

WFX 8/22/97

FORM C-108

APPLICATION for AUTHORIZATION to INJECT
OKIE OPERATING COMPANY, Limited Partnership
W. V. HUTCHERSON #1

AUG - 7

I. This secondary recovery well application qualifies for administrative approval.

II. Operator: Okie Operating Company, Limited Partnership
Address: 401 S. Boston Ave., Suite 715
Tulsa, Oklahoma 74103
Contact: Thomas M. Atkinson
Phone: (918) 582-2594
Fax: (918) 582-4499

Case 11851

III. Well data sheet is attached as Injection Well Data Sheet as **Attachment No. 1.**

IV. This is not an expansion of an existing project.

V. Two maps are attached which identify the well's Area of Review as **Attachment No. 2.**

VI. A tabulation of data from all wells within the Area of Review and other pertinent information is attached as **Attachment No. 3.** Also included are well completion records and wellbore schematics of all plugged wells.

VII. **Proposed Operation Data**

1. The average injection rate will be 100 BWPD and the maximum injection rate will be 200 BWPD.
2. The system will be open.
3. The average injection pressure will be 500 psi and the maximum injection pressure will be 900 psi.
4. The source of produced water will be the San Andres formation (reinjecting produced water) from the Okie Hutcherson #1; water analysis is attached as **Attachment No. 4.**
5. The disposal zone is productive of oil within one mile of the disposal well.

FLORENCE,

PLEASE SET FOR 9-18-97
AS INITIAL WATERFLOOD (SECONDARY
RECOVERY) PROJECT w/ 1 WELL
PROPOSED FOR INJECTION.

TEW 11/20/97

John

VIII. Geologic Data

1. The injection zone is the San Andres formation which has produced over 107,000 BO from four wells in this field. The reservoir is now pressure depleted. The formation is dolomite with a gross thickness in excess of 1000 feet. The depth to the top of the San Andres is 3790 feet in the proposed disposal well.
 2. There are no underground sources of drinking water above or below the San Andres formation.
- IX. The San Andres formation will be acidized with approximately 5000 gallons of 15 per cent hydrochloric acid (15% HCl) prior to converting to injection. The well has been previously fracture treated.
- X. Well logs for the well have been filed with the Division.
- XI. A copy of the chemical analysis of water is attached as **Attachment No. 4**.
- XII. All available geological and engineering data has been examined and no evidence of open faults or any other hydrological connection between the injection zone and underground source of drinking water was found.
- XIII. I hereby certify a complete copy of this application, with a copy of the publisher's Affidavit of Publication attached as **Attachment No. 5**, has been sent by certified mail on July 28, 1997, to:

Surface Owner: Tommy Davis, Jr.
2601 A South Roosevelt Road 41
Elida, New Mexico 88116

Offset Operators: None within six miles.

OKIE OPERATING COMPANY, Limited Partnership

By: Thomas M. Atkinson
Thomas M. Atkinson,
President of General Partner, Inc.

Dated: July 28, 1997

Case 11851

APPLICATION FOR AUTHORIZATION TO INJECT

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

II. Operator: Okie Operating Company, Limited Partnership

Address: 401 S. Boston Ave., Suite 715, Tulsa, Oklahoma 74103

Contact party: Thomas M. Atkinson Phone: (918) 582-2594

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

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

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

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

VII. Attach data on the proposed operation, including:

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

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

IX. Describe the proposed stimulation program, if any.

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

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

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

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

XIV. Certification

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

Name: Thomas M. Atkinson Title President of General Partner, Inc

Signature: *Thomas M. Atkinson* Date: July 28, 1997

* 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.

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.

