

CASE 3581: Application of SUNRAY
DX OIL CO. for salt water disposal
Lea County, New Mexico.

CASE NO.
3581

Application,
TRANSCRIPTS,
SMALL Exhibits
ETC.

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE No. 3581
Order No. R-3242

APPLICATION OF SUNRAY DX OIL COMPANY
FOR SALT WATER DISPOSAL, LEA COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on May 24, 1967,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 1st day of June, 1967, the Commission, a
quorum being present, 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 Commission has jurisdiction of this cause and the subject
matter thereof.

(2) That the applicant, Sunray DX Oil Company, is the owner
and operator of the Harris State Well No. 5, located in Unit I of
Section 23, Township 10 South, Range 32 East, NMPM, Mescalero-San
Andres Pool, Lea County, New Mexico.

(3) That the applicant proposes to utilize said well to
dispose of produced salt water into the San Andres formation,
with injection through perforations from approximately 4248
feet to 4286 feet.

(4) That the injection should be accomplished through 2 3/8-
inch cement lined tubing installed in a packer set at approximately
4225 feet; that the casing-tubing annulus should be filled with an
inert fluid; and that a pressure gauge should be attached to the
annulus in order to determine leakage in the tubing or packer.

CASE No. 3581
Order No. R-3242

(5) 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 the applicant, Sunray DX Oil Company, is hereby authorized to utilize its Harris State Well No. 5, located in Unit I of Section 23, Township 10 South, Range 32 East, NMPM, Mescalero-San Andres Pool, Lea County, New Mexico, to dispose of produced salt water into the San Andres formation, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 4225 feet, with injection into the perforated interval from approximately 4248 feet to 4286 feet;

PROVIDED HOWEVER, that the tubing shall be 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 in order to determine leakage in the tubing or packer.

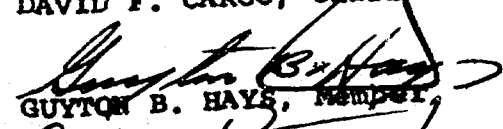
(2) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

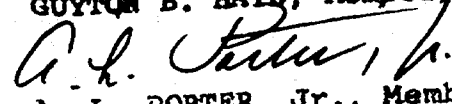
(3) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


DAVID F. CARGO, Chairman


GUYTON B. HAYS, Member


A. L. PORTER, Jr., Member & Secretary



esr/

GOVERNOR
DAVID F. CARGO
CHAIRMAN

State of New Mexico
Oil Conservation Commission



LAND COMMISSIONER
GUYTON B. HAYS
MEMBER

P. O. BOX 2088
SANTA FE

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

June 1, 1967

Mr. Booker Kelly
White, Gilbert, Koch & Kelly
Attorneys at Law
Post Office Box 787
Santa Fe, New Mexico

Re: Case No. 3581
Order No. R-3242
Applicant:
Sunray DX Oil Company

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Very truly yours,

A. L. Porter, Jr.
A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC

Aztec OCC

Other State Engineer Office

Case 3587

Heard 5-24-67

Res. 5-26-67.

1. Grant Seismic's request to connect their Harris State #5 P 23-105-32E to a SWD well. The well is ^{within 1/2 mi} Mescalero - San Andres pool. The San Andres was dry ^{oil & water} in the well therefore no harm or benefit will be derived from the S.W. Injection.
 2. Tubing shall be cement lined with inert fluid in $4\frac{1}{2} \times 2\frac{3}{8}$ tubing annulus with gauge at surface to assist in detecting leakage in tubing or casing.
- Thurston D.



STATE OF NEW MEXICO

STATE ENGINEER OFFICE

SANTA FE

S. E. REYNOLDS
STATE ENGINEER

May 19, 1967

ADDRESS CORRESPONDENCE TO:
STATE CAPITOL
SANTA FE, NEW MEXICO 87501

Mr. A. L. Porter, Jr.
Secretary-Director
Oil Conservation Commission
Santa Fe, New Mexico

Dear Mr. Porter:

Reference is made to the application of Sunray DX Oil Company which seeks authority to dispose of salt water by pressure injection into the San Andres formation through their Harris State No. 5 well in Sec. 23, T. 10 S., R. 32 E.

It appears, from the application and the exhibits attached thereto, that there is no reason for me to object to the granting of this application, provided the well is completed and operated as set forth in the application and the exhibits.

FEI/ma
cc-W. B. Kelly
F. H. Hennighausen

Yours truly,

S. E. Reynolds
State Engineer

By: *Frank E. Irby*
Frank E. Irby
Chief
Water Rights Div.

