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: [X] Secondary Recovery [ ] Pressure Maintenance [X] Disposal [ ] Storage
Application qualifies for administrative approval? [X] yes [ ] no

II. Operator: Sun Exploration and Production Co.

Address: P.O. Box 1861, Midland, Texas 79702

Contact party: Dee Ann Kemp Phone: (915) 688-0374

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 R-7313-A.
This well has approval to dispose of water into the Yates formation.

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: Dee Ann Kemp Title Associate Acct.

Signature: Dee Ann Kemp Date: 7-17-84

* 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 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.

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.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

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

CASE NO. 7964
Order No. R-7313-A

APPLICATION OF SUN EXPLORATION AND PRODUCTION COMPANY FOR AMENDMENT TO DIVISION ORDER NO. R-7313, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on September 28, 1983, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 5th day of October, 1983, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Sun Exploration and Production Company, seeks an amendment to Division Order No. R-7313, dated July 1, 1983, which authorized its Jennings "B" Federal Well No. 2 located in the SE/4 SW/4 (Unit N) of Section 15, Township 19 South, Range 32 East, NMPM, Northeast Lusk Field, Lea County, New Mexico, to be used as a salt water disposal well.

(3) That the applicant seeks to change the injection interval in said well from approximately 3012 feet to 3018 feet as previously authorized to approximately 2986 feet to 3004 feet and from approximately 3050 feet to 3060 feet.

(4) That authorization of the additional perforated interval for disposal purposes will allow the applicant to dispose of greater volumes of salt water into said well at lower pressures, will not impair correlative rights nor cause waste and should be approved.

(5) That the operator should notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of disposal equipment so that the same may be inspected.

(6) That the operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

(7) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That Order No. (1) on Pages 2 and 3 of Division Order No. R-7313, dated July 1, 1983, is hereby amended to read in its entirety as follows:

"(1) That the applicant, Sun Exploration and Production Company, is hereby authorized to utilize its Jennings "B" Federal Well No. 2, located in Unit N of Section 15, Township 19 South, Range 32 East, NMPM, Northeast Lusk Field, Lea County, New Mexico, to dispose of produced salt water into the Yates formation, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 2950 feet, with injection into the perforated interval from approximately 2986 feet to 3004 feet and from approximately 3050 feet to 3060 feet.

PROVIDED HOWEVER, that the tubing shall be plastic or cement-lined; that the casing-tubing annulus shall be filled with an inert fluid; and that a pressure gauge shall be attached to the annulus or the annulus shall be equipped with an approved leak detection device in order to determine leakage in the casing, tubing, or packer."

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

JOE D. RAMEY
Director

S E A L
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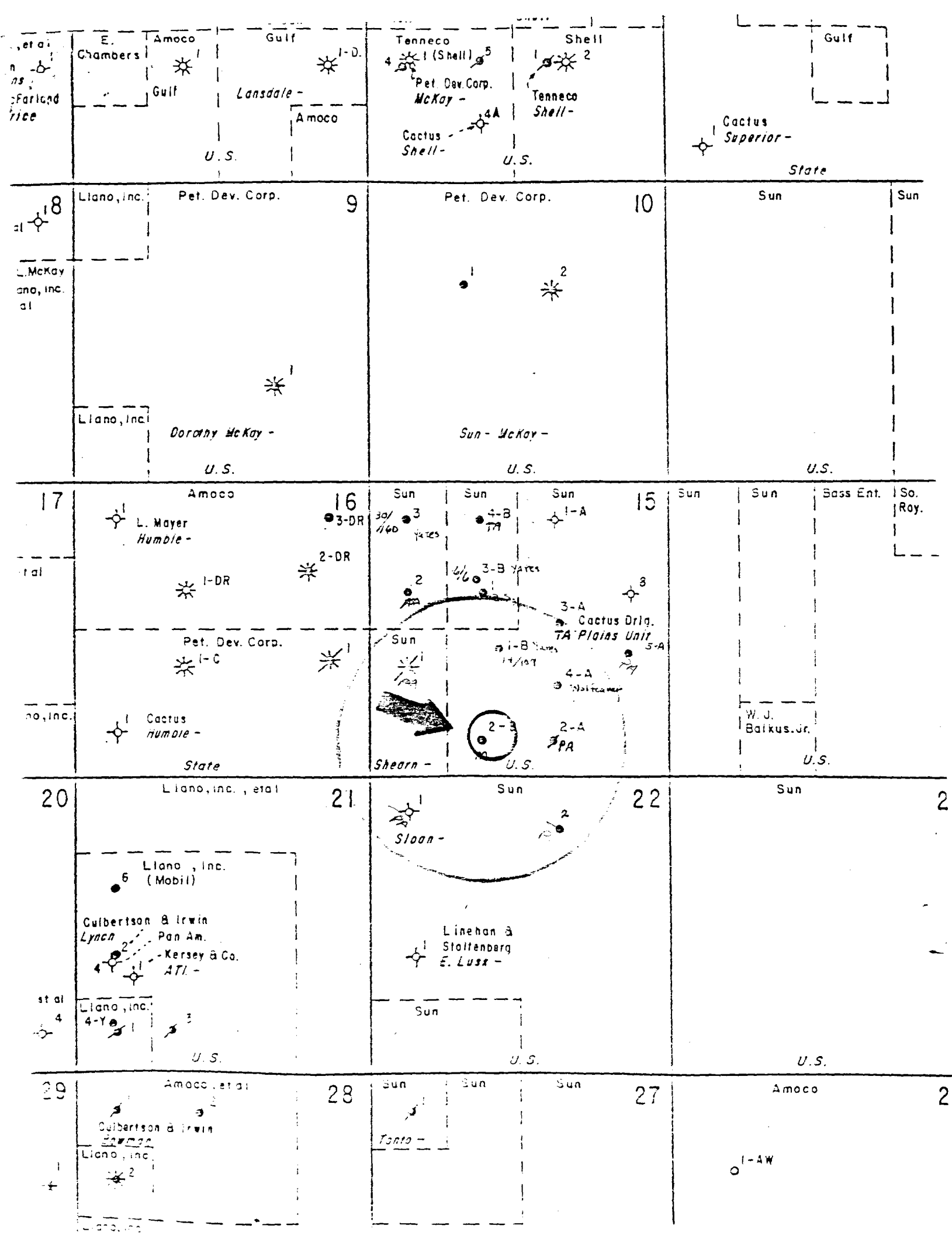
E. Chambers
Amoco
Gulf
Gulf
Lansdale -
Amoco
U.S.
Tenneco
1 (Shell)
Pet. Dev. Corp.
McKay -
4A
Cactus
Shell -
Shell
Tenneco
Shell -
U.S.
Gulf
Cactus
Superior -
State
18
Liano, Inc.
Pet. Dev. Corp.
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Pet. Dev. Corp.
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Sun
Sun
L. McKay
Liano, Inc.
Liano, Inc.
Dorothy McKay -
U.S.
Sun - McKay -
U.S.
U.S.
17
Amoco
16
L. Mayer
Humble -
3-DR
2-DR
1-DR
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15
3-B Yates
3-A
Cactus Drlg.
TA Plains Unit
Sun
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Bass Ent.
So. Roy.
Pet. Dev. Corp.
1-C
Cactus
Humble -
State
Shearn -
U.S.
W. J. Balkus, Jr.
U.S.
20
Liano, Inc., et al
21
Sun
22
Sun
2
Liano, Inc.
(Mobil)
Culbertson & Irwin
Lynch
Pan Am.
Kersey & Co.
ATI -
Liano, Inc.
4-Y
Sloan -
Linehan & Stoltenberg
E. Lusk -
Sun
U.S.
U.S.
U.S.
29
Amoco, et al
28
Sun
Sun
Sun
27
Amoco
2
Culbertson & Irwin
Liano, Inc.
Tonto -
1-AW

3/11/82

SHEARN FEDERAL #1
History

Location: 660' FWL, 1980' FSL, Sec 15, T-19-S, R-32-E, Lea County, New Mexico, East Lusk Field

Elevations: GL-3617 KB-3638

Spud: 12/7/71 Completed: 6/13/72

Casing: Surface - 16", 65#, H, @ 330', cmtd w/450 sx, circ 110
Intermediate - 13-3/8, 61#, H, J, K @ 2682', cmtd w/1000 sx, circ 200.
Intermediate - 9-5/8", 40#, 43.5#, N-80 @ 7353, cmtd w/775 sx, TOC-4100'
Production - 7-5/8", 29#, 33#, @ 13342' cmtd w/900 sx, top @ 7040 w/TIW liner hanger.
TD - 14,330' PBTD - 6500' (CIBP)

Completion: 3/30/72 Perfed Morrow 12,231-239 (1 JPF). Attempted to frac w/gelled kerosene, unable to pump into perfs. Pumped 250 gals acid, 1½ BPM @ 9000#. Fraced w/10000 gals gelled kerosene, 3000# SD. MP-9600#, MP-9000#, FP-9300# ISIP. 4/18/72 F 72 BO, no wtr.