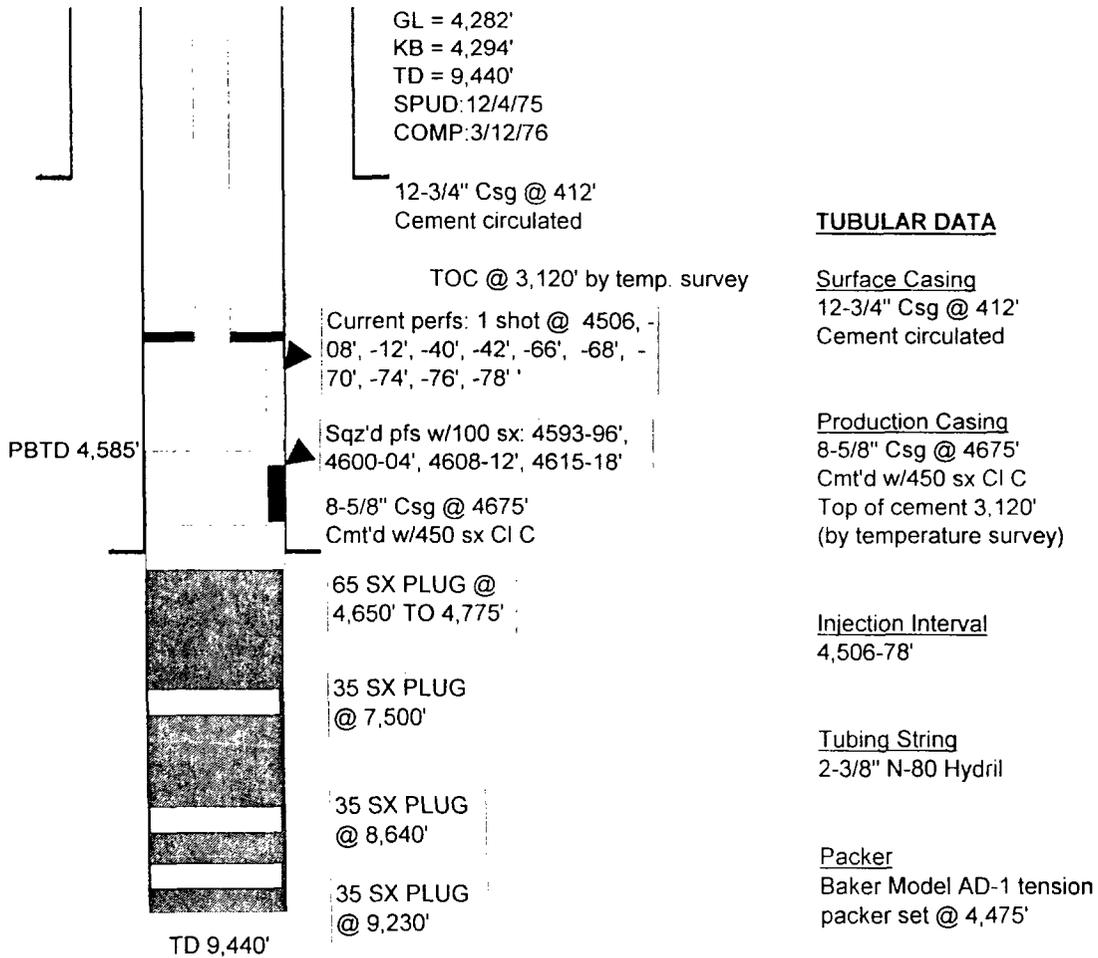
Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (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.

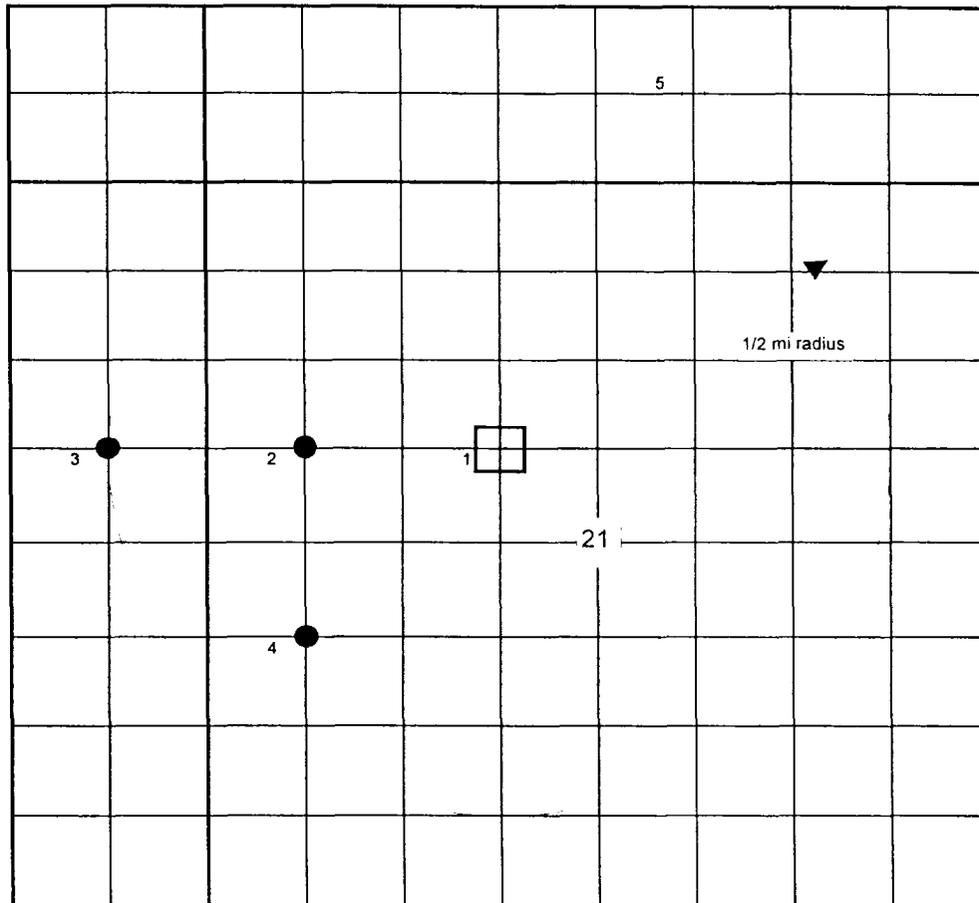
W. V. HUTCHERSON #1
OKIE CRUDE COMPANY
MILNESAND WEST (SAN ANDRES) FIELD
 1980' FNL & WL, SECTION 21-T8S-R34E
 ROOSEVELT CO., N.M.
 API # 30-041-20407
INJECTION WELL DATA SHEET



Other Data

1. The name of the injection interval is San Andres.
2. The name of the field or pool is Milnesand West.
3. This is an old well to be converted to injection service.
4. The well has never been perforated in any zone other than San Andres.
5. There are no overlying and/or underlying oil or gas zones.