MAY 22 AM 8 18 '67

Case 3581

Docket No. 16-67

DOCKET: EXAMINER HEARING - WEDNESDAY - MAY 24, 1967

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING - SANTA FE, NEW MEXICO

The following cases will be heard before Elvis A. Utz, Examiner, or Daniel S. Nutter, Alternate Examiner:

- CASE 3572: Application of Jones Exploration Company for a dual completion and for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its State Well No. 1 located in Unit H of Section 35, Township 17 South, Range 35 East, Vacuum Field, Lea County, New Mexico, in such a manner as to permit the production of Abo Reef oil through the tubing and the disposal of produced salt water down the casing-tubing annulus into the Paddock formation in the perforated interval from 6955 to 6995 feet.
- CASE 3573: Application of Aztec Oil & Gas Company for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the South Corbin Strawn Oil Pool, including a provision for 160-acre proration units and the establishment of a 4000 to one gas-oil ratio limitation.
- CASE 3574: Application of Cima Capitan, Inc. for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Grayburg-San Andres formations through one well located in Unit C of Section 3, Township 17 South, Range 32 East, Maljamar Pool, Lea County, New Mexico.
- CASE 3575: Application of Harvey E. Yates for a triple completion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the triple completion of his Stebbins Deep Federal Well No. 1 located in Unit H of Section 30, Township 20 South, Range 29 East, Eddy County, New Mexico, to produce oil from the Scanlon Delaware Oil Pool through one string of tubing and to selectively produce gas from an undesignated Strawn gas pool and from an undesignated Morrow gas pool through another string of tubing. Selective production of one of the two gas zones at a time would be accomplished by means of a sliding side door and tubing plug.
- CASE 3576: Application of Jomar Industries, Inc. for water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, has proposed to drill certain wells in the S/2 NW/4 SE/4 and the N/2 SW/4 SE/4 of Section 30, Township 18 South, Range 38 East, Lea County, New Mexico, for production of oil from the Ogallala formation. Applicant anticipates that fresh water will be produced from the Ogallala formation incidental to the production of said oil and now seeks authority to dispose of said water back into the Ogallala formation through an injection well or wells to be located no nearer than 330 feet to the outer boundaries of the above-described acreage.

CASE 3577: Application of El Paso Natural Gas Company for four non-standard units, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval of the following non-standard gas proration units in Township 29 North, Range 7 West, Basin-Dakota Gas Pool, Rio Arriba County, New Mexico:

A 327.78-acre non-standard unit comprising the W/2 of Section 6 and the NW/4 of Section 7, to be dedicated to the San Juan 29-7 Unit Well No. 100 located 790 feet from the South line and 950 feet from the West line of said Section 6;

A 345.19-acre non-standard unit comprising the SW/4 of Section 7 and the W/2 of Section 18;

A 361.64-acre non-standard unit comprising the W/2 of Section 19 and the NW/4 of Section 30;

A 375.28-acre non-standard unit comprising the SW/4 of Section 30 and the W/2 of Section 31.

Each of the latter three non-standard units will be dedicated to a well to be drilled at an as yet undetermined standard location on the respective unit.

CASE 3578: Application of Texas Pacific Oil Company for several non-standard gas proration units, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the dedication and rededication of certain acreage and the establishment of the following non-standard gas proration units in Township 22 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico.

A 120-acre non-standard gas proration unit comprising the N/2 NE/4 and the SE/4 NE/4 of Section 7, to be dedicated to the State "A" A/c-2 Well No. 5, located in Unit A of said Section 7, and also to the State "A" A/c-2 Well No. 6 located in Unit B of said Section 7;

A 160-acre non-standard gas proration unit comprising the W/2 W/2 of Section 5, to be dedicated to the State "A" A/c-2 Well No. 41, located in Unit M of said Section 5;

An 80-acre non-standard gas proration unit comprising the E/2 NW/4 Section 5, to be dedicated to the State "A" A/c-2 Well No. 44, located in Unit F of said Section 5;

A 160-acre non-standard gas proration unit comprising the N/2 SE/4 and the E/2 SW/4 Section 5, to be dedicated to the State "A" A/c-2 Well No. 28, located in Unit I of said Section 5;

(Case 3578 continued)

An 80-acre non-standard gas proration unit comprising the S/2 SE/4 of Section 5, to be dedicated to the State "A" A/c-2 Well No. 27, located in Unit P of said Section 5;

A 160-acre non-standard gas proration unit comprising the W/2 SW/4, SE/4 SW/4, and SW/4 SE/4 Section 8, to be dedicated to the State "A" A/c-2 Well No. 54, located in Unit O of said Section 8;

