

CASE 3657: Application of N. M.  
SALT WATER DISPOSAL CO. INC. for  
SALT WATER DISPOSAL, LEA COUNTY.

CASE No.

3657

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. 3657  
Order No. R-3321

APPLICATION OF NEW MEXICO SALT WATER  
DISPOSAL COMPANY, INC., FOR SALT WATER  
DISPOSAL, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 10:30 a.m. on September 13, 1967, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 13th day of September, 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, New Mexico Salt Water Disposal Company, Inc., is the owner and operator of the Mobil State "GG" Well No. 1, located 1980 feet from the South line and 1980 feet from the East line of Section 10, Township 11 South, Range 34 East, NMPM, adjacent to the Sand Springs-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 through the open-hole interval from approximately 13,242 feet to 13,350 feet.

(4) That the injection should be accomplished through 3-inch internally plastic-coated tubing installed in a tubing hanger set at approximately 13,200 feet; that the casing-tubing annulus should

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CASE No. 3657

Order No. R-3321

be filled with an inert fluid, and that a pressure gauge should be attached to the annulus at the surface.

(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:

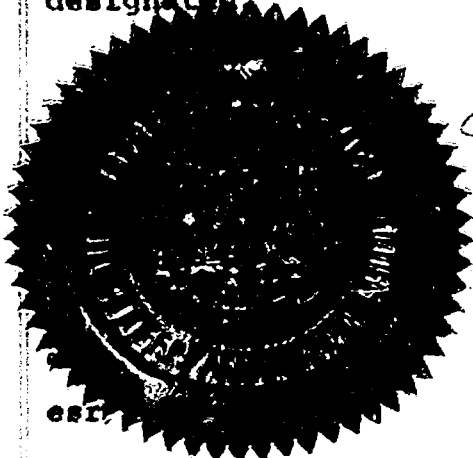
(1) That the applicant, New Mexico Salt Water Disposal Company, Inc., is hereby authorized to utilize its Mobil State "GG" Well No. 1, located 1980 feet from the South line and 1980 feet from the East line of Section 10, Township 11 South, Range 34 East, NMPM, adjacent to the Sand Springs-Devonian Pool, Lea County, New Mexico, to dispose of produced salt water into the Devonian formation, injection to be accomplished through 3-inch tubing installed in a tubing hanger set at approximately 13,200 feet, with injection into the open-hole interval from approximately 13,242 feet to 13,350 feet;

PROVIDED HOWEVER, that the tubing shall be internally plastic-coated; that the casing-tubing annulus shall be filled with an inert fluid; and that a pressure gauge shall be attached to the annulus at the surface.

(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*  
DAVID F. CARGO, Chairman

*Glyton B. Hays*  
GLYTON B. HAYS, Member

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

<b>DOMESTIC SERVICE</b> Check the class of service desired; otherwise this message will be sent as a fast telegram TELEGRAM DAY LETTER NIGHT LETTER	\$ \$ E	<h1 style="margin: 0;">WESTERN UNION</h1> <h2 style="margin: 0;">TELEGRAM</h2> <div style="display: flex; justify-content: space-between; font-size: small;"> <span>W. P. MARSHALL CHAIRMAN OF THE BOARD</span> <span>R. W. McFALL PRESIDENT</span> </div>	<b>INTERNATIONAL SERVICE</b> Check the class of service desired; otherwise the message will be sent at the full rate FULL RATE LETTER TELEGRAM SHORE-SHIP
NO. WDS.-CL. OF SVC.	PD. OR COLL.	CASH NO.	CHARGE TO THE ACCOUNT OF
			<b>OIL CONSERVATION COMMISSION</b>

Send the following message, subject to the terms on back hereof, which are hereby agreed to

MAY 29, 1968

CHARLES C. LOVELESS, Jr.  
 NEW MEXICO SALT WATER DISPOSAL COMPANY, INC.  
 212 PETROLEUM BUILDING  
 ROSWELL, NEW MEXICO

HOBBS OCC INSPECTION REVEALS SALT WATER BEING DISPOSED INTO UNLINED  
 PIT AT YOUR MAIN STATION UNIT A OF 26 10S 33E. SITUATION MUST BE  
 CORRECTED IMMEDIATELY. WILL INSPECT PROPERTY FRIDAY MORNING.

A. L. PORTER, Jr.  
 SECRETARY-DIRECTOR  
 NEW MEXICO OIL CONSERVATION COMMISSION

GOVERNOR  
DAVID F. CARGO  
CHAIRMAN

State of New Mexico  
**Oil Conservation Commission**



LAND COMMISSIONER  
GUYTON B. HAYS  
MEMBER

P. O. BOX 2038  
SANTA FE

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

September 13, 1967


Mr. Charles C. Loveless, Jr.  
N. M. Salt Water Disposal Co., Inc.  
Post Office Box 566  
Roswell, New Mexico 88201

Re: Case No. 3657  
Order No. R-3321  
Applicant:  
N. M. Salt Water Disposal

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.  
Secretary-Director

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC       

Aztec OCC       

Other Mr. Frank Irby

Docket No. 28-67

DOCKET: REGULAR HEARING - WEDNESDAY - SEPTEMBER 13, 1967

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

- ALLOWABLE: (1) Consideration of the oil allowable for October, 1967;
- (2) Consideration of the allowable production of gas for October, 1967, from thirteen prorated pools in Lea, Eddy, and Roosevelt Counties, New Mexico. Consideration of the allowable production of gas from nine prorated pools in San Juan, Rio Arriba and Sandoval Counties, New Mexico, for October, 1967.