AREA of REVIEW
 Okie Crude Company
 W. V. Hutcherson #1
 Section 21F Township 8 S Range 34 E
 Roosevelt County



MAP KEY

- Dry Hole
- Casing run and well tested
- W. V. Hutcherson #1
- Plugged and abandoned

WELL INDEX

- 1: OKIE W. V. Hutcherson #1
- 2: OKIE Hutcherson #1
- 3: CACTUS Bolles #1
- 4: SUNRAY DX N. M. Federal "F" #18
- 5: FLAG-REDFERN Hank State

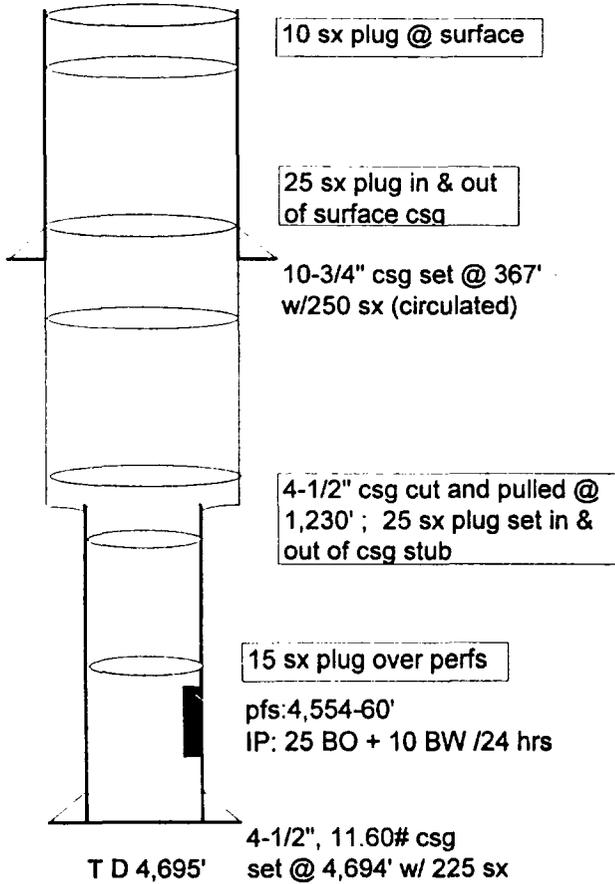
Okie Crude Company
W. V. Hutcherson #1
 1/2 Mile Radius Area of Review
 Well List

<u>Well Name</u>	<u>Location</u>	<u>Total Depth</u>	<u>Date Compl'd</u>	<u>Well Type</u>	<u>Construction</u>
W. V. Hutcherson #1	1980' FNL & 1980' FWL Sec 21-T 8 S - R 34 E	9440'	3/12/76	Oil	12-3/4" csg @ 412' w/400 sx 8-5/8" csg @ 4,675' w/ 450 sx
Hutcherson #1	1980' FNL & 660' FWL Sec 21-T 8 S - R 34 E	4635'	4/30/63	Oil	8-5/8" csg @ 375' w/ 250 sx 4-1/2" csg @ 4,634' w/ 250 sx
Bolles #1	1980' FNL & 660' FEL Sec 20-T 8 S - R 34 E	4695'	3/26/63	Oil	10-3/4" csg @ 367' w/ 250 sx 4-1/2" csg @ 4,694' w/ 225 sx
N. M Federal F #18	1980' FSL & 660' FWL Sec 21-T 8 S - R 34 E	4650'	8/28/63	Oil	8-5/8" csg @ 331' w/ 250 sx 4-1/2" csg @ 4,649' w/ 200 sx

