

CASE 5555: Appl. of LONE STAR
PRODUCING CO. for SALT WATER
DISPOSAL, Lea County

any

*Jan 16 8
Dob*

CASE NO.

5555

APPLICATION,
TRANSCRIPTS,
SMALL EXHIBITS,

ETC.



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501



DIRECTOR
JOE D. RAMEY

LAND COMMISSIONER
PHIL R. LUCERO
December 17, 1975

STATE GEOLOGIST
EMERY C. ARNOLD

Summer Buell
Montgomery, Federici, Andrews,
Hannehs & Buell
Attorneys at Law
Post Office Box 2307
Santa Fe, New Mexico

Re: CASE NO. 5555
ORDER NO. R-5130

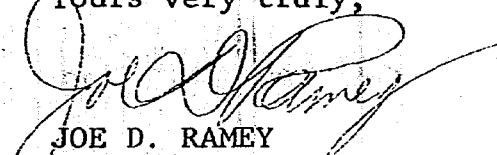
Applicant:

Lone Star Producing Company

Dear Sir:

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

Yours very truly,


JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCC ☒
Artesia OCC _____
Aztec OCC _____

Other _____

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. 5555
Order No. R-5130

APPLICATION OF LONE STAR PRODUCING
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 October 8, 1975, at Santa Fe, New Mexico, before Examiner, Daniel S. Nutter.

NOW, on this 16th day of December, 1975, 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, Lone Star Producing Company, is the owner and operator of the Santa Fe Well No. 2, located in Unit O of Section 19, Township 9 South, Range 37 East, NMPM, East Crossroads-Devonian Pool, Lea County, New Mexico.

(3) That the applicant proposes to utilize said well to dispose of produced salt water into the Devonian formation, with injection into the open-hole interval from approximately 12,180 feet to 12,226 feet.

(4) That the injection should be accomplished through 2 3/8-inch internally coated tubing installed in a packer set at approximately 11,999 feet; that the casing-tubing annulus should be filled with an inert fluid; and that measures should be taken in order to determine leakage in the casing, tubing, or packer.

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

-2-

Case No. 5555
Order No. R-5130

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

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

IT IS THEREFORE ORDERED:

(1) That the applicant, Lone Star Producing Company, is hereby authorized to utilize its Santa Fe Well No. 2, located in Unit O of Section 19, Township 9 South, Range 37 East, NMPM, East Crossroads-Devonian Pool, Lea County, New Mexico, to dispose of produced salt water into the Devonian formation, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 11,999 feet, with injection into the open-hole interval from approximately 12,180 feet to 12,226 feet;

PROVIDED HOWEVER, that the tubing shall be plastic-lined; that the casing-tubing annulus shall be filled with an inert fluid.

(2) That the disposal well shall be equipped and/or tested to determine leakage in the casing, tubing, or packer in the manner described under (a) or (b) below:

- (a) If injection is by pressure system, the annulus shall be equipped with a pressure gauge or other approved leak detection device.
- (b) If injection takes place with no measurable surface pressure or a negative pressure, the operator shall test the annulus with positive pressure within 30 days of initial injection and annually thereafter. The supervisor of the Hobbs district office of the Commission shall be notified of the date and time of such tests in order that they may be witnessed.

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

(4) That the operator shall immediately notify the supervisor of the Commission's Hobbs district office of the failure of the tubing, casing, or packer, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

-3-

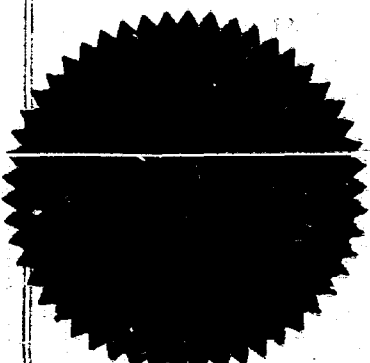
Case No. 5555
Order No. R-5130

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

(6) 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



Phil R. Lucero

PHIL R. LUCERO, Chairman

Emery C. Arnold
EMERY C. ARNOLD, Member

Joe D. Ramey
JOE D. RAMEY, Member & Secretary

S E A L

jr/

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
October 8, 1975

EXAMINER HEARING

IN THE MATTER OF:

Application of Lone Star Producing
Company for salt water disposal,
Lea County, New Mexico

CASE
5555

BEFORE: Richard L. Stamets, Examiner.

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil
Conservation Commission:

William F. Carr, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico

For the Applicant:

Sumner Buell, Esq.
MONTGOMERY, FEDERICI, ANDREWS,
HANNAHS & BUELL
Attorneys at Law
350 East Palace Avenue
Santa Fe, New Mexico

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

I N D E X

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BRANDON C. SMITH

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EXHIBIT INDEX

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Offered Admitted

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1 MR. STAMETS: We will call the next Case, 5555.

2 MR. CARR: Case 5555, continued from the September
3 24, 1975 Examiner Hearing, application of Lone Star Producing
4 Company for salt water disposal, Lea County, New Mexico.

5 MR. STAMETS: Call for appearances in this Case.

6 MR. BUELL: Mr. Examiner, Sumner Buell, Montgomery,
7 Federici, Andrews, Hannahs and Buell of Santa Fe appearing
8 on the behalf of Lone Star Producing Company, we will have
9 one witness.

10 MR. STAMETS: Any other appearances?

11 (THEREUPON, the witness was duly sworn.)