A 160-acre non-standard gas proration unit comprising the S/2 NW/4, NE/4 SW/4, and NW/4 SE/4 of Section 8, to be dedicated to the State "A" A/c-2 Well No. 56, located in Unit J of said Section 8;

An 80-acre non-standard gas proration unit comprising the S/2 NE/4 of Section 8, to be dedicated to the State "A" A/c-2 Well No. 43, located in Unit H of said Section 8;

An 80-acre non-standard gas proration unit comprising the N/2 NW/4 Section 8, to be dedicated to the State "A" A/c-2 Well No. 49, located in Unit C of said Section 8;

A 240-acre non-standard gas proration unit comprising the NE/4 and E/2 NW/4 of Section 9, to be dedicated to the State "A" A/c-2 Well No. 40, located in Unit A of said Section 9;

A 240-acre non-standard gas proration unit comprising the E/2 SE/4 Section 8, and the SW/4 Section 9, to be dedicated to the State "A" A/c-2 Well No. 38, located in Unit K of said Section 9;

A 160-acre non-standard gas proration unit comprising the N/2 NE/4 Section 8, and the W/2 NW/4 of Section 9, to be dedicated to the State "A" A/c-2 Well No. 29, located in Unit D of said Section 9.

CASE 3579: Application of Texas Pacific Oil Company for three dual completions, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its State "A" A/c-2 Wells Nos. 28 54, and 29, located in Unit I of Section 5, Unit O of Section 8, and Unit D of Section 9, respectively, Township 22 South, Range 36 East, Lea County, New Mexico, in such a manner as to produce gas from the Jalmat Gas Pool and oil from the South Eunice Oil Pool.

CASE 3580: Application of Sunray DX Oil Company for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Grayburg formation through one well located in Unit C of Section 17, Township 17 South, Range 31 East, Grayburg-Jackson Pool, Eddy County, New Mexico.

CASE 3581: Application of Sunray DX Oil Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation from 4248 feet to 4286 feet in its Harris State Well No. 5 located in Unit I of Section 23, Township 10 South, Range 32 East, Mescalero-San Andres Pool, Lea County, New Mexico.

CASE 3582: Application of Tenneco Oil Company for two unorthodox gas well locations, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox Blanco-Mesaverde Gas Pool location of its Jicarilla C Well No. 6, located 1780 feet from the North line and 1455 feet from the West line of Section 14, and its Jicarilla C Well No. 4 located 1650 feet from the North and West lines of Section 24, all in Township 26 North, Range 5 West, Rio Arriba County, New Mexico.

CASE 3583: Application of Stoltz & Company for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the North Bagley-Lower Pennsylvanian Pool, Lea County, New Mexico, including a provision for 80-acre spacing and proration units.

CASE 3584: Application of Gulf Oil Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill its Eddy "BD" State Well No. 1 at an unorthodox location 660 feet from the South line and 990 feet from the East line of Section 32, Township 20 South, Range 30 East, in an undesignated Strawn gas pool, Eddy County, New Mexico.

CASE 3585: Application of Gulf Oil Corporation for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the force-pooling of all mineral interests in the North Bagley-Pennsylvanian Oil Field, SW/4 SE/4 and SE/4 SE/4 of Section 9, Township 11 South, Range 33 East, Lea County, New Mexico, to be dedicated to the Lea State "OE" Well No. 1 to be drilled 660 feet from the South line and 1980 feet from the East line of said Section 9.

CASE 3586: Application of Morris R. Antweil for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of its Malaga Unit Area comprising 839 acres, more or less, of Federal and Fee lands in Sections 12 and 13, Township 24 South, Range 28 East, and Sections 7 and 18, Township 24 South, Range 29 East, Eddy County, New Mexico.

CASE 3587: Application of Morris R. Antweil for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Delaware Sand through seven injection wells located in Sections 12 and 13, Township 24 South, Range 28 East, and Section 18, Township 24 South, Range 29 East, Malaga Pool, Eddy County, New Mexico.