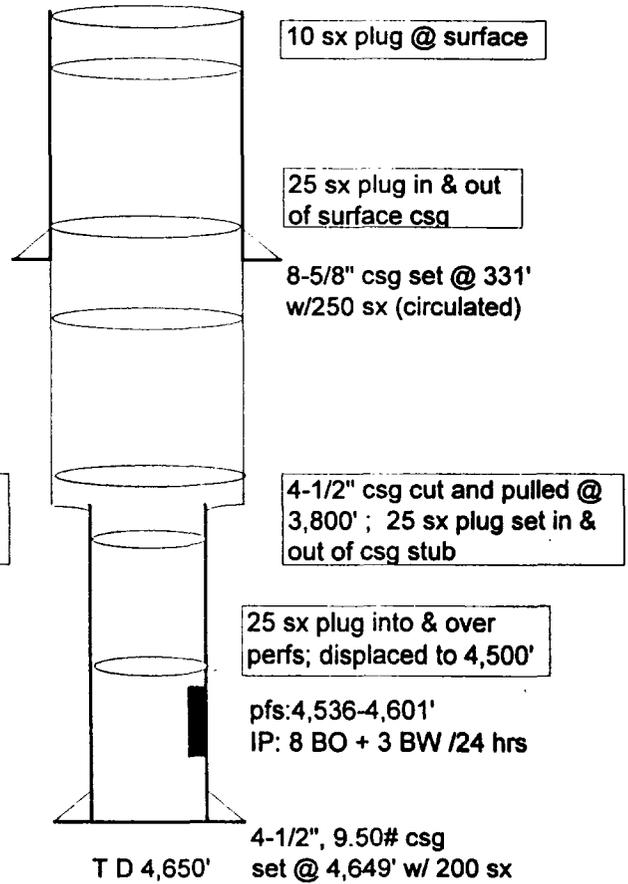
Wells

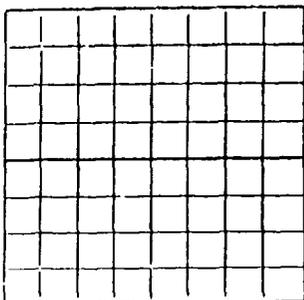
P & A 'd Wells in Area of Review
Okie Crude Company
W. V. Hutcherson #1 Application for Water Injection Well

Catus Drilling Company
Bolles #1
P & A 'd 7/65



Sunray DX Oil Company
N. M. Federal "F" #18
P & A 'd 11/64





NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

WELL RECORD 17 13 15

Mail to District Office, Oil Conservation Commission, to which Form C-101 was sent not later than twenty days after completion of well. Follow instructions in Rules and Regulations of the Commission. Submit in QUINTUPLICATE. If State Land submit 6 Copies

AREA 640 ACRES
LOCATE WELL CORRECTLY

Cactus Drilling Company

Hutcherson

(Company or Operator)

(Lease)

Well No. 1, in NW ¼ of NW ¼, of Sec. 21, T. 8 South R. 34 East, NMPM.

Wildcat

Pool, Roosevelt

County.

Well is 1980 feet from North line and 660 feet from West line of Section 21. If State Land the Oil and Gas Lease No. is

Drilling Commenced 4-22-63, 19... Drilling was Completed 4-30, 19... 63

Name of Drilling Contractor Cactus Drilling Company

Address Box 1826, Hobbs, New Mexico

Elevation above sea level ~~2429.6 D.F.~~ 4296 D.F. The information given is to be kept confidential until 60 days of date, 19...

OIL SANDS OR ZONES

No. 1, from... to... No. 4, from... to...

No. 2, from... to... No. 5, from... to...

No. 3, from... to... No. 6, from... to...

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from... to... feet.

No. 2, from... to... feet.

No. 3, from... to... feet.

No. 4, from... to... feet.

CASING RECORD

SIZE	WEIGHT PER FOOT	NEW OR USED	AMOUNT	KIND OF SHOE	CUT AND PULLED FROM	PERFORATIONS	PURPOSE
8-5/8	20#	New	375	T P			surface
4-1/2	10.50#	New	4634	Halliburton			oil string

MUDDING AND CEMENTING RECORD

SIZE OF HOLE	SIZE OF CASING	WHERE SET	NO. BAGS OF CEMENT	METHOD USED	MUD GRAVITY	AMOUNT OF MUD USED
12-1/4	8-5/8	375	250	circulated		surface
7-7/8	4-1/2	4634	250	Halliburton		oil string

RECORD OF PRODUCTION AND STIMULATION

(Record the Process used, No. of Qts. or Gals. used, interval treated or shot.)

Treated w/2000 gal M-38 acid. Followed w/frac 27,500 gal:60,000# sand.
Swabbed well to flow and recovered load.

Result of Production Stimulation.....

Depth Cleaned Out.....

RECORD OF DRILL-STEM AND SPECIAL TESTS

If drill-stem or other special tests or deviation surveys were made, submit report on separate sheet and attach hereto

TOOLS USED

Rotary tools were used from 0 feet to T.D. feet, and from feet to feet.
 Cable tools were used from feet to feet, and from feet to feet.

PRODUCTION

Put to Producing May 10, 19 63.

OIL WELL: The production during the first 24 hours was 59 barrels of liquid of which 39 bbl was oil; 20 bbl was emulsion; 20 bbl water; and 2/10 of 1 % was sediment. A.P.I. Gravity 31.0

GAS WELL: The production during the first 24 hours was M.C.F. plus barrels of liquid Hydrocarbon. Shut in Pressure lbs.

Length of Time Shut in.....

PLEASE INDICATE BELOW FORMATION TOPS (IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE):

Southeastern New Mexico		Northwestern New Mexico	
T. Anhy.....	<u>2180</u>	T. Devonian.....	T. Ojo Alamo.....
T. Salt.....		T. Silurian.....	T. Kirtland-Fruitland.....
B. Salt.....		T. Montoya.....	T. Farmington.....
T. Yates.....		T. Simpson.....	T. Pictured Cliffs.....
T. 7 Rivers.....		T. McKee.....	T. Menefee..... BYED CC
T. Queen.....	<u>3382</u>	T. Ellenburger.....	T. Point Lookout.....
T. Grayburg.....		T. Gr. Wash.....	T. Mancos.....
T. San Andres.....	<u>3785</u>	T. Granite.....	T. Dakota.....
T. Glorieta.....		T.	T. Morrison.....
T. Drinkard.....		T.	T. Penn.....
T. Tubbs.....		T.	T.
T. Abo.....		T.	T.
T. Penn.....		T.	T.
T. Miss.....		T.	T.