Initial potential: 4/18/72 F 72 BO, no wtr. (Avg.)

Workovers: 4/28/72 Acdzd Morrow 12231-239 w/1000 gals 15% NEHCL & 9000 gals 20% retard. acid, 3/4 BPM, MP 7800#, MP-6200#, FP 6500#, SIP-4300#.
BF: F 81 BO, no wtr. AF: F 183 BO, no wtr, 760 MCF.

10/18/73 Set CIBP @ 12108'.
Perfed Wolfcamp 10732, 38, 40, 46, 49, 54, 59
Acidized w/1260 gals 15% acid. Max 5100, Min 700, ISIP-Vac, F 496 BO, no wtr.

11/27/73 Killed well. Set RBP above perfs @ 10715. Perfed Wolfcamp 10685-98 1 JSP2F. Acidized w/1500 gals acid
Max-2500, ISIP-Vac, F 316 BO, 8 BLW. BHP bomb indicated communication between zones

12/21/73 GOI perfed Wolfcamp 10626-637 (5 holes), acidized w/1500 gals 15% NEHCL, BDP-1800, MP-5000, ISIP-Vac. F 304 BO, trace wtr.
Lowered RBP to 10845' 3/18/73 F 260 BO, 0 BW

5/29/75 Placed well on artificial lift. (POH w/RBP @ 10845).
BF: F 32 BO, 17 BW AF: P 58 BO, 94 BW

6/18/76 Set RBP @ 10496. Perfed Bone Spring 9832, 34, 36, 38, 40, 42, 44, 46, 50, 60, 62, 64, 66, 68, 15 holes. Acidized perfs w/ 2000 gals 15% acid. BDP 4000, Max-6000 Min 3200, ISIP 4700.
Swabbed down to 9000', 4½ hrs, rec 3 BO, 5 BLAW.
Reacidized perfs w/10,000 gals 20% CRA, 5 stgs, BDP 3800, Max-8500, Min 3800, ISIP 4400, 8 BPM. Swbd to 9300', 24 hrs., Rec 9 BO, 3 BLAW.

8/20/76 POP 24 hrs P 5 BO, 18 BLW

8/16/77 Attempted to commingle Morrow w/Bone Spring & Wolfcamp. Unsuccessful. Well TA'd.

3/11/78 Set CIBP @ 12096' w/35' cmt on top.
Set CIBP @ 10596 w/35' cmt on top.
Set CIBP @ 9800' w/35' cmt on top.
Spotted 50 sx cmt from 7082-6920
Perfed Delaware 6544-46, 3 holes, attempt to BD perfs, re-perfed & acidized w/250 gals 15% NEHCL. No shows.

3/18/78 Set CIBP @ 6500'. Perfed 4974-87, 1 JSPF, acidized w/1100 gals 15% NEHCL. BDP 2000#, ISIP-1600#. No show oil or gas. Well shut in.

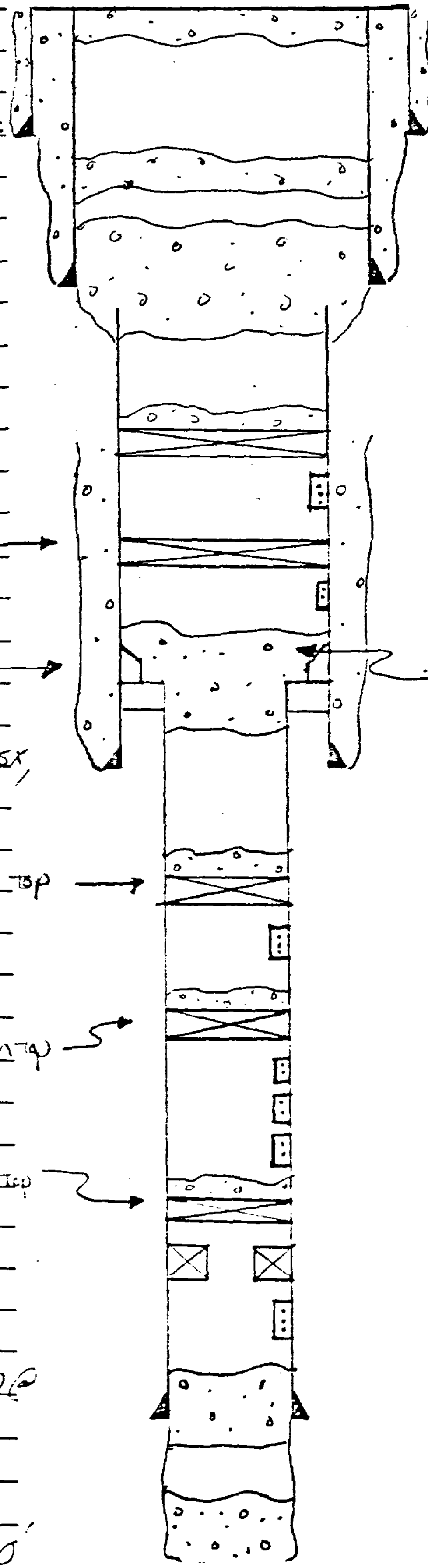
SHEARN FEDERAL #1
History

7/25/84 Set CIBP @ 4924, loaded hole w/10# mud. Spotted 15 sx Cl "C" cmt on CIBP.
Cut 9-5/8" csg at 2752, POH and LD 74 jts. 9-5/8" csg. Spotted 200 sx cmt from 2803-2550. Tagged plug at 2699'.
Spotted 130 sx cmt from 2699-2500, tagged cmt plug @ 2699'.
Mixed 10 sx LCM in 20 sx paper. Spotted 140 sx cmt from 2699-2500. Tagged top of plug @ 2488'.
Spotted 70 sx from 1052-952.
Spotted 40 sx from 62' to surf.
Well P&A 8-4-84.

WELL COMPLETION SKETCHES SUN–5036-4-A

WELL	FIELD	DATE
SHEARN FEDERAL #1	East Lusk	5/1/84

☒ PRESENT COMPLETION ☐ SUGGESTED COMPLETION



PERMANENT WELL BORE DATA

GL - 3617'

16" @ 330', cmtd w/ 450 sx, circ 110 sx.

13 3/8 @ 2683', cmtd w/ 1000 SX, circ 200 sx

CIBP @ 6500'

7 5/8" liner top @ 7040'

9 5/8" @ 7350', cmtd w/ 775 sx, TOC - 4100'

CIBP @ 9800' w/ 35' cmt on top

CIBP @ 10596' w/ 35' cmt on top

CIBP @ 12096' w/ 35' cmt on top

Baker Mod D Pkr @ 12160'

7 5/8", 29-33# @ 13342', top @ 7040' cmtd w/ 900 sx

TD - 14330'

DATA ON THIS COMPLETION

Spotted 40 sx 62' to surface

Spotted 70 sx from 1052-952

Cut 9 5/8 csg @ 2752'. Spotted cmt from 2803 to 2488

Set CIBP @ 4924

Perfs 4974-87

Delaware Perfs 6544-46

50 sk cmt plug from 6920'-708[illegible]

Bone Spring Perfs 9832-68

Wolfcamp Perfs 10626-37 10685-98 10732-59

Morrow perfs 12231-239

Spot 80 sx 13000-13400

Spot 100 sx 12846 - [illegible]

Sloan Federal #1
History

Loc: 660 FNL & 660 FWL, Sec 22, T-19-S, R-32-E, Lea County, N.M., Lusk Field

Elev: GL-3612 KB 3633

Casing: 13-3/8", 48-68#, @ 375', cmtd w/400 sx, circ 150 sx, (17½" hole).
9-5/8", 36#, @ 4100', cmtd w/total of 2700 sx, DV tool-2794', TOC-70', T.S., (12¼" hole).
7" liner, 23, 26, & 29#, btm @ 10915', top of liner @ 3790', hanger @ 3794. Cmtd w/1800 sx. Sqzd top of liner w/200 sx.