CASE 3655: In the matter of the hearing called by the Oil Conservation Commission upon its own motion to consider temporary extension of Emergency Order No. E-25, issued by the Commission August 21, 1967, to be effective for 15 days from 7 o'clock a.m., September 1, 1967. Said emergency order, applicable to Lea, Chaves, Eddy and Roosevelt Counties because of the recent unprecedented increases in Southeast New Mexico normal unit allowables, suspended the provision of Rule 301(d) of the Commission Rules and Regulations which requires that no well shall be assigned an allowable greater than the amount of oil produced on official tests during a 24-hour period.

CASE 3614 (DE NOVO):

Application of Shiprock Corporation for an amendment to Order No. R-1438, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-1438, which order established special rules for the Shiprock-Gallup Oil Pool. Applicant seeks the deletion of that provision of said rules which provides that wells shall not be located closer than 300 feet to the nearest well producing from the same pool. Applicant would further amend said rules to permit the drilling of wells closer than 165 feet to the outer boundary of the quarter-quarter section, but in no event closer than 165 feet to the boundary of acreage owned by an offset operator.

Upon application of Universal Oil Corporation, this case will be heard DE NOVO under the provisions of Rule 1220 of the Commission Rules and Regulations.

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Docket No. 28-67

September 13, 1967 Regular Hearing

CASE 3656: Southeastern New Mexico nomenclature case calling for an order for the creation of one pool and the assignment of an oil discovery allowable therein, and the creation of one other oil pool and two gas pools, and for the extension and contraction of certain other pools in Lea, Chaves, Eddy, and Roosevelt Counties.

(a) Create a new pool in Lea County, New Mexico, classified as an oil pool for Pennsylvanian production and designated as the North Morton-Pennsylvanian Pool, comprising the following described acreage:

TOWNSHIP 14 SOUTH, RANGE 35 EAST, NMPM  
Section 32: NW/4

Further, for the assignment of approximately 52,140 barrels of oil discovery allowable to the discovery well, Olen F. Featherstone's Mobil State Well No. 1 located in Unit E of said Section 32.

(b) Create a new pool in Lea County, New Mexico, classified as an oil pool for Bone Springs production and designated as the Wilson Bone Springs Pool comprising the following-described acreage:

TOWNSHIP 21 SOUTH, RANGE 35 EAST, NMPM  
Section 19: SW/4

(c) Create a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated as the Paduca-Morrow Gas Pool. The discovery well is the Texaco Inc. Cotton Draw Unit Well No. 65, located in Unit G of Section 2, Township 25 South, Range 31 East, NMPM. Said pool described as:

TOWNSHIP 25 SOUTH, RANGE 31 EAST, NMPM  
Section 2: N/2

(d) Create a new pool in Eddy County, New Mexico, classified as a gas pool for Wolfcamp production and designated as the Paduca-Wolfcamp Gas Pool. The discovery well is the Texaco Inc. Cotton Draw Unit Well No. 65, located in Unit G of Section 2, Township 25 South, Range 31 East, NMPM. Said pool described as:

TOWNSHIP 25 SOUTH, RANGE 31 EAST, NMPM  
Section 2: NE/4



Docket No. 28-67

September 13, 1967 Regular Hearing

(e) Extend the Acme-San Andres Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 8 SOUTH, RANGE 27 EAST, NMPM  
Section 4: E/2 NW/4

(f) Extend the North Bagley-Upper Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 11 SOUTH, RANGE 33 EAST, NMPM  
Section 28: NE/4

(g) Extend the Lusk Strawn Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 31 EAST, NMPM  
Section 11: NW/4 & SE/4

(h) Extend the East Mason-Delaware Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 26 SOUTH, RANGE 32 EAST, NMPM  
Section 17: S/2

(i) Extend the Penasco Draw San Andres-Yeso Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 25 EAST, NMPM  
Section 24: S/2 SE/4

(j) Extend the Springs-Upper Pennsylvanian Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 26 EAST, NMPM  
Section 34: S/2

(k) Contract the Square Lake Pool in Eddy County, New Mexico, by the deletion of the following-described acreage:

TOWNSHIP 17 SOUTH, RANGE 30 EAST, NMPM  
Section 12: NE/4

(l) Extend the Grayburg-Jackson Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 30 EAST, NMPM  
Section 12: NE/4

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Docket No. 28-67

September 13, 1967 Regular Hearing

(m) Extend the Tatum-Wolfcamp Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 13 SOUTH, RANGE 36 EAST, NMPM  
Section 5: NW/4

(n) Extend the Todd-Lower San Andres Pool in Roosevelt County, New Mexico, to include therein:

TOWNSHIP 7 SOUTH, RANGE 36 EAST, NMPM  
SECTION 31: NE/4

(o) Extend the Tom-tom San Andres Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 7 SOUTH, RANGE 31 EAST, NMPM  
Section 34: N/2 SE/4

(p) Extend the Vacuum-Upper Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 34 EAST, NMPM  
Section 13: SW/4

(q) Extend the North Vacuum-Lower Wolfcamp Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 34 EAST, NMPM  
Section 2: W/2  
Section 3: NW/4

(r) Extend the Vada-Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 9 SOUTH, RANGE 34 EAST, NMPM  
Section 17: NE/4

lr/

Docket No. 29-67

DOCKET: EXAMINER HEARING - WEDNESDAY - SEPTEMBER 13, 1967

10:30 A. M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM  
STATE LAND OFFICE BUILDING - SANTA FE, NEW MEXICO

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

CASE 3657:

Application of New Mexico Salt Water Disposal Company, Inc. for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Devonian formation through the Mobil State "GG" Well No. 1 located 1980 feet from the South and East lines of Section 10, Township 11 South, Range 34 East, Sand Springs-Devonian Pool, Lea County, New Mexico.

ir/

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

Case 3657

OPERATOR New Mexico Salt Water Disposal Co., Inc		ADDRESS Box 566, Roswell, New Mexico	
LEASE NAME State GG	WELL NO. 1	FIELD Sand Springs	COUNTY Lea
LOCATION UNIT LETTER <u>J</u> ; WELL IS LOCATED <u>1980</u> - <u>South</u> - LINE AND <u>1980</u> FEET FROM THE <u>East</u> LINE, SECTION <u>10</u> ; TOWNSHIP <u>11S</u> RANGE <u>34E</u> NMPM.			

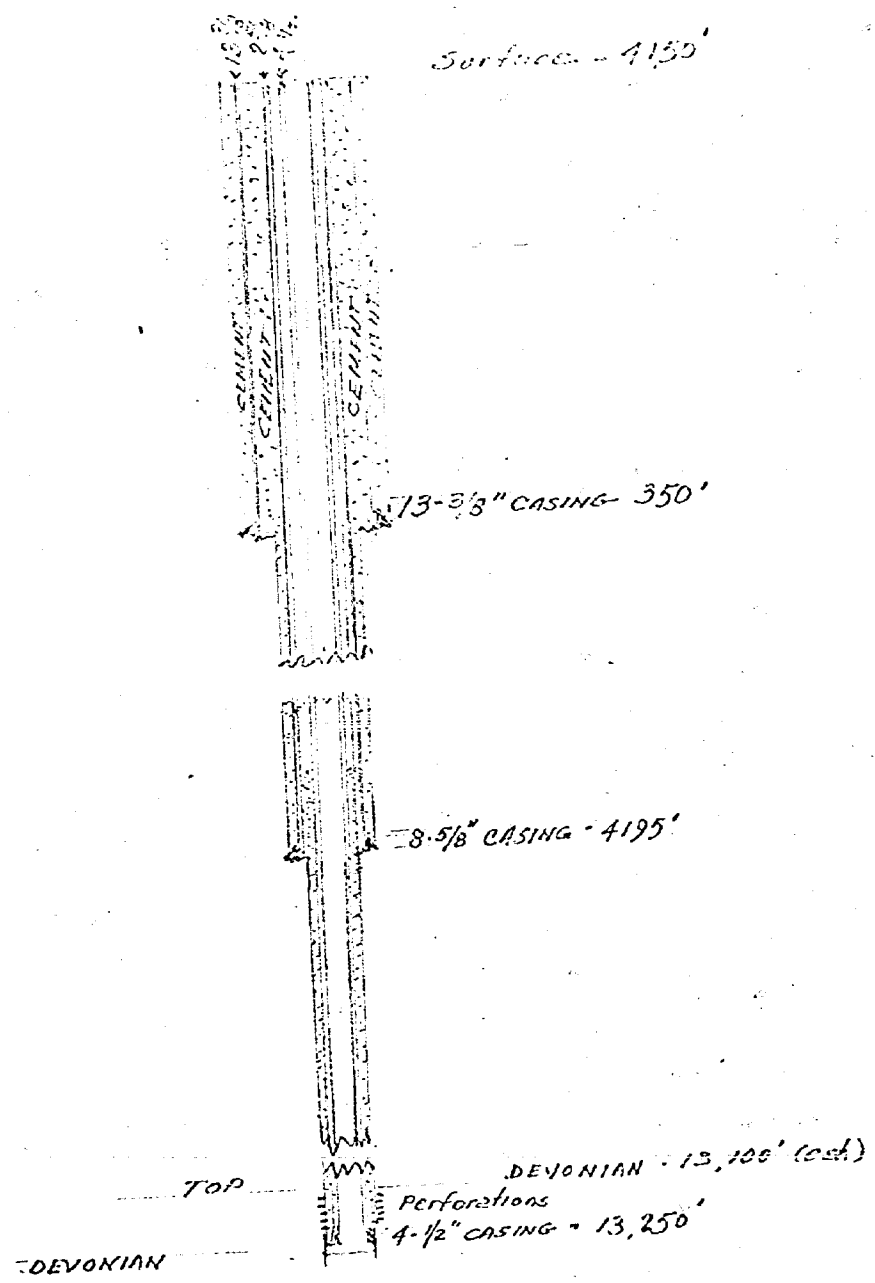
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING	13-5/8	350	350	circ.	
INTERMEDIATE	8-5/8	4195	1400	"	
LONG STRING	4-1/2	13,250	As required by order of OGC		
TUBING	None		None		
NAME OF PROPOSED INJECTION FORMATION Devonian		TOP OF FORMATION 13,100 Est.		BOTTOM OF FORMATION Not known	
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Plastic lined casing		PERFORATIONS OR OPEN HOLES? Perforated		PROPOSED INTERVAL(S) OF INJECTION 13,150 to TD (not known)	
IS THIS A NEW WELL DRILLED FOR DISPOSAL? No		IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Field extension		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					
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA 120 ft. est. (cretaceous)		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA None observed		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA None reported	
ANTICIPATED DAILY INJECTION VOLUME (BBLs.)	MINIMUM 4,500	MAXIMUM 20,000	OPEN OR CLOSED TYPE SYSTEM closed	IS INJECTION TO BE BY GRAVITY OR PRESSURE? gravity	APPROX. PRESSURE (PSI)
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			WATER TO BE DISPOSED OF Yes	NATURAL WATER IN DISPOSAL ZONE Yes	ARE WATER ANALYSES ATTACHED? See case 3636
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) State of New Mexico - Lessee, Bogle Farms					
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL Copies sent Ashmun & Hilliard and C. W. Trainer, operators in Sand Springs. Mobil Oil Corporation Sinclair Oil & Gas Company Bogle Farms, Inc.					
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-B)		PLAT OF AREA Yes		ELECTRICAL LOG None yet available	
				THE NEW MEXICO STATE ENGINEER 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.