FORMATION RECORD

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	2180	2180	surface, sd, caliche				
2180	2230	50	Anhy				
2230	2590	360	Salt				
2590	3382	792	Anhy & sd				
3382	3785	403	Sand & anhy				
3785	4635	850	Dolo				

ATTACH SEPARATE SHEET IF ADDITIONAL SPACE IS NEEDED

I hereby swear or affirm that the information given herewith is a complete and correct record of the well and all work done on it so far as can be determined from available records.

Hobbs, New Mexico 5/14/63

Company or Operator CACTUS DRILLING COMPANY Address P O Box 1826, Hobbs, New Mexico

Name Geo. W. Baker Position Vice President

NEW MEXICO OIL CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND LOG

NO. OF COPIES RECEIVED	
DISTRIBUTION	
SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

5a. Indicate Type of Lease
State Fee

5. State Oil & Gas Lease No.
--

1a. TYPE OF WELL
OIL WELL GAS WELL DRY OTHER

b. TYPE OF COMPLETION
NEW WELL WORK OVER DEEPEN PLUG BACK DIFF. RESVR. OTHER

7. Unit Agreement Name
--

8. Farm or Lease Name
W. V. Hutcherson

9. Well No.
1

10. Field and Pool, or Wildcat
W. Milnes and San Andres

2. Name of Operator
Allen K. Trobaugh

3. Address of Operator
106 Wall Towers West, Midland, Texas 79701

4. Location of Well
UNIT LETTER **F** LOCATED **1980** FEET FROM THE **north** LINE AND **1980** FEET FROM
THE **west** LINE OF SEC. **21** TWP. **8S** RGE. **34E** NMPM
12. County
Roosevelt

15. Date Spudded **12/3/75** 16. Date T.D. Reached **1/9/76** 17. Date Compl. (Ready to Prod.) **3/12/76** 18. Elevations (DF, RKB, RT, GR, etc.) **4282 GR** 19. Elev. Casinghead **4283**

20. Total Depth **9440** 21. Plug Back T.D. **4578** 22. If Multiple Compl., How Many **--** 23. Intervals Drilled By Rotary Tools **All** Cable Tools **--**

24. Producing Interval(s), of this completion - Top, Bottom, Name
4506-4578 San Andres

25. Was Directional Survey Made **No**

26. Type Electric and Other Logs Run
Welex & Schlumberger Gamma Ray-Acoustic

27. Was Well Cored **No**

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
12 3/4"	34#	412'	17 1/2"	400 sx Cl C 2# cc	-0-
8 5/8"	32 & 24#	4675'	11"	450 sx Cl C 2# cc	-0-

29. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
					2 3/8"	4467	

30. TUBING RECORD

31. Perforation Record (Interval, size and number)

4593-96, 4600-04, 4608-12, 4615-18, 2 spf
36 0.41" holes
4506-08-12-40-42-66-68-70-74-76-78 -
11 0.41" holes

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
4593-4618	2500 gals MOD 15% acid
4593-4618	Sq perms w/100 sx Cl C cmt
4506-4578	3000 gals DS 30 15% acid
4506-4578	Frac 20,000# gel & 25,000# 10/40 sd

33. PRODUCTION

Date First Production **3/13/76** Production Method (Flowing, gas lift, pumping - Size and type pump) **Pump - Harbison Fisher 2" x 1 1/2 x 12"** Well Status (Prod. or Shut-in) **Prod.**

Date of Test	Hours Tested	Choke Size	Prod'n. For Test Period	Oil - Bbl.	Gas - MCF	Water - Bbl.	Gas - Oil Ratio
3/23/76	24 hrs	1/4"	44	44	20.5	50	465

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API (Corr.)
	25#	44	44	20.5	50	29.4

34. Disposition of Gas (Sold, used for fuel, vented, etc.) **Vented** Test Witnessed By

35. List of Attachments
DST reports (2), logs

36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.

SIGNED **Allen K. Trobaugh** TITLE **Operator** DATE **3/24/76**

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLI
(Other instructions
verse side)

Form approved.
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals.)

5. LEASE DESIGNATION AND SERIAL NO.

LC 062178

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

N.M. Federal "F"

9. WELL NO.

18

10. FIELD AND POOL, OR WILDCAT

Hilmasand San Andres, Wst.