Spudded: 9-26-75 Completed: 11-11-75

TD: 10,915' PBTD: 2846'

11-19-75 Perfed Wolfcamp 10678, 80, 83, 86, 729, 31, 41, 57, 59, 81, 83, 10806, 08, 15. Acidized w/8000 gals 15% NEHCL, BDP-4200, MX-6300, ISI-5100, 5½ BPM. Swabbed 4½ hrs, rec 14 BLAW, 1½ BO, FL 8000-10200.

Set CIBP @ 10610' w/6 sx cmt on top to 10575'.
Perfed Bone Spring 10262, 64, 66, 96, 98, 300, 02, 04, 06. Acidized w/500 gals 15% NEHCL, BDP-3800, MX-5600, ISI-3700, 4.5 BPM. Swabbed 4 hrs. Rec 1 BO, 10 BLAW.

Set RBP @ 10190. Perfed 10065, 67, 69, 71, 73. Acidized w/500 gals 15% NEHCL & 1000 SCF N_2, BDP-4700, MX-7200, ISI-6800, 1 BPM.
Fraced perfs 10065-73 w/1000 gals F-75 acid, 5000 gals pad 5000 gals pad w/100 mesh sd, 5000 gals w/7000# 20/40 sd, MX-9300, ISI-4000, 5 BPM. Swab 6½ hrs. Rec. 32 BLO, 24 BLW FL 6000-8000. POH w/RBP @ 10198'. Put well on pump. Last test 2-2-76 P (24) 10 BO, 22 BW.

2-4-75 Set CIBP @ 10035
Perfed Bone Spring 7959, 61, 67, 69, 73, 76, 8009, 16, 27, 29, 55, 88, 8105, 11, 14, 25, 27, 36, 38, 73 & 75, thru tbg. Acidized 7959-8175 w/3000 gals 15% NEHCL, BDP-2200, MX-2800, ISI-2000, 2 BPM. Well swabbed dry, rec only slight show gas. Well TA 2-7-76.

4-23-78 Dumped 10 sx cmt on CIBP @ 10035'. Set 7" CIBP @ 7900' w/6 sx cmt on top. Spotted 70 sk plug from 3843-3700. Spot 35 sk plug from 2866-2780. Spot 35 sk plug 1080-950 and a 30 sk plug from 90' to surf. Well P&A'd.

10-2-80 DO cmt plugs, lwr bit to 3600'. Set CIBP @ 3050'. Perfed 9-5/8 csg @ 3000-01, 4 holes, set cmt ret @ 2985'. Sqzd w/150 sx cmt, left 5 sx on ret, rev 5 sx. Perfed 2870-71, 4 holes; attempt to sqz under pkr w/150 sx, rev 68 sx. DO cmt, tagged ret @ 2985'.

Perfed Yates 2955-65. Acidized w/1000 gals 15% spearhead acid BDP-2000, MX-4600, ISI-1200, 2.7 BPM. Fraced perfs 2955-65 w/5000 gals gelled 3% HCL, 5000 gals CO_2 & 12,000# 20/40 sd, BDP-0, MX-2500, ISI-1500, 9.6 BPM.
Swab 7½ hrs., rec 0 BO, 10 BLAW, FL 1800-2800.

Set RBP @ 2949. perfed Yates 2932-42. Acdzd w/1000 gals 15% NEHCL, BDP-0, MX-2400, ISI-1200, 4 BPM. Fraced perfs 2932-42 w/10,000 gals gellec 3% HCL, 10,000 gals CO_2 & 24,000# 20-40 in 2 stgs, BDP-0, MX-2950, ISI-1600 10 BPM. Swab 7½ hrs, rec 0 BO, 16 BLW, 130 BW.

10-23-80

CO to 2985'. Set cmt ret @ 2855. Sqzd perfs 2932-65 w/150 sx, rev 8 sx, left 2' on top of ret.

Perfed Yates 2824-34. Acidized w/1000 gals Spearhead acid, BDP-2100, MX-2200. ISI-1600, 4 BPM. Frac perfs 2824-34 w/3850 gals 5% gelled KCL wtr, foamed to 65 quality w/186,000 SCF N_2, 8400# 20/40 sd, BDP-0, MX-3200, ISI-2400, 10 BPM. 14 Hrs. F 6 BLAW, no oil, TP 100-0, FL @ SN. Tagged sd @ 2846. POH. Left 2' sub in WH.

Well TA'd 10-30-80.

7-20-84

Tag cmt retainer @ 2849', load hole w/9.5# mud. Set CIBP @ 2600'. Spotted 35 sx cmt on top of CIBP to 2497.
Spotted 35 sx cmt from 1008-902.
Spotted 20 sx cmt from 62' to surface.
Well P&A'd 7-21-84.

WELL COMPLETION SKETCHES SUN-5036-4-A

WELL	FIELD	DATE
Sloan Federal #1	N. E. Lusk	4/24/84

☒ PRESENT COMPLETION ☐ SUGGESTED COMPLETION

PERMANENT WELL BORE DATA

GL - 3612

(9 5/8) Toc - 70' →

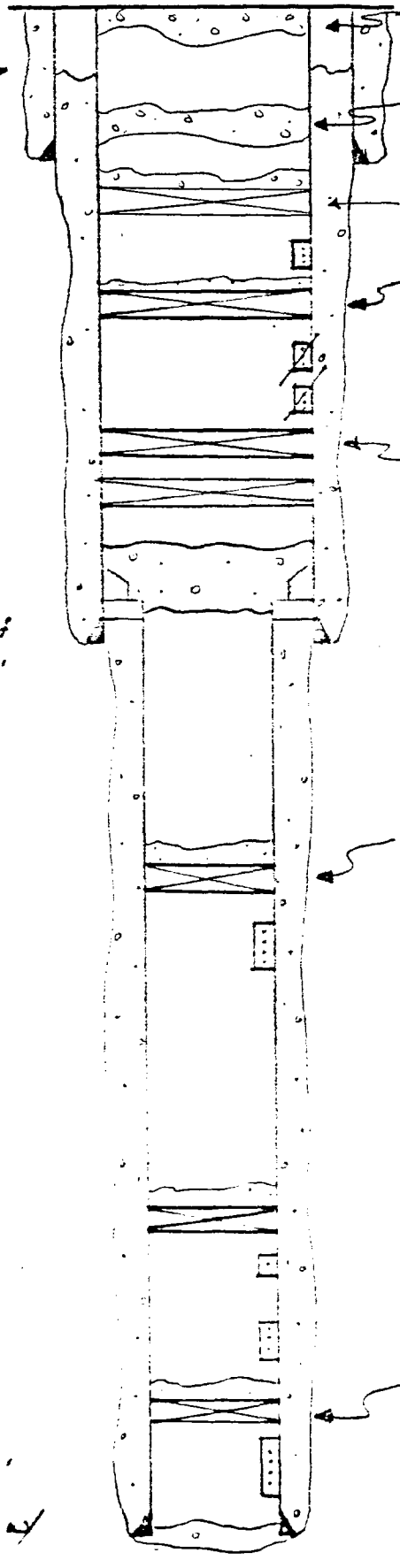
13 3/8" @ 375', cmtd w/ 420 sx, circ 150 sx. (17 1/2" hole)

Top of 7" liner - 3790'

9 5/8, 36# @ 4100', cmtd w/ total of 2700 sx, DV tool - 2794' - Toc 70', T.S. (12 1/4" hole)

Formation Tops:
Rustler - 0-3'
Tansil - 2557'
Yates - 2765'
7-Rivers - 3076'
Bone Spring - 7315'
Wolfcamp - 10554'

7", 23 26, 29# liner set @ 10915'
* @ 3790', hanger @ 3794', cmtd w/ 1800 sx. Sqzd top of liner w/ 200 sx.