-5- May 24, 1967 Examiner Hearing

Docket No. 16-67

- CASE 3588: Application of Pan American Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the unorthodox location in an undesignated Morrow and/or Devonian gas pool for its Poker Lake Unit Federal Well No. 26 at a location 660 feet from the South and East lines of Section 28, Township 24 South, Range 31 East, Eddy County, New Mexico, to be dedicated to a standard unit comprising the S/2 of said Section 28.
- CASE 3589: Application of Claude C. Kennedy for special pool rules, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of special pool rules for the Slick Rock-Dakota Oil Pool comprising the S/2 SE/4 of Section 36, Township 30 North, Range 17 West, including a provision for development on 2 1/2 acre spacing with the provision that each 40-acre tract be subject to the Northwest New Mexico normal unit allowable.
- CASE 3590: Application of Texaco Inc. for a pilot waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pilot waterflood project by the injection of water into the Pennsylvanian formation in the interval from 9650 feet to 9800 feet in its State BV Well No. 1 located in Unit E of Section 26, Township 13 South, Range 33 East, Lazy-J Pennsylvanian Pool, Lea County, New Mexico.
- CASE 3591: Application of Anadarko Production Company for a waterflood expansion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to expand its Langlie-Mattix Penrose Sand Unit Waterflood Project by the injection of water into the Penrose Sand through eight additional injection wells located in Sections 20, 28, 29, 32, and 33, all in Township 22 South, Range 37 East, Langlie-Mattix Pool, Lea County, New Mexico.

WHITE, GILBERT, KOCH & KELLY
ATTORNEYS AT LAW
P. O. BOX 787
SANTA FE, NEW MEXICO

THE NEW MEXICO OIL CONSERVATION COMMISSION

APPLICATION OF SUNRAY DX OIL COMPANY
TO DISPOSE OF SALT WATER BY PRESSURE
INJECTION INTO THE SAN ANDRES FORMATION,
MESCALERO SAN ANDRES FIELD, THROUGH
THE HARRIS STATE NO. 5 WELL LOCATED IN
THE SOUTHEAST QUARTER OF SECTION 23,
TOWNSHIP 10 SOUTH, RANGE 32 EAST, LEA
COUNTY, NEW MEXICO.

Case 35-81

APPLICATION

Comes now Sunray DX Oil Company and applies to the New Mexico Oil
Conservation Commission for permission to dispose of salt water by pressure
injection into the San Andres Formation through the Harris State No. 5 Well
located in the Southeast Quarter of Section 23, Township 10 South, Range 32
East, Lea County, New Mexico. Attached to this application and made a part
hereof are the following exhibits:

A. A plat of the proposed injection well which shows the location
and formation of all other wells in a radius of two miles from said proposed
injection well.

B. Log of proposed injection well.

C. Diagramatic sketch of the proposed injection well.

D. Drilling report and conversion data on proposed injection well.

A copy of this application along with all attached exhibits has been
sent to the State Engineer's Office, Capitol Building, Santa Fe, New Mexico,
attention Mr. Frank Irby.

WHEREFORE Applicant requests that the Commission approve said applica-
tion after public hearing as required by law.

WHITE, GILBERT, KOCH & KELLY

By W. B. Kelly
Attorneys for Sunray DX Oil Company

67-MAY 4 AM 11 20

SECRET MAILED

Date 5-12-67

ADDRESSEE LIST OF OPERATORS
MESCALERO SAN ANDRES FIELD
LEA COUNTY, NEW MEXICO

<u>OPERATOR</u>	<u>MAILING ADDRESS</u>
Cities Service Oil Company	Box 69, Hobbs, New Mexico
Continental Oil Company	Box 460, Hobbs, New Mexico
Humble Oil & Refining Company	Box 1650, Hobbs, New Mexico
Lone Star Producing Company	Rt. 1, Box 3, Rankin Hwy, Midland, Tex.
I. W. Lovelady	607 Amer. Bk. of Com. Bldg., Midland, Tex.
Ralph Lowe	Box 832, Midland, Texas
Shell Oil Company	Box 1810, Midland, Texas
Socony Mobil Oil Company	Box 633, Midland, Texas
Sun Oil Company	Box 1205, Hobbs, New Mexico
Sunray DX Oil Company	Box 1416, Roswell, New Mexico
Texas Pacific Oil Company	Box 4067, Midland, Texas
E. D. White	1005 Sec. Nat. Bk. Bldg., Roswell, N. M.

Core 3581

Completion Letter: ☒
Cards: ☒

CODE: RM65-PEX38
COUNTY: Lea
OBJECTIVE: 4400' San Andres Development
FIELD: MESCALERO
ELEVATION: 4290 DF

WELL NAME: SUNRAY OX OIL COMPANY #5 Harris State

LOCATION: 2310' FSL 990' FEL, Section 23, T-10-S, R-32-E

SPUD: 11/7/65 COMPLETE: TA 12/1/65 TOTAL DEPTH: 4370; PB 4346

CASING: 8 5/8" @ 365' w/250 sx. 1 1/2" @ 4372' w/200

PAY:	T/PAY:	TOPS	LOG	SAMPLE
IP	CHOKE			
GRAVITY	GOR			
CP	TP			

PERFORATIONS: 4333, 4337, 4286,
4277, 4271, 4266, 4256
4252, 4248

TREATMENT 2750 gal ac.