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA

Sec 21, T8S, R34E

12. COUNTY OR PARISH

Roosevelt

13. STATE

New Mexico

1. OIL WELL GAS WELL OTHER

2. NAME OF OPERATOR
Sunray DX Oil Company

3. ADDRESS OF OPERATOR
P.O. Box 128, Hobbs, New Mexico

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
See also space 17 below.)
At surface

1980' FSL & 660' FWL of Unit Letter L, Sec 21,
T8S, R34E, Roosevelt County, New Mexico

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

4294 DF

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF
FRACTURE TREAT
SHOOT OR ACIDIZE
REPAIR WELL
(Other)

PULL OR ALTER CASING
MULTIPLE COMPLETE
ABANDON*
CHANGE PLANS

WATER SHUT-OFF
FRACTURE TREATMENT
SHOOTING OR ACIDIZING
(Other)

REPAIRING WELL
ALTERING CASING
ABANDONMENT*

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

11-7-64 Move in derrick pulling unit. Halliburton pumped in 25 sx plug of regular cement into perforations from 4536' to 4601'. Displaced plug to 4500'. McCullough cut off 4 1/2" csg at 3800' w/jet cutter. Recovered 119 jts 4 1/2" 9.5# J-55 csg. Spotted plugs in open hole. Pumped 25 sx at 3820' to 3500'; 25 sx at 2136 to 2053'; 25 sx at 373' to 290' and 10 sx at surface. P&A complete 11-7-64.

18. I hereby certify that the foregoing is true and correct

SIGNED *B.F. Brawley* B.F. Brawley

TITLE District Engineer

DATE 11-10-64

(This space for Federal or State office use)

APPROVED BY _____
CONDITIONS OF APPROVAL, IF ANY:

TITLE _____ DATE _____

Las Cruces

U. S. LAND OFFICE 062178

SERIAL NUMBER

LEASE OR PERMIT TO PROSPECT

		21			

T
8
S

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

LOCATE WELL CORRECTLY

Company Sunray DX Oil Company Address P.O. Box 128, Hobbs, New Mexico
 Lessor or Tract N.M. Federal "F" Field Undesignated State New Mexico
 Well No. 18 Sec. 21 T. 8S R. 34E Meridian NMPM County Roosevelt
 Location 1980 ft. N of S Line and 660 ft. E of W Line of Sec. 21 Elevation 4294
(Denote floor relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed J. P. Mayhew Title District Engineer

Date Sept. 4, 1963

The summary on this page is for the condition of the well at above date.

Commenced drilling 7-10-63, 19... Finished drilling 8-28, 19... 63

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 4601 to 4536 No. 4, from _____ to _____
 No. 2, from _____ to _____ No. 5, from _____ to _____
 No. 3, from _____ to _____ No. 6, from _____ to _____

IMPORTANT WATER SANDS

No. 1, from _____ to _____ No. 3, from _____ to _____
 No. 2, from _____ to _____ No. 4, from _____ to _____

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated		Purpose
							From—	To—	
8 5/8	21	8	JD	331	WDW	None	None	Sur. Csg.	
4 1/2	9.5	8	JL	4649	WDW	4601	4536	Prod. Csg.	
NO LOGS ON OIL OR GAS WELLS									

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
8 5/8	331	250	Pump	-	-
4 1/2	4649	200	Pump	-	-

PLUGS AND ADAPTERS

Heaving plug—Material _____ Length _____ Depth set _____
 Adapters—Material _____ Size _____

FOLD MARK

PLUGS AND ADAPTERS

Heaving plug—Material Length Depth set
 Adapters—Material Size

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out

TOOLS USED

Rotary tools were used from 0 feet to TD feet, and from feet to feet
 Cable tools were used from feet to feet, and from feet to feet

DATES

8-28 19 63 Put to producing 8-28 19 63
 The production for the first 24 hours was 8 barrels of oil and 3 bbls of water,
 emulsion; % water; and % sediment. Gravity, °Bé. 26.5
 If gas well, cu. ft. per 24 hours Gallons gasoline per 1,000 cu. ft. of gas
 Rock pressure, lbs. per sq. in.

EMPLOYEES

T. H. Daddy Driller F. T. Bagus Driller
 H. W. Suley Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	500	500	Sand, Shale
500	2125	1625	Redbed, Anhy
2125	2654	529	Salt, Anhy
2654	2800	146	Anhy
2800	3135	335	Anhy, Salt
3135	3435	300	Lime
3435	3532	97	Dolo
3532	3750	218	Anhy, Salt
3750	3856	106	Anhy, Lime
3856	3994	138	Dolo
3994	4198	204	Lime
4198	4302	104	Dolo
4302	4445	143	Lime
4445	4481	36	Dolo
4481	4598	117	Lime
4598	4606	8	Dolo
4606	4650	44	Lime

	<u>FORMATION TOPS</u>
Rustler	2136
Yates	2606
Queen	3300
San Andres	4526

WELL NAME	WELL NUMBER	WELL LOCATION	WELL DEPTH	WELL TYPE	WELL STATUS

HISTORY OF OIL OR GAS WELL

10-43004-2 U. S. GOVERNMENT PRINTING OFFICE

It is of the greatest importance to have a complete history of the well. Please state in detail the dates of redrilling, together with the reasons for the work and its results. If there were any changes made in the casing, state fully, and if any casing was "sidetracked" or left in the well, give its size and location. If the well has been dynamited, give date, size, position, and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position, and results of pumping or balling.