Chas. E. Ashmun President August 24, '67  
(Signature) (Title) (Date)

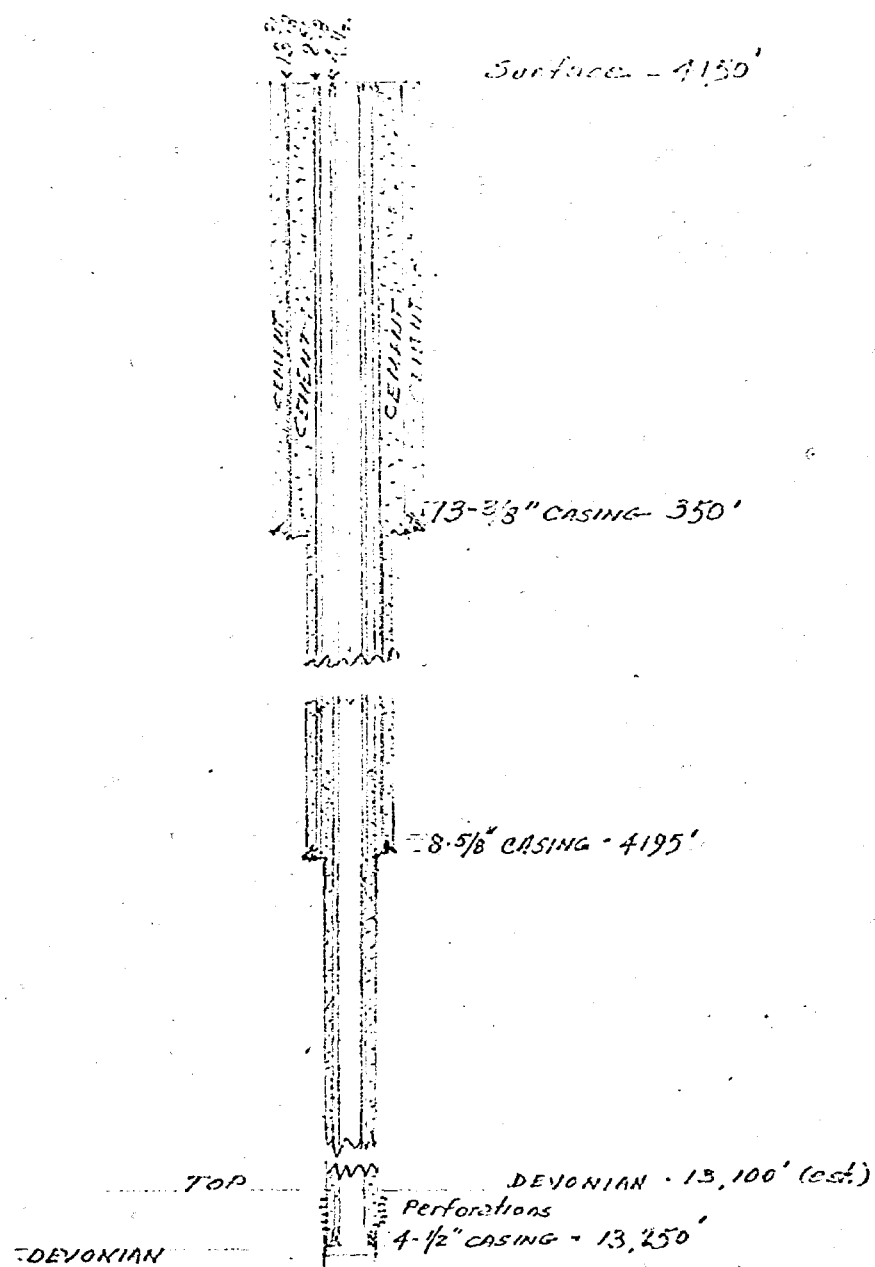
NOTE: Should waivers from the State Engineer, the surface owner, and all operators within one-half mile of the proposed injection well, not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's 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.

Diagrammatic Sketch - Salt Water Disposal Well - Devcon. 1.  
 NEW MEXICO SALT WATER DISPOSAL COMPANY  
 11114 S.W. Sec. 10, T. 11S, R. 39E, New County, New Mexico



8-24-67  
 CIL

Diagrammatic Sketch ~ Salt Water Disposal Well ~ Berwind  
 NEW MEXICO SALT WATER DISPOSAL COMPANY  
 WY/4 Sec. 19, T11S, R34E, New County, New Mexico



8-24-67  
 CIL

Revised app. C.  
Form C-108  
Revised 1-1-65

NEW MEXICO OIL CONSERVATION COMMISSION  
APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION  
First Amended Application

OPERATOR <b>New Mexico Salt Water Disposal Co., Inc.</b>	ADDRESS <b>Box 566, Roswell, N. Mex. 88201</b>
LEASE NAME <b>State GG</b>	COUNTY <b>Lea</b>
LOCATION <b>East</b>	WELL NO. <b>1</b>
UNIT LETTER <b>J</b>	FIELD <b>Sand Springs Devonian</b>
LINE, SECTION <b>10</b>	TOWNSHIP <b>11S</b>
FEET FROM THE <b>South</b> LINE AND <b>1980</b> FEET FROM THE	
RANGE <b>34E</b> NMPM.	

NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING					
INTERMEDIATE	13-3/8	350	350	circ.	
LONG STRING	8-5/8	4195	1400	"	
TUBING	5-1/2	13252	500	9170	temp surv.
	3	13100			

NAME OF PROPOSED INJECTION FORMATION <b>Devonian</b>	NAME, MODEL AND DEPTH OF TUBING PACKER <b>Tubing hanger - no packer</b>
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? <b>Tubing</b>	TOP OF FORMATION <b>13242</b>
IS THIS A NEW WELL DRILLED FOR DISPOSAL? <b>no</b>	PERFORATIONS OR OPEN HOLE? <b>open hole</b>
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH	PROPOSED INTERVAL(S) OF INJECTION <b>13242 - bottom</b>
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA <b>120 ft. est. cretaceous</b>	BOTTOM OF FORMATION <b>13350 approx.</b>
ANTICIPATED DAILY INJECTION VOLUME (BBL/DAY) <b>4,500</b>	HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? <b>no</b>
MINIMUM <b>20,000</b>	MAXIMUM <b>none observed</b>
DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA <b>none observed</b>	DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA
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 <b>no</b>	OPEN OR CLOSED TYPE SYSTEM <b>closed</b>
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) <b>State of New Mexico - Bogle Farms has grazing lease</b>	IS INJECTION TO BE BY GRAVITY OR PRESSURE? <b>gravity</b>
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL <b>Mobil Oil</b>	NATURAL WATER IN DISPOSAL ZONE <b>yes</b>
<b>Sinclair Oil &amp; Gas Company</b>	APPROX. PRESSURE (PSI) <b>see case 3636</b>
<b>Bogle Farms, Inc.</b>	ARE WATER ANALYSES ATTACHED? <b>yes</b>

HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING? <b>yes</b>	SURFACE OWNER <b>yes</b>	EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL <b>yes</b>	THE NEW MEXICO STATE ENGINEER <b>yes</b>
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B)? <b>yes</b>	PLAT OF AREA <b>yes</b>	ELECTRICAL LOG <b>yes</b>	DIAGRAMMATIC SKETCH OF WELL <b>yes</b>

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

(Signature) **Henry E. Bogle** President (Title)

Sept. 13, 1967  
(Date)

NOTE: Should waivers from the State Engineer, 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.

dearnley-meier reporting service, inc.

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS  
1120 SIMAS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO



BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
September 13, 1967

EXAMINER HEARING

-----  
IN THE MATTER OF: )

Application of New Mexico Salt )  
Water Disposal Company, Inc. for )  
salt water disposal, Lea County, )  
New Mexico. )

Case 3657

-----  
BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING





MR. NUTTER: The Hearing will come to order, please.  
We will call Case 3657.

MR. HATCH: Case 3657, application of New Mexico  
Salt Water Disposal Company, Inc. for salt water disposal,  
Lea County, New Mexico.

MR. LOVELACE: Mr. Nutter, do you want to put me  
under oath?

MR. NUTTER: Yes, sir.

(Witness sworn)

MR. LOVELACE: My name is Charles Lovelace. I am  
the president and sole owner of the New Mexico Salt Water  
Disposal Company, Incorporated. I am also a member of the  
Texas Bar and will represent myself and the corporation as a  
witness and as Counsel.

MR. NUTTER: Mr. Lovelace, you have an application  
here for salt water disposal, would you proceed with the  
explanation of this case, then?

MR. LOVELACE: The purpose of this hearing is to  
consider the advisability of permitting the use of the Mobil  
Number One "GG" State dry hole located 1980 feet from the east  
line and 1980 feet from the south line of Section 10, Township  
11 South, Range 34 East, Lea County, New Mexico, as a salt  
water injection well into the Devonian formation.

First, as to my professional qualifications, I have been qualified as an engineer before this Commission and the testimony I am about to give is based on my best knowledge and consideration of the data at hand and demonstrated need for the granting of this application.

To begin with, this well is situated about five miles southeast of the Lane Bough C Pool and is centrally located to various other areas where there is a critical need for a salt water disposal facility. If I am granted this application, it is my proposal to extend these services to not only the wells now under contract in the Lane Pool, some twenty-odd wells, but to other producers in the Inbe-Bagley area.

In accomplishing the latter, I propose to lay a line, a six-inch line to the area of the North Bagley at which point I will put in a truck-receiving facility where salt water may be hauled to the line and sufficient storage put there and transporting facilities to move the water to this disposal well.

Also, I will lay a line directly from the Lane Pool, about 26,000 feet of six-inch, a pipeline, to a receiving station there which will be connected to a closed gathering system, which will serve twenty wells now producing in the

Lane field. These wells being owned by C. B. Reid, Major and Giebel, Leland Exploration and H. C. Hood, all of whom are producing from the Bough C formation in the Lane Pool.

MR. NUTTER: That is the twenty wells, isn't it?

MR. LOVELACE: Yes, I have acquired and have the documents to show the property rights to the Mobil "GG" State Number One from the Mobil Oil Corporation who drilled the well to the Devonian formation and we are prepared to abandon the hole as a dry hole when I acquire these rights. This well is located on a State Lease, suffice it to say, it is located on a State of New Mexico Oil and Gas Lease, the Lessee being Sinclair Oil and Gas Company, Mobil being on the Lease as operator under the operating agreement with Sinclair Oil and Gas Company.