GEOLOGIST: Louie PH
CONTRACTOR Cactus Drlg PH
PUSHER PH
SDX INTEREST
REPORT TO DAILY: Mr. A. J. Black
10019 Coors Road NW, Albuquerque

<u>Spud</u>	<u>1676</u>
<u>Water</u>	<u>2277</u>
<u>Queen</u>	<u>3040</u>
<u>San Andres</u>	<u>3280</u>

TESTS AND/OR CORES:

DAILY DRILLING REPORT

11/6 John West staked location. New-Mex Construction building road & location.

11/7 Cactus Drlg Corp MIR.

11/8 SPUD 12 1/4" hole @ 4 PM 11/7/65. Drill to 367' redbeds. Bit #1, 367' progress. Ran 11 jts 8 5/8" 24# J-55 cst to csg pt 365'. Halliburton cmt'd w/250 sx reg 2% CaCl. PD 11 PM 11/7/65. Circ approx 35 sx to pit. WOC.

11/9 Trip at 1606' salt & anhy. Bit #3, 1239' progress. WOC 18 hrs. Test BOP & csg to 1000# 30" OK. Drill plug and drill ahead. 1° at 1605'.

11/10 Drlg 2700' X & anhy. Bit #4, 1094' progress. 3/4° at 2607'. Visc. 34, Wt 10.6.

11/11 Drlg. 3430' anhy & gyp. Bit #5, 730' progress. 1/2° at 3195'. MW 10.5, Visc. 36.

11/12 Stuck DP TD 3525' anhy & gyp. Bit #5, 95' progress. 1/2° at 3195'. MW 10.5, Visc. 35. Stuck DP coming out of hole @ 1196'. Dialog back off @ 1134' left 2 DC & bit in hole.

11/13 Drlg. 3623' anhy & gyp. Bit #6, 98' progress. MW 10.3, Visc. 44, WL 8. 14.5 hrs fishing DC @ 1196'.

11/14 Drlg. 3770' anhy & gyp. Bit #7, 147' progress. 1 1/2° at 3690'. MW 10.5, Vic. 52, WL 10.2, oil 5%.

Case 3581

- 11/15 Drlg. 3923' anhy & dolo. Bit #8, 153' progress. 1 1/2° at 3833'. MW 10.5, Visc. 50, WL 12.
- 11/16 Trip at 4065' anhy & dolo. Bit #9, 142' progress. 1 1/2° at 3923'. MW 10.5, Visc. 53, WL 12.
- 11/17 Drlg. 4159' dolo & anhy. Bit #11, 94' progress. 2 1/2° at 4160'. MW 10.2, Visc. 52, WL 11.
- 11/18 Drlg. 4265' dolo & anhy. Bit #12, 106' progress. 2 1/4° at 4222'. MW 10.2, Visc. 50, WL 9.9.
- 11/19 TD 4370'. Ran logs. Bit #13, 105' progress. Anhy & dolo. 2 1/4° at 4222'. MW 10.5, Visc. 55, WL 9. Schlumberger WL TD 4377'.
- 11/20 TD 4370'. Schlumberger ran GR-Density, LL, & MLL to WLTD 4377'. Lay down drill pipe. Ran 137 jts 4 1/2" 9.5# J-55 csg to csg pt 4372'. Cemented w/200 sd Incore poz. PD 7:15 PM. 11/19/65. Rig released 9:00 PM 11/19/65. WOC.
- 11/21 WOC. Top cement 3570' by temp survey.
- 11/22 WOC. -- 11/25/ WOC
- 11/26 MI completion rig.
- 11/27 Ran Lane Wells PFC log to PBTD 4346'. Perf w/Lane Wells "E" gun, 1 flow-seat bullet at each of the following intervals: 4333 & 4337' (Schlumberger measurement). Ran tbg w/Baker retrievematic pkr. Displaced wtr w/oil. Acidized w/250 gals DS-50 and 25# XR-1 iron stabilizer. Max TP 6700#, min 2500#. 1 BPM. ISIP 2100#. 1400# in 5 min. Total load 18 BO + 6 BAW. Swab 18 bbis + 38 BW until well swabbed down in 12 hrs. Pulled swab once every hour for an additional 8 hrs. Rec an additional 16 bbis of brackish water with a very small show of dead oil.
- 11/28 Pull pkr. Displace oil w/wtr. Set pkr @ 4292'. Squeeze perfs 4333 to 4337' w/75 sx incore neat to 6000#. Reverse out 20 sx. Pull tbg. Lane Wells perf 1 hole @ the following depths 4286, 4277, 4271, 4266'. Ran tbg w/pkr. Acidize w/500 gal DS w/50# XD-1 iron stabilizer. Max press 3300#, min 2400#. to 1800# in 5 min SIP. Total load to rec. 18 BO + 12 BAW. Swab well dry in 5 hrs. Rec. all load. Test well 3 hrs. NS.
- 11/29 Acidize w/1500 gal DS 50 w/100# iron stabilizer. Max press 3300#. Min 2800. Stand on 2000# after 5 min SI. Avg inj rate 3.1 BPM. Total load to rec 18 BO + 29 BAW. Swab well down and dry in 8 hrs. Lack 7 BAW. SI 9 hrs. No press build up.
- 11/30 Test perf 4286-4266' 3 hrs NS. Dry. Pull tbg & pkr. Set Baker BP on Lane Wells WL @ 4260'. Perf 3 holes w/"E" gun flow seat bullets @ 4256', 4252', 4248'. Schlumberger measurement. Ran tbg & pkr to 4198'. Western acidize w/500 gal DS-50 w/iron stabilizer. Max press 4100, min 1800. 5 min SIP 2700. Total to rec 18 BO + 12 BAW. Swab well 11 hrs. Rec. 18 BO & 9 BAW. Lack 3 BAW. Well swab dry. NS. Oil gas or water.
- 12/1 Pulled and laid down tbg. TEMPORARILY ABANDONED. Will drop from report pending further study of completion attempt.