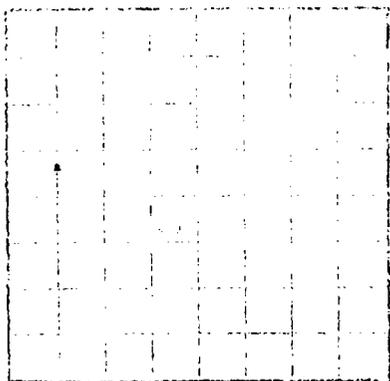
DATE	DESCRIPTION	BY	REMARKS
------	-------------	----	---------

OPERATIONS PERFORMED

1. Drill to TD 4650.
2. Perf with 2 E bullets per ft. 4601-4598, 4594-92, 4569-67, 4557-54, 4538-36. Acidize w/2,000 gal BDA.
3. Frac w/20,000 gal ref. oil and 20,000 sand, using 23 RB's.
4. Run tbg, rods & pump, set pumping unit and put on production.
5. Potential 8 bbls oil and 3 bbls water in 24 hours. 8-28-53

DATE OF LAST WORKING ON WELL

TOP OF OIL OR GAS WELL



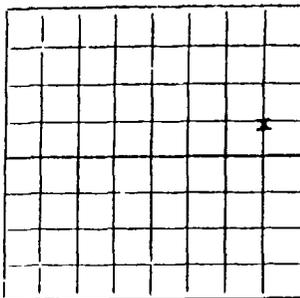
GEOLOGICAL SURVEY

DEPARTMENT OF THE INTERIOR

UNITED STATES

STATE OF TEXAS
COUNTY OF ...
WELL NUMBER ...
WELL NAME ...

ILLEGIBLE



AREA 640 ACRES
LOCATE WELL CORRECTLY

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

WELL RECORD

Mail to District Office, Oil Conservation Commission, to which Form C-101 was sent not later than twenty days after completion of well. Follow instructions in Rules and Regulations of the Commission. Submit in QUINTUPLICATE. If State Land submit 6 Copies

..... **Cactus Drilling Company** **Bolles**
(Company or Operator) (Lease)

Well No. **1** **SE**, in **SE** $\frac{1}{4}$ of **SE** $\frac{1}{4}$ of Sec. **20**, T. **8 S**, R. **34 E**, NMPM.
Wildcat Pool, **Roosevelt** County.
 Well is **1980** feet from **North** line and **660** feet from **East** line
 of Section **20**. If State Land the Oil and Gas Lease No. is
 Drilling Commenced **3-8-63**, 19..... Drilling was Completed **3-26-63**, 19.....
 Name of Drilling Contractor **Coverlin Drilling, Inc.**
 Address **Unknown**
 Elevation above sea level ~~XXXXXX~~ **4301 D.P.** The information given is to be kept confidential until
60 days of data filed, 19.....

OIL SANDS OR ZONES

No. 1, from to No. 4, from to
 No. 2, from to No. 5, from to
 No. 3, from to No. 6, from to

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.
 No. 1, from to feet.
 No. 2, from to feet.
 No. 3, from to feet.
 No. 4, from to feet.

CASING RECORD

SIZE	WEIGHT PER FOOT	NEW OR USED	AMOUNT	KIND OF SHOE	CUT AND PULLED FROM	PERFORATIONS	PURPOSE
10-3/4	40#	New	367	T P			surface
4-1/2	11.60#	New	4694	Halliburton		4554-4560	oil string

MUDDING AND CEMENTING RECORD

SIZE OF HOLE	SIZE OF CASING	WHERE SET	NO. BAGS OF CEMENT	METHOD USED	MUD GRAVITY	AMOUNT OF MUD USED
12-1/4	10-3/4	367	250	circulated		
7-7/8	4-1/2	4694	225	Halliburton		

RECORD OF PRODUCTION AND STIMULATION

(Record the Process used, No. of Qts. or Gals. used, interval treated or shot.)

Acidised w/2,000 gal acid followed w/fracs performed w/30,000 gal:60,000# sand
Swabbed well to flow.

Result of Production Stimulation.....

..... Depth Cleaned Out.....

RECORD OF DRILL-STEM AND SPECIAL TESTS

If drill-stem or other special tests or deviation surveys were made, submit report on separate sheet and attach hereto

TOOLS USED

Rotary tools were used from 0 feet to T D feet, and from _____ feet to _____ feet.
 Cable tools were used from _____ feet to _____ feet, and from _____ feet to _____ feet.