The surface surrounding the well is state owned and is currently under lease to Bogle Farms, Incorporated of Dexter, New Mexico. I have also purchased a plugging bond and I have the original of the bond here and will give it to the Oil Conservation Commission which will relieve the Mobil Oil Corporation of the responsibility for plugging the well when and if it is abandoned.

Do you want me to present this now?

MR. HATCH: Why don't we wait and let you file that

with Mr. Trujillo after the hearing.

MR. NUTTER: Right. The record here shows that he has it and is ready to file it.

MR. LOVELACE: Right. As to the qualifications of this well, as a disposal well, all of the operators were notified and sent copies of my original C-108, State form, and I am now prepared to file an amended C-108 which changes the mechanics of the completion wherein we have elected to run 13,242 feet of N-80, five and a half-inch casing and cement with five hundred sacks, being three hundred sacks of 50-50 Posmex, six per cent jel, and two hundred sacks of 50-50 cement and Posmex, with eleven pounds of salt per sack and two per cent jel and the temperature survey indicates that the cement returned to approximately 9400 feet in the well which is approximately 600 feet above the Bough formation.

I will come back to the mechanical details in a moment. Geologically, the Mobil Number One "GG" State is located in a distinct syncline which lies between the south Lane Inbe production to the west and the Sand Springs-Devonian field about one and one-half miles northeast of the proposed injection well. The part of the Devonian formation in the Mobil well is one hundred and thirty-seven feet low, to the nearest Sand Springs-Devonian well one and a half miles away.

The Sand Springs-Devonian field is essentially depleted. There is no other Devonian production within a two-mile radius of the proposed injection well. To demonstrate the near depletion of the Sand Springs well in the month of June, 1967, the Ashmun and Hilliard Number One State 11, located in the southwest quarter of the northeast quarter of Section 11, Township 11 South, Range 34 East, pumped 488 barrels of oil and 6,450 barrels of water as reported in the engineer's report for the month of June.

The C. W. Trainor Number One Springs located in the southeast quarter, northeast quarter, Section 11, same Township, did not produce and to my certain knowledge, having been on the location several times in the last few months, has been inactive for a considerable period of time. The Sinclair Number One, Lee's State 840, located in the southwest, southwest, Section 1, 11, 34 the only other well which ever penetrated the Sand Springs structure, was plugged and abandoned in 1959. I would like to offer as an exhibit a sub-surface map prepared by Mr. Edward K. David, a consulting geologist in Roswell, New Mexico, which is based on his examination of the Devonian wells in the two Townships.

MR. HATCH: We will have that marked as Exhibit Number 1.

(Whereupon Applicant's Exhibit  
1 marked for identification)

MR. NUTTER: Is there objection to the introduction of Exhibit Number 1, the sub-surface structure map? The exhibit will be admitted.

(Whereupon Applicant's Exhibit  
Number 1 was admitted into  
evidence)

MR. LOVELACE: I must assume that there have been no objections from the lessees within one-half mile of the proposed location inasmuch as I have received contractual affirmance of this proposal from the Sinclair Oil and Gas Company who is the State Lessee and Mobil Oil Corporation who owns the operating right. Inasmuch as there has been no appearance here of the operators in the Sand Springs Field, I presume we can take judicial notice of the fact that there has been no opposition in that regard unless, Mr. Nutter, you have received something from them in the way of protest.

MR. NUTTER: The file doesn't indicate having received anything.

MR. LOVELACE: I have a letter from Ashmun and Hilliard addressed to the Salt Water Disposal Company, dated September 1, 1967, signed by Mr. J. B. Taylor, an official of Ashmun and Hilliard in Midland, a very short letter and I will read it into the record and offer it as an exhibit.

"Dear Sir: This letter is written to affirm that Ashmun and Hilliard Oil Company has no objection to New Mexico Salt Water Disposal Company utilizing the Mobil Number One State "GG" Well to dispose of salt water by injecting the salt water into the Devonian formation in this well, provided that: one, water is injected into the Devonian below the oil-water contact and two, geological conditions in the Number One State "GG" will be such that injection of salt water will cause no damage to the Devonian Reservoir in Ashmun and Hilliard Oil Company Number One State 11 Well, located in Section 11, Township 11, South, Range 34 East, Lea County, New Mexico. Sincerely yours, Ashmun and Hilliard Oil Company, signed by J. B. Taylor."

I will submit that for your consideration.

MR. NUTTER: This letter will be marked as Exhibit 2 in this case and will be admitted in evidence.

(Whereupon Applicant's Exhibit 2 was marked for identification and was admitted into evidence)

MR. LOVELACE: In conclusion, I would like to point out that based on Mr. David's geological examination of the logs in all of the Devonian wells, in approximately two Townships in this general area, that the Mobil Number One "GG" State is the lowest well in the area and lies in a definite



geosyncline, a closed syncline, and in view of the performance of the Sand Springs-Devonian wells which indicate they have approached the near economic level, one of which has been permanently abandoned, the other appears to have been temporarily abandoned, and the third producing less than five hundred barrels a month and a large quantity of salt water, that injection into this Mobil Number One State "GG" will not be detrimental to the Devonian formation in the Sand Springs Pool and apparently will have no effect on the Devonian formation, generally, in the area.

Secondly, for the purpose of the record, I might observe that the "GG" State Number One gave no evidence of containing any hydrocarbons anywhere in the section from the top to bottom.

MR. NUTTER: Were any drillstem tests made?

MR. LOVELACE: Yes, in the Bough C, recovered one hundred feet of drilling mud. There is some question in the minds of the geologists on the well, that they actually tested the Bough C producing interval after they saw the log, but the log, they ran a full suite of logs on the well and the Bough C formation appears to be very marginal in the area.

The Bough C was tested in the Sand Springs Well, a mile and a half northeast without any indication of commercial

productivity and I am assuming that on the basis of this data, that there will be no harm done to it, particularly in view of the fact that we have cemented over the Bough C area zone.

MR. NUTTER: What would be the Bough C in this well, the depth of it?

MR. LOVELACE: The approximate depth is 10,100 feet in the interval which the examination of the logs indicates that it corresponds to the Bough C general area.

MR. NUTTER: And the top of the cement, by temperature survey, is 9400?

MR. LOVELACE: Yes. I have not received a copy of the temperature survey. When I get it I will send it to you. I simply got that on the phone since I've been in Santa Fe from Mr. Kingley, our engineer. If you would like, I'll send you a copy of it. I would like to introduce as Exhibit Number 3, a schematic diagram of the sub-surface expected completion of the Mobil Number One "GG" State as a Devonian disposal well.

In brief, the casing program is to a depth of 350 feet, thirteen and three-eighths casing, cemented with 350 sacks which circulated to the surface. Also, there is an intermediate string set at a depth of 4195 feet, which I believe covers the Devonian formation. This eight and five-eighths-inch casing was cemented with --

MR. NUTTER: I think you need to make a correction there. You do not mean the Devonian formation.

MR. LOVELACE: I meant the San Andres.

MR. NUTTER: Thank you.

MR. LOVELACE: Excuse me, thank you. 1414 hundred sack did circulate cement around the intermediate string and returned it to the surface. Off the record.

(Whereupon, an off the record discussion was held)

MR. NUTTER: Back on the record.

MR. LOVELACE: We propose to run 13,242 feet of five and a half-inch N80 casing, which is roughly distributed in the order of thirty-three and a third per cent of the following types of casing, the top third of the hole contains five and a half-inch N80, 17-pound buttress joint casing. The middle third of the string contains five and a half-inch N80, 17-pound long thread and collar and the bottom third contains five and a half-inch N80, 20-pound long thread and coupling casing. I offer this as Exhibit Number 3.

MR. NUTTER: The schematic diagram will be identified as Exhibit 3 and admitted into evidence.

(Whereupon, Applicant's Exhibit 3 was marked for identification and admitted into evidence)

MR. LOVELACE: Let the record show that I have already

submitted a plat of the area and a proposed location which accompanied the original C-108 filed with the Oil Conservation Commission. This further method of the proposed completion of this disposal well will be as follows: We propose to run two-inch casing through the five and a half-inch and drill out the plug to the bottom of the hole, and then to run 13,200 feet of new three-inch ID, N80 tubing, plastic lined, this tubing will be supported at the bottom by a tubing hanger and not a packer, and we propose to load the annulus between the five and a half-inch casing and the tubing and hydrostatically balance this column of oil field crude in order to avoid corrosion and we will install at the head of the well on the annulus a pressure gauge by which we may be able to determine from time to time any pressure increases in the bottom hole pressures in the well, which would of course be reflected at the surface by the movement of the annulus column upward.

The reason that we are doing this is that our engineers have made quite a study and among other things, Rice Engineering, who has considerable experience in this field, is doing this and have found that it avoids the problem of the packer corroding and the inability to remove it for necessary remedial work in the hole and it's their belief, and I think it

is my belief that the column of oil behind the tubing will, in effect, protect us considerably from corrosion of the five and a half-inch and of course, the exterior of the tubing.

We will acidize the Devonian formation with 3,000 gallons of twenty-eight per cent acid in order to increase permeability. We have no record of the bottom hole pressure other than one indicated by the hydrostatic performance of the well on a one-hour drillstem test in which the well, which had a 3300-foot fresh water blanket, well, I don't know whether that is fresh water or not, correct the record, 3300-foot water blanket filled up on a drillstem test with 3900 feet of salty sulphur water and no oil and 200 feet of drilling mud, which indicates approximately 7500 feet of column in the well on the one-hour test.

We feel this indicates that there is sufficient permeability and porosity to justify the expenditure for conversion of the hole. We will run injectivity tests when we have acidized the hole. Unfortunately, the drillstem test data was left in the tool when it was left in the hole by Mobil, so we just don't have the bottom hole data.

MR. NUTTER: This was when the Devonian was being drillstem tested?

MR. LOVELACE: Yes, right.

MR. NUTTER: So no actual drillstem test was ever completed in the Devonian?

MR. LOVELACE: Yes, it was completed. I testified to the fill-up but the tool wasn't recovered from the hole.

MR. NUTTER: So no pressures were reported?

MR. LOVELACE: We had no shut-in bottom hole pressure or no initial bottom hole pressure. As I say, we had to assume that they are sufficiently good by the results which were measured. They did reverse out the contents of the drill pipe and incidentally there was no evidence of hydrocarbons in the drillstem fluids. This is purely assumption as nearly as I can tell, the present water committed to this hole in the twenty wells in the main pool will approximate 5500 barrels a day which should be considerably less than the capacity of the well, and as I earlier stated, we propose to lay a lateral line to a point in Sections 7, 11, 34 on the County road and install a truck-receiving station for salt water.

I don't know that we will get any customers, but I have a hunch that we will, about the first of October. We are hopeful, and this is the reason we elected to go ahead and run the three-inch tubing, that the well will take upward of 15,000 barrels a day of salt water and under a

vacuum. That is all I have.

MR. NUTTER: Are there any questions? You have not submitted those revised C-108s yet, Mr. Lovelace?

MR. LOVELACE: I have them in hand and I will deliver them to you now.

MR. NUTTER: We do have two copies of the plat which were originally submitted with the C-108. They are actually with your application. I will mark them revised. Mr. Lovelace, as I understand it, the top of the Devonian in the subject well is 130 feet low to the Sand Springs well, the lower well?

MR. LOVELACE: Yes.

MR. NUTTER: The Ashmun-Hilliard State Number One, the location is what again, please?

MR. LOVELACE: It is in the southwest quarter, northeast quarter of Section 11.

MR. NUTTER: It produced 408 barrels of oil on the pump, in June?

MR. LOVELACE: 488 barrels of oil and reported 460 barrels of salt water and that's on Kobe installation.

MR. NUTTER: The C. W. Trainor Spring Number One is located in the southeast, southeast of 11?

MR. LOVELACE: Yes.

MR. NUTTER: It did not produce in June and hasn't been active for quite some time?

MR. LOVELACE: That's right.

MR. NUTTER: The Sinclair Well was P and A in 1959. Is that when it was originally drilled?

MR. LOVELACE: No. It produced a small quantity of oil. It seemed to me, about 3,000 barrels. That is my recollection, I know it is very minimal before they plugged it.

MR. NUTTER: About 3,000 barrels?

MR. LOVELACE: I believe that's right. That is my hazy recollection. It wasn't very much.

MR. NUTTER: Three-inch plastic-coated tubing will be installed in a tubing hanger, the annulus will be loaded with oil and balanced hydrostatically?

MR. LOVELACE: That's right.

MR. NUTTER: And the pressure gauge will be attached to the annulus?

MR. LOVELACE: That's right.

MR. NUTTER: I don't think it is germane to this particular hearing, but has the right of ways been obtained for the trunk lines?

MR. LOVELACE: We have, the engineering is now



surveying them, should have finished the survey last night and will be submitted to the State. Part of the line is over State surface and part over Mr. Carl Johnson and Mr. West told me we had to have a certain type of survey to present to the State before we could compute the surface damages and acquire the right of way because of the verily owned surface and it will be presented on 40-acre survey according to the State Land Office specifications.

MR. NUTTER: Are there any other questions of Mr. Lovelace? If not, he may be excused.

Do you have anything further to offer in the case as Counsel, now, Mr. Lovelace?

MR. LOVELACE: No. I don't have any closing statement.

MR. NUTTER: Does anyone have anything they wish to offer in Case 3657? We will take the case under advisement and the Hearing is adjourned.

STATE OF NEW MEXICO )  
 ) ss  
 COUNTY OF BERNALILLO)

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 21st day of September, 1967.

Ada Dearnley  
 Notary Public

My Commission Expires:

June 19, 1971

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing at Case No. 3657 heard by me on 9/13, 1967.  
Adrian Examiner  
 New Mexico Oil Conservation Commission

PHONE MU 4-8271

ASHMUN & HILLIARD  
710 VAUGHN BUILDING  
MIDLAND, TEXAS 79701

J. B. ASHMUN  
H. T. HILLIARD

September 1, 1967

New Mexico Water Disposal Co.  
P. O. Box 566  
Roswell, New Mexico  
Attention: Mr. Charles Loveless

Re: SWD in Mobil #1 State GG  
Located in Sec. 10,  
T-11-S, R-34-E, Lea County,  
New Mexico

Dear Sir:

This letter is written to affirm that Ashmun & Hilliard Oil Company has no objection to New Mexico Salt Water Disposal Company utilizing the Mobil #1 State GG well to dispose of salt water by injecting the salt water into the Devonian Formation in this well, provided that:

- (1) Water is injected into the Devonian below the oil-water contact
- (2) Geological conditions in the #1 State GG will be such that injection of salt water will cause no damage to the Devonian reservoir in Ashmun & Hilliard Oil Co. #1 State "11" well located Sec. 11, T-11-S, R-34-E, Lea County, New Mexico.

Sincerely yours,  
ASHMUN & HILLIARD OIL CO.

*J. B. Taylor*  
J. B. Taylor

JBT:bs

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. <u>2</u>
CASE NO. <u>3657</u>

BEFORE EXAMINER NUTTER
EXHIBIT NO. _____
CASE NO. _____

MEXICO SALT WATER.  
212 PETROLEUM BLDG.

P.O. BOX 666

ROSWELL, NEW MEXICO 88201

PHONE 622-1958 AREA CODE 505

6-11-11 Elev. 4144.24 D.F.

air ambulance

13 3/8 casing - 350' w/ 350 sx (circ.)

8 5/8" casing - 4195' w/1400 sx (circ.)

Cement returned to 9400' - Temp. survey

Top Bough C - 10,100'

OIL CONSERVATION COMMISSION

OIL CONSERVATION  
EXHIBIT NO. 3

CASE NO. 3657

3 inch ID N-80 tubing, plastic

Tined will be run to 13,200'

Annulus will be oil filled; to

be balanced hydrostatically

*e. balance sheet*

1000

5 1/2" N-80 casing 13,242' w/ 500 SX

Top Devonian - 13,255'

TD - 13,350

*B. S. L.*

*B. S. L.*

# NEW MEXICO SALT WATER DISPOSAL CO., INC. MIDDLE LANE DISPOSAL SYSTEM