dearnley-meier reporting service, inc.

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMMS BLDG. • P. O. BOX 1092 • PHONE 243-6491 • ALBUQUERQUE, NEW MEXICO

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
EXAMINER HEARING

May 24, 1967

IN THE MATTER OF:)

Application of Sunray DX Oil)
Company for salt water)
disposal, Lea County, New Mexico.)

Case No. 3581

BEFORE: Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING

MR. UTZ: Case 3581.

MR. HATCH: Application of Sunray DX Oil Company
for salt water disposal, Lea County, New Mexico.

MR. KELLY: Booker Kelly, Gilbert, White, Koch and
Kelly, Santa Fe, New Mexico, appearing on behalf of the
Applicant. We have one witness. Let the record show that we
have the same witness and he has already been sworn.

MR. UTZ: Yes, sir. Any other appearances in this
case?

(Whereupon, Applicant's
Exhibits 1 through 4 were
marked for identification.)

JOHN HASTINGS

called as a witness, having been previously duly sworn,
was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KELLY:

Q Mr. Hastings, would you state briefly what Sunray
seeks by this application, referring to Exhibit No. 1?

A Yes. Sunray DX Oil Company is seeking approval to
convert our Harris State No. 5 well to salt water disposal
service.

Q Would you locate the well and give what its present
situation is?

A Yes; Harris State No. 5 is located 990 from the East

and 2310 from the South of Section 23, Township 10 South, Range 32 East, Lea County, New Mexico.

Q And what is the, what water will be injected into that? Where are you going to get your water?

A This well will handle only produced water from Sunray DX Harris State lease.

Q How many wells do you have?

A We have four producing wells. No. 5 is a temporarily abandoned dry hole.

Q Referring to Exhibit No. 2, which is your data on the conversion, would you just go through that briefly?

A Yes. This Harris State lease is located in the Mescalero San Andres field. The well was completed on December 1st, 1965 as a San Andres dry hole. The well is presently temporarily abandoned. We propose to inject produced salt water from our Harris State lease into the interval 4248 to 4286. This is within the San Andres pay zone. Source of the injection water, as we pointed out earlier, will only be produced water from our Harris State lease. Anticipated volume to be injected is approximately 50 barrels per day, which is our present water production, and some time in the future this water production might possibly increase to as much as 500 barrels per day.

We will anticipate an injection pressure of

approximately 500 pounds with sometime in the future possibly going as high as 1800 pounds as the injection volumes increase.

Q What's happening to this water now?

A It is being disposed of in a surface pit.

Q In this area has Sunray been required to change its disposal system by the Commission order?

A Yes, we have.

Q What is the deadline?

A January 1st, 1968.

Q How long would it take you to convert this well if this application is granted?

A Just a matter of days. We are ready to go ahead immediately.

Q You think that you are going to have any problem if you get up to your maximum amount of water, injecting it or getting this well to take that much water?

A No. We do not feel so.

Q Refer to Exhibit 3 and describe the installation.

A Exhibit 3 is a diagrammatic sketch of the proposed injection installation. As you will see, a 12 1/4-inch hole was drilled to 365 feet. At this point 8-5/8ths, 24-pound, J-55 casing was run, cemented with 250 sacks regular cement. Two percent calcium chloride. Cement was circulated to the surface. Total depth, 4377. New 4-1/2" 9-1/2-pound J-55

casing was then run at 4372 and cemented with 200 sacks of Incor cement. The top of the cement is 3570 feet by temperature survey.