DATA ON THIS COMPLETION

Spotted 20sx from 62' to surface

Spotted 35 sx from 1008 - 902

Set CIBP @ 2600' w/ 35' cmt on top.
2824 - 34 (Yates)

CMT Retainer @ 2855' w/ 9' cmt + sd on top.
2932 - 42 (Yates)
2955 - 65

CMT Retainer @ 2985'
CIBP @ 3050'

Cmt from 3600 - 3843'

CIBP @ 7900' w/ 65x cmt on top.
7959 - 8175 (Bone Spring)

CIBP @ 10035' w/ 10sx cmt on top.
10065 - 10073 (Bone Spring)
10362 - 10366 (Bone Spring)

CIBP @ 10610 w/ 65x cmt on top
10678 - 10815 (Wolfcamp)

TD - 10915' PBTD - 10912'

JENNINGS "A" FEDERAL #4

Loc: 1650' FSL, 1980' FEL, Sec. 15, T-19-S, R-32-E, Lea County, New Mexico
Northeast Lusk Field

Elev: GL - 3624 KB - 3637

Casing: 13-3/8", 48-54.6# H, @ 454', cmtd w/375 sx, circ 50 sx 8-5/8", 24-32#, @ 4400' (tool 990') 1st stage cmtd w/2500 sx, 2nd stage cmtd w/400 sx, circ 125 sx. (11" hole) 5½", 15.5-17#, @ 10,900 FC-10877, DV tool-7206, 1st stage cmtd w/675 sx, circ 50 sx, 2nd stage cmtd w/600 sx. (7-7/8" hole).

Spudded 10-20-82 Completed:

TD-10,900 PBTD- TOC-6000'

12/15/82 Perf Wolfcamp 10818-828, 2 JSPF, 21 holes. Spot 125 gals. 15% HCL. Perfs broke down @ 2500# @ 4 BPM.

Acidized w/875 gals 15% NEHCL. BDP-0, MX 2500 #, MN-2300#, Avg. - 2400#, ISI - VAC. 5 BPM. Well started flowing.

12/18/82 IPF 339 O, 36 BW, 13/64" CHK, TP 1622-1480.

WELL COMPLETION SKETCHES SUN-5036-4-A

WELL	FIELD	DATE
Jennings "A" Federal #4	Northeast Lusk	2-4-83

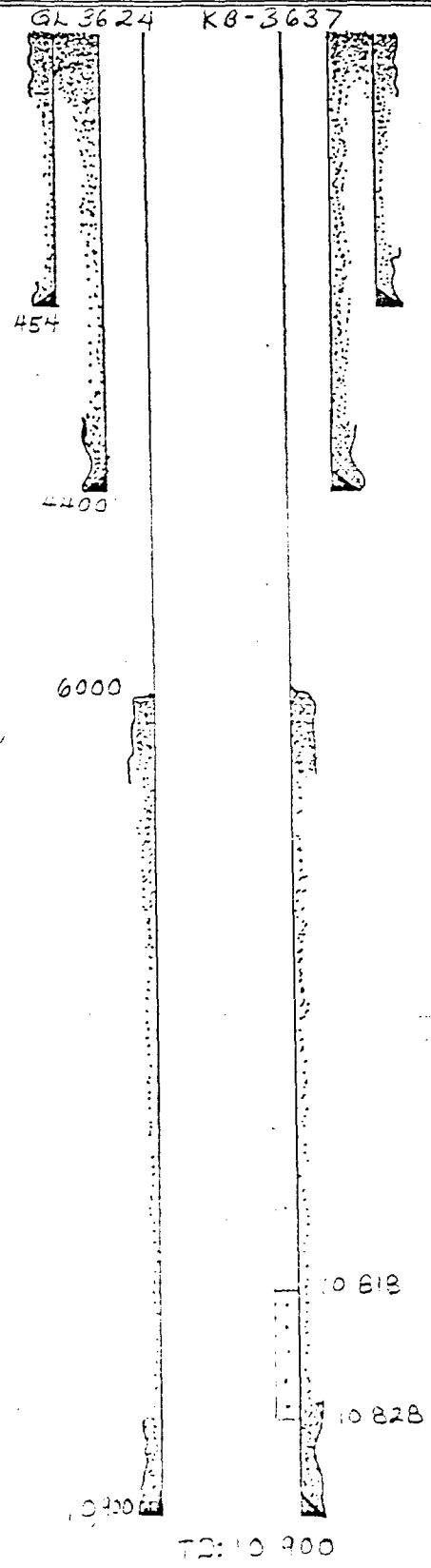
☒ PRESENT COMPLETION ☐ SUGGESTED COMPLETION

PERMANENT WELL BORE DATA

13 3/8" 48# 54.6# csg. @ 454' Cmtd w/ 375 sxs. Cmt circld

8 5/8" 24, 32# csg @ 4400' Cmtd w/ 2625 sxs.

5 1/2" 15.5, 17# csg @ 10,900' Cmtd w/ 1275 sxs. TOC @ 6000'



DATA ON THIS COMPLETION

Present Well status

Perfd @ 10,818 - 828 - (21 holes)

JENNINGS "A" FEDERAL #2

Loc: 660' FSL & 1980' FEL. Unit O, Sec. 15, T-19-S, R-32-E, Lea County, New Mexico. Northeast Lusk Field.

Elev: GR 3619

Spud date; Completion date:

TD: 3100'

Casing description:

Surface: 12¼" hole. 8-5/8", 24#, K, S.T.C. csg @ 418'. Cmtd w/375 sxs. Cmt circld.

Initial Completion: P&A. Spotted 100 sxs cmt @ 3100-2800, 130 sx plug @ 1200-800, 65 sx plug @ 500-300, 10 sx plug @ surface.

WELL COMPLETION SKETCHES SUN-5036-4-A

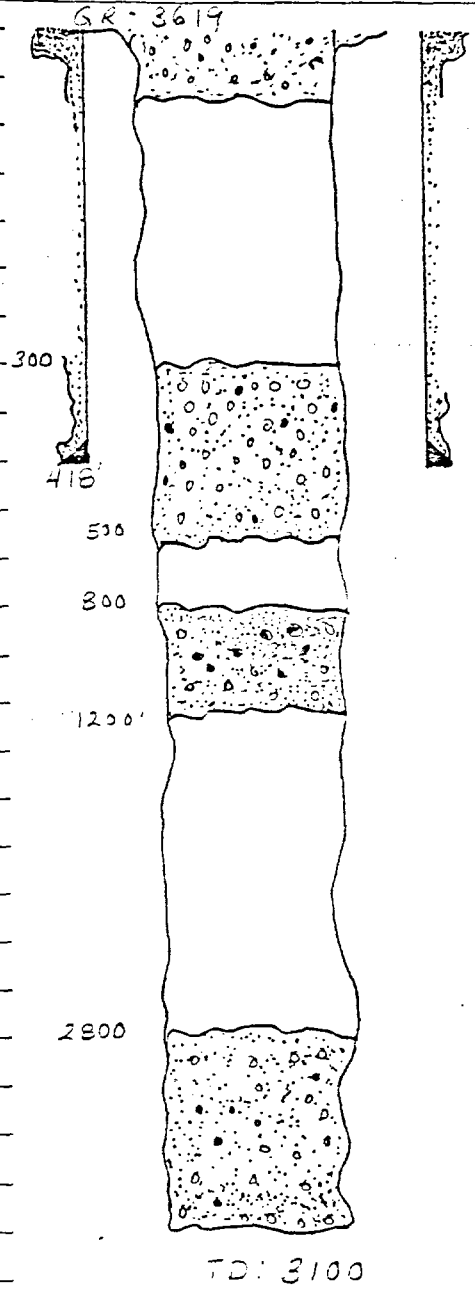
WELL	FIELD	DATE
Jennings "A" Federal #2	Northeast Lusk-	2-4-83

☒ PRESENT COMPLETION ☐ SUGGESTED COMPLETION

PERMANENT WELL BORE DATA

12¼" hole. 8 5/8", 24# K, S.T.C. csg @ 418. Cmtd w/ 375 sxs. Cmt circld.

7 7/8" Open hole.



DATA ON THIS COMPLETION

Present well status: P+A

10 sxs cmt plug @ surface

65 sx cmt plug @ 300-500.

130 sx cmt plug @ 800-1200

100 sx cmt. plug @ 2800 - 3100.

JENNINGS FEDERAL "B" - 1

Loc: 2495' FSL, 2290' FWL, Sec. 15, T-19-S, R-32-E, Lea County, New Meixco
Northeast Lusk Field

Elev: 3629 GR

Casing: 8-5/8" 24# @ 437', cmtd w/350 sx, circ 65 sx. (12¼" hole)
5½", 14#, @ 3400', FC-3368, cmtd w/760 sx, circ. 115 sx.

Spudded: 7-29-80 Completion date: 8-21-80

TD - 3400' PBTD: 3258

8/21/80	Seven Rivers 3331-37, 7 holes. Spotted 3 bbls. acid, washed 3/4 hr. Acidized w/1000 gals 15% NEFEMCH, BDP-2300, MX-5000, MN-1000, ISI-VAC, 4-5 BPM. Balled out to 5000# w/700 gals in form. Swab 7 hrs rec 118 BW, FL 750-1200, chlorides - 20,000 ppm. Set CIBP @ 3300' w/15' cmt cap.
8/24/80	Perf Yates 2958-62, 5 holes, spotted 1 bbl MCH, BDP-2600, MX 3100, ISI 920, AIR-3 BPM. Acdz w/ 800 Gals MCA Frac w/3000 gals (wtr frac-60), 3000 gals CO_2 & 4500# 20/40 SD. BDP 3100, MX 4800, MN 1390, ISI-1390, AIR 7-8 BPM. Swab 3 hrs, Rec. 37 BO, 8BLW, FL 300-1500, FE 4 BPH.
9/16/80	IPP 148 BO, OBW, 8MCF.

WELL COMPLETION SKETCHES SUN-5036-4-A

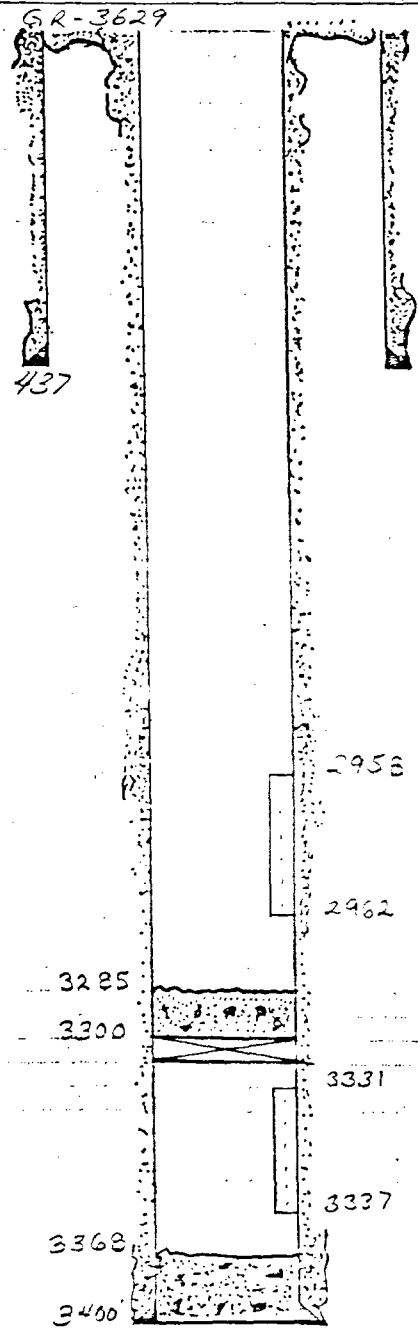
WELL	FIELD	DATE
Jennings Federal "B" #1	Northeast Lusk	2-2-83

☒ PRESENT COMPLETION ☐ SUGGESTED COMPLETION

PERMANENT WELL BORE DATA

12¼ hole. 8 5/8", 24# csg. @ 437. Cmtd w/ 350 sxs. Cmt. circld.

5½" 15.5# csg @ 3400'



DATA ON THIS COMPLETION

Present Well status:

Holes perfd @ 2952, 2954, 2960, 2961, 2962.

CIBP @ 3300' w/ 15' cmt cap

JENNINGS "A" FEDERAL #3

Loc: 1880' FEL & 2500' FNL. Unit G. Sec. 15, T-19-S, R-32-E, Lea County, New Mexico. Northeast Lusk Yates Pool.

Elevations: 3631 GR.

Spud Date: 12-16-81 Completion date: 12-23-81

Original TD: 3002 Original PBTD: 3001 TD: 3014

Csg. Description:

Surface: 12¼" hole. 8-5/8", 24#, K csg. @ 443' cmtd w/375 sxs. cmt. circld.

Production: 7-7/8" hole. 5½", 24#, K csg @ 3002', cmtd w/535 sxs. Cmt cricld to surface.

Initial Completion:

Perf'd Yates w/2JSPF @ 2994-2999 (11 holes) Aczd w/ 1000 gals. 15% NEHCL using 22 RCNBS BDP -29003. Max P-2900#. Min P-1600# Avg P-1800#. FP-3000#. ISIP - 1000#. After 15 mins. SIP-770#. AIR - 5BPM.

Reaczd w/1000 gals. 15% NEHCL using 22 RCNBS. BDP-1600#. Max P-3200#. Min P-1700#. Avg.P-1800#. FP-3000#. ISIP - 1000#. After 15 mins. SIP-770#. AIR-5 BPM.

Fraced Yates w/6000 gals. (3000 gals. Wtr. Frac-60, 3000 gals. of CO_2, 4500# 20/40 SD).
BDP - 1000#. Max P-3500#. Min P-3000#, Avg. P-3200#. FP-2600#. ISIP - 1600#. After 15 mins. SIP - 1130. AIR - 8BPM. Tested 24 hrs. 2-10-82. P 0 BO, 13 BLW.

Refraced w/14000 gals (7000 gals wtr. Frac - 60, 7000 gals of CO_2 w/11,000# 20/40 SD)
BDP - 2700#, Max P-3520, Min P-2600#. Avg. P-3000# FP-3400#. ISIP -1850#. After 15 min SIP - 1620#, AIR - 10 BPM. Tested 24 hrs, 2-24-82. OBO, 2 BW.

Cazd perfs @ 2994-2999 w/200 sxs. of class "C" cement.

Drld new hole (OH) from 3002 - 3014.
Aczd OH w/1000 gals 15% NEHCL. BDP -300#. Max P-1900#, Min P-1600#. Avg P-1800#. FP-1900#. ISIP-1400#. After 15 mins. SIP -600#. AIR 3½ BPM.

Fraced OH w/14000 gals. (7000 gals. gelled 2% KCL, 7000 gals. of CO_2 w/11000# 20/40 SD.) BOP-300#. Max P-3150#. Min P-3000#, Avg P-3100#. FP-3100#. ISIP-1600#. After 15 mins. 1140#. AIR-12 BPM. Tested 24 hrs. 4-8-82. P Trace oil, 35 BW.

Initial Potential: Well TA'd.

WELL COMPLETION SKETCHES SUN-5036-4-A

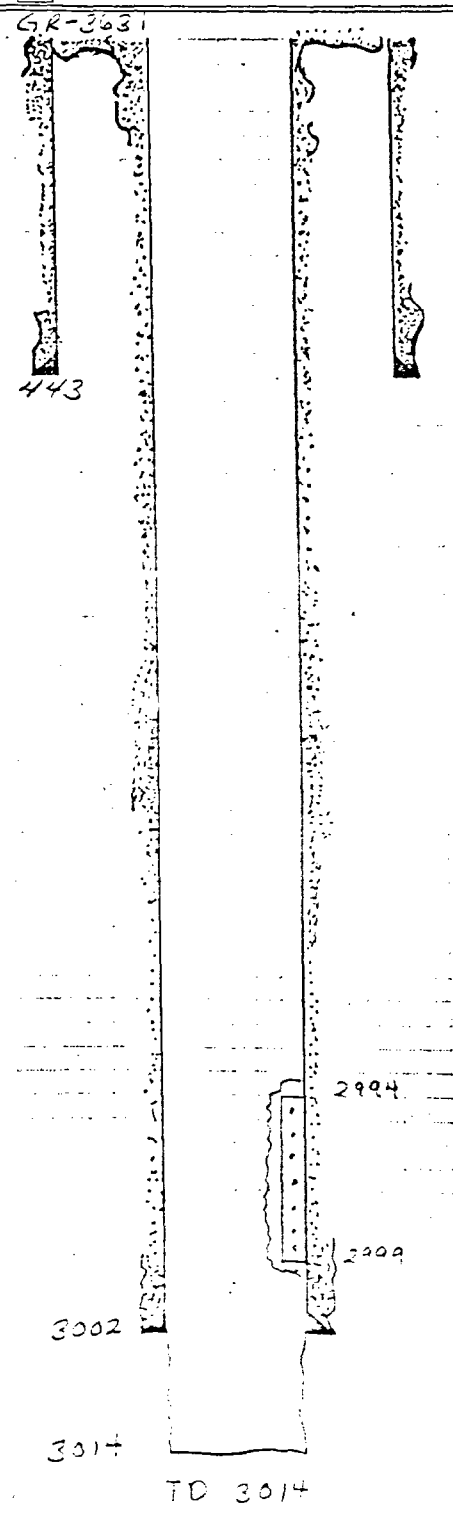
WELL	FIELD	DATE
Jennings "A" Federal #3	Northeast Lusk Yates	2-2-83

☒ PRESENT COMPLETION ☐ SUGGESTED COMPLETION

PERMANENT WELL BORE DATA

12¼" hole. 8 5/8" 24# K cgs. @ 443'. Cmtd w/ 375 sxs. Cmt. Circld.

7⅞" hole. 5½" 24# K cgs. @ 3002' Cmtd w/ 535 sxs. Cmt. Circld to surf.



DATA ON THIS COMPLETION

Present status: TA

Perfs. 2994–2999 sqzd w/ 200 sxs. Class "C" cement.

Sloan Federal #2
History

Loc: 990' FNL, 1980' FEL, Sec 22, T-19-S, R-32-E, Lea County, N.M.

Elev: GL-3609 KB-3629

Casing: 13-3/8", 48# @ 450', cmtd w/400 sx, circ 100 sx (17½" hole)
8-5/8", 24 & 32# @ 4107, cmtd 1st stage-2165 sx, circ 91 sx, 2nd stage - 400 sx, circ 175 sx (11" hole)
5-1/2" 15.5 & 17# @ 11,000', cmtd w/450 sx, TOC-9050', TS (7-7/8" hole)

Spudded: 9-17-83

TD-11,000' PBTD-10,954'

11-9-83 Perfed Set I Wolfcamp 10,920-30, 2 SPF
Washed perfs w/3 bbls 15% NEHCL. Spotted 875 gals to pkr. Acdzd w/total of 1000 gals 15% NEHCL, BDP-4000, MX-5000, Avg-4900, FP-4950, ISI-4900, 1.5 BPM.
Swab last 2 hrs. rec tr oil, 2 BLAW, FL 10400-10,750, FE-1 BPH.

11-12-83 Set 5½" CIBP @ 10910, no cmt on top.
Perf Set II 10874-94, 2 SPF, 41 holes.
Spot 4 bbls 15% NEHCL, washed for 1 hr., spotted 1800 gals to pkr, displaced acid, BDP-3000, MX-5000, Avg-4800, FP-4900, ISI-4780, 1 BPM. 6 Hrs. swabbed 9½ BO, 9 BLAW, FL 7800-10,700, FE 1 BPH, 20% oil cut.

Reacidized 10874-94 w/5000 gals 15% NEHCL, BDP-3000, MX-7200, Avg-6950, FP-7200, ISI-5300, 6 BPM.
Last 2 hrs. swabbed 4 BO, 26 BLAW, FL 5200-7800, fair gas blow.

11-22-83 Plug back w/sd from 10910-10861. Perfed Set III 10820-42, 2 SPF, 45 holes. Spot 3 bbls 15% NEHCL, washed for 1 hr., spotted 2000 gals to pkr, could not press annulus. Rev. out 2150 gals acid.
Reacidized w/2000 gals 15% NEHCL, BDP-2000, MX-5000, Avg-4600, FP-5000, ISI-4900

12-1-83 Cleaned out sand to CIBP @ 10910.
Acid-fraced perfs 10820-42 & 10874-94 w/16,000 gals 20% NEFEHCL, 16000 gals Versagel 1500 in two stages, using 600# GRS & 40 ball sealers, BDP-6400, MX-7000, Avg-6700, FP-6410, ISI-5250, 7 BPM. (Press incr 6450-6900). Swab 7½ hrs. rec 7 BO, 12 BLAW, FL 9200-10,500, No FE. Swab 4 hrs. rec 1½ BO, 7 BLAW, FL 10,000-10,500, no FE. RR -655 BLAW.

Sloan Federal #2 Well History

3-10-83 RIH w/5½" RTTS pkr w/Otis 'RN' nipple on 2-7/8", P-105 7.9# WS, SN 10712, pkr 10713.
Ran Base GR-Temp Log.
Howco frac perfs 10820-42 & 10874-94 w/35,000 gals Versagel 1500 & 14,000# 20/40 & 14,500# 20/40 Interprop, BDP-8380, MX-8700, Min-8520, Avg-8600, FP-9200, ISI-5900, AIR 16 BPM.
After frac survey indicated frac from 10814-894.

3-17-83 6 Hrs. swab 5 BO, 18 BLW, FL 8800-10700, FE 2 BPH, tag fill @ 10906 (4'). In 2 hrs. swab 0 BO, 24 BLW, FL 3500-7700. -527 BLW.
Well SI. Plan to plug and abandon.

5-4-84 P&A: Spotted 50 sk cmt plug from 10,750-10,310
Cut off 5½" csg @ 7400', LD 180 jts 5½" csg. Spotted 50 sx from 7470-7253 in and out of csg stub.
Spotted 50 sx from 4 54-3977, tagged plug at 4084, spotted additional 10 sx 4084-50.
Spotted 40 sx from 2635-2489
Spotted 40 sx from 950-804
Spotted 15 sx at surface
Well P&A'd

WELL COMPLETION SKETCHES SUN-5036-4-A

WELL	FIELD	DATE
Sloan Federal #2	East Lusk Wolfcamp	12/5/83

☒ PRESENT COMPLETION ☐ SUGGESTED COMPLETION

PERMANENT WELL BORE DATA

GL - 3609.8 KB - 3629

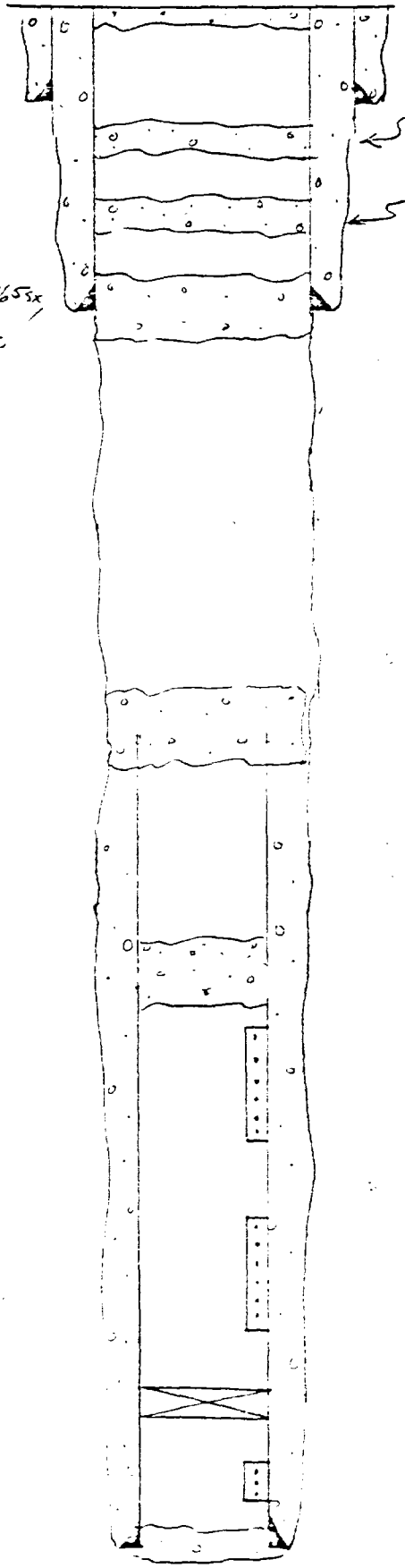
13 3/8" @ 450' cmtd w/ 450sx, circ 100 sx. (17½" hole)

8 5/8" @ 4107, cmtd 1st stage w/ 2165sx, circ 91 sx. 2nd stage w/ 700 sx, circ 175 sx. (11" hole)

TOC - 9050' T.S.

Formation Tops:
Rustler - 982'
Tansil - 2588'
Yates - 2798
7-Rivers - 2987
Delaware - 5682
Bone Spring - 7390
2nd B.S. - 9932
3rd B.S. 10170
Wolfcamp - 10664

5½" 15.5-17# @ 11000 cmtd w/ 450 sx. TOC - 9050 (7⅞" hole)



TD - 11000 PBTD - 10954'

DATA ON THIS COMPLETION

50' cmt plug at surface.

100' cmt plug 950 - 804'

100' cmt plug 2638 - 2538

100' cmt plug across shoe 4154 - 4150'

Cut off csg @ 7400'. Spot 100' cmt plug in & out of csg stub

Spot 200' cmt plug from 10755 - 10310'.

Wolfcamp Perfs

10820 - 42 (2 JSPF)

10874 - 94 (2 JSPF)

CIBP @ 10910'

10930 - 50 (2 JSPF)

VII.

1. Proposed average and maximum daily rate and volume of fluids to be injected at 150 barrels (average) and 250 barrels (maximum).
2. System is closed.
3. Proposed average and maximum injection pressure- 600 (average) and 800 (maximum).
4. The only fluid that will be injected is produced water from the nearby wells.
5. The water will be injected into a zone that is productive of oil or gas.

VIII.

1. Seven Rivers formation is part of Guadalupian Series of the Permian Period. Lithology consists of a white to light grey, finely crystallinne dolomite, sometimes sucrosic. Top of the Seven Rivers in the Jennings "B" Federal No. 2 will be 3135' (+496). Gross thickness of the Seven Rivers in this area is approximately 420 feet. The Jennings "B" Federal No. 2 has 8-5/8" surface casing set at 426' to preserve fresh water aquifers found in the overlying Ogalalla formation. There are no known fresh water aquifers below the proposed water injection zone in this area.

IX.

Proposed stimulation program- acidize open hole 3100-3350' w/ 10,000 gals 15% NEHCL in 5 equal stages.

X. Test Data

The last well test was done 3-17-81, 24 hrs., Pumped 0 BO, 126 BW, FL 961. Well was ta'd in 5-19-81. 11-1-83- convert to injection well in Yates formation.

XI

SUN 5434
SUN PRODUCTION COMPANY
PRODUCTION SERVICE LABORATORY

WATER ANALYSIS REPORT

ANALYSIS NO. C-8213

FILE 23-435

Operator SUN E & P CO. *691175*
Lease or Well SHEARN FED. WELL #3
Formation YATES
Perfs ____ To ____ ; T.D. ____
Method of Collecting Sample HEATER TREATER

Treatment ____
Date of last acid job ____

Total Prod.	BOPD	BWPD	MCFPD

District SOUTHWESTERN
Field EAST LUSK
County LEA
State NEW MEXICO
Collected by ____
Date 3/14/83 (Collected) 3-28-83 (Analyzed)
Sample No. 26019
Analyst ____ PPI ____

Description of Sample 9/10 PINT CLEAR WATER.

CONSTITUENTS	ppm
Sodium	5190
Calcium	1080
Magnesium	454
Barium	0
Strontium	
Potassium	
Iron	0
Chloride	10300
Sulfate	2480
Carbonate	0
Bicarbonate	859
TOTAL DISSOLVED SOLIDS	21563

OTHER PROPERTIES	
pH	7.2
Specific Gravity	1.0164
Resistivity ohm-mtr. @ 75° F	.334
Loss on Ignition, ppm	
Total Solids by Evap., ppm	
Organic acids, ppm	
Hardness as $CaCO_3$, ppm	
Sulfide	PRESENT
Mixed Oxides (Qualitative)	
Fluoride, ppm	
Silica, ppm	
Total Iron, ppm	
Nitrates, ppm	
Phosphate, ppm	

REMARKS:

First Water sample received from this lease. Unable to classify at this time. Future reference.
Enclosed analyses indicate the water sampled are compatible. Should you wish to discuss these analyses further, please contact the lab.

Johnny M Reinschmidt
REPORTED BY: Johnny Reinschmidt
CHEMICAL ENGINEERING SECTION

Copies to:
E. Brandes
T. Fox
R. Monroe
R. A. Sadler
D. Rawson
Corrosion Engineering
File

SUN 5434

SUN PRODUCTION COMPANY
PRODUCTION SERVICE LABORATORY

WATER ANALYSIS REPORT

ANALYSIS NO. C-8212

FILE 23-435

Operator SUN E & P CO. *568353*
Lease or Well JENNING FED COMM.
Formation BONE SPRING
Perfs ____ To ____ ; T.D. ____
Method of Collecting Sample HEATER TREATER

Treatment ____
Date of last acid job ____

Total Prod.	BOPD	BWPD	MCFPD
	67	3	

District SOUTHWESTERN
Field EAST LUSK
County LEA
State NEW MEXICO
Collected by ____
Date 3/14/83 (Collected) 3-28-83 (Analyzed)
Sample No. 26025
Analyst ____ PPI ____

Description of Sample 1 PINT CLOUDY WATER WITH ORANGE SEDIMENT.

CONSTITUENTS	ppm
Sodium	38900
Calcium	2130
Magnesium	1120
Barium	0
Strontium	
Potassium	
Iron	44
Chloride	63900
Sulfate	4050
Carbonate	0
Bicarbonate	131
TOTAL DISSOLVED SOLIDS	110175

OTHER PROPERTIES	
pH	6.2
Specific Gravity	1.0819
Resistivity ohm-mtr. @ 75° F	.075
Loss on Ignition, ppm	
Total Solids by Evap., ppm	
Organic acids, ppm	
Hardness as $CaCO_3$, ppm	
Sulfide	ABSENT
Mixed Oxides (Qualitative)	
Fluoride, ppm	
Silica, ppm	
Total Iron, ppm	64
Nitrates, ppm	
Phosphate, ppm	

REMARKS:
First Water sample received from this lease unable to classify at this time. Future reference.

REPORTED BY: Johnny Reinschmidt
CHEMICAL ENGINEERING SECTION
Copies to:

SUN 5434
SUN PRODUCTION COMPANY
PRODUCTION SERVICE LABORATORY

WATER ANALYSIS REPORT

ANALYSIS NO. C-8214

FILE 23-435

Operator SUN E & P CO. *568356*
Lease or Well JENNINGS B FEDERAL
Formation YATES
Perfs 2950 To 60 ; T.D.
Method of Collecting Sample HEATER TREATER
Treatment
Date of last acid job

Total Prod.	BOPD	BWPD	MCFPD
	25	100	

District SOUTHWESTERN
Field EAST LUSK
County LEA
State NEW MEXICO
Collected by
Date 3/14/83 (Collected) 3-28-83 (Analyzed)
Sample No. 26043
Analyst PPI

Description of Sample 9/10 PINT CLEAR WATER.

CONSTITUENTS	ppm
Sodium	5710
Calcium	1140
Magnesium	407
Barium	0
Strontium	
Potassium	
Iron	0
Chloride	9600
Sulfate	2460
Carbonate	0
Bicarbonate	1020
TOTAL DISSOLVED SOLIDS	20337

OTHER PROPERTIES	
pH	6.9
Specific Gravity	1.0159
Resistivity ohm-mtr. @ 75° F	.343
Loss on Ignition, ppm	
Total Solids by Evap., ppm	
Organic acids, ppm	
Hardness as $CaCO_3$, ppm	
Sulfide	PRESENT
Mixed Oxides (Qualitative)	
Fluoride, ppm	
Silica, ppm	
Total Iron, ppm	0
Nitrates, ppm	
Phosphate, ppm	

REMARKS:
First water samples received from this lease. Unable to classify at this time. Future reference.

Johnny Reinschmidt
REPORTED BY: Johnny Reinschmidt
CHEMICAL ENGINEERING SECTION
Copies to:

XII.

Jennings "B" Federal #2

I, Bob Walker, 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.

Bob Walker
Area Geologist
Sun Exploration and Production Co.

July 10, 1984
Date

III. Well Data- Attached well sketch

A.

1. Jennings "B" Federal Well #2
   Section 15, T-19-S, R-32-E,
   Unit Ltr. "N", 660' FSL & 1980'FWL.

2. Casing Data:
   8-5/8", 24#, 426' cmtd w/ 375 sxs, Top of cmt.-Surface
   hole size 12¼", 5½", 14# 3100' cmtd w/ 505 sxs,
   Top of cmt-surface, hole size 7-7/8".

3. Tubing Data:
   2-3/8", 4.7#, cmt lined, 2889'+

4. Packer Otis Perma-latch Pkr w/ OSTSD w/ 1.5 "N" profile
   set at 2889'+.

B.

1. Injection formation- Seven Rivers
2. Perfs- 3100-3350' Open Hole
3. Well was originally drilled as an oil well.
4. Sqzd perfs w/ 100 sxs 3012-20', Reperf 3012-18.
5. The next oil producing horizon known for this area is from
   the top of the 2nd Bone Springs Limestone. This is producing
   in the Jennings Federal Com. No. 1 at a depth of 9874-9890.

Jennings "B" Federal #2
History

Loc: 1980 FWL & 660' FSL, Sec. 15, T-19-S, R-32-E, Lea County, N.M.

Elevations: GL - 3621 KB-3631

Casing: 8-5/8", 24# @ 426', cmtd w/375 sx, circ 30 sx
5½", 14# @ 3100', cmtd w/505 sx, circ 35 sx

TD-3100 PBTD-3074 (FC)

2/19/81 Perf 3012-3020, 1 JSPF
Acidized w/500 gals 15% NEFEHCL, BDP-2100,
Mx-4500, ISIP 1200, 5 BPM. Balled out after 380 gals.
Fraced w/25000 gals gelled 2% KCL & 40,000# 20/40 sd.
BDP-2100, Mx-2300, ISIP-1700, 8 BPM

2/21/81 Swb 3 hrs rec tr. oil, 34 BLW, lge amt. of sand
CO sand, POP

3/17/81 24 Hrs P 0 BO, 126 BW FL 961 (1818 on SN)

5/13/81 Sqzd perfs 3012-20 w/100 sx Cl C, FP-2500, Rev out 45 sx. DO cmt and retainer, CO Sd to 3074'.

5/16/81 Reperforated 3012-18, 7 holes, swabbed 1/4 hr, no FE
Acidized w/500 gals 15% NEFEHCL BDP-1250, Mx-1600, ISIP-760
Swab 3 hrs Rec 0 BO, 25 BLAW FL-2924
Est FE 4 BPH. Swabbed 7 hrs. Rec 0 BO, 13 BLAW, 23 BW FL-1000 to 2924.

5/19/81 Swab 2 hrs, Rec 0 BO, 12 BW, FL 700 to 2900.
Well was TA'd.

11/1/83 Tag btm - 3065'. Added perfs 2986-3004, 3050-60 and reperfed 3012-18 w/2 JSPF.
Acidized perfs 2986-3060 w/4000 gals 15% NEHCL in 2 stgs w/75 ball sealers and and 250# GRS. BDP-700, Mx-2600, Avg-2250, ISI-1500, 4 BPM.
Established inj. rate into Yates, 1 BPM @ 600 psi, w/20 bbls lease wtr.
RIH w/Otis permalatch pkr w/OSTSD, 1.5 'N' profile, on 2-3/8" cmt lined tbg, circ ann. w/pkr fluid, set pkr @ 2889'. Estab. inj. rate into perfs 1 BPM @ 600#, amt. of wtr. used not known.

3/14/84 Hooked-up well to surf. inj. equip. Inj. pressure was 1250 psi. and increasing. (Limited to 600 psi). Well was acidized w/1000 gals 15% NEHCL at 1½ BPM, Avg-1750#, Mx-1900. Inj. press still too high after acid job. Well SI.

WELL COMPLETION SKETCHES SUN-5036-4-A

WELL: Jennings 'B' Fed #2 wpms | FIELD: North East Lusk Yates | DATE: 4/6/84

PRESENT COMPLETION | ☐ SUGGESTED COMPLETION

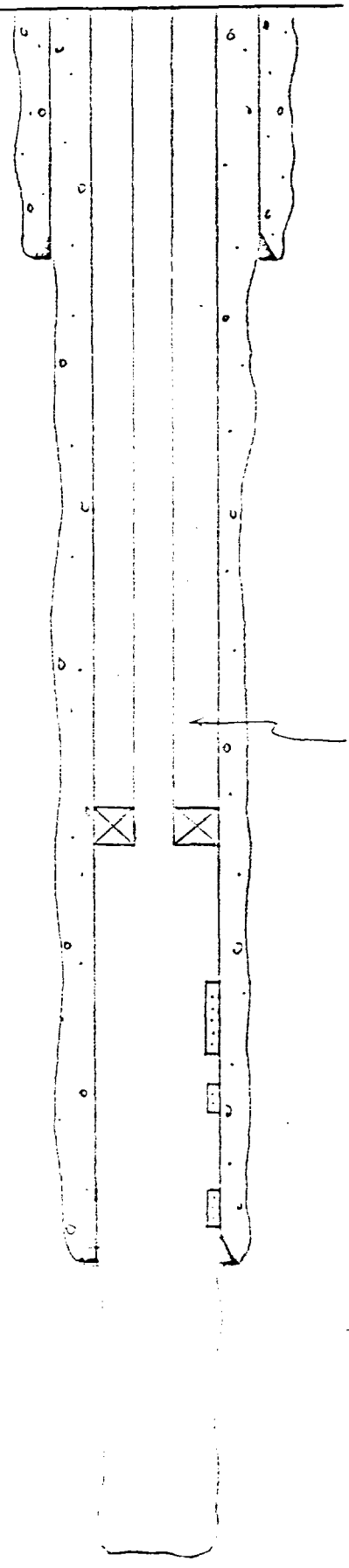
PERMANENT WELL BORE DATA

GL - 3621

8⅝" 24# @ 426' cmtd w/ 275 sx. circ 20 sx.

5½" 14# @ 3100', cmtd w/ 540 sx, circ 35 sx.

TD - 3100' PBTD - 3065



DATA ON THIS COMPLETION

2⅞" 6.7# Cmt Lined Tbg

OTIS Ponmatch Pkr @ 2389' (btm 2395') w/ OSTSD.

1.5 'N' Profile

Yates Perforations

2936 - 38 w/4 (2 SPF)

3012 - 18 (2 SPF)

3050 - 60 (2 SPF)

* Recommend deepening well approx 250' thru the Seven Rivers zone

New TD - 3350' 4¾" O.H.

JENNINGS "B" FEDERAL #2

Surface owner for this well is the Bureau of Land Management (since this well is a federal well). A copy of the application has been mailed to them for their records.

AFFIDAVIT OF PUBLICATION

State of New Mexico,

County of Lea.

I, _____

Robert L. Summers

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 in a supplement thereof for a period

of _____

One weeks.

Beginning with the issue dated

June 13, 19 84

and ending with the issue dated

June 13, 19 84

Robert L Summers
Publisher.

Sworn and subscribed to before me this 14 day of June, 19 84

Jane Pavlowsky
Notary Public.

My Commission expires 3-24, 19 87
(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.

OFFICIAL SEAL
Signature Jane Pavlowsky
JANE PAVLOWSKY
NOTARY PUBLIC - NEW MEXICO
NOTARY BOND FILED WITH SECRETARY OF STATE
My Commission Expires 3-24-87

LEGAL NOTICE
June 13, 1984

Sun Exploration & Production Company, P.O. Box 1861, Midland, Texas 79702, (contact party, Rita Monroe (915) 688-0331) has applied to the New Mexico Oil Conservation Division for approval to inject fluid into a formation which is productive of oil or gas. The proposed injection site is the Jennings "B" Federal lease, Well No. 2, located in Section 15, T-19-S, R-32-E, Lea County, New Mexico. This well is injecting into the Yates formation. Sun plans to extend injection into the Seven Rivers formation, open hole 3100' (plus or minus) 3350' (plus), with the expected maximum injection rate of 200 barrels a day at the maximum pressure 800 pounds.

Interested parties must file objections or requests for hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87501.

Sun Production Operations Division
Southwestern District

Sun Exploration and Production Company
No 24 Smith Road
ClayDesta Plaza
PO Box 1861
Midland TX 79702 9970
915 688 0300

July 18, 1984

Petroleum Development Corporation
9720-B Candelaria Road
Albuquerque, New Mexico 87112

Re: 15 day Notice
Injection Application
Jennings "B" Federal #2

Gentlemen:

Sun Exploration & Production Company is filing to obtain permission from the New Mexico Oil Conservation Division to expand the injection interval to the Seven Rivers formation. The well is already injecting into the Yates formation. Attached is a copy of the application since your company has lease holdings within the one-half mile reviewing radius of our well.

If you have any objections to our application, please notify the New Mexico Oil Conservation Division within fifteen days.

If you need additional information, please contact me at (915) 688-0374.

Very truly yours,

Dee Ann Kemp
Associate Accountant

DAK:js

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