12 BRANDON C. SMITH

13 called as a witness, having been first duly sworn, was
14 examined and testified as follows:

15 DIRECT EXAMINATION

16 BY MR. BUELL:

17 Q Would you state your name, please?

18 A Brandon C. Smith.

19 Q Mr. Smith, by whom are you employed and in what
20 capacity and where do you reside?

21 A Lone Star Producing Company as district petroleum
22 engineer in Midland, Texas.

23 Q Mr. Smith, as I understand it, you have not
24 previously testified before the Commission or one of its
25 examiners, would you give briefly your educational background

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1 and work experience in the industry?

2 A I was graduated from Texas A & M in 1966 with
3 a B.S. degree in petroleum engineering; I have been employed
4 by Lone Star Producing Company since that time as a petroleum
5 engineer. I'm currently district engineer for Lone Star
6 Producing Company, West Texas District, Midland, Texas.

7 Q What are the general natures of your duties as a
8 district engineer with Lone Star Producing Company?

9 A My duties as a district engineer are to oversee
10 and to conduct reserve estimates, economic analysis, property
11 evaluations and well rework, drilling recommendations and
12 so forth.

13 Q And are you familiar with what is sought in this
14 Case, in Case Number 5555?

15 A Yes, I am.

16 MR. BUELL: Are the witness's qualifications
17 acceptable?

18 MR. STAMETS: They are.

19 Q (Mr. Buell continuing.) Briefly state what Lone
20 Star does seek by this application?

21 A Lone Star Producing Company desires to inject
22 water into our watered out Santa Fe Number 2, which was
23 a Devonian completion, in the zone below the casing from
24 twelve one eighty to the bottom of the hole, twelve, two,
25 twenty-six.

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1 Q Referring you to what has been marked for identifica-
2 tion as Applicant's Exhibit Number One, would you briefly
3 state what this shows?

4 A Mr. Examiner, this is an area map with a two-mile
5 circle on it from our proposed injection well, Santa Fe
6 Number 2, and Lone Star's interest in this field is our
7 Number 1 Santa Fe which is located in the Northwest quarter
8 of Section 30. This is our only remaining producing well.
9 And, of course, the Santa Fe Number 2 in the southeast quarter
10 of Section 19 and the only thing we had in addition to that
11 was our recently plugged water disposal well, the Number 3
12 well in the northeast quarter of Section 30.

13 Q The well Number 2, the proposed injection well, is
14 watered out at the present time?

15 A That's right, as of September 1973.

16 Q Referring you to what has been marked as Exhibit
17 Two, would you briefly outline what that shows?

18 A Exhibit Two is a production forecast, and also
19 it indicates the economic limits and it pertains to our
20 Santa Fe Number 1, our only producing well, and it may be
21 seen that the upper line there, the economic limit of five
22 thousand barrels is a result of hauling and disposing of
23 salt water, and the cost as compared with the twenty-eight
24 hundred average monthly production, which means that we
25 cannot continue to operate under the present circumstances.

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1 By converting the Number 2 to an injection well
2 we estimate that our economic limit will drop to some
3 thousand barrels of oil per month, allowing a recovery of
4 maybe some one hundred and eighty barrels of oil over a
5 ten-year period.

6 Q And referring to what has been marked for
7 identification as Exhibit Number Three, would you briefly
8 describe what is shown on that exhibit?

9 A This exhibit shows the mechanical configuration of
10 the well where it is cased from the top to the bottom, which
11 is down to twelve, one, eighty, right on the top of the
12 Devonian formation and with an open hole from that depth
13 down to twelve, two, twenty-six. It shows a packer on a
14 two and three-eighths inch OD tubing down through the packer.
15 We intend to pull out that tubing and test the plastic
16 coating, reinstall it and then inject into the open hole
17 down below the casing.

18 Q Do you have any information as to the water
19 characteristics of the water that will be injected into the
20 well?

21 A I don't have a water analysis, but we know it is
22 too salty to dispose of where there is fresh water and it
23 must be injected.

24 Q And if water is injected into this formation will
25 there be any communication with other formations in the area?

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1 A No, there will not. They are all sealed off with
 2 our casing.

3 Q Is it your opinion that the granting of the
 4 application would prevent waste and protect correlative
 5 rights?

6 A Yes, sir.

7 Q Were Exhibits One through Three prepared by you
 8 or under your supervision?

9 A They were prepared by me.

10 MR. BUELL: I would move the introduction of
 11 Exhibits One through Three.

12 MR. STAMETS: These exhibits will be admitted.

13 MR. BUELL: I have nothing further, Mr. Examiner.

14 CROSS EXAMINATION

15 BY MR. STAMETS:

16 Q Mr. Smith, referring back to Exhibit Number One,
 17 did you examine the casing records or the plugging records
 18 on the off-setting wells to determine whether or not they
 19 are properly completed or properly plugged to prevent the
 20 migration of fluids out of the injection zone?

21 A You mean by other operators?

22 Q Yes, say for instance, the well to the south in
 23 Section 30?

24 A No, sir, I haven't, but I will. I didn't realize
 25 that would be required. Ours are properly handled and the

1 only other producing well there -- you will notice two of
2 them -- are Santa Fe's 1-19 in the southwest quarter of 19
3 and the H. H. Wrights Number 1 in the southeast quarter of
4 Section 19.