PRODUCTION

Put to Producing 4-22, 1963
OIL WELL: The production during the first 24 hours was 35 barrels of liquid of which 25 bbl was oil; _____% was emulsion; 10 bbl water; and 2/10 of 1 % was sediment. A.P.I. Gravity 31.2
GAS WELL: The production during the first 24 hours was _____ M.C.F. plus _____ barrels of liquid Hydrocarbon. Shut in Pressure _____ lbs.
 Length of Time Shut in _____

PLEASE INDICATE BELOW FORMATION TOPS (IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE):

Southeastern New Mexico		Northwestern New Mexico	
T. Anhy..... <u>2175</u>	T. Devonian.....	T. Ojo Alamo.....	
T. Salt.....	T. Silurian.....	T. Kirtland-Fruitland.....	
B. Salt.....	T. Montoya.....	T. Farmington.....	
T. Yates.....	T. Simpson.....	T. Pictured Cliffs.....	
T. 7 Rivers.....	T. McKee.....	T. Menefee.....	
T. Queen..... <u>3365</u>	T. Ellenburger.....	T. Point Lookout.....	
T. Grayburg.....	T. Gr. Wash.....	T. Mancos.....	
T. San Andres..... <u>3763</u>	T. Granite.....	T. Dakota.....	
T. Glorieta.....	T.	T. Morrison.....	
T. Drinkard.....	T.	T. Penn.....	
T. Tubbs.....	T.	T.	
T. Abo.....	T.	T.	
T. Penn.....	T.	T.	
T. Miss.....	T.	T.	

FORMATION RECORD

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	2175	2175	Caliche, sd, R Bed				
2175	2215	40	Anhy				
2215	2560	345	Salt				
2560	3365	805	Anhy & sd.				
3365	3763	398	Sand w/anhy				
3763	4695	932	Dolo				

ATTACH SEPARATE SHEET IF ADDITIONAL SPACE IS NEEDED

I hereby swear or affirm that the information given herewith is a complete and correct record of the well and all work done on it so far as can be determined from available records.

Hobbs, New Mexico, May 15th, 1963

Company or Operator Cactus Drilling Company Address P O Box 1826, Hobbs, New Mexico
 Name Geo. W. B. Allen Position Vice-President



HALLIBURTON

WATER ANALYSIS REPORT HOBBS NEW MEXICO

COMPANY Okie Operating Company
401 S Boston Ave., Suite 715
Tulsa, Ok 74103-4043
Fax 1-918-582-4499

REPORT 97-229
DATE 7-8-97
DISTRICT Hobbs

SUBMITTED BY _____

WELL Strata Hutcherson DEPTH _____ FORMATION _____
COUNTY _____ FIELD _____ SOURCE _____

SAMPLE	_____	_____	_____
RESISTIVITY	0.06 @ 77 °F	_____ @ _____ °F	_____ @ _____ °F
SPECIFIC GR.	1.168	_____	_____
pH	5.89	_____	_____
CALCIUM	17,150 mpl	_____ mpl	_____ mpl
MAGNESIUM	15,000 mpl	_____ mpl	_____ mpl
CHLORIDE	116,500 mpl	_____ mpl	_____ mpl
SULFATES	Light mpl	_____ mpl	_____ mpl
BICARBONATES	92 mpl	_____ mpl	_____ mpl
SOLUBLE IRON	Modcrate mpl	_____ mpl	_____ mpl
	_____	_____	_____
	_____	_____	_____
OIL GRAVITY	_____ @ _____ °F	_____ @ _____ °F	_____ @ _____ °F

REMARKS _____

Resitivity measured in: Ohm/m2/m

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ANALYST: JL BURNETT

AFFIDAVIT OF PUBLICATION

Legal 2909

STATE OF NEW MEXICO
COUNTY OF ROOSEVELT:

WAYLAND THOMAS, being duly sworn says:

That he is the PUBLISHER, of the
Portales News-Tribune, a daily newspaper
of general circulation, published in
English at Portales, said county and
state, and that the hereto attached

WELL AUTHORIZATION

was published in said News-Tribune,
a daily newspaper duly qualified for that
purpose within the meaning of Chapter 167
of the 1937 Session Laws of the State of
New Mexico for 1 consecutive days/
weeks on the same days as follows:

First Publication : JULY 17, 1997

Second Publication:

Third Publication :

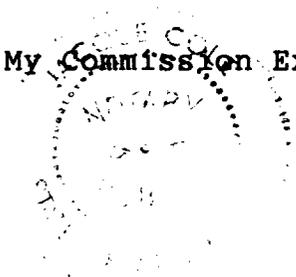
Fourth Publication:



Subscribed and sworn to before me this
17TH day of JULY 1997


NOTARY PUBLIC

My Commission Expires: APRIL 14, 2001



Copy of Publication

Legal 2909
July 17, 1997

Notice is hereby given of the
application of Okie Operating
Company, Limited Partner-
ship, 401 S. Boston Ave., Su-
ite 715, Tulsa, Oklahoma
74103, Attention: Thomas M.
Atkinson, (918) 582-2594, to
the Oil Conservation Divi-

sion, **New Mexico Energy
and Mineral Department**, for
approval of the following sec-
ondary recovery well author-
ization for the purpose of
saltwater injection:

Well Name: W. V. Hutcher-
son #1
Location: 1980 feet from the
north line and 1980 feet from
the west line, Sec. 21, T-8-S,
R-34-E, Roosevelt County,
New Mexico

The disposal formation is
San Andres at a depth of
4,506 ft to 4,578 ft below
ground level.

The expected maximum in-
jection rate is 200 barrels
water per day and the ex-
pected maximum injection
pressure is 900 pounds per
square inch.

Interested parties must file
objections or requests for
hearing with the Oil Conser-
vation Division, P.O. Box
2088, Santa Fe, New Mexico
87501, within fifteen (15)
days.