Proposed injection interval is 4248 to 4286. We would propose to run 2-3/8ths-inch cement-lined injection tubing and set a Baker Model "AD" packer at approximately 4225 feet. Here again, we would fill the casing tubing annulus with an inhibited fluid and place a pressure gauge at the surface so as to be able to detect any leak that might occur in the tubing string.

Q You stated that this is salt water you will be producing?

A Yes.

Q Or inject?

A Yes.

Q Do you feel that the cement-lined tubing in the other installation you have shown here will protect against any corrosion?

A Yes, we do.

Q Were Exhibits 1 through 3 prepared by you or under your supervision?

A Yes, sir.

Q You also have a log here?

A Yes. One other thing we might point out, this well

is approximately 112 feet low to the west offset, the Sunray Harris State No. 3 well. The well was perforated, stimulated and swabbed dry and produced no show of oil or gas. For this reason, as well as the minimal amount of water that we expect to inject into the well, we feel that we will not receive any secondary benefit as a result of this injection. This is merely a salt water disposal well in compliance with the Commission no pit order.

MR. UTZ: The formation is actually dry at this time?

THE WITNESS: That is correct.

MR. UTZ: Did you offer your exhibits?

MR. KELLY: No.

Q (By Mr. Kelly) Were Exhibits 1 through 3 prepared by you or under your supervision?

A Yes.

Q And Exhibit 4 is a log of the well?

A Correct.

MR. KELLY: We offer Exhibits 1 through 4.

MR. UTZ: Without objection Exhibits 1 through 4 will be admitted in evidence in this case.

(Whereupon, Applicant's Exhibits 1 through 4 were offered and admitted in evidence.)

MR. KELLY: That's all we have on direct.

CROSS EXAMINATION

BY MR. UTZ:

Q Did you state when this well was drilled?

A Yes, sir, December 1st, 1965.

Q Was the tubing new at that time?

A Tubing was run in the well and it was tested and then has been pulled out of the well since that time and is presently staked by the well, but it is essentially new tubing.

Q The casing also?

A Yes.

MR. UTZ: Any questions? The witness may be excused.

(Witness excused.)

MR. UTZ: Are there any statements?

MR. HATCH: A letter from the State Engineer's office offering no objection to the application.

MR. UTZ: The case will be taken under advisement.

I N D E X

<u>WITNESS</u>		<u>PAGE</u>
JOHN HASTINGS		
Direct Examination by Mr. Kelly		2
Cross Examination by Mr. Utz		7
<u>EXHIBITS</u>	<u>MARKED</u>	<u>OFFERED AND ADMITTED</u>
Applicant's 1 through 4	2	6

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PAGE 9

STATE OF NEW MEXICO)
COUNTY OF BERNALILLO) ss


I, ADA DEARNLEY, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me; and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

Witness my Hand and Seal this 28th day of June, 1967.


NOTARY PUBLIC

My Commission Expires:

June 19, 1971.

I do hereby certify that the foregoing is a complete record of the proceedings in the hearing of Case No. 3581, held by the Commission on June 28, 1967.

Secretary
New Mexico Oil Conservation Commission

SUPPLEMENTAL DATA
for Converting Harris State No. 5
to Water Injection Service

Lease: Harris State

Field: Mescalero San Andres

Well No.: 5

Location of Well: 2310' FSL & 990' FEL of Section 23, T-10-S, R-32-E,
Lea County, New Mexico.

Date Well Completed: 12-1-65 (Dry Hole)

Present Status of Well: Temporarily Abandoned dry hole.

Present Producing Formation: Original perms. still open in the San Andres.

Proposed Status of Well: Convert to water injection service well in
San Andres.

Type of Injection Fluid: Salt water.

Formation in which water is to be injected into: San Andres

Top of Formation: 3580'

Bottom of Formation: Not penetrated. T.D. 4377'.

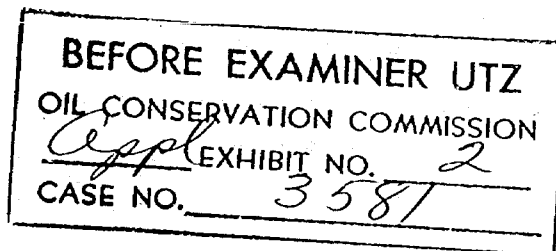
Proposed Injection Interval: 4248-4286'.

Source of Injection Water: Produced salt water from the Sunray Harris
State Lease.