5 Q You will simply be returning water to the zoning
6 formation?

7 A Right, in a watered out zone. It has been watered
8 out for over a year.

9 Q You do not have a water analysis with you at the
10 present time?

11 A No, sir, I do not.

12 Q But you would submit one of those?

13 A Yes, sir, I would.

14 Q What would be the temperature of the injected
15 water?

16 A This I don't know.

17 Q Could you submit that as well?

18 A Yes, sir.

19 Q It would be an open or closed disposal system?

20 A It would be closed.

21 Q What type of leak detection do you propose for the
22 annular space between the tubing and the production casing?

23 A Well I hadn't gone into that, but we will do
24 whatever the Commission requires.

25 Q Often times the Commission has called for the

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1 space to be closed with inhibited fluid and a gauge placed
2 on the annulus. Other times the Commission has simply said
3 that it would be left open in order to detect leaks. Which
4 of those two do you think would be most effective for leak
5 detection?

6 A Well, I think that the latter case would be most
7 effective. I mean, if you have got a hole in the casing
8 or anything you would be able to detect that, whereas, if
9 it was loaded with inert fluid you might not, but whatever
10 the Commission will desire, we will be glad to do it.

11 MR. STAMETS: Any other questions of the witness?

12 He may be excused.

13 Anything further in this Case? We will take
14 the Case under advisement.
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State of New Mexico)
) ss.
County of Santa Fe)

I, SIDNEY F. MORRISH, a court reporter, do hereby
certify that the foregoing and attached Transcript of Hearing
before the New Mexico Oil Conservation Commission was reported
by me, and the same is a true and correct record of the said
proceedings to the best of my knowledge, skill and ability.

Sidney F. Morrish
Sidney F. Morrish, Court Reporter

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Phone (505) 982-9212

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 5555
heard by me on 10-8-1975.
Richard L. Starn, Examiner
New Mexico Oil Conservation Commission

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
September 24, 1975

EXAMINER HEARING

IN THE MATTER OF:

Application of Lone Star Producing
Company for salt water disposal,
Lea County, New Mexico.

CASE
5555

BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil
Conservation Commission:

Thomas Derryberry, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico

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Phone (505) 982-9212

1 MR. NUTTER: We will call Case Number 5555.

2 MR. DERRYBERRY: Case 5555, application of Lone
3 Star Producing Company for salt water disposal, Lea County,
4 New Mexico.

5 Mr. Examiner, due to the applicant's failure to
6 obtain an attorney for the hearing on this date, the case
7 has been continued to October 8th to allow the applicant
8 time to obtain an attorney.

9 MR. NUTTER: Case 5555 will be continued to the
10 Examiner Hearing scheduled at this same place at nine o'clock
11 A.M., October 8th, 1975.

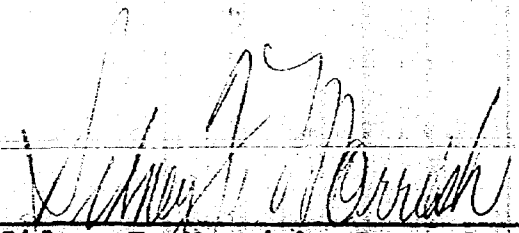
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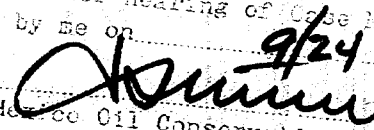
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2 State of New Mexico)
3) ss.
4 County of Santa Fe)

5 I, SIDNEY F. MORRISH, a court reporter, do hereby
6 certify that the foregoing and attached Transcript of Hearing
7 before the New Mexico Oil Conservation Commission was reported
8 by me, and the same is a true and correct record of the said
9 proceedings to the best of my knowledge, skill and ability.

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13 Sidney F. Morrish, Court Reporter
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I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 5555
heard by me on 9/24 1975

