.O. Box 2107  
Roswell, New Mexico 88202

4a. Article Number  
P 334 798 530

4b. Service Type  
☐ Registered ☐ Certified  
☐ Express Mail ☐ Insured  
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery  
5/9/96

5. Received By: (Print Name)  
ANN WALKER

6. Signature: (Addressee or Agent)  
X Ann Walker

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1994 Domestic Return Receipt

Thank you for using Return Receipt Service.

P 334 798 530

US Postal Service  
Receipt for Certified Mail  
No Insurance Coverage Provided  
Mantano Oil Corporation  
P.O. Box 2107  
Roswell, New Mexico 88202

Postage \$

Certified Fee

Special Delivery Fee

Restricted Delivery Fee

3800 April 1995

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**  
• Complete items 1 and/or 2 for additional services.  
• Complete items 3, 4a, and 4b.  
• Print your name and address on the reverse of this form so that we can return this card to you.

Penroc Oil Corp. 5/30/96  
May 7, 1996

Article number and the date

I also wish to receive the following services (for an extra fee):  
1. ☐ Addressee's Address  
2. ☐ Restricted Delivery  
Consult postmaster for fee.

3. Article Addressed to:  
Tipperary Oil & Gas Corporation  
633 17th St., Suite 1550  
Denver, Colorado 80202

4a. Article Number  
P 334 798 531

4b. Service Type  
☐ Registered ☐ Certified  
☐ Express Mail ☐ Insured  
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery  
MAY 09 1996

5. Received By: (Print Name)

6. Signature: (Addressee or Agent)  
X [Signature]

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1994 Domestic Return Receipt

Thank you for using Return Receipt Service.

P 334 798 531

US Postal Service  
Receipt for Certified Mail  
No Insurance Coverage Provided  
Do not use for International Mail (See reverse)  
Tipperary Oil & Gas Corporation  
633 17th St., Suite 1550  
Denver, Colorado 80202

Certified Fee

Special Delivery Fee

Restricted Delivery Fee

Return Receipt Showing to Whom & Date Delivered

Return Receipt Showing to Whom, Date, & Addressee's Address

TOTAL Postage & Fees \$

Postmark or Date

3800 April 1995

Penroc Oil Corp. 5/30/96  
May 7, 1996

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this

Penroc Oil Corp. 5/30/96

May 7, 1996

place does not

article number,  
and the date

I also wish to receive the following services (for an extra fee):

- ☐ Addressee's Address
  - ☐ Restricted Delivery
- Consult postmaster for fee.

3. Article Addressed to:

Yates Petroleum Corporation  
105 S. Fourth St.  
Artesia, New Mexico 88210

4a. Article Number

P 334 798 534

4b. Service Type

- ☐ Registered ☒ Certified  
☐ Express Mail ☐ Insured  
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery

5-9-96

5. Received By: (Print Name)

X S G RIZ665

6. Signature: (Addressee or Agent)

X J Dugan

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1994

Domestic Return Receipt

Thank you for using Return Receipt Service.

11 3800 April 1995

P 334 798 534

US Postal Service

**Receipt for Certified Mail**

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Yates Petroleum Corporation  
105 S. Fourth St.  
Artesia, New Mexico 88210

Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this

Penroc Oil Corp. 5/30/96

May 7, 1996

place does not

article number,  
and the date

I also wish to receive the following services (for an extra fee):

- ☐ Addressee's Address
  - ☐ Restricted Delivery
- Consult postmaster for fee.

3. Article Addressed to:

Exxon Company, USA  
P.O. Box 1600  
Midland, Texas 79702

4a. Article Number

P 334 798 532

4b. Service Type

- ☐ Registered ☐ Certified  
☐ Express Mail ☐ Insured  
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery

MAY 10 1996

5. Received By: (Print Name)

6. Signature: (Addressee or Agent)

X [Signature]

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1994

Domestic Return Receipt

Thank you for using Return Receipt Service.

11 3800 April 1995

P 334 798 532

US Postal Service

**Receipt for Certified Mail**

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Exxon Company, USA  
P.O. Box 1600  
Midland, Texas 79702

Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$

Penroc Oil Corp. 5/30/96  
May 7, 1996

P 334 798 533

US Postal Service

**Receipt for Certified Mail**

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

**New Mexico State Land Office**

**P.O. Box 1148**

**Santa Fe, New Mexico**

**87504-1148**

Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
<b>TOTAL Postage &amp; Fees</b>	<b>\$</b>
Postmark or Date	

3800 April 1995

**Penroc Oil Corp. 5/30/96**

**May 7, 1996**