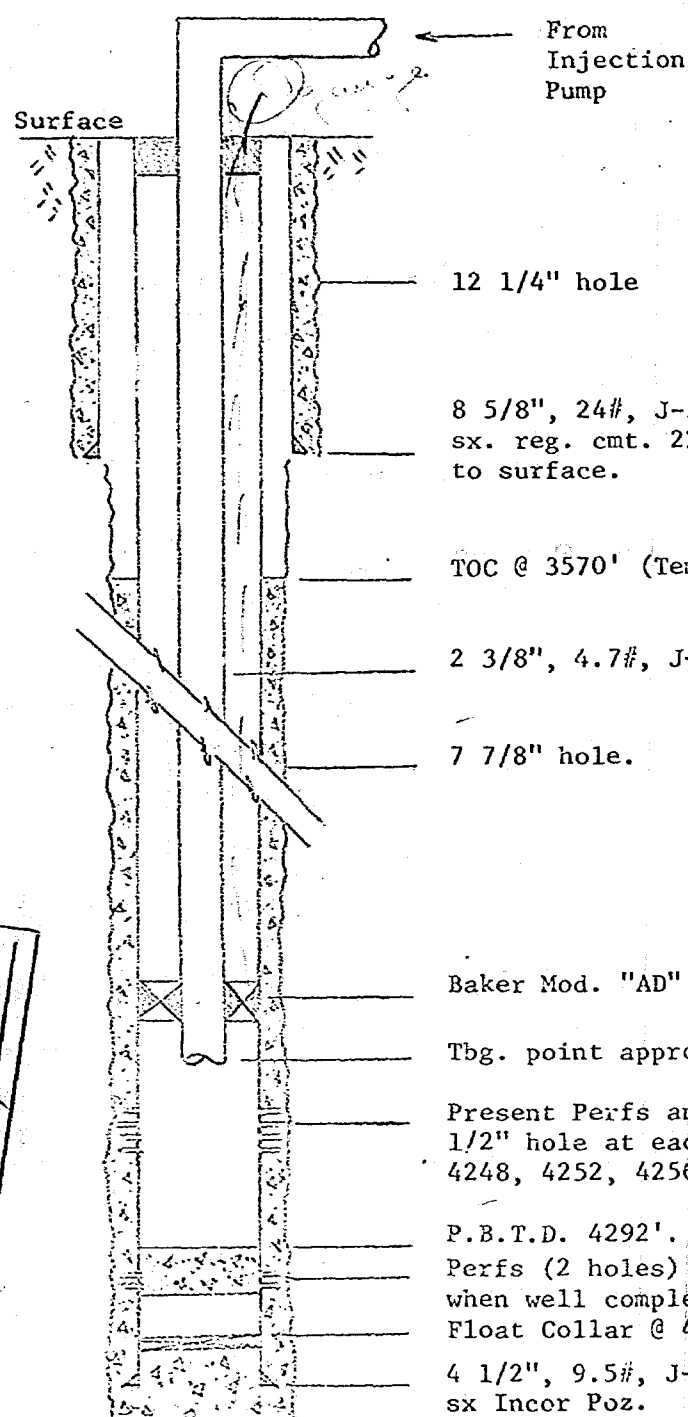
Anticipated Volumes to be Injected: 50 BPD min; 500 BPD max.

Anticipated Injection Pressure: 500 psig.

Maximum Injection Pressure: 1800 psig,



SUNRAY DX OIL COMPANY
 Diagrammatic Sketch
 of Proposed Conversion
 to Water Injection
 HARRIS STATE NO. 5
 2310' FSL & 990' FEL
 Sec. 23-T10S-R32E
 Lea County, New Mexico
 Mescalero Field



12 1/4" hole

8 5/8", 24#, J-55 Csg. @ 365', cmt'd w/250
 sx. reg. cmt. 2% CaCl. Cement circulated
 to surface.

TOC @ 3570' (Temperature Survey).

2 3/8", 4.7#, J-55, EUE, Cement lined tubing,

7 7/8" hole.

Baker Mod. "AD" Pkr. to be set approx. 4225'.

Tbg. point approx 4225' (open end).

Present Perfs and Injection Interval: One
 1/2" hole at each of the following depths:
 4248, 4252, 4256, 4266, 4271, 4277, 4286.

P.B.T.D. 4292'.

Perfs (2 holes) 4333 and 4337 were squeezed
 when well completed w/75 sx to 6000 psig.
 Float Collar @ 4346'.

4 1/2", 9.5#, J-55 csg. @ 4372', cmt'd w/200
 sx Incor Poz.
 T.D. 4377'.

BERC. E EXAMINER UTZ
 OIL CONSERVATION COMMISSION
 CASE NO. 3587