New Mexico Oil Conservation Commission

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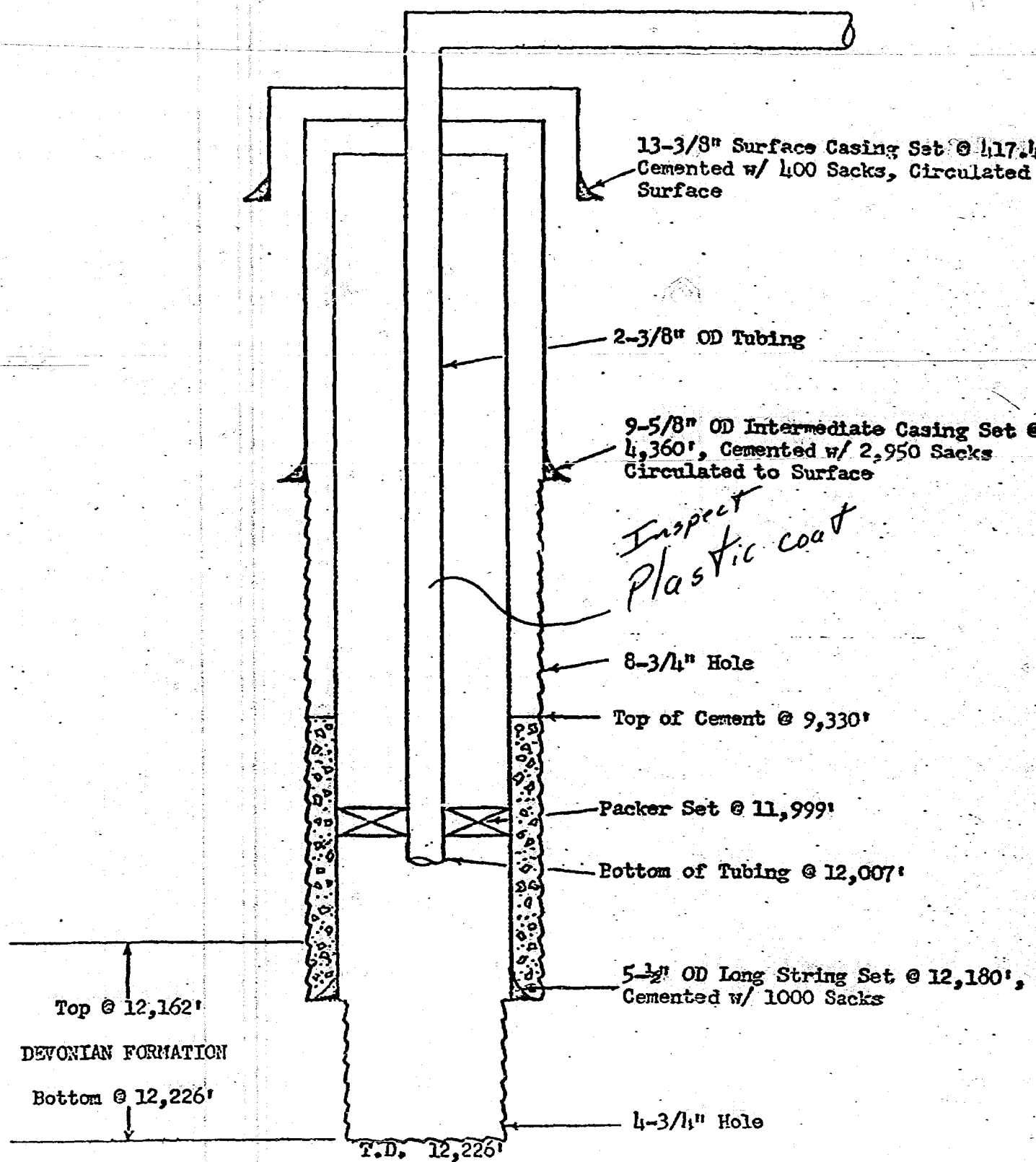
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LONE STAR PRODUCING COMPANY

Santa Fe No. 2

Sec. 19, T-9-S, R-37-E

DIAGRAMATIC SKETCH OF SALT WATER
DISPOSAL WELL



BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION

App EXHIBIT NO. 3
CASE NO. 5555

Submitted by Applicant
Hearing Date 10-8-75



Case 5555

Lone Star Producing Company

BRANDON C. SMITH
District Engineer
West Texas District
Production Department

Telephone: AC 915 682-5221

August 22, 1975

Suite 300 Commercial
Bank Tower Building
P.O. Box 4315
Midland, Texas 79701

New Mexico Oil Conservation Commission
Box 2088
State Land Building
Santa Fe, New Mexico 87501

Re: Application to Dispose of Salt
Water Into a Porous Formation
in Lone Star Producing Company's
Santa Fe No. 2
East Crossroads Field
Lea County, New Mexico

Gentlemen:

Attached is NMOCC Form C-108 "Application to Dispose of Salt Water by Injection Into a Porous Formation" in our Santa Fe No. 2, East Crossroads Field, Lea County, New Mexico, together with all required supporting data.

For your information, of the three wells drilled by Lone Star Producing Company in East Crossroads (Devonian) Field (Santa Fe Nos. 1, 2 and 3), only the Santa Fe No. 1 is currently producing. The Santa Fe No. 2 has watered out and is currently in temporary abandonment status. The Santa Fe No. 3 has been used as a saltwater disposal well in the San Andres formation until recently. The San Andres pressured up, leaks and mechanical problems developed and the well had to be plugged and abandoned.

Water disposal costs, by trucking, from our Santa Fe No. 1 are averaging approximately \$5,000 per month. This means that total operating costs are excessive and the resultant high economic limit will require early abandonment and will cause waste. To lower the salt water disposal costs, and consequently the economic limit on our Santa Fe No. 1, it is proposed to convert our Santa Fe No. 2 to a saltwater well by injecting Devonian Water from our Santa Fe No. 1 back into the Devonian formation. The Santa Fe is currently completed in the Devonian, with tubing and packer still installed. Our Santa Fe No. 2 is located in the SE $\frac{1}{4}$ of Section 19. There are three other Devonian producers in East Crossroads Field and one Devonian producer in Crossroads Field as follows:

<u>Field</u>	<u>Operator</u>	<u>Sec</u>	<u>Distance and Direction From L.S. Santa Fe No. 2</u>
East Crossroads	H.H. Wright	19	1000' N
	Santa Fe R.R.C.	19	600' WSW
	Lone Star Prod. Co.	30	1850' SW
Crossroads	Oil Dev. Co.	26	9350' WSW

More than 6,000 friendly people working together to serve our communities better

As indicated above, the Devonian formation is productive within a two mile radius of the proposed disposal well. However, if no objection is made by offset operators or by the surface owner, it is respectfully requested that administrative approval be given to this application. It is our belief that only beneficial results can accrue to any producing wells in the Devonian formation in this area. In the event that administrative approval cannot be granted, it is requested that a hearing be set at your earliest convenience.

