STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

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

FORM C-108
Revised 7-1-81

RECEIVED
SEP 19 1983
OIL CONSERVATION DIVISION
SANTA FE

APPLICATION FOR AUTHORIZATION TO INJECT

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

II. Operator: Sun Exploration and Production Co.

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

Contact party: Dee Ann Kemp Phone: 915-688-0300

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 propcsed 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 Accounting Asst. II

Signature: Dee Ann Kemp Date: 9-2-83

* 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.

Section III. A. Well Data

1) Lease Name: Watkins
Well Name: Watkins #1
Location: 660' FNL and 330' FEL of Section 35, Unit letter A, T 24S-R-36E, Lea Co., New Mexico.

2) Casing and Cementing Record

Surface Csg: 8-5/8", 24#/ft. set in 10¼" hole, C.S. @ 295', cmt. circ. to surf. with 125 sx. TOC @ surf. by circ.

Prod. Csg: 5½" 15.5#/ft. set in 7-5/8" hole, C.S. @ 2704', cmt. circ. to surf. with 600 sx. TOC @ surf. by circ.

Liner: 4" FJ 9.5#/ft. set in 4-3/4" hole, liner set from 2600' - 3054', sqz. cmt. with 50 sx.

3) Tubing to be used:

2-7/8" J-55, 6.7#/ft. cement lined.
Tubing seat @ 2620

4) Packer:

Baker Model AD-1 tension packer. 2-7/8" X 5½" set @ 2580'.

Section III B. Well Data

1) Injection Formation: Seven Rivers
Pool Name: Jalmat

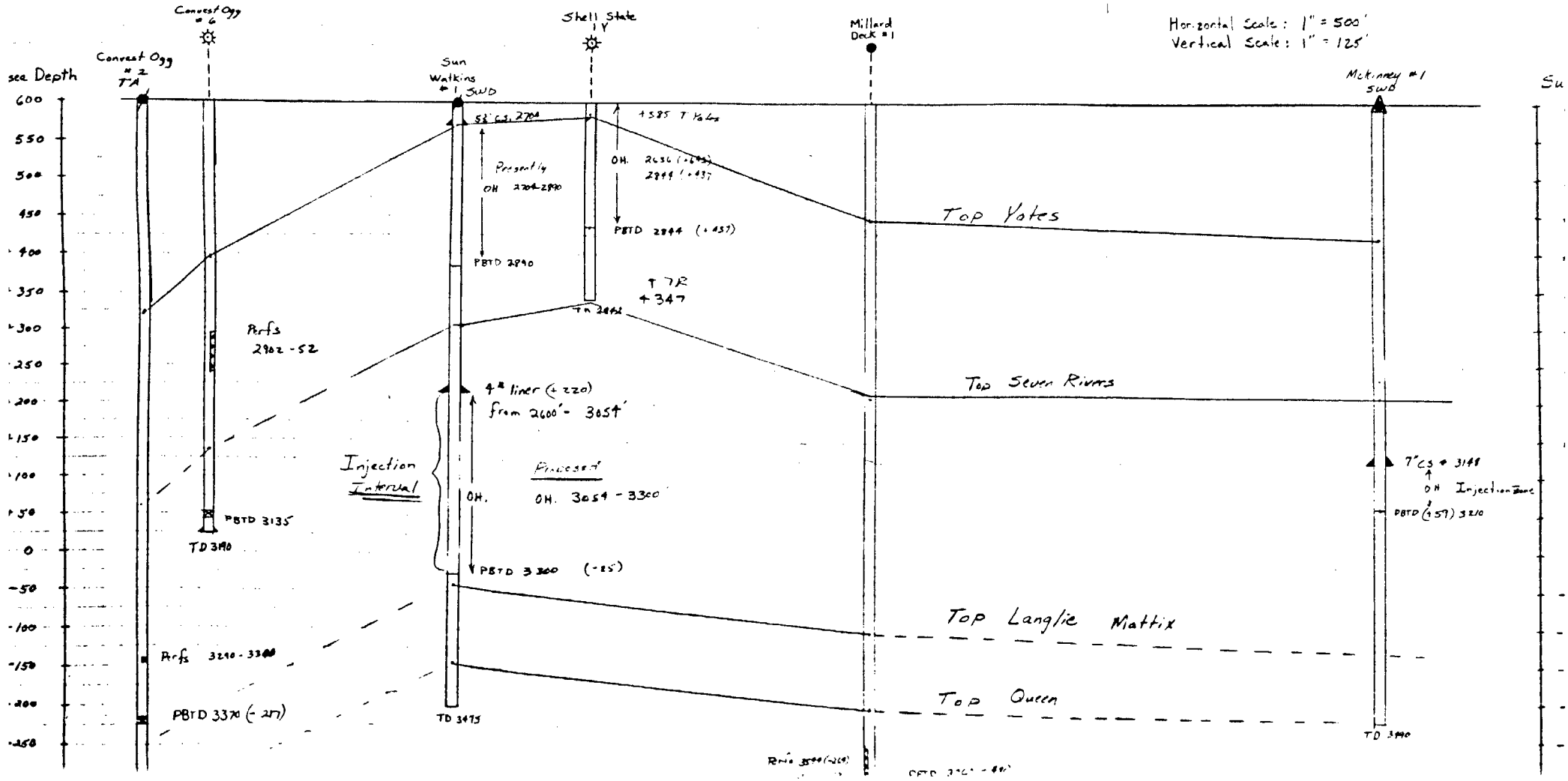
2) The injection interval will be open hole from 3054' - 3300'.

3) This well was originally drilled as an oil well and completed 8-6-51.

4) There are no other perforated intervals in this well. This well was originally drilled to a T.D. of 3475' and plugged back to 2890.

5) The next higher oil or gas zone is the Yates. Top of Yates @ 2704. Base of Yates @ 2970'.

The next lower oil or gas zone is the Queen. Top of Queen @ 3415'.


Horizontal Scale: 1" = 500'
Vertical Scale: 1" = 125'
sea Depth
600
550
500
450
400
350
300
250
200
150
100
50
0
-50
-100
-150
-200
-250
Conoco Ogg #2 TA
Conoco Ogg #6
Sun Watkins #1 SWD
Shell State Y
Millard Deck #1
McKinney #1 SWD
58' CS 2704
4585 T Yates
Presently OH 2704-2890
PBTD 2890
OH. 2636 (+437) 2944 (+437)
PBTD 2944 (+437)
T 7R +347
Prfs 2902 - 52
4" liner (+220) from 2600' - 3654'
Injection Interval
Proposed OH. 3054 - 3300
PBTD 3135
TD 3190
PBTD 3360 (-25)
Prfs 3240 - 3300
PBTD 3370 (-27)
TD 3475
Top Yates
Top Seven Rivers
Top Langlie Mattix
Top Queen
7" CS @ 3148
OH Injection Zone
PBTD (+57) 3210
TD 3190

WELL COMPLETION SKETCHES
SUN-6641-A

WATKINS #1	JALMAT	7/26/83
WELL	FIELD	DATE

☐ PRESENT COMPLETION

☒ SUGGESTED COMPLETION

☐ ORIGINAL COMP.

WELL CLASS SWD

PERMANENT WELL BORE DATA

Location: 660'FNL & 330' FEL of Sec.35,T24S-R36E, Lea Co.,New Mexico

Elev. GR 3274'
Spud 4/7/51,Comp.8/6/51

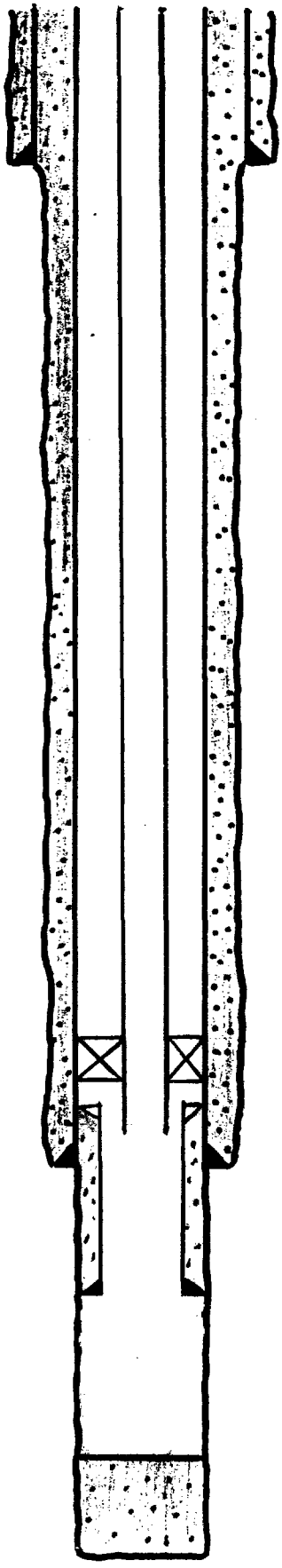
Surf. Csg. 8-5/8",24#/ft. C.S.@ 295' cmt. circ. to surf. with 125 sx. (10¼" hole)

Prod. Csg. 5½",15.5#/ft. C.S.@ 2704' cmt. circ. to surf. with 600 sx. 7-5/8" hole
Top Yates 2704'

Top Seven Rivers 2970'

Top Langlie Mattix 3315'

PBTD 3300'
TD 3475'



DATA ON THIS COMPLETION

T.O.C. @ surf. for both csg. strings.

Stimulation History:

8/3/51 shot from 2775 to 2880 with 310qts. Nitro

2/24/81 Acidized with 1500 gals. 15% NEFE from 2704-2890

Tubing: 2-7/8",J-55,6.5#, Cement Lined(Flouroline) T.S. @ 2620'

Packer: Baker Mod. AD-1 2-7/8"X5½" @ 2580'

Liner: 4" FJ liner from 2600'-3054' cmt. w/50sx.

4-3/4" open hole from 3054'-3300' Seven Rivers

WELL COMPLETION SKETCHES
SUN-6641-A

WATKINS #1	JALMAT	7/26/83
WELL	FIELD	DATE

[X] PRESENT COMPLETION

[ ] SUGGESTED COMPLETION

[ ] ORIGINAL COMP.

WELL CLASS T.A.

PERMANENT WELL BORE DATA

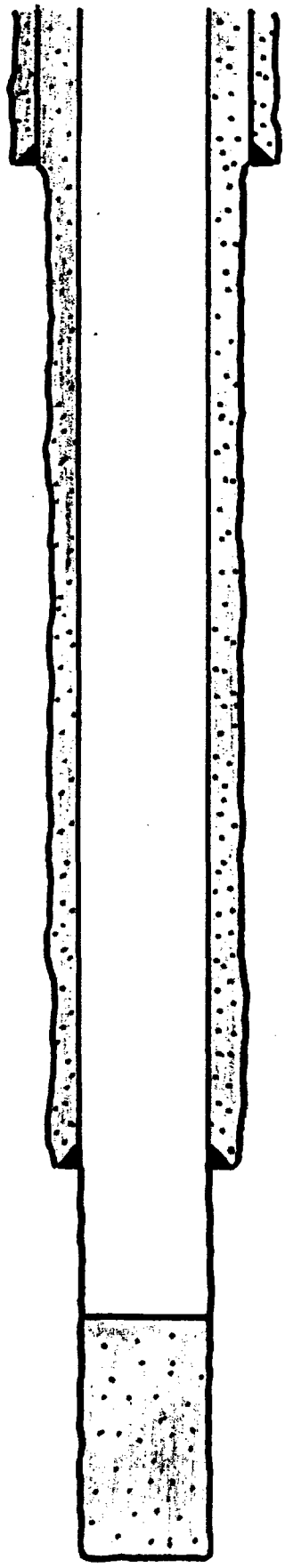
Location: 660'FNL & 330' FEL of Sec. 35 T24S R36E Lea , Co. , New Mexico

Elev. Gr. 3274'
Spud 4/7/51,Comp.8/6/51

Surf. Csg. 8-5/8 , 24#/ft. C.S.@ 295' cmt. circ. to surf. with 125 sx. 10¼" Hole

Prod. Csg. 5½", 15.5#/ft. C.S. @ 2704 cmt. circ. to surf. with 600 sx. 7-5/8" hole
Top Yates 2704'
Top Seven Rivers 2970'
PBTD. 2890' plugged back With 75 sx. cmt.

T.D. 3475



DATA ON THIS COMPLETION

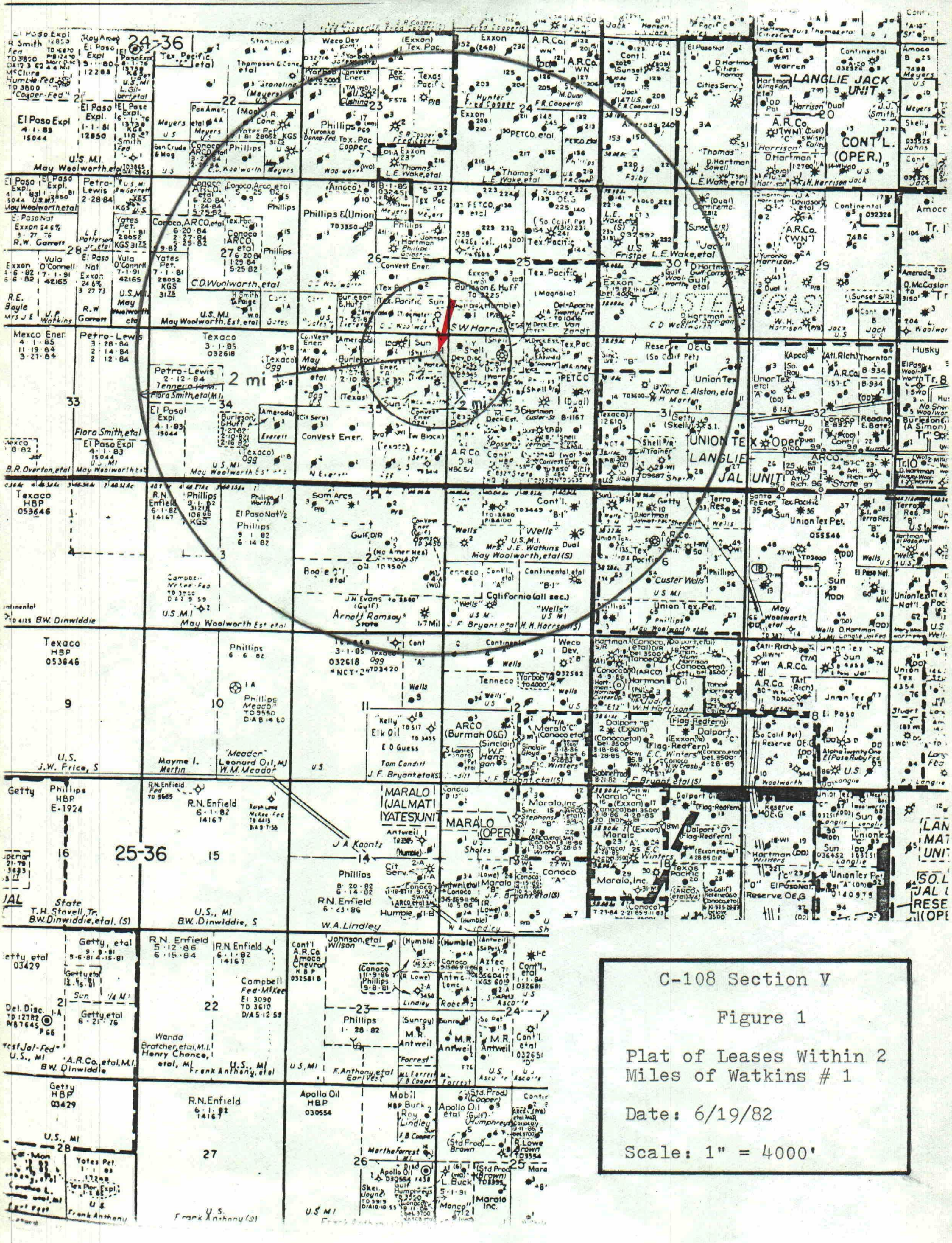
T.O.C. @ surf. for both csg. strings.

Stimulation History:

8/3/51 - Shot from 2725-2880 with 310 qts. Nitro

2/24/81 - Acidized with 1500 gal. 15% NEFE from 2704-2890.

4-3/4" open hole from 2704- 2890



C-108 Section V

Figure 1

Plat of Leases Within 2 Miles of Watkins # 1

Date: 6/19/82

Scale: 1" = 4000'

C-108 Section V

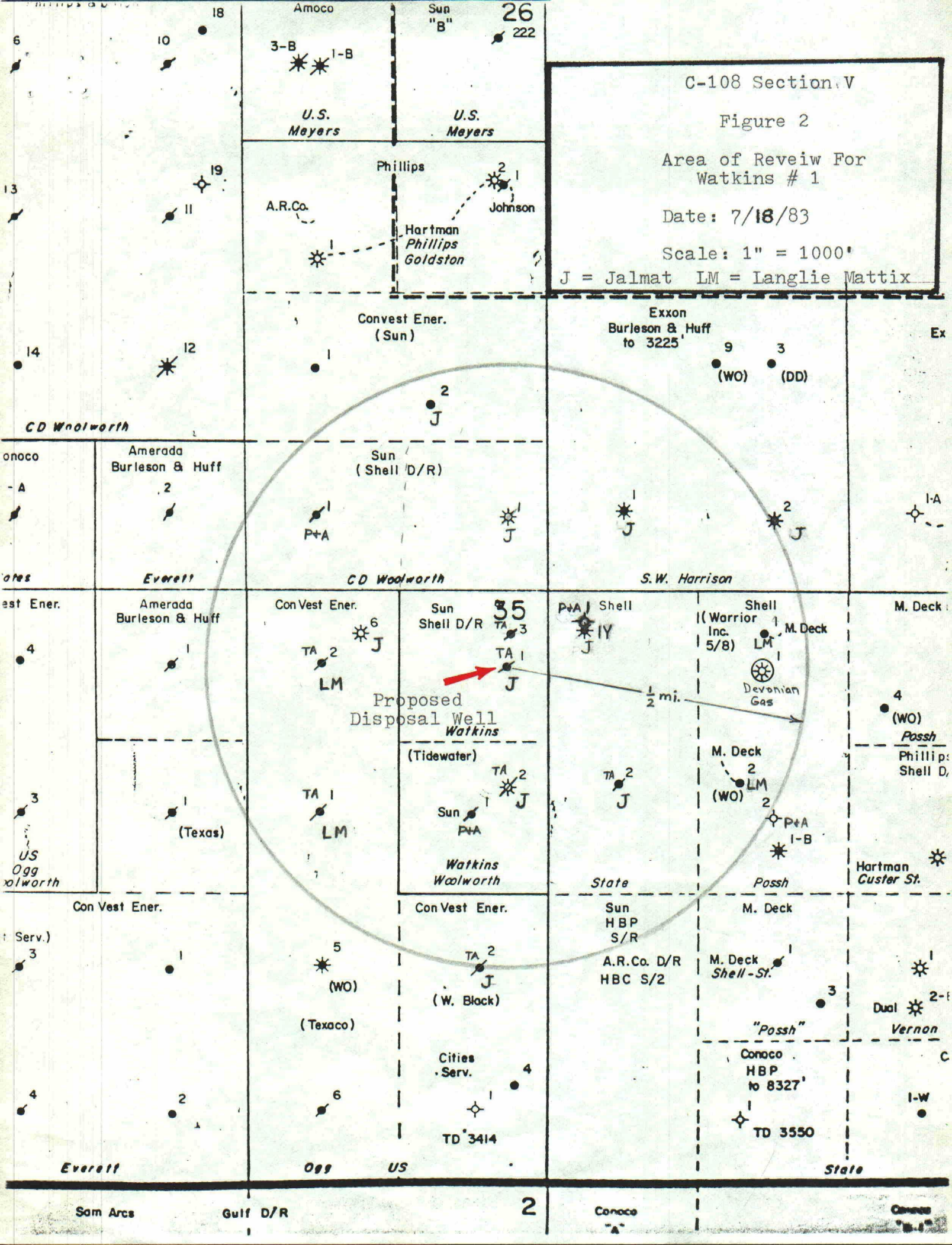
Figure 2

Area of Reveiw For
Watkins # 1

Date: 7/18/83

Scale: 1" = 1000'

J = Jalmat LM = Langlie Mattix



Section VI

There are 19 wells within the area of review. There are 4 plugged and abandoned wells, 6 temporarily abandoned wells, and 9 producing wells within the area of review. Seventeen of the 19 wells penetrate the proposed injection zone, although none are presently producing from this zone. The following data was tabulated on the wells within the area of review.

PRODUCING WELLS

Well Name: Convest Energy C. D. Woolworth #2

Field: Jalmat

Location: 1650' FSL and 990' FEL of Section 26, Unit letter I, T 24S-R36E, Lea County, New Mexico.

Elevation: D.F. 3306'

Spud date: 4-23-78 Comp. Date: 5-20-78

TD: 3356' PBTD: 3022'

Casing and cementing record:

Surf. Csg: 8-5/8", C.S. @ 1150' cmt. with 800 sx. Cement circ. to surf.

Prod. Csg: 5½" - 15.5#, C.S. @ 3356' cmt. with 400 sx. Top of cement at 2740' by cement bond log.

Completion Record:

Initial Completion: Perforations from 2958'-2988' in Yates. 2-3/8" Tubing & pkr. @ 2920'.

Initial Potential: F 18 BOPD and 85 BWPD 48/64 Ck.

Present Completion: Same as initial.

Present Well Class: Oil well producing

Recent Test: 1-1-83 2 BOPD and 70 BWPD.

WELL COMPLETION SKETCHES
SUN-6641-A

C.D. Woolworth #2 — WELL
Jalmat — FIELD
7 - 15 - 83 — DATE

☒ PRESENT COMPLETION
☐ SUGGESTED COMPLETION

☐ ORIGINAL COMP.
WELL CLASS Oil

PERMANENT WELL BORE DATA

1650' FSL & 990' FEL sec. 26
Spud. 4-23-78 Comp. 5-20-78
DF 3300
Surf. Csg. 8 5/8"
C.S. @ 1150' cmt. 800 sx.
circ. to surf.

Top of Cement @ 2790'
Cement Bond Log

PBTD 3022'

Prod. Csg. 5½" - 15.5#
C.S. @ 3356' cmt. 900 sx.
TD 3356

DATA ON THIS COMPLETION

2 3/8" tubing T.S. @ 2920'
Packer @ 2920'

Perf: Yates
2958 - 2988

Well Name: Convest Energy Ogg "A" #6

Field: Jalmat

Location: 330' FNL and 1650' FEL of Section 35, Unit letter B, T 24S-R36E, Lea County, New Mexico

Spud date: 5-8-68 Comp. Date: 6-13-68

TD: 3190' PBTD: 3135' CIBP

Casing and cementing record:

Surf. Csg: 8-5/8", C.S. @ 100' cmt. with 125 sx. Circ. to surf.

Prod. Csg: 5½", C.S. @ 2795' cmt. with 450 sx.
Top of cement @ 1000' Temp. Survey (7-7/8" hole).

Liner: 3½" from 2630'-3190' Squeezed with 90 sx. cmt.

Completion Record:

Initial Completion: Open hole in Yates - 7 Rivers from 2795'-3145'

Initial Potential: F 62 BOPD, 566 MCFD, and 1 BWPD 32/64 Ck.

Workovers:

W.O. #1 - 3/17/76 Deepened from original TD 3145'- to 3190'. Set 3½" liner from 2630' to 3190'. Squeezed liner with 90 sx. cmt. perforated 3150-51. Set CIBP @ 3140' with 5' of cement on top. Perforated Yates from 2902'-52' with 8 holes.

Present Completion: Same as W.O. #1. Yates - perfs 2902'-52'.

Present Well Class: Gas - Yates

WELL COMPLETION SKETCHES
SUN-6641-A

Convest Energy Ogg "A" #6 (WELL) | Jalmat (FIELD) | 7-15-83 (DATE)

☒ PRESENT COMPLETION
☐ SUGGESTED COMPLETION

☐ ORIGINAL COMP.
WELL CLASS Oil

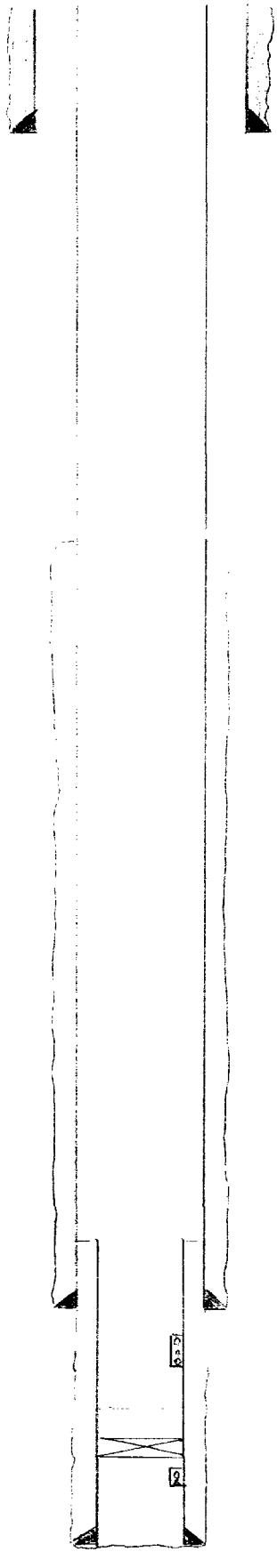
PERMANENT WELL BORE DATA

330' FNL & 1650' FEL sec 35
Spud: 5-8-68
Comp. 6-13-68
Surf. Csg. 7 5/8"
C.S. @ 100' cmt. with
125 sx. circ. to surf.

Top of Cmt. @ 1000'
Temp. Survey

Prod. Csg. 5½"
@ 2795' cmt. with
450 sx (3 stages)

TD 3190'



DATA ON THIS COMPLETION

3/17/76
3½" liner from 2630-
3190' squeezed with
90 sx. cmt.
Perfs 2902-52 (8 holes) Yates
CIBP @ 3140 with 5' cmt. on top
Perfs 3150-51

Well Name: Lewis B. Burleson Harrison #1

Field: Jalmat

Location: 660' FSL & 660' FWL of Section 25, Unit letter M, T 24S-R36E, Lea County, New Mexico.

Spud date: 9-17-35 Comp. date: 11-9-35

TD: 3572' PBTD: 2991'

Casing & cementing record:

Surf. Csg: 13-3/8", C.S. @ 294', cmt. 200 sx., cmt. circ. to surf.

Inter. Csg: 9-5/8", C.S. @ 2674', cmt. 870 sx, cmt. circ. to surf.

Prod. Csg: 7", C.S. @ 3355', cmt. 125 sx.

Completion Record:

Initial completion: Open hole 3355-3430', Seven Rivers.

Initial Potential: F 26 BOPD, 56 BWPD, & 1500 MCFGD

Workovers:

W.O. #1 - 2-11-43 Set cmt. retainer @ 3305' and sqz below with 100 sx cmt. Perforate 3140-3230 89 holes
Test: 6800 MCFD

W.O. #2 - 3-21-44 Set cmt. retainer @ 3118. Sqz perfs below with 25 sx. Perf. 2941'-91' with 50 holes.
Test: 1250 MCFD

W.O. #3 11-24-48 Perforate 2800'-2941'.
Test 780 MCFD

W.O. #4 11-21-78 Clean out to 3060. Perf 3025-34.
Plug back to 2991'.

Present Completion:

Yates perfs 2800'-2991'

Present Status: Producing gas well

WELL COMPLETION SKETCHES
SUN-6641-A

Lewis B. Burleson Harrison #1 — WELL
Jalmat — FIELD
7 - 15 - 83 — DATE

☒ PRESENT COMPLETION
☐ SUGGESTED COMPLETION

☐ ORIGINAL COMP.
WELL CLASS Oil

PERMANENT WELL BORE DATA

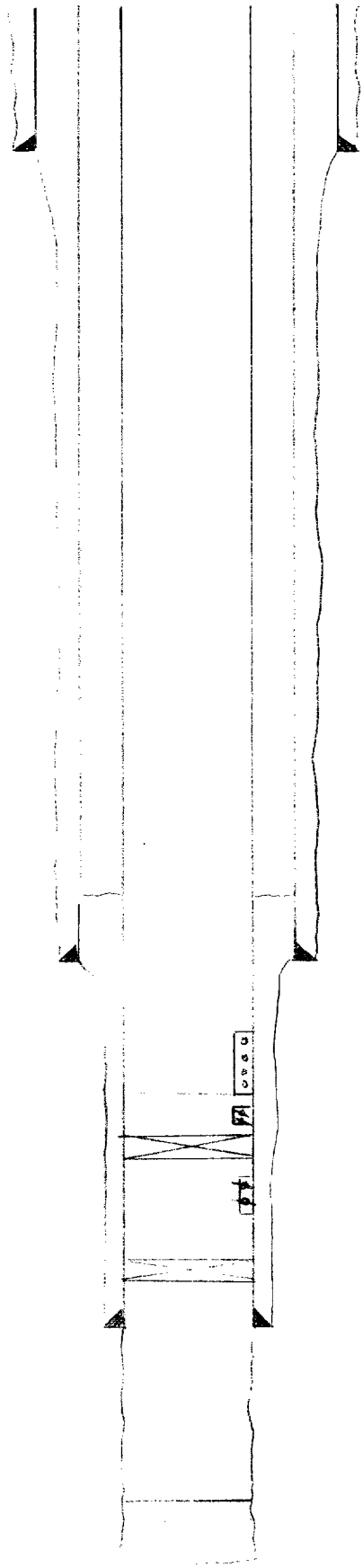
660' FSL & 660' FWL Sec. 25
T 24S, R 36E Lea Co. NM
Spud: 9-17-35 Compl: 11-9-35
Surf. Csg. 13 3/8"
C.S. @ 294' cmt 200 sx.
cmt. circ.

Int. Csg. 9 5/8"
C.S. @ 2674' cmt 470 sx.
cmt. circ.

T.O.C. 7" 2440' (Calc.)

Prod. Csg. 7"
C.S. @ 3355' cmt 125 sx.

T.D 3572'



DATA ON THIS COMPLETION

Perfs 2800' - 2991'
PB to 2991'
Perfs 3025 - 34 sqzd.
Cmt. retainer @ 3118'
sqz below with 25 sx cmt.
Perfs 3140 - 3230 sqzd.
Cmt. retainer @ 3305'
with 100 sx. cmt.
below
Orig.
O. H. 7 Rivers
3355' - 3430'

Well Name: Lewis B. Burleson Harrison #2

Field: Langlie Mattix

Location: 660' FSL and 1980' FWL of Section 25, Unit letter N, T 24S, R36E, Lea County, New Mexico

Spud date: 2-1-78 Comp. Date: 3-15-78

TD: 3620' PBTD: 3490 CIBP

Casing and cementing record:

Surf. csg: 8-5/8" set in 13-3/4" hole, C.S. @ 1165', cmt with 550 sx., cmt. circ.

Prod. Csg: 4½", set in 7-7/8" hole, C.S. @ 3620', cmt with 300 sx, TOC calc. 2240'.

Completion Record:

Initial Comp: Perf 3502'-3578' Queen

Initial Potential: F 53 BOPD, 10 BWPD

Workovers:

W.O. #1: 6-5-79 Set CIBP @ 3490'.
Perforated Yates 2895-3094.
Test: 532 MCFGD

Present Completion: Same as W.O. #1 perfs 2895'-3094'.
Upper Seven Rivers Yates.

WELL COMPLETION SKETCHES
SUN-6641-A

Lewis B. Burleson Harrison #2 — WELL
Langlie Mattix — FIELD
7-15-83 — DATE

☒ PRESENT COMPLETION
☐ SUGGESTED COMPLETION

☐ ORIGINAL COMP.
WELL CLASS Oil

PERMANENT WELL BORE DATA

660 FSL & 1980 FWL Sec. 25
Comp. 3-15-78

Surf. Csg. 8 5/8" (13 3/4")
C.S. @ 1165' cmt. 550 sx.
cmt. circ.

TOC 2240' (Calc.)

Prod. Csg. 4½" (7⅞" hole)
C.S. 3620' cmt. 300 sx.
T.D. 3620'

DATA ON THIS COMPLETION

Perf. 2895-3094 (19 holes)
Notes - 7 Rivers

CIBP @ 3490'

Perf: Queen
3502' - 3578' (11 holes)

Well Name: Millard Deck Possh #1

Field: Langlie Mattix

Location: 360' FNL and 1880' FWL of Section 36, Unit letter C, T 24S-R36E, Lea County, New Mexico.

Spud date: 4-16-80 Comp. Date: 5-18-80

Elevation: K.B. 3284'

T.D.: 4232' PBTD: 3760'

Casing and cementing record:

Surf. csg: 8-5/8" - 24#, C.S. @ 365', cmt. with 300 sx. to surf.

Prod. csg: 5½" - 14#, C.S. @ 4227', cmt. with 1050 sx., cmt. circ. to surf.

Completion record:

Initial completion: Perforated Queen 3544'-3619'
Initial potential: 20 BOPD and 150 BWPD

Present completion: Same as initial

Present status: Producing oil well

WELL COMPLETION SKETCHES
SUN-6641-A

Millard Deck Possh #1 (WELL) | Langlie Mattix (FIELD) | 7-5-83 (DATE)

☒ PRESENT COMPLETION
☐ SUGGESTED COMPLETION

☐ ORIGINAL COMP.

WELL CLASS Oil

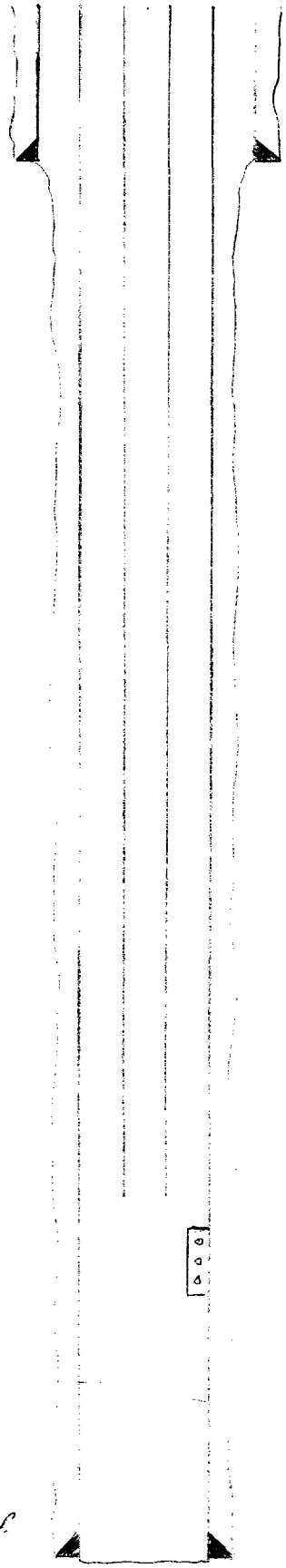
PERMANENT WELL BORE DATA

360' FNL & 1880' FWL Sec. 36
K.B. 3284'
Completed 5-18-80

Surf. Csg. 8⅝" - 24#
CS @ 365' cmt. 300 sx.
circ. to surf.

PBTD 3760'

Prod. Csg. 5½" - 14#
C.S. @ 4227' cmt. 1050 sx. circ. to surf.
T.D. 4232'



DATA ON THIS COMPLETION

Tubing 2⅞"

T.S. @ 3520'

Queen Perfs:
3544' - 3619'

Well Name: Millard Deck Possh #2

Field: Langlie Mattix

Location: 1650' FNL and 1650' FWL of Section 36, Unit letter F, T 24S-R36E, Lea County, New Mexico

Elevation: KB: 3278'

Spud date: 8-25-80 Comp. date: 10-21-80

T.D.: 3750' PBTD: 3693'

Casing and cementing record:

Surf. csg: 8-5/8" set in 12¼" hole, C.S. @ 371', cmt. with 300 sx. cmt circ to surf.

Prod. csg: 5½" set in 7-7/8" hole, C.S. @ 3750', cmt. with 1100 sx., cmt circ. to surf.

Completion Record:

Initial completion: Perforated 3553-3627 (17 holes) Queen

Initial Potential: 3 BOPD, 20 BWPD

Present completion: Same as initial 3553'-3627' Queen

Present status: Oil well

WELL COMPLETION SKETCHES
SUN-6641-A

Millard Deck Posh #2 (WELL) | Langlie Mattix (FIELD) | 7-15-83 (DATE)

☒ PRESENT COMPLETION
☐ SUGGESTED COMPLETION

☐ ORIGINAL COMP.

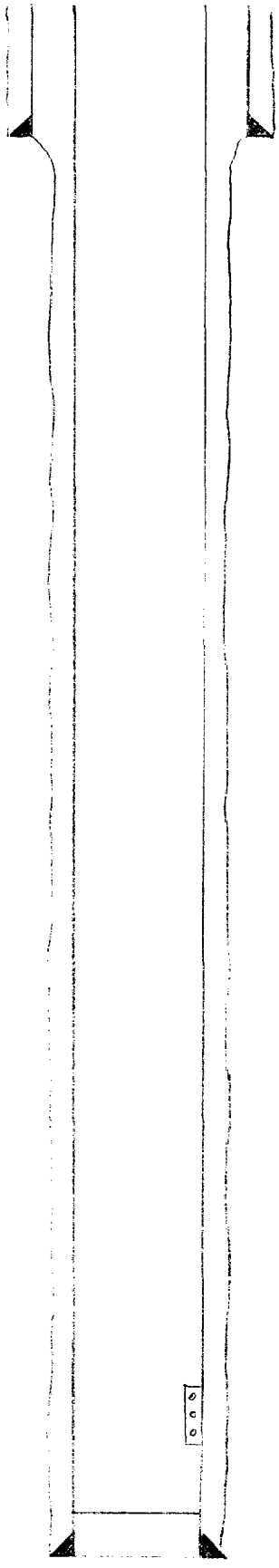
WELL CLASS Oil

PERMANENT WELL BORE DATA

1650' FNL & 1650' FWL sec. 36
T 24S, R 36E, Lea Co., New Mex.
Elev. KB. 3278'
Spud: 8-25-80 Comp: 10-21-80

Surf. Csg: 8⅝" set in 12¼" hole, C.S. @ 371', cmt. with 300 sx, cmt circ. to surf.

Prod. Csg: 4½" in 7⅞" hole C.S. @ 3750, cmt. 1100 sx. cmt. circ. to surf.
PBTD 3693'



DATA ON THIS COMPLETION

Perfs: 3553 - 3627
Queen

Well Name: Shell State 1Y

Field: Jalmat

Location: 380' FNL and 380' FWL of Section 36, Unit letter D, T 24S-R36E, Lea County, New Mexico

Elevation: DF 3281'

Spud date: 1-25-53 Comp. date: 2-29-53

TD: 2942' PBTD: 2844'

Casing and cementing record:

Conductor: 13-3/8" - 48# set in 17¼" hole, C.S. @ 73', cmt. to surf. with 60 sx.

Surface csg: 8-5/8" - 32# set in 12¼" hole, C.S. @ 1195', cmt. to surf. with 750 sx.

Prod. csg: 5½" - 15.5# set in 7-7/8" hole, C.S. @ 2636', cmt. with 350 sx. TOC @ 1000' indicated by free point.

Completion record:

Initial completion: Open hole from 2636'-2942' in Tansill and Yates.

Initial Potential: AOF 5330 MCFGD

Present completion: Same as initial. Open hole 2636-2942 Tansill and Yates.

Well status: Gas well

*This well does not actually penetrate the proposed injection zone.

WELL COMPLETION SKETCHES
SUN-6641-A

Shell State 1Y	Jalmat	7-15-83
WELL	FIELD	DATE

☒ PRESENT COMPLETION

☐ SUGGESTED COMPLETION

☐ ORIGINAL COMP.

WELL CLASS Gas

PERMANENT WELL BORE DATA

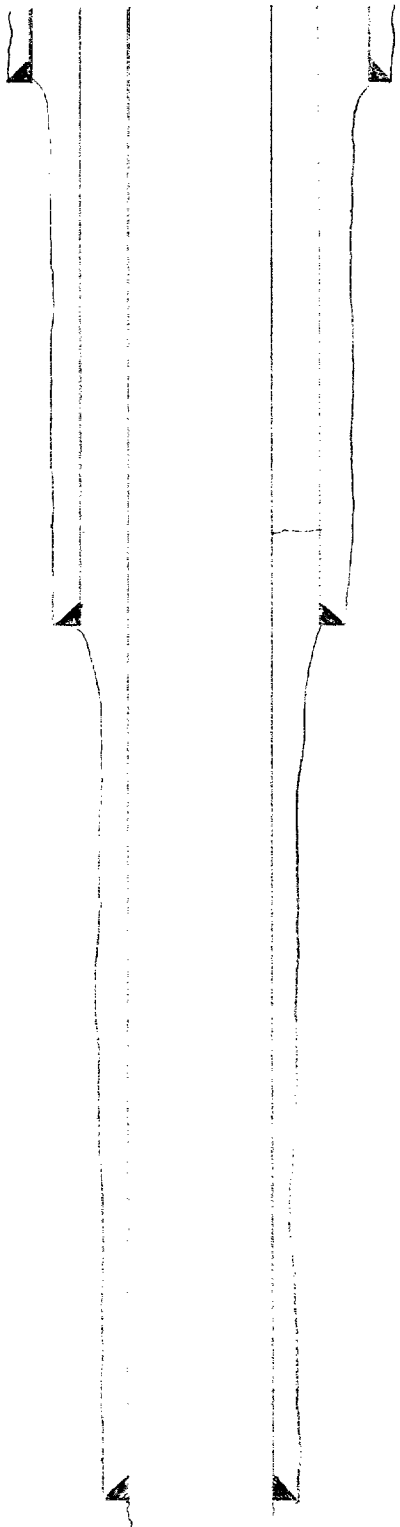
380 FNL & 380 FWL sec. 36
Comp. 2-29-53
D.F. 3281'
Cond. Csg. 13 3/8" - 48#
CS @ 73' cmt. 60 sx.
17 1/4" hole

Surf. Csg. 8 5/8" - 32#
CS @ 1195' cmt. 750 sx.
12 1/4" hole
Cmt. circ. to surf.

TOC 5 1/2" string @
1000' free point

Prod. Csg. 5 1/2" - 15.5#
CS. @ 2636' cmt. 350 sx.
7 7/8" hole

PBTD 2844'
T.D. 2942'



DATA ON THIS COMPLETION

Tbg 2 1/2" @ 2795

O.H. 2636' - 2942'

Well Name: Shell State B #1

Field: Custer Ellenburger

Location: 660' FNL and 1880' FWL of Section 36, Unit letter C, T 24S-R36E, Lea County, New Mexico

Elevation: DF: 3825'

Spud date: 1-26-60 Comp. date: 7-5-60

TD: 12,966' PBTD: 9945'

Casing and cementing record:

Surface csg: 13-3/8" set in 17¼" hole, C.S. @ 1220', cmt. with 800 sx., cmt circ. to surf.

Inter. csg: 9-5/8" set in 12¼" hole, C.S. @ 4088', cmt. with 1500 sx., cmt. circ. to surf.

Prod. csg: 5½" set in 8-3/4" hole, C.S. @ 12,965, cmt. with 610 sx, TOC @ 7505' Temp. Survey.

Completion record:

Initial comp: Perf. 12,730-12,860' Custer Ellenburger

Initial potential: 7714 MCFGD 18/64 Ch TP 3945

Workovers:

W.O. #1: Squeezed perfs 12,730-12,860 with 95 sx. cmt. Set CIBP @ 12,700'. Perforated McKee from 12,604-608.

W.O. #2: Plugged back to 9945'. Perforate Devonian 9843'-9847' with 2 SPF. Ran 2½" tubing and Mod. R double grip pkr. to 9690'.

Present completion: Same as W.O. #2. Perfs 9843-48 Devonian.

Well status: Producing gas well

WELL COMPLETION SKETCHES
SUN-6641-A

Shell StateB# 1	Custer Ellenburger	7-15-83
WELL	FIELD	DATE

☒ PRESENT COMPLETION
☐ SUGGESTED COMPLETION

☐ ORIGINAL COMP.
WELL CLASS Gas

PERMANENT WELL BORE DATA

660' FNL & 1880' FWL Sec. 36
Completed 7-5-60
D.F. 3825'

Surface Csg. 13 3/8" (17½" hole)
C.S. @ 1220' cmt. 800 sx.
circ to surf

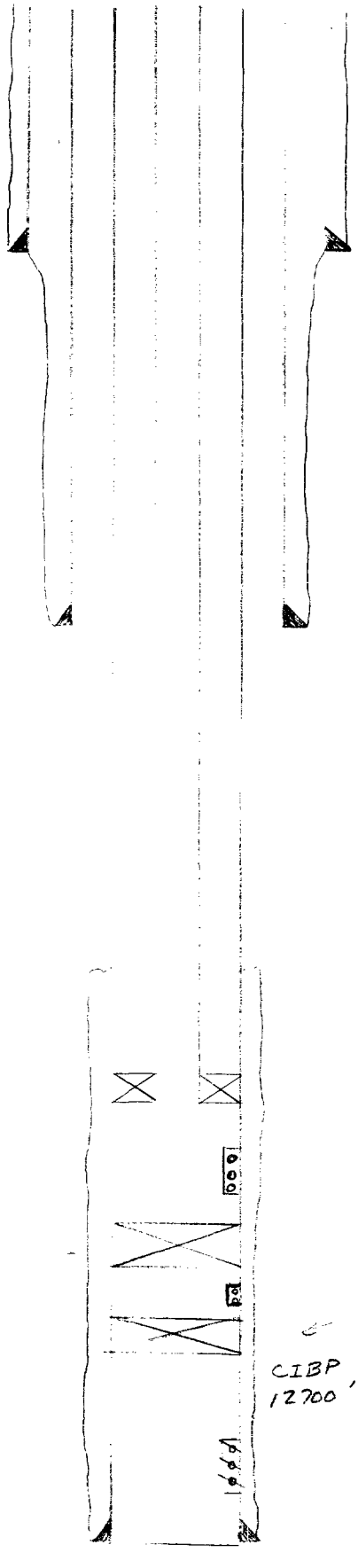
Inter. Csg. 9 5/8" (12¼" hole)
C.S. @ 4088' cmt. 1500 sx.
circ. to surf.

TOC @ 7505'
Temp. Survey

P.B.T.D. 9945'

Prod. Csg. 5½" (8¾" hole)
C.S. @ 12965' cmt. 610 sx.

T.D. 12966'



DATA ON THIS COMPLETION

Tubing 2½"

Mod. R double grip pkr.
@ 9690'

SLDV - Devonian
Perfs: 9843 - 9847'
2 spf

Bridge Plug @ 12700'
Perfs: 12604 - 12608 Mckee
Squeezed with 95 sx
Perfs: 12730 - 12860
Custer Ellenburger

Well Name: Sun C. D. Woolworth #1

Field: Jalmat

Location: 660' FSL and 330' FEL of Section 26, Unit letter P, T 24S, R36E, Lea County, New Mexico

Elevation: DF 3288'

Spud date: 12-19-50 Comp. date: 8-7-51

TD: 2875' PBTD: 2650'

Casing and cementing record:

Surf. csg: 8-5/8", 24# set in 10-3/4" hole. C.S. @ 213' cmt with 150 sx. Cmt. circ. to surf.

Prod. csg: 5½" set in 7-5/8" hole, C.S. @ 2700', cmt. with 2000 sx. cmt circ to surf.

Completion record:

Initial completion: Open hole in Yates from 2700'-2875'

Initial Potential: 4300 MCFD

Workovers:

W.O. #1: Set CIBP @ 2670' with 20 sx. of cmt. on top. Perforated Tansill from 2580'-2612'. Ran 2-3/8" tubing, O.S., and Permalatch pkr. to 2394'.

Present completion: Same as W.O. #1.

Present well Class: Gas well

WELL COMPLETION SKETCHES
SUN-6641-A

Sun · C.D. Woolworth #1 — WELL
Jalmat — FIELD
7-15-83 — DATE

☒ PRESENT COMPLETION
☐ SUGGESTED COMPLETION

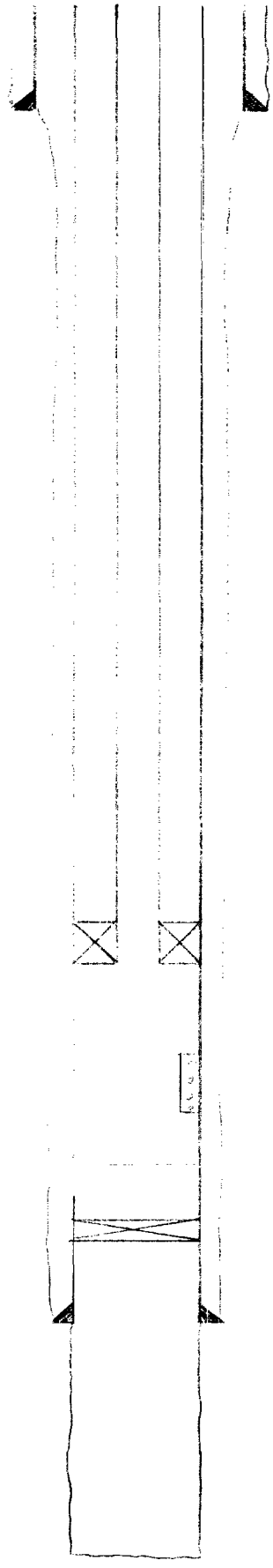
☐ ORIGINAL COMP.
WELL CLASS Gas

PERMANENT WELL BORE DATA

660'FSL & 330'FEL Sec.26
DF 3288'
Surf. Csg. 8 5/8" -24#
C.S. @ 213' cmt. 150sx.
(10 3/4" hole) cmt. circ.

Prod. Csg. 5 1/2"
C.S. @ 2700' cmt. 2000sx.
(7 7/8" hole) cmt. circ.

T.D. 2875'



DATA ON THIS COMPLETION

Tubing. 2 3/8" @ 2393'
, O.S., and Permalatch
pkr @ 2394'

Tansill
Perfs. 2580-2612
with 1 SPF

CIBP @ 2670' w/ 20' cmt on top

O.H. Yates
2700 - 2875'

TEMPORARILY ABANDONED WELLS

Well Name: Cities Service Federal #2

Field: Jalmat

Location: 1980' FSL and 660' FEL Section 35, Unit letter I, T 24S-R36E, Lea County, New Mexico

Spud Date: 3-15-54 Comp. Date: 5-20-54

TD: 3405' PBTD: 3050'

Casing and cementing record:

Surface csg: 8-5/8", C.S. @ 1200', cmt. with 100 sx.

Prod. Csg: 5½", C.S. @ 3385', cmt. with 450 sx.

Completion record:

Initial completion: Open hole from 3385'-3405' in Seven Rivers.

Initial potential: F 1080 BOPD 48/64 Ck.

Workovers:

W.O. #1 3-14-74 Set CIBP @ 3050' with 2 sx. cmt. on top. Perforated 3020'-35'. Test 19 BOPD.

Present completion: Same as W.O. #1 Perfs. 3020'-35' Up. 7 Rivers

Present well class: Temporarily abandoned oil well

WELL COMPLETION SKETCHES
SUN-6641-A

Cities Service Fed. #2 (WELL) | Jalmat (FIELD) | 7-15-83 (DATE)

☒ PRESENT COMPLETION
☐ SUGGESTED COMPLETION

☐ ORIGINAL COMP.
WELL CLASS T.A. (Oil)

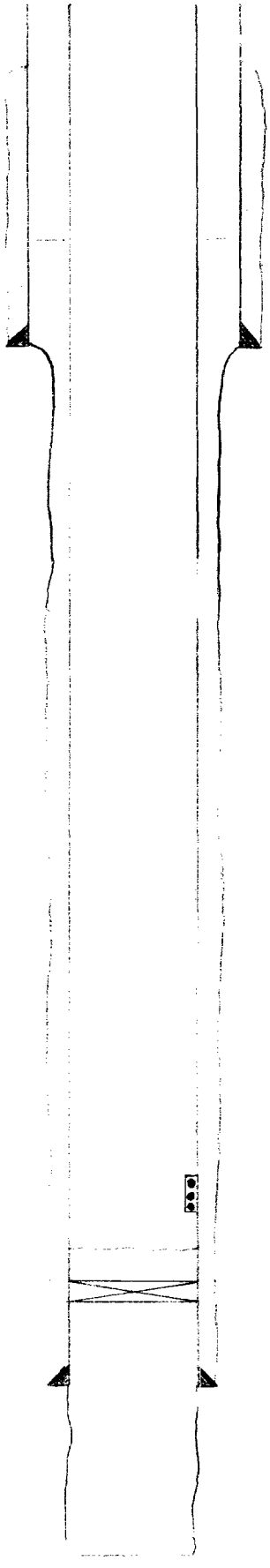
PERMANENT WELL BORE DATA

1980' FSL & 660' FEL Sec. 25
Spud: 3-15-54
Comp: 5-20-54
Surf Csg. 8 5/8"
C.S. @ 1200' cmt/100 sx.
T[illegible] circ (20 sx)

T.O.C. 690' (Calc.)
5½ Csg.

Prod. Csg. 5½"
C.S. @ 3385' cmt. 450 sx.

T.D. 3405'



DATA ON THIS COMPLETION

Perfs: 3020'-35'
Upper Seven Rivers

CIBP @ 3050' with 2 sx. cmt on top

O.H. 7 Rivers
3385'-3405'

Well Name: Convest Energy Ogg "A" #1

Field: Jalmat

Location: 1980' FNL and 1980' FEL Section 35, Unit letter G, T 24S-R36E, Lea County, New Mexico

Spud date: 7-20-34 Comp. date: 10-12-34

T.D.: 3523' PBTD: 3523'

Casing and cementing record:

Surface csg: 12½", C.S. @ 928' cmt. with 250 sxs. Cement circ. to surf.

Intermediate csg: 9-5/8", C.S. @ 2900', cmt. with 1300 sx. Cement circ. to surf.

Prod. csg: 7", C.S. @ 3399' cmt. with 150 sx.

Completion Record:

Initial completion: Open hole from 3399'-3523' in Seven Rivers.

Initial Potential: 518 BOPD and 1590 MCFGD.

Present Completion: Open hole from 3399'-3523' in Seven Rivers.

Present well class: Temporarily abandoned oil well

WELL COMPLETION SKETCHES
SUN-6641 A

Convest Energy Oggett 1 — WELL
Jalmat — FIELD
7-15-83 — DATE

☒ PRESENT COMPLETION
☐ SUGGESTED COMPLETION

☐ ORIGINAL COMP.
WELL CLASS T.A. (oil)

PERMANENT WELL BORE DATA

1980' FNL & 1980' FEL Sec. 35
Spud 7-20-34
Comp. 10-12-34
Surf. Csg. 12½"
C.S. @ 928 cmt. 250sx.
cmt. circ. to surf.

T.oc. 7" calc. 2296'

Int. Csg. 9⅝"
C.S. @ 2900' cmt. 1300 sx.
cmt circ. to surf.

Prod. Csg. 7"
C.S. ~~3399~~ 3523' cmt. 150sx.
T.o.c. 2296' calc.

T.D. 3523'

DATA ON THIS COMPLETION

I.P. 10/12/34 518 BOPD
and 1590 MCFGD.

O.H. 7 Rivers
3399' - 3523'

Well Name: Convest Energy Ogg "A" #2

Field: Jalmat

Location: 660' FNL and 1980' FEL of Section 35; Unit letter B, T 24S-R36E, Lea County, New Mexico

Spud date: 12-8-34 Comp. date: 2-25-35

TD: 3541' PBTD: 3370 CIBP

Casing and cementing record:

Surface csg: 12½", C.S. @ 169', cmt. with 100 sx., cement circ. to surf.

Intermediate csg: 9-5/8", C.S. @ 1675', cmt. with 1000 sx. Cement circ. to surf.

Production csg: 7", C.S. @ 3462', cmt. with 200 sx.

Completion record:

Initial completion: Open hole in Seven Rivers from 3462'-3541'.

Initial potential: 3/6/35 600 BOPD and 3700 MCFGD

Workovers:

W.O. #1 - 8-3-61 Set CIBP @ 3370' with 5 sx cmt on top. Perforated Upper Seven Rivers from 3290'-3300'.

Present completion: Same as W.O. #1.

Present well class: Temporarily abandoned oil well

Well Name: Shell State #2

Field: Jalmat

Location: 1650' FNL and 660' FWL of Section 36, Unit letter E, R24S-R36E, Lea County, New Mexico

Spud date: 9-16-66 Comp. date: 9-26-66

TD: 2800' PBTD: 2782'

Casing and cementing record:

Surf. csg: 13-3/8", C.S. @ 112', cmt. 100 sx, cmt. circ. to surf.

Inter. csg: 8-5/8", C.S. @ 1200', cmt 450 sx, cmt. circ. to surf.

Prod. csg: 4½" set in 7-7/8" hole, C.S. @ 2800', cmt. with 300 sx. TOC calc. 1420'

Completion record:

Initial completion: Perforated Yates 2705'-2782'

Initial production: F 96 BOPD

Present completion: Same as initial. Yates perfs 2705'-2782'.

Present status: Temporarily abandoned oil well since Aug. 82.

WELL COMPLETION SKETCHES
SUN-6641-A

Conoco Energy "gg" A "#2" — WELL
Jalmat — FIELD
7-15-83 — DATE

☒ PRESENT COMPLETION
☐ SUGGESTED COMPLETION

☐ ORIGINAL COMP.
WELL CLASS T.A. (oil)

PERMANENT WELL BORE DATA

660' FNL & 1980' FEL sec. 35
Spud. 12-8-34
Comp. 2-25-35
Surf. Csg. 12½"
C.S. @ 169' cmt. 100 sx.
cmt. circ. to surf.

Inter. Csg. 9⅝"
C.S. @ 1675' cmt. 1000 sx.
cmt. circ. to surf.

T.O.C. 7" 2002' (Calc.)

Prod. Csg. 7" 8¾" hole
C.S. @ 3462' cmt. 200 sx.

T.D. 3541

DATA ON THIS COMPLETION

Perf. 7 Rivers
3290' - 3300

CIBP @ 3370 w/ 5 sx cmt.

7 Rivers
O.H. 3462' - 3541'

WELL COMPLETION SKETCHES
SUN-6641-A

Shell State #2	Jalmat	7-15-83
WELL	FIELD	DATE

☒ PRESENT COMPLETION

☐ SUGGESTED COMPLETION

☐ ORIGINAL COMP.

WELL CLASS T.A. oil

PERMANENT WELL BORE DATA

1650' FNL & 660 FWL Sec. 36
Spud 9-16-66 comp: 9-26-66
Surf. Csg. 13 3/8"
C.S. 112' cmt. 100 sx.
cmt. circ.

Inter. Csg. 8 5/8"
C.S. @ 4200' cmt. 450 sx.
cmt. circ.

TOC 1920' (Calc.)

Top Yates 2692'

Prod. Csg. 4 1/2" - (7 7/8" hole)
C.S. 2800' cmt. 300 sx.
T.D. 2800'

DATA ON THIS COMPLETION

Perf: Yates
2705 - 2769'

PBTD 2782'

Well Name: Sun Watkins #2

Field: Jalmat

Location: 330' FEL and 1650' FNL of Section 35, Unit letter H, T24S-R36E, Lea County, New Mexico.

Elevation: DF 3279' GR 3268'

Spud date: 8-2-58 Comp. date: 8-22-58

TD: 3130' PBTD: 2945'

Casing and cementing record:

Surf. csg: 9-5/8", 36#, C.S. @ 300', cmt 250 sx., cmt. circ. to surf.

Prod. csg: 5½", 15.5#, C.S. @ 2984, DV tool at 1300', cmt. 2 stages 150 sx cmt. through shoe @ 2984' & 250 sx through DV tool. Cmt. from DV tool to surf.

Completion record:

Initial completion: Open hole in Yates from 2984' to 3103' & perfs 2840-2953'.

Initial potential: 2135 MCFGD

Workovers:

Last W.O. 8-12-76 Squeezed perfs 2840-2953 with 100 sx cmt. Set CIBP @ 2965' with 20' cmt. plug on top. Squeezed perfs 2682-2820 with 200 sx cmt. Reperforated Tansill Yates from 2686'-2932'

Present completion: Perforated in Tansill and Yates from 2686'-2932'.

Present well class: Temporarily abandoned gas well.

WELL COMPLETION SKETCHES
SUN-6641-A

Sun Watkins #2	Jalmat	7-15-83
WELL	FIELD	DATE

☒ PRESENT COMPLETION

☐ SUGGESTED COMPLETION

☐ ORIGINAL COMP.

WELL CLASS T.A. Gas

PERMANENT WELL BORE DATA

330' FEL and 1650' FNL of Sec 35, T24S-R36E, Lea Co.
DF 3279' GR 3268'
Spud: 8-2-58 Comp: 8-22-58

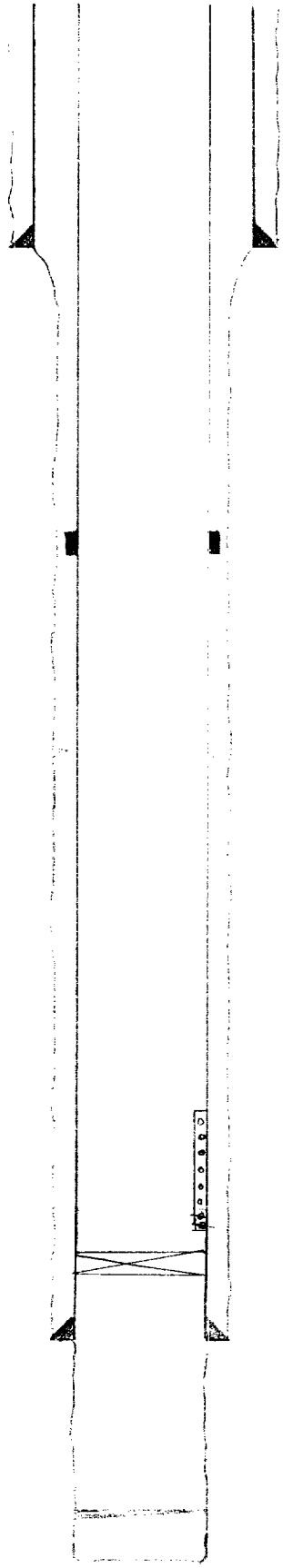
Surf. Csg: 9⅝"-36#
C.S. @ 300' cmt circ. to surf with 250 sx.

D.V. tool at 1300'
250 sx cmt. circ. to surf.

T.C.C. from calc. 2085' Calc.

Prod. Csg. 5½" - 15.5#
C.S. @ 2994' cmt with 150 sx through shoe

Orig. PBTD 3103'
TD 3130



DATA ON THIS COMPLETION

Perfs. Tansill/Yates
2686' - 2932'

PBTD 2945'

CIBP @ 2965' with 20' cmt on top.

Well Name: Sun Watkins #3

Field: Jalmat

Location: 360' FNL and 330' FEL of Section 35, Unit letter A, T24S-R36E, Lea County, New Mexico.

Elevation: KB 3288'

Comp. date: 3-28-83

TD: 3150' PBTD: 3032'

Casing and cementing record:

Surf. csg: 8-5/8", C.S. @ 550', cmt. to surf.

Prod. csg: 5½", 14#, C.S. @ 3150' cmt to surf.

Completion record:

Initial completion: Perforated Seven Rivers from 2936'-3004'

Initial test: Pumped 0 BO and 243 BWPD

Workovers:

W.O. #1: Squeezed perfs from 2936'-3004' with 250 sx. cmt. Re-perfed 2972'-78'

Present completion: Same as W.O. #1.

Well status: Temporarily abandoned

WELL COMPLETION SKETCHES
SUN-6641-A

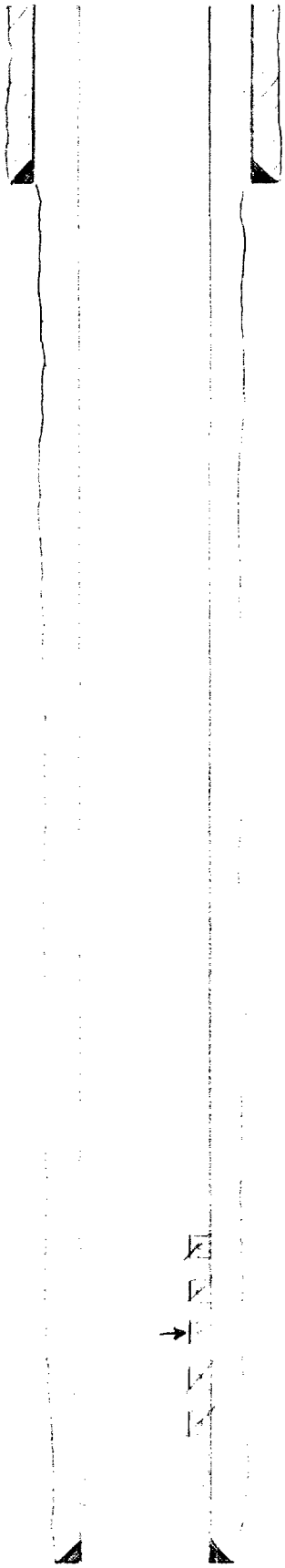
Sun Watkins #3	Jalmat	7-15-83
WELL	FIELD	DATE

☒ PRESENT COMPLETION

☐ SUGGESTED COMPLETION

☐ ORIGINAL COMP.

WELL CLASS T.A.



PERMANENT WELL BORE DATA

K.B. 3288'
360' FNL & 330' FEL
Sec 35, T24S-R36E, Lea Co.
Surf. Csg. 8 5/8"
C.S. @ 550 cmt. to surf.

PBTD 3040'

Prod. Csg. 5 1/2" - 14#
C.S. 3150' cmt. to surf.
T.D. 3150'

DATA ON THIS COMPLETION

Perfs: 7 Rivers
2936-40, 2948-52
2972-78, 2986-92, 3000-04
Squeezed 250 sx.

Reperf 2972-78

PLUGGED AND ABANDONED WELLS

Well Name: Sun Watkins Woolworth #1

Formerly: Tidewater and Assoc. C. D. Woolworth B #1

Field: Langlie Mattix

Location: 1980' FNL and 660' FEL of Section 35, Unit letter H, T24S-R36E, Lea County, New Mexico

Spud date: 12-5-34 Comp. date: 7-1-35

TD: 3476' PBTD: Surf. P&A 9-25-40

Casing and cementing record:

Surf. csg: 12½", C.S. @ 97' cmt with 150 sx. cmt. circ. to surf.

Prod. csg: 7", C.S. @ 2940', cmt. with 100 sx.

Liner: 5½" from 2900'-3420' cmt with 70 sx cmt.

When well was P&A in 1940 867 of the7" prod. csg. was pulled.

Completion record:

Initial completion: Open hole from 3420'-76' in the Seven Rivers.

Initial potential: F 192 BOPD and 1500 MCFGD

Workovers: None

Plugged and abandoned: 9-25-40

Cut 7" prod. csg. @ 864' and pulled. Filled hole and 7" csg. with cement from TD to 864'. Heavy mud left in annulus between 7" csg and hole from TOC behind 7" csg and 864'. Set 25 sack cmt. plug (65') at 864' in 9-5/8" csg. Set 25 sack cmt. plug (65') at surface. Heavy mud between plugs in casing.

WELL COMPLETION SKETCHES
SUN-6641-A

Sun Watkins Woolworth #1 | Langlie Mattix | 7-15-83
WELL | FIELD | DATE

Formerly: Tidewater C.D. Woolworth #1

☒ PRESENT COMPLETION
☐ SUGGESTED COMPLETION

☐ ORIGINAL COMP.
WELL CLASS P+A.

PERMANENT WELL BORE DATA

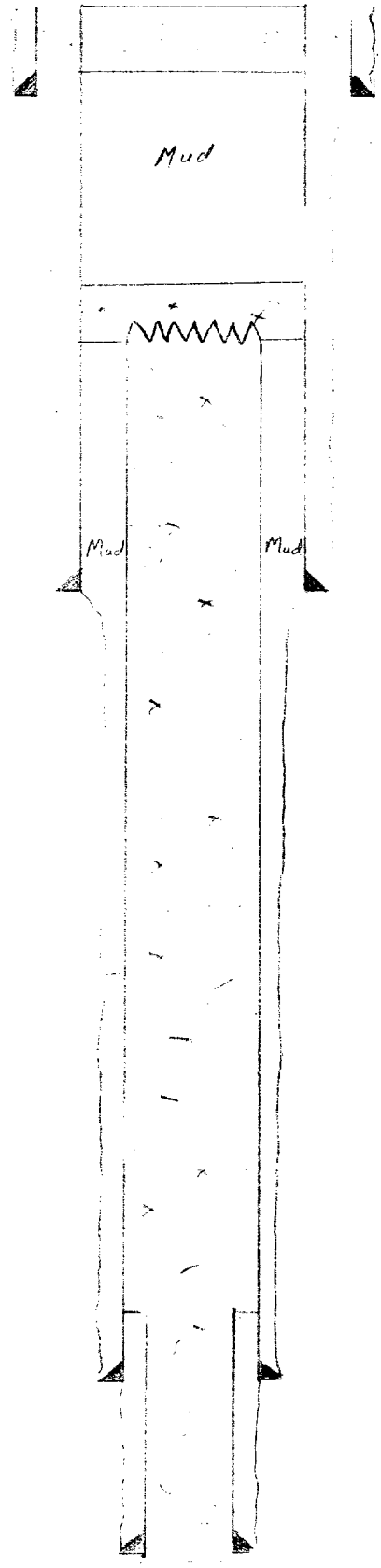
1980' FNL + 660' FEL Sec 35
T 24S - R 36E Lea Co.
Surf. Csg. 12 1/2"
C.S. 97' cmt. 150 sx.
cmt. circ. to surf.

Int. Csg. 9 5/8"
C.S. @ 1607' Cmt 1000sx.
cmt. circ. to surf.

T.O.C. behind 7" @ 2580'
calc.

Prod. Csg. 7"
C.S. @ 2940' cmt. 100sx

TD 3476'



DATA ON THIS COMPLETION

Spud: 12-5-34, Comp: 7-1-35
P+A 9/25/1940

Plugging Record

7" csg cut at 864' and pulled 861'. Filled hole with cmt. from TD to 864'. Mud in annulus from TOC outside 7" csg to 864'.
25 sack cmt plug (65') at 864' in 9 5/8" csg. Heavy mud from 799' to 65'. 25 sack cmt. plug (65') at surface.

5 1/2" liner from 2900' to 3420' cmt. with 70 SX
7 Rivers
O.H. 3420-76'

Well Name: Sun C. D. Woolworth "A" 1

Formerly: Tidewater and Assoc.

Field: Langlie Mattix

Location: 660' FSL & 1980' FEL of Section 36, Unit letter O, T24S-R36E
Lea County, New Mexico.

Spud date: 6-6-35 Comp. date: 8-3-35

TD: 3494' PBTD: Surf. P&A 9-25-40

Casing and cementing record:

Surf. csg: 12½', 50# set in 19-3/4" hole, C.S. @ 182', cmt. with 175 sx., cmt. circ. to surf.

Inter. csg: 9-5/8" 36# set in 12½" hole, C.S. @ 1496', cmt. with 900 sx., cmt. circ. to surf.

Prod. csg: 7" 24# set in 8-3/4" hole, C.S. @ 3465', cmt. with 450 sx.

When well P&A 9-25-40 2225' of the 7" production csg. was pulled.

Completion record:

Initial completion: Perforated 3413-3422 7-Rivers Queen

Workovers:

W.O. #1: Squeezed perfs 3413-3422. Perforated 3282-3413 Lower Seven Rivers.

W.O. #2: Squeezed perfs 3282'-3413'. Plugged back to 3373' with cement. Reperforated 3282'-3373'.

W.O. #3: Plugged and abandoned 9-25-40
Squeezed perfs from 3282-3373'. Cut 7" casing @ 2225' and pulled. Set Baker cement retainer @ 3245' with a 362' cmt. plug (75 sx.) on top. Top of cmt. plug @ 2883'. Set 90' (35 sx) cmt plug @ top of salt approx 1450'. Left heavy mud in hole between plugs. Set 90' cmt. plug (35 sx) at surface. Left heavy mud between plugs.

Present completion: Plugged and abandoned since (9-25-40).

WELL COMPLETION SKETCHES
SUN-6641 A

Sun C.D. Woolworth "A" 1 — WELL
Langlie Mattix — FIELD
7-15-83 — DATE

Formerly Tidewater & Assoc.

☒ PRESENT COMPLETION
☐ SUGGESTED COMPLETION

☐ ORIGINAL COMP.
WELL CLASS P+A. 9-25-40

PERMANENT WELL BORE DATA

660' FSL + 1980' FEL of Sec. 36, T24S-R36E. Lea Co., New Mexico.
Spud: 6/6/35 Comp. 8/3/35

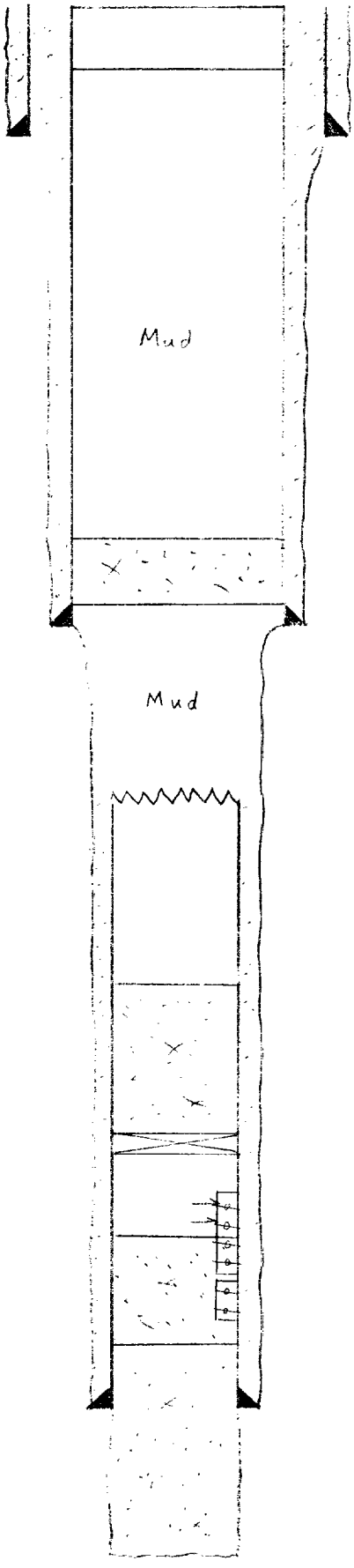
Surf. Csg. 12½" - 50# set in 19¾" hole, cmt. with 175 sx., cmt. circ. to surf. C.S.@ 182'

Inter. Csg. 9⅝" - 36# set in 12¼" hole, cmt. with 900 sx., cmt. circ. to surf. C.S.@ 1496'

T.O.C. Behind 7" csg @ 2225'

Prod. Csg. 7" 24# set in 8¾" hole, C.S.@ 3465', cmt. with 450 sx.

TD 3494'



DATA ON THIS COMPLETION

Plugging Record

90' cmt. plug (35sx) @ surface

Heavy mud between plugs.

90' cmt. plug (35sx) @ top of Salt approx. 450'

Heavy Mud between Plugs

7" Csg cut @ 2225'
Recovered 2225' of 7" Csg.

Baker cmt. retainer @ 3245' with 75 sx cmt. on top.
TOC plug @ 2883'
Sqzd. Perfs: 3282-3373'
PB to 3373' with cmt.
Sqzd. Perfs: 3368-3413
Sqzd. Perfs: 3413-3422
Old PBTD 3439'

Well Name: Shell State #1

Field: Jalmat

Location: 330' FNL and 330' FWL of Section 36, Unit letter D, T24S-R36E, Lea County, New Mexico.

Spud date: 1-9-53

TD: 2653 PBTD: Surf. P&A 1-20-53

This well was abandoned because the drill pipe became stuck while drilling.

Casing and cementing record:

Surf. csg: 8-5/8" 32# set in 12¼" hole, C.S. @ 343', cmt. with 225 sx., cmt. circ. to surf.

Drill pipe became stuck at TD of 2653'. Then the well was plugged.

Plugging record: P&A 1-20-53

Pumped 1000 sx. cmt. down drill pipe. Filled drill pipe and annulus with cement from TD to 340'. Cut drill pipe at 340' and pulled. Left 2313' of drill pipe in hole. Filled hole from 340' to surface with cement (120 sx.)

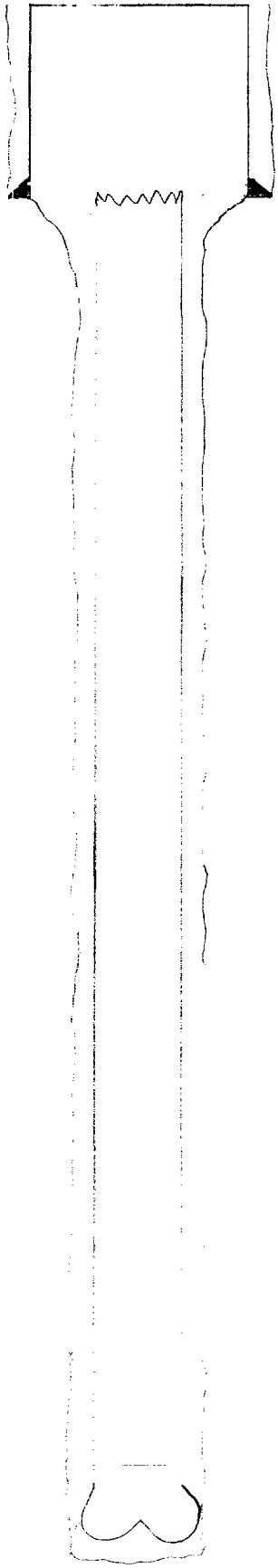
Present status: P&A

*This well does not actually penetrate the proposed injection zone.

WELL COMPLETION SKETCHES
SUN-6641 A

Shell State #1 — WELL
Jalmat — FIELD
7-15-83 — DATE

☒ PRESENT COMPLETION
☐ SUGGESTED COMPLETION



☐ ORIGINAL COMP.
WELL CLASS P+A

PERMANENT WELL BORE DATA

330 'FNL and 330 'FWL
Sec 36, T24S-R36E
Lea Co., New Mexico.
Spudd 1-7-53

Surf. Csg. 8 5/8" -32#
C.S. @ 343', cmt/225sx.
Cmt. circ. to surf.
(12¼" hole)

TD 2653'

DATA ON THIS COMPLETION

P+A 1-20-53

Drill pipe cut @ 340'

2313' of drill pipe left in hole

Plugging Record:
Pumped 1000sx cmt down drill pipe. Filled drill pipe and annulus from 340' to TD. Cut drill pipe at 340'. Filled hole from 340' to surface with 120sx cmt.

Well Name: Shell State B #2

Field: Jalmat

Location: 1980' FNL and 1980' FWL of Section 36, Unit letter F, T24S-R36E, Lea County, New Mexico.

Spud date: 12-27-51 Comp. date: 2-1-52

TD: 3825' PBTD: Surf. P&A 8-24-64

Casing and cementing record:

Surf. csg: 13-3/8", 48# set in 17¼" hole, C.S. @ 374', cmt. with 400 sx., cmt. circ. to surf.

*8-5/8", 24# csg., C.S. @ 105', cmt. to surf. with 100 sx. Set to repair surf. csg. leak.

Prod. csg: 4½" set in 7-7/8" hole, C.S. @ 3269', cmt. 200 sx. TOC 2200' free point csg.

Completion record:

Initial completion: Open hole 3269'-3825'
PB to 3200, perf Yates 2796'-3021'.

Plugging record: P&A 8-24-64

Cut 4½" prod csg @ 2200' and pulled. Set CIBP @ 2780'. Set 50 sack cmt. plug from 2258-2780. Set cmt. plug (50 sx.) from 1100'-1200'. Set cmt. plug (40 sx) from 300-400'. Set 10 sack cmt. plug at surface.

Present status: Plugged and abandoned.

WELL COMPLETION SKETCHES
SUN-6641-A

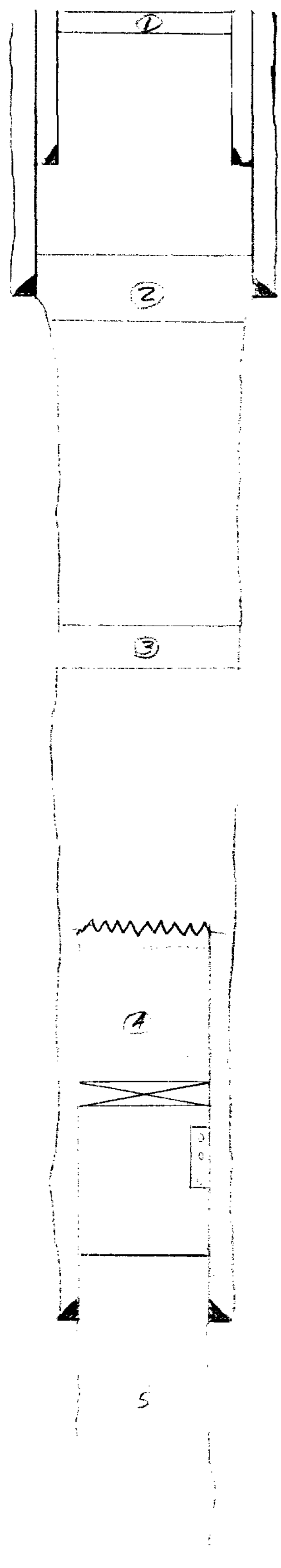
Shell State B #2	Jalmat	7-15-83
WELL	FIELD	DATE

☒ PRESENT COMPLETION

☐ SUGGESTED COMPLETION

☐ ORIGINAL COMP.

WELL CLASS Dry Hole P+A



PERMANENT WELL BORE DATA

1980' FNL + 1980 FWL sec. 36

Surf. Csg. 13 3/8" - 48#
C.S. 374' Cmt. 400 sx.
(17 1/4" hole)

94' 8 5/8" - 24# csg
cmt to surf with 100 sx
CS. 105'
to Repair Csg leak

T.O.C. Behind 4 1/2" Csg @ 2200' (calc.)

Prod. Csg. 4 1/2" (7 7/8" hole)
C.S. @ 3269' cmt. 200 sx.

TD 3825'

DATA ON THIS COMPLETION

P+A 8-24-64

Cut 4 1/2" csg. @ 2200' and pulled 2200' of 4 1/2" csg.

① Cement Plug 10 sx @ Surf.

② Cement Plug 40 sx 300-400'

③ Cement Plug 50 sx. 1100'-1200'

This well is just outside the area of review. Well is adequately plugged [illegible] the distance from the WD well! [illegible]

Top of 4 1/2" csg @ 2200'

④ Cement Plug 50 sx 2258 2780
CIBP @ 2780'

Perfs: Yates
2796' - 3021' (6 holes)

⑤ Cement Plug 3200'-3825'

Section VII Proposed Operation

1) Average injection rate: 2000 BWPD.
Maximum injection rate: 4600 BWPD.

2) This is a closed system.

3) Average injection pressure: 300 psi.
Maximum injection pressure: 600 psi.

4) See attached injection fluid analysis. The injection fluid will be produced water from the same zone as the proposed injection zone.

5) The proposed injection zone is productive of oil and gas within a one mile radius. Attached is a water analysis from the proposed injection zone. This sample was taken from the Watkins #3 which is 330' north of the proposed injection well.

PETROLITE CORPORATION

TRETOLITE DIVISION
369 Marshall Avenue / Saint Louis, Missouri 63119
(314) WO 1-3500/TWX 910-760-1660/Telex 44-2417

WATER ANALYSIS REPORT

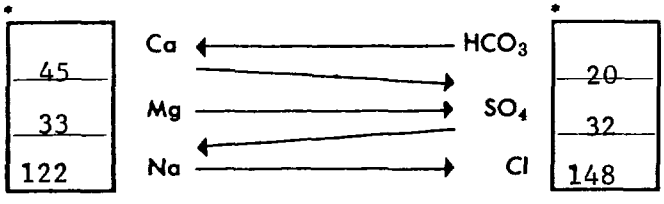
COMPANY Sun Production Company ADDRESS _____ DATE: 8/4/83

SOURCE S. R. Cooper Battery Prod. H_2O Tank DATE SAMPLED 7/15/83 ANALYSIS NO. _____

	Analysis		Mg/L		*Meq/L	
1.	pH	6.69				
2.	H_2S (Qualitative)	Positive				
3.	Specific Gravity	1.010				
4.	Dissolved Solids		12,081			
5.	Suspended Solids					
6.	Phenolphthalein Alkalinity ($CaCO_3$)					
7.	Methyl Orange Alkalinity ($CaCO_3$)		980			
8.	Bicarbonate (HCO_3)	HCO_3	1196	÷61	20	HCO_3
9.	Chlorides (Cl)	Cl	5266	÷35.5	148	Cl
10.	Sulfates (SO_4)	SO_4	1525	÷48	32	SO_4
11.	Calcium (Ca)	Ca	904	÷20	45	Ca
12.	Magnesium (Mg)	Mg	399	÷12.2	33	Mg
13.	Total Hardness ($CaCO_3$)		3900			
14.	Total Iron (Fe)		1			
15.	Barium (Qualitative)					
16.	Strontium					

*Milli equivalents per liter

PROBABLE MINERAL COMPOSITION



Compound	Equiv. Wt.	X	Meq/L	=	Mg/L
Ca $(HCO_3)_2$	81.04		20		162
Ca SO_4	68.07		25		1702
Ca Cl_2	55.50				
Mg $(HCO_3)_2$	73.17				
Mg SO_4	60.19		7		421
Mg Cl_2	47.62		26		1238
Na HCO_3	84.00				
$Na_2 SO_4$	71.03				
Na Cl	58.46		122		7132

Saturation Values Distilled Water 20°C

Ca CO_3	13 Mg/L
Ca $SO_4 \cdot 2H_2O$	2,090 Mg/L
Mg CO_3	103 Mg/L

REMARKS _____

Respectfully submitted
TRETOLITE COMPANY
Larry E. Blandi

C-108 Section VII. 5)

SUN 5434
SUN PRODUCTION COMPANY
PRODUCTION SERVICE LABORATORY

WATER ANALYSIS REPORT

ANALYSIS NO. C-7658

FILE 23-405

Operator SUN PROD. CO. *746055*
Lease or Well WATKINS #3
Formation SEVEN RIVERS
Perfs 2936 To 2992 ; T.D.
Method of Collecting Sample WELLHEAD

Treatment
Date of last acid job

Total Prod.	BOPD	BWPD	MCFPD
261	0	261	TSTM

District SOUTHWESTERN
Field LANGLIE MATTIX
County LEA
State NEW MEXICO
Collected by
Date 1-21-83 (Collected) 1-31-83 (Analyzed)
Sample No. 10044
Analyst PPI

Description of Sample 1 PT. CLOUDY WATER WITH OIL FILM

CONSTITUENTS	ppm
Sodium	2560
Calcium	875
Magnesium	362
Barium	0
Strontium	
Potassium	
Iron	1
Chloride	4330
Sulfate	2050
Carbonate	0
Bicarbonate	1240
TOTAL DISSOLVED SOLIDS	11418

OTHER PROPERTIES	
pH	6.9
Specific Gravity	1.0080
Resistivity ohm-mtr. @ 75° F	.805
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	3
Nitrates, ppm	
Phosphate, ppm	

REMARKS:

First water sample received from this well. Unable to classify at this time. Future records.

REPORTED BY: Johnny Reinschmidt
CHEMICAL ENGINEERING SECTION
Copies to:

Section VIII

Name of Injection Zone: Seven Rivers

Lithology: The Seven Rivers is light to dark grey, hard, crystalline, dolomite containing 10% to 30% dark grey to black siltstone.

Thickness: Entire Seven Rivers 445'
Injection Interval 246'

Depth: Top Seven Rivers: 2970' (+304)
Base Seven Rivers: 3415' (-141)
Injection Interval: 3054 (+220)
to 3300' (-25)

The Santa Rosa fresh water aquifer overlies the proposed injection zone. Surface casing is set to a depth of 295' to protect this zone. There are no known sources of drinking water lying below the proposed injection zone.

LANE WELLS RADIOACTIVITY LOG

midland Mexico completion 2" log

COMPANY

cation of Well

COMPANY: R. OLSON OIL COMPANY
WELL: WATKINS NO. 1
FIELD: LANGLIE - MATTIX
COUNTY: LEA STATE: N. MEX.
LOCATION: E/2 OF NE,NE
SEC. 35-24S-36E

COMPANY: R. OLSON OIL CO.
WELL: WATKINS NO. 1
FIELD: LANGLIE-MATTIX
COUNTY: LEA STATE: N. MEX.
LOCATION:

[illegible] MEAS. FROM ROTARY TABLE ELEV. [illegible]
[illegible] MEAS. FROM ROTARY TABLE ELEV. *
[illegible] DATUM LT IS 13' ABOVE 5 1/2" LH ELEV. *

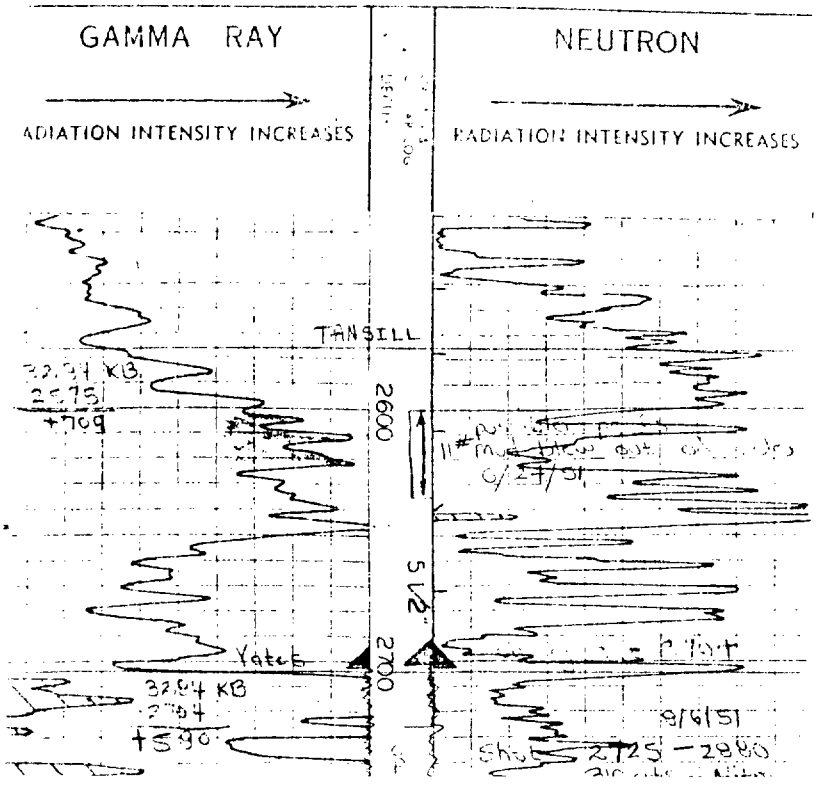
[illegible] OF LOG	G/T	N-
[illegible] NO.	1	1
[illegible]	7-27-51	7-27-51
[illegible] DEPTH (DRILLER) BACK	3475'	3475'
[illegible] DEPTH (DRILLER)	3475'	3475'
[illegible] OF LOGGED INTERVAL	800'	800'
[illegible] OM OF LOGGED INTERVAL	3472'	3472'
[illegible] OF FLUID IN HOLE	MUD	MUD
[illegible] LEVEL	FULL	FULL
[illegible] MUM RECORDED TEMP.		
[illegible] RON SOURCE STRENGTH & TYPE		600N
[illegible] RCE SPACING — IN.		8.35"
[illegible] TION OF MEASURING DEVICE — IN.	36"	9"
[illegible] OF INSTRUMENT — IN.	3 5/8"	3 5/8"
[illegible] CONSTANT — SECONDS	H	E
[illegible] RING SPEED FT. MIN.	40	45
[illegible] TICAL VARIATION — IN.		
[illegible] TARY REFERENCE	274	275
[illegible] RDED BY	RUNION	RUNION
[illegible] NESSED BY	McCALL	McCALL

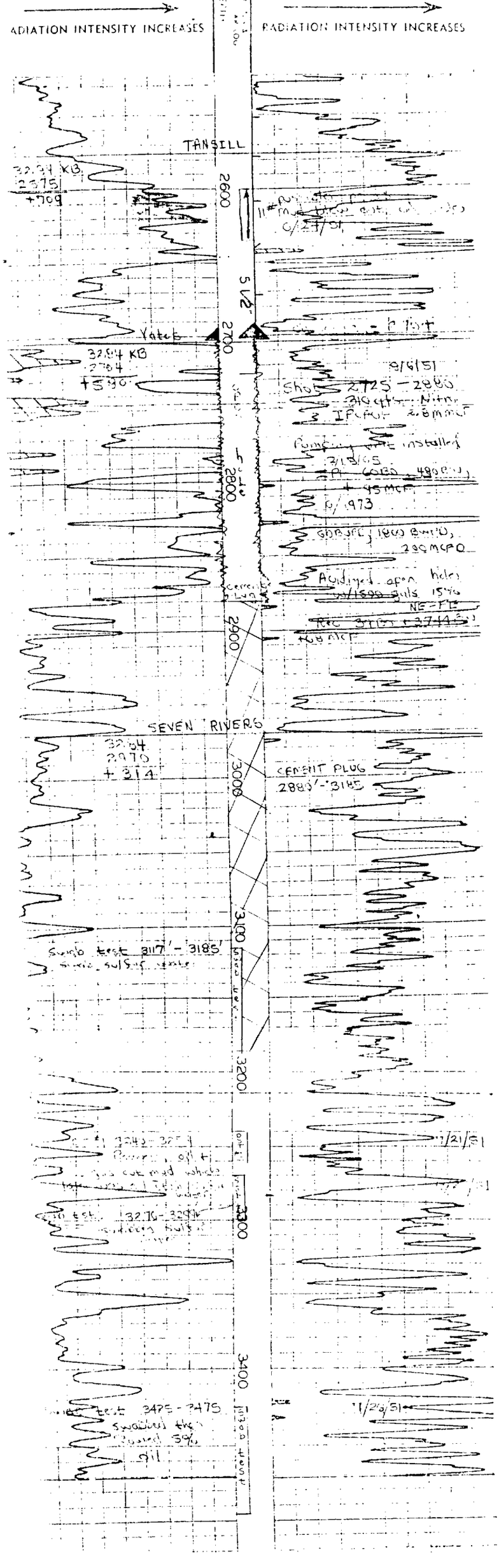
CASING RECORD

RUN NO.	BIT SIZE	CASING	WT.—LB.	FROM	WELL RECORD TO	— INTERVAL — FROM	R A LOG TO
1	7 7/8	5 1/2		SURF.	2700'	SURF.	2701.5'
	4 3/4				TO	2701.5'	T.D.
					TO		TO
					TO		TO
					TO		TO

REMARKS OR OTHER DATA

* ELEVATION UNAVAILABLE




RADIATION INTENSITY INCREASES
RADIATION INTENSITY INCREASES
TANSILL
32.94 KB
2375
+709
2600
5 1/2"
Yates
2700
32.94 KB
2784
+530
9/6/51
Shot 2725 - 2880'
2800
5 1/2"
SEVEN RIVERS
32.94
2970
+314
3000
CEMENT PLUG
2880' - 3185'
3100
3200
3300
3400
1/21/51
1/29/51

Section IX. Stimulation Program

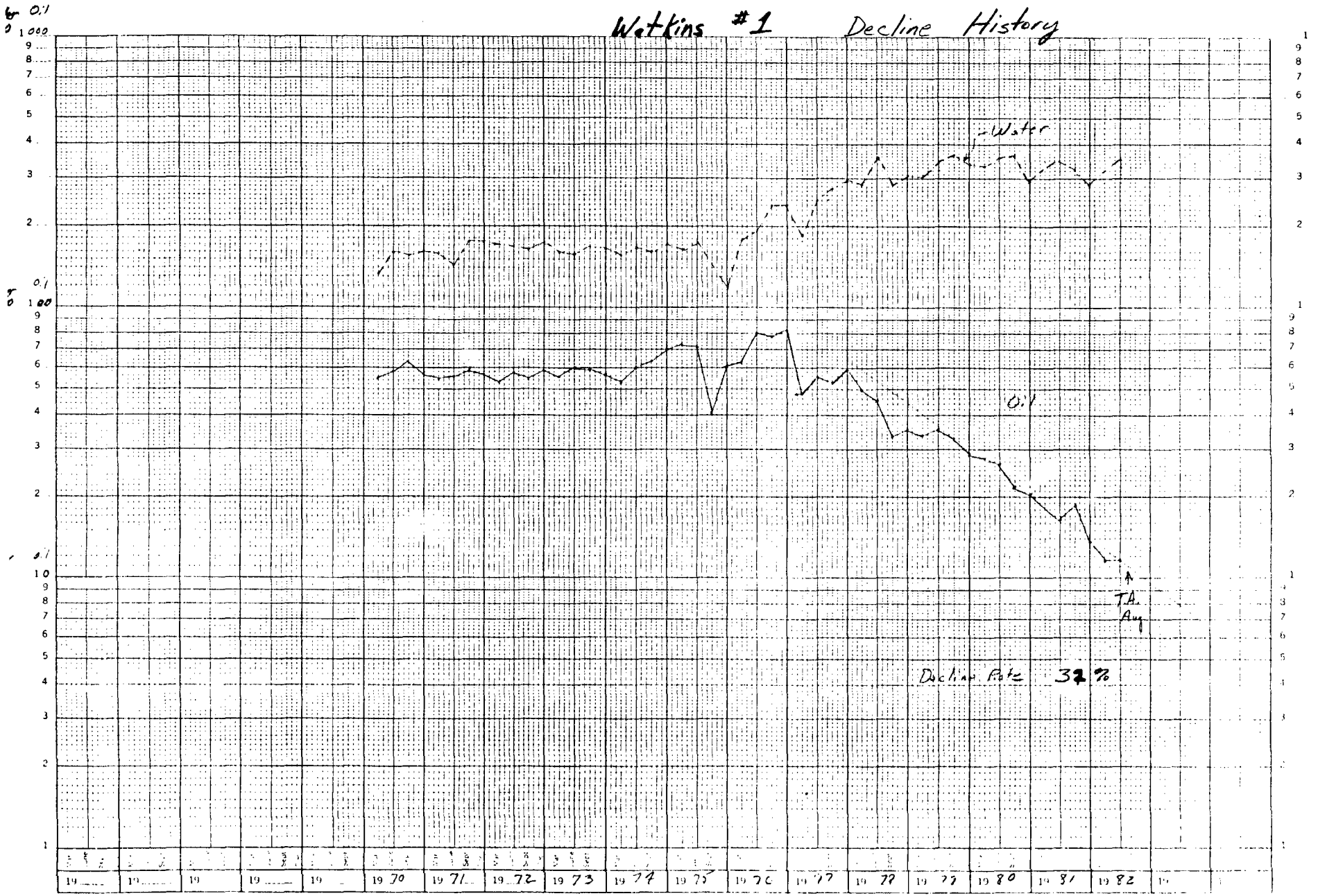
If injection pressure is high this well will be acidized with 1000 gallons of acid.

Section X.

The log for this well was submitted at the time of completion. Attached is a copy of the log. Attached is the decline history for this well over the past 12 years. The last test for this well was 7-15-82, 10 BOPD and 3436 BWPD. This well was temporarily abandoned 8-24-82.

Section XI.

There are no known fresh water wells producing within one mile of the proposed injection well.


Watkins #1 Decline History
Water
0.1
T.A. Aug
Decline Rate 37%
1000
100
10
1
19 70
19 71
19 72
19 73
19 74
19 75
19 76
19 77
19 78
19 79
19 80
19 81
19 82

Section XII.

I, Pat Dougherty, 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.

Signed: Patrick Dougherty

Title: Production Geologist Date: 7/28/83

Sun Production Division
Southwestern District

Mailed
September 2, 1983

Sun Exploration and Production Company
901 W Wall
Post Office Box 1861
Midland Texas 79702
915 685 0300

Hobbs - Sun News
201 North Thorp
Hobbs, New Mexico 88240

Gentlemen:

Attached is a legal notice concerning an application to inject fluid. Please publish the notice, as soon as possible, for one day. Mail a copy, with invoice and a signed affidavit of publication, to the attention of Dee Ann Kemp, Sun Exploration & Production Co., P. O. Box 1861 - Midland, Texas 79702, as soon as notice is in paper.

Very truly yours,

DeeAnn Kemp
Sr. Accounting Assistant

DAK:sm

Attachment

LEGAL NOTICE

Sun Exploration and Production Company, P. O. Box 1861, Midland, Texas, 79702, (Contact Party, Coby Osborne, 915-688-0418) 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 well is the Watkins #1, located 660' FNL and 330' FEL of Sec. 35, T24S-R36E, Lea County, New Mexico. Sun proposes to inject fluid into the Seven Rivers formation at a depth of 3054'-3300'. The expected injection rate is 3000 barrels per day at an injection pressure of 300 psi.

Interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico, within 15 days.

Sun Production Division
Southwestern District

September 2, 1983

Sun Exploration and Production Company
901 W Wall
Post Office Box 1861
Midland Texas 79702
915 685 0300

Offset Operator
(list Attached)

RE: Application for salt water disposal well
Watkins #1
Sec. 35, T-24-S, R-36-E
Lea County, New Mexico

Gentlemen:

Sun Exploration & Production Company is requesting for administrative approval to convert a well to a salt water disposal well. The New Mexico Oil Conservation request that the offset operators be notified of the application. Attached for your records is a copy of the application. If you need additional information, please contact Coby Osborne, (915) 688-0418.

Very truly yours,

DeeAnn Kemp
Sr. Accounting Assistant

DAK:sm

Attachment

Copy of application mailed to offset operators Sept 2. 1983 by certified mail.

DeeAnn Kemp

Sun Production Division
Southwestern District

Sun Exploration and Production Company
901 W Wall
Post Office Box 1861
Midland Texas 79702
915 685 0300

September 2, 1983

Carl Martin
Woolworth Estate
802 Iowa
Jal, New Mexico

RE: Application for Salt Water Disposal Well
Watkins #1
Sec. 35, T-24-S, R-36-E
Lea County, New Mexico

Gentlemen:

Sun Exploration & Production Company is requesting for administrative approval to convert a well to a salt water disposal well. The New Mexico Oil Conservation request that the surface owner be notified of the application. Attached for your records is a copy of the application. If you need additional information, please contact Coby Osborne, (915) 688-0418.

Very truly yours,

DeeAnn Kemp
Sr. Accounting Assistant

DAK:sm

Attachment

Copy of application mailed to surface owner 9-8-83 by certified mail.
DeeAnn Kemp

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 day ~~weeks.~~

Beginning with the issue dated SEPTEMBER 8, 19 83

and ending with the issue dated SEPTEMBER 8, 19 83

Robert L. Summers
Publisher.

Sworn and subscribed to before me this 12 day of September, 1983

Jane Paulowsky
Notary Public.

My Commission expires 3-24, 1987
(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 Paulowsky
JANE PAULOWSKY
NOTARY PUBLIC - NEW MEXICO
NOTARY BOND FILED WITH SECRETARY OF STATE
My Commission Expires 3-24-87

LEGAL NOTICE
SEPTEMBER 8, 1983

[redacted] Production Company, P.O. Box 1861, Midland, Texas, 79702, (Contact Party: Coby Osborne, 915-686-0418) 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 well is the Watkins #1, located 660' FNL and 330' FEL of Sec. 35, T24S-R36E, Lea County, New Mexico. Sun proposes to inject fluid into the Seven Rivers formation at a depth of 3054'-3300'. The expected injection rate is 3000 barrels per day at an injection pressure of 300 psi.

Interested parties must file objections or requests for hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico, within 15 days.

OFFSET OPERATORS FOR WATKINS LEASE

Lewis B. Burleson, Inc.
Box 2479
Midland, Texas 79702

Convest Energy Corporation
2401 Fountainview Dr.
Houston, TX 77057

Millard Deck Estate
Bryon Dickson
P. O. Box 2545
Fort Worth, Texas 76113

Shell Oil Company
Welton Moore
P. O. Box 1950
Hobbs, New Mexico 88240