By copy of this letter, a copy of the application, complete with all attachments is being sent, same date as this letter, to the Chief Engineer, Box 2088, State Land Office Building, Santa Fe, New Mexico. Copies of the application are also being sent to all offset operators and to the surface owner. A "List of Operators" which includes the surface owner, is attached.

Please let us know if you need any additional information.

Yours very truly,

LONE STAR PRODUCING COMPANY

Brandon C. Smith

Brandon C. Smith
District Petroleum Engineer

BCS/jd

cc: Mr. D. S. Nutter
Chief Engineer
Box 2088
State Land Office Building
Santa Fe, New Mexico 79101

Attachments:

1. NMCC Form C-108
2. List of Operators
3. Land Plat
4. Electric Logs
5. Diagramatic Sketch

DOCKET MAILED

Date 9/12/75

DOCK
Date 9/26/75

LIST OF OPERATORS
(Within one-half (1/2) mile)

Gordon M. Cone
P. O. Box 1148
Lovington, New Mexico 88260

Aikman Oil and Gas Company
1204 Vaughn Building
Midland, Texas 79701

Dalton H. Cobb
1300 Gihls Tower West
Midland, Texas 79701

J. R. Rowan
P. O. Box 162
Midland, Texas 79701

Hoover H. Wright
P. O. Box 2312
Santa Fe, New Mexico 87501

Western Drilling Company
P. O. Box 1428
Odessa, Texas 79760

Oil Development Company of Texas
P. O. Box 12058
Amarillo, Texas 79101

Santa Fe Railroad Company
700 Polk Street
Amarillo, Texas 79101

Mrs. W. D. Sawyer
P. O. Box 35
Crossroads, New Mexico 88114

Case
5555NEW MEXICO OIL CONSERVATION COMMISSION
APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR Lone Star Producing Company		ADDRESS P. O. Box 4815, Midland, Texas 79701			
LEASE NAME Santa Fe	WELL NO. 2	FIELD East Crossroads (Devonian)	COUNTY Lea		
LOCATION UNIT LETTER 0 WELL IS LOCATED 660 FEET FROM THE South LINE AND 1980 FEET FROM THE East LINE, SECTION 19 TOWNSHIP 9-S RANGE 37-E NEPM.					
CASING AND TUBING DATA					
NAME OF STRING 48#	SIZE 13-3/8" OD	SETTING DEPTH 417.46'	SACKS CEMENT 100	TOP OF CEMENT Surface	TOP DETERMINED BY Circulated
INTERMEDIATE 36#	9-5/8" OD	4,360.00'	2,950	Surface	Circulated
LONG STRING 17# & 20#	5-1/2" OD	12,180.00'	1,000	9,330'	Temp. Survey
TUBING 4.70#	2-3/8" OD	12,007.00'	NAME, MODEL AND DEPTH OF TUBING PACKER Baker Model "D" set @ 11,999'		
NAME OF PROPOSED INJECTION FORMATION Devonian		TOP OF FORMATION 12,162'		BOTTOM OF FORMATION 12,226'	
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Tubing		PERFORATIONS OR OPEN HOLES OH 12,180'-12,226'		PROPOSED INTERVAL(S) OF INJECTION 12,180' to 12,226'	
IS THIS A NEW WELL DRILLED FOR DISPOSAL? No	IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Producing Oil Well		HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? No		
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH N/A					
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA Unknown		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA None		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA None	
ANTICIPATED DAILY INJECTION VOLUME (BBLS.) 1100	MINIMUM 1200	MAXIMUM 1600	OPEN OR CLOSED TYPE SYSTEM closed	IS INJECTION TO BE BY GRAVITY OR PRESSURE? Pressure	APPROX. PRESSURE (PSI) 1200#
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE - Yes			WATER TO BE DISPOSED OF Yes		
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) Mrs. W. D. Sawyer, P. O. Box 35, Crossroads, New Mexico 88114			NATURAL WATER IN DISPOSAL ZONE Yes		
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL (See Attached List)			ARE WATER ANALYSES ATTACHED? No		
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING? SURFACE OWNER Yes EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL Yes					
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-6)? PLAT OF AREA Yes ELECTRICAL LOG Yes DIAGRAMMATIC SKETCH OF WELL Yes					

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

Brandon C. Smith
(Signature)

District Petroleum Engineer

(Title)

August 22, 1975

(Date)

NOTE: Should waivers from the surface owner and all operators within one-half mile of the proposed injection well not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 701.

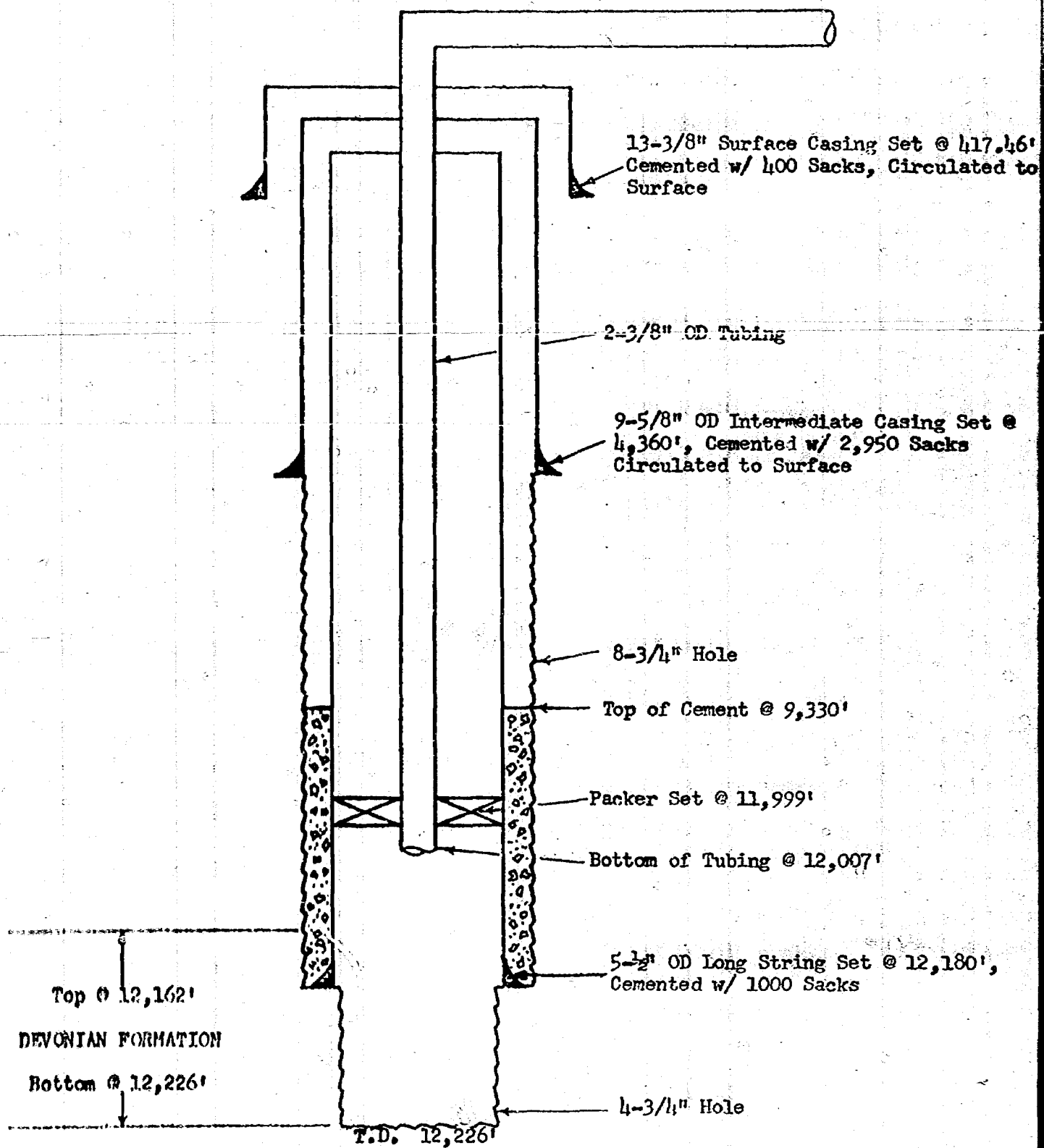
Case 5555

LONE STAR PRODUCING COMPANY

Santa Fe No. 2

Sec. 19, T-9-S, R-37-E

DIAGRAMATIC SKETCH OF SALT WATER
DISPOSAL WELL



Dockets Nos. 25-75 and 26-75 are tentatively set for hearing on October 15 and October 22, 1975. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - OCTOBER 8, 1975

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

The following cases will be heard before Richard L. Stamets, Examiner, or Daniel S. Nutter, Alternate Examiner:

CASE 5048: (Continued from September 10, 1975 Examiner Hearing)

In the matter of Case No. 5048 being reopened pursuant to the provisions of Order No. R-4637 which order established the South Dagger Draw-Upper Pennsylvanian Associated Pool and promulgated special pool rules therefor, including provisions for 320-acre proration units and a limiting gas-oil ratio of 8,000 to 1. All interested parties may appear and show cause why said special pool rules should remain in effect.

CASE 5551: (Continued from September 10, 1975 Examiner Hearing)

Application of Dalport Oil Corporation and Burk Royalty Co. for compulsory pooling and an unorthodox gas well location, Chaves County, New Mexico. Applicants, in the above-styled cause, seek an order pooling all mineral interests in the Queen formation underlying the W/2 of Section 17, Township 12 South, Range 31 East, Southeast Chaves-Queen Gas Area, Chaves County, New Mexico, to be dedicated to a well drilled at an unorthodox location 660 feet from the South and West lines of said Section 17. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof, as well as actual operating costs and charges for supervision. Also to be considered will be the designation of the applicant as the operator of the well and a charge for the risk involved in drilling said well.

CASE 5555: (Continued from September 24, 1975 Examiner Hearing)

Application of Lone Star Producing Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced water into the Devonian formation through the open-hole interval from 12,180 feet to 12,226 feet in its Santa Fe Well No. 2 located in Unit 0 of Section 19, Township 9 South, Range 37 East, East Crossroads-Devonian Pool, Lea County, New Mexico.

CASE 5563: Application of Llano, Inc. for a unit agreement, Lea and Eddy Counties, New Mexico. Applicant, in the above-styled cause, seeks approval for the Lusk Strawn Deep Unit Area comprising 20,864 acres, more or less, of State and Federal lands in Townships 18, 19, and 20 South, Ranges 31 and 32 East, Lusk Strawn Pool, Lea and Eddy Counties, New Mexico.

Memo

Case 5555

From
WM. F. CARR
ATTORNEY

To Carl - 10:00 am

Please call
Branden Smith
Midland - Collect

915 682-5221

4/7 - P. 3100, B. 1. 1/2
P. 1. 1/2
B. 1. 1/2
CH

Oil Conservation Commission - Santa Fe, New Mexico

Dockets Nos. 23-75 and 24-75 are tentatively set for hearing on October 8, and October 15, 1975. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - SEPTEMBER 24, 1975

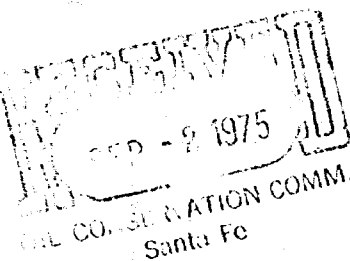
9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Daniel S. Nutter, Examiner, or Joe D. Ramey, Alternate Examiner:

- CASE 5555: Application of Lone Star Producing Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced water into the Devonian formation through the open-hole interval from 12,180 feet to 12,226 feet in its Santa Fe Well No. 2 located in Unit 0 of Section 19, Township 9 South, Range 37 East, East Crossroads-Devonian Pool, Lea County, New Mexico.
- CASE 5556: Application of Atlantic Richfield Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced water by injection into the San Andres formation through the open-hole interval from 4,573 feet to 4,682 feet in its State "F" TC Well No. 5 located in Unit A of Section 36, Township 17 South, Range 33 East, Vacuum Grayburg-San Andres Pool, Lea County, New Mexico.
- CASE 5557: Application of C & K Petroleum, Inc. for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Power Deep Unit comprising 5.713 acres, more or less, of State and Federal lands in Townships 17 and 18 South, Ranges 30 and 31 East, Eddy County, New Mexico.
- CASE 5558: Application of Yates Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its BZ Well No. 12 to be drilled at a point 660 feet from the South and West lines of Section 21, Township 17 South, Range 25 East, Eddy County, New Mexico, to have dedicated the W/2 of said Section 21.
- CASE 5559: Application of Yates Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a well to be drilled at a point 660 feet from the North and West lines, or in the alternative, 1980 feet from the North line and 660 feet from the West line of Section 30, Township 17 South, Range 26 East, Eddy County, New Mexico, to have dedicated the N/2 of said Section 30.

Case 5555

OIL CONSERVATION COMMISSION
Hobbs DISTRICT



OIL CONSERVATION COMMISSION
BOX 2088
SANTA FE, NEW MEXICO

DATE Aug. 28, 1975

RE: Proposed MC _____
Proposed DHC _____
Proposed NSL _____
Proposed SWD X _____
Proposed WFX _____
Proposed PMX _____

Gentlemen:

I have examined the application dated _____
for the Lone Star Producing Co. Santa Fe #2-0 19-9-37
Operator Lease and Well No. Unit, S T R

and my recommendations are as follows:

This proposed SWD has offsets producing from same formation. Rule requires
2 mile minimum. Hearing possibly needed.---J.W.R.

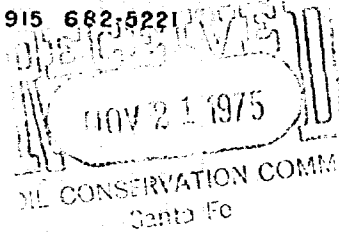
Yours very truly,

John W. Remy

ENSERCH EXPLORATION, INC.

Telephone: AC 915 682-5221

BRANDON C. SMITH
District Petroleum Engineer
West Texas District
Engineering Group
Processing, Engineering and Marketing Division



Suite 300 Commercial
Bank Tower Building
P.O. Box 4815
Midland, Texas 79701

November 19, 1975

New Mexico Oil Conservation Commission
Box 2088
State Land Office Building
Santa Fe, New Mexico 87501

Attention: Mr. Richard L. Stamets, Examiner

Re: Application to Dispose of Salt
Water Into a Porous Formation
in Enserch Exploration, Inc.
(formerly Lone Star Producing Company)
Santa Fe No. 2
East Crossroads Field
Lea County, New Mexico

As you will recall, referenced subject application was heard by the NMOCC, with you as Examiner, on October 8, 1975. At this hearing you asked if we could provide an analysis of Devonian water produced from our Santa Fe No. 1 and the injection temperature. Having replied in the affirmative, it was assumed this would probably be directed in the Commission Order, if approved. Since no order has yet been received, and to preclude any misunderstanding on our part, I am enclosing a copy of a "Laboratory Water Analysis." conducted by the Halliburton Company on November 8, 1975, on the produced Devonian water from our Santa Fe No. 1.

Based on experience on our recently plugged and abandoned saltwater disposal well, Santa Fe No. 3, the injection temperatures are expected to range from 60° F in the colder months to 90° F in the warmer months for an approximate mean average of 75° F.

Please let us know if you need any additional information.

Yours very truly,

ENSERCH EXPLORATION, INC.

Brandon C. Smith
Brandon C. Smith
District Petroleum Engineer

BCS/fb

HALLIBURTON DIVISION LABORATORY

HALLIBURTON COMPANY

MIDLAND DIVISION

LOVINGTON, NEW MEXICO 88260

LABORATORY WATER ANALYSIS

No. W75-920 NOV 11 1975

To Lone Star Producing Company

Date 11-8-75 MIDLAND PRODUCTION

Box 4815

Midland, Texas

ATTN: Mr. Danny Higgins

This report is the property of Halliburton Company and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of Laboratory management; it may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Company.

Submitted by

Date Rec. 11-7-75

Well No. Santa Fe #1

Depth 10,600'

Formation Devonian

County Lea

Field W. Crossroads

Source Heater Treater

Resistivity

0.122 @ 68° F.

Specific Gravity

1.049

pH

7.0

Calcium (Ca)

3,600

*MPL

Magnesium (Mg)

660

Chlorides (Cl)

41,500

Sulfates (SO₄)

1,050

Bicarbonates (HCO₃)

500

Soluble Iron (Fe)

Nil

Remarks:

*Milligrams per liter

Respectfully submitted,

Analyst: Brewer

cc:

HALLIBURTON COMPANY

By

W. L. Brewer

DIVISION CHEMIST

NOTICE

This report is limited to the described sample tested. Any user of this report agrees that Halliburton shall not be liable for any loss or damage, whether it be to act or omission, resulting from such report or its use.

Case 5555



Lone Star Producing Company

Telephone: AC 915 682-5221

BRANDON C. SMITH
District Engineer
West Texas District
Production Department

AUG 29 1975

CONSERVATION COMM.
Suite 300 Commercial
Santa Bank Tower Building
P.O. Box 4815
Midland, Texas 79701

August 27, 1975

New Mexico Oil Conservation Commission
Box 2088
State Land Building
Santa Fe, New Mexico 87501

Attention: Mr. Carl Ulvog
Chief Geologist

Re: Request For Hearing on
Application to Dispose of Salt
Water Into a Porous Formation
in Lone Star Producing Company's
Santa Fe No. 2
East Crossroads Field
Lea County, New Mexico

Gentlemen:

Reference is made to telephone conversation this date, between
your Mr. Ulvog and the undersigned, pertaining to the necessity for
a called hearing on referenced subject application. This confirms
our verbal request for the required hearing and that September 24,
1975 is an acceptable date.

Yours very truly,
LONE STAR PRODUCING COMPANY

Brandon C. Smith
Brandon C. Smith
District Petroleum Engineer

BCS/fb

DRAFT

dr/ *dr*

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. 5555

Order No. R- 5130

APPLICATION OF LONE STAR PRODUCING
COMPANY FOR SALT WATER DISPOSAL,
LEA COUNTY, NEW MEXICO.

RL
asu wk Jalk
ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on ~~January 8, 1975~~ *October 8, 1975*,
at Santa Fe, New Mexico, before Examiner, Daniel S. Nutter.

NOW, on this September day of ~~September~~ *October*, 1975, 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, Lone Star Producing Company,
is the owner and operator of the Santa Fe Well No. 2,
located in Unit 0 of Section 19, Township 9 South,
Range 37 East, NMPM, East Crossroads-Devonian Pool,
Lea County, New Mexico.

(3) That the applicant proposes to utilize said well to
dispose of produced salt water into the Devonian
formation, with injection into the open-hole interval
from approximately 12,180 feet to 12,226 feet.

(4) That the injection should be accomplished through 2 3/8
internally coated
-inch ~~plastic lined~~ tubing installed in a packer
set at approximately 11,999 feet; that the casing-tubing annulus
should be filled with an inert fluid; and that ~~a pressure gauge~~ *measures*
~~or approved leak detection device should be attached to the~~
should be taken

~~annulus~~ in order to determine leakage in the casing, tubing, or packer.

(4) That the injection well or system should be equipped with a pop-off valve or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 700 psi.

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

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

(6) 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, Lone Star Producing Company, is hereby authorized to utilize its Santa Fe Well No. 2, located in Unit 0 of Section 19, Township 9 South, Range 37 East, NMPM, East Crossroads-Devonian Pool, Lea County, New Mexico, to dispose of produced salt water into the Devonian formation, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 11,999 feet, with injection into the open-hole interval from approximately 12,180 feet to 12,226 feet;

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

(2) That the disposal well shall be equipped and/or tested to determine leakage in the casing, tubing, or packer in the manner described under (a) or (b), below:

(a) If injection is by pressure system, the annulus shall be equipped with a pressure gauge or other approved leak detection device.

(b) If injection takes place with no ~~measurable~~ measurable surface pressure or a negative pressure, the operator shall test the ~~annulus~~ annulus with positive pressure within 30 days of

initial injection ~~and~~ and annually thereafter. The Supervisor of the Hubbs district office of the Commission shall be notified of the date and time of such tests in order that they may be witnessed.

CASE NO. _____

(2) That the injection well or system shall be equipped with a pop-off valve or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 700 psi.

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

(4) That the operator shall immediately notify the supervisor of the Commission's Hobbs district office of the failure of the tubing, casing, or packer, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

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

(6) 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.

Dockets Nos. 23-75 and 24-75 are tentatively set for hearing on October 8, and October 15, 1975. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - SEPTEMBER 24, 1975

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

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- CASE 5558: Application of Yates Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its BZ Well No. 12 to be drilled at a point 660 feet from the South and West lines of Section 21, Township 17 South, Range 25 East, Eddy County, New Mexico, to have dedicated the W/2 of said Section 21.
- CASE 5559: Application of Yates Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a well to be drilled at a point 660 feet from the North and West lines, or in the alternative, 1980 feet from the North line and 660 feet from the West line of Section 30, Township 17 South, Range 26 East, Eddy County, New Mexico, to have dedicated the N/2 of said